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WHAT DRIVES US TO DRIVE, WALK OR CYCLE TO WORK IN ALBURY?

What reasons, attitudes and issues contribute to Albury residents' choice of transport to work and what strategies are likely to encourage more people to walk or cycle to work?



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ACRONYMS

AT	Active Transport or Actively Travel	PT	Public Transport
COM-B	Capability-Opportunity-Motivation Behaviour system	RMS	Roads and Maritime Services
EOTFs	End of trip facilities PT	TPB	Theory of Planned Behaviour
MLHD	Murrumbidgee Local Health District		

CONTENTS

Acknowledgments.....	2
Acronyms	2
List of tables	2
Abstract	3
Executive Summary.....	3
Introduction	5
Background	6
Rationale for research.....	8
Research Aim	9
Method	9
Results.....	11
Discussion	16
Strengths and limitations.....	20
Conclusion.....	20
Recommendations	20
References	22
Appendices.....	25

LIST OF TABLES

Table 1 Highest level of education and gross weekly wages for focus group participants	11
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ABSTRACT

Aims

To investigate the factors that influence Albury City residents' choice of transport to work and determine strategies to increase the proportion that walk or cycle to work.

Methods

This qualitative study used interviews with representatives from major employers and three focus groups, including employees and purposively sampled councillors, senior council staff, a police officer and ambulance officer. Transcripts were thematically analysed for emergent themes.

Findings

Car is still 'king' and are considered integral to our lifestyle. Cycling, walking and public transport is apparently mediocre and unfashionable transport. Fears of assault and road accidents and the perception active transport is unfashionable inhibit active transport to work. More active transport infrastructure is necessary. However, political realities in providing better infrastructure are a limitation. Better workplace culture, policies, programs and facilities are required. Unfortunately, in many cases in Albury, these are non-existent. Lack of time, inconvenience and dependent children are barriers to active transport, yet health benefits for active travellers are an enabler. Suggestions of campaigns to change attitudes and behaviour and tax reforms would stimulate active transport to work.

Implications for practice

Regional representative committees comprising of government, business and community can work together to advocate for and implement change in active transport to work options. Education around road rules and culture change campaigns to engender harmony on roads and promoting the viability of active transport to work appear worthy. Media restraint could reduce unnecessary fear of assault and inciting hatred among road users. Improving active transport infrastructure, supporting tax reforms and incentives for active transport show promise.

Key words:

regional, active transport, cycling, walking, work

EXECUTIVE SUMMARY

Context

Physical activity plays an important role in the prevention and management of obesity and related diseases of diabetes, heart disease, osteoporosis and a suite of other chronic health conditions⁽¹⁾. Unfortunately just over half of NSW adults⁽⁴⁾ and less than half of adults in MLHD meet the recommended amount of physical activity⁽⁴⁾. Obesity is one of the world's largest and growing chronic health problems⁽²⁾. Approximately half of NSW adults are overweight or obese⁽³⁾ and over half in Murrumbidgee Local Health District (MLHD)⁽³⁾.

Active Transport (AT), using walking, cycling, foot powered scooter or public transport⁽⁵⁾ benefits individuals by increasing physical activity⁽⁶⁾ and employers through higher productivity⁽⁷⁾. Several

studies have investigated factors that influence AT to work in Australian and international metropolitan cities⁽⁸⁻¹¹⁾. Fewer studies have focused on AT in regional areas⁽¹²⁾. Increasing participation in AT to work in regional settings represents an opportunity to increase physical activity. The purpose of the study was to investigate the factors that influence Albury City residents' choice of transport to work and determine strategies likely to increase the proportion that walk or cycle to work.

Implications

The recommendations from this study include:

- Implementing state and local based road rules education campaigns for all road users to improve understanding of their obligations.
- Implementing state and local social marketing campaigns and communication strategies encouraging cycling and walking to work as a viable and possible option for many people.
- Advocating for local and national media to report on assault and crime within context and resist comments that incite hatred among road users, to reduce perceptions of danger and encourage road users to work in harmony.
- Encouraging more schools to educate about different transport modes and encourage AT to school.
- Advocating for tax reforms such as variable congestion taxes for certain roads, end of trip facility depreciation for employers and local government, salary packaging for bikes and associated running costs and tax-free state cycling organisation membership for insurance.
- Supporting the development of technology such as electric bikes, which enable some to be physically active with assistance.
- Encouraging employers to adopt policies and programs which are supportive of AT to work.
- Considering metered council parking in Albury and other regional centres and/or more limited parking areas.
- Expanding of good-quality city, suburb and neighbourhood infrastructure should continue.
- Encouraging more investment in AT infrastructure by decision makers rather than pursuing the current flawed policy of building more roads to alleviate congestion and improve transport times.
- Considering more direct public transport routes, higher frequency services, longer operating hours and improved integration with cycling.
- Establishing local government transport committees/working parties or extending role of existing Local Traffic Committees to progress local transport options and issues and lobby for changes.

Approach

This qualitative study was approached from a constructionist epistemology⁽¹³⁾ and a Delphi-like⁽¹⁴⁾ and Phenomenology-like methodology⁽¹⁵⁾. Semi structured interviews and focus groups were the data collection methods used. Transcripts from the interviews and focus groups were thematically analysed.

Results

The main themes support the assertions:

1. "Car is King" – Culture. Widely available free car parking, taxes encouraging car use and the convenience of the car in Albury's low-density suburbs reinforce this. Participants think it is "odd" to ride or walk for transport as is not obtaining a licence. Fear for personal safety and road safety reinforces car transport.
2. "Facilities from door to door" - Lack of active transport infrastructure. Inadequate public transport is a barrier and improved walking and cycling infrastructure and more end of trip

facilities in Albury are necessary. The “chicken and the egg” conundrum regarding infrastructure provision was a barrier for decision makers.

3. “It’s about the organisation’s commitment” - Workplace commitment. Supportive workplace programs and policies are required, within reason, and increased interest in these was apparent. Essential to increase participation in AT to work are end of trip facilities. A good understanding of organisational and community benefits of AT was noted.
4. “People are already stretched in the morning” - Personal hurdles or catalysts to active transport. Lack of time, dependent children and before, during and after work commitment reinforced dependence on cars. Inconveniences of AT including hot, cold or rainy weather is a barrier. Increasing costs of car transport may favour AT, however establishment costs of bikes and associated gear can be a barrier.
5. “You need to get the cultural swing” - Opportunities for change. The concern for environment, improved technology and national tax reform could change transport behaviour significantly. To encourage future generations to transport actively the participants suggested AT culture change campaigns and school programs.

Further research and action

Further research to investigate approaches to active transport social marketing and education campaigns in regional areas is necessary and intervention research studying the effect of improvements in regional AT infrastructure, employer end of trip facilities and programs on AT behaviour is required.

Changing culture and improving infrastructure in regional cities will be challenging. Regional councils have limited funds to provide similar levels of infrastructure to cities, yet have lower population density. Therefore, they require more AT infrastructure per square kilometre per capita than larger cities. Despite this, there is need for increased emphasis in regional cities as they also grow. Regional representative committees comprising of government, business and community can work together to advocate for and implement change in active transport to work options.

INTRODUCTION

This report is primarily for Murrumbidgee Local Health District (MLHD) and the Health Promotion team in particular, Health Education and Training Institute’s Rural Research Capacity Building Program, Albury City Council, large employers and employer groups such as Albury Northside Chamber of Commerce in Albury. Other readers of this report may be NSW Ministry of Health, NSW Office of Preventive Health and NSW Roads and Maritime Services (RMS). Other regional councils in NSW and Australia, NSW Premiers Council for Active Living, Bike User Groups and Pedestrian councils and other groups or associations with an interest in health, regional Australia, transport, sustainability, cycling, walking or public transport (PT) may benefit.

Fewer people actively travel (walk, cycle, PT) to work in regional areas than in metropolitan areas, mostly due to limited use of PT⁽¹⁶⁾. Transport policies in Australia suggest shifting the proportion of travel from cars to active forms of travel in metropolitan areas⁽⁶⁾. The catalysts for this shift are traffic congestion, pollution, climate change and to increase physical activity rates. Relative to metropolitan cities, regional cities do not have problems with congestion and pollution. However, people in regional cities still contribute to and are affected by climate change, have low physical activity rates, high rates of overweight and obesity and non-communicable disease which could be attenuated by greater participation in active transport (AT) to work.

This report will explain factors that contribute to Albury City residents' decisions about transport to work. It will also include suggestions for opportunities to increase the proportion of people that AT to work, particularly walking and cycling, in regional cities.

BACKGROUND

Active transport refers to using walking, cycling, foot powered scooters or PT to move from 'A to B', in contrast to private motorised transport⁽⁵⁾. AT in general and to work is said to have benefits for individuals; increased physical activity⁽⁶⁾, improved health and wellbeing particularly reducing non-communicable diseases⁽⁷⁾, employers; reduced absenteeism⁽⁷⁾, higher productivity⁽⁷⁾ and communities; improved community wellbeing and social cohesion⁽⁶⁾, reduced environmental impacts⁽⁶⁾, reductions in congestion⁽⁶⁾, carbon dioxide gas emissions and improved air quality⁽⁶⁾.

The current literature on the topic of AT to work, alluded to in the following paragraphs, demonstrates the factors that influence choice of transport mode is complex. A number of studies have looked at factors that influence AT to work and in general in Australian and International metropolitan cities. Fewer studies have focused on regional areas and those that have, have described the trends in AT⁽¹⁷⁾ rather than investigations into what influences one to AT to work in regional areas.

Factors influencing active transport to work

Workplaces

Workplace infrastructure factors that positively influence AT to work include provision of end of trip facilities (EOTFs) like showers⁽⁹⁾, change facilities⁽⁹⁾, bike racks, lockers or parking⁽¹⁸⁾, clothes lockers⁽⁹⁾ and facilities that are aesthetically attractive⁽¹²⁾. The absence of free car parking or presence of paid parking⁽¹⁹⁾ also enables AT to work.

Employers that aim to change culture around AT⁽¹²⁾, promote AT options in campaigns^(8, 20), provide reminders about AT⁽⁹⁾ or incentives to AT to work such as flexible working hours⁽⁷⁾ or points schemes for number of miles travelled to work that use AT⁽⁹⁾ positively influence AT to work.

Neighbourhood/Suburb/Cities

Some of the neighbourhood, suburb, and city related factors that support AT to work include short distances from home to work⁽¹²⁾, off-road and well maintained paths⁽⁹⁾, adequate and safe traffic crossings⁽¹²⁾, lower traffic volumes and traffic calming devices⁽¹⁸⁾ and 'pleasant' routes. Aesthetically pleasing neighbourhoods and streets⁽¹⁹⁾, mountable curbs⁽¹⁸⁾, roads with fewer lanes of traffic and subsequent smaller street widths⁽¹⁸⁾ and presence and proximity of bus stops and railway stations to homes^(11, 18) also enable AT.

Other features at a broader level include presence of mixed land use⁽²¹⁾, pleasant views (natural and built along journeys)⁽²¹⁾, good connectivity and permeability through neighbourhoods/suburbs⁽²¹⁾, other destinations and buildings along the route^(11, 18) and the density of development, and proximity of homes to employment and other services⁽¹¹⁾. Saelens et al 2003 reported that weather has some impact on rates of AT to work, with heavy rain the largest deterrent⁽²¹⁾. Congestion taxes on vehicles also increase the proportion of people that walk and cycle in general and to work⁽⁵⁾.

Examples of transport policy changes in European cities show that participation in AT can be altered despite the dominance of any transport mode. Denmark, Germany and the Netherlands facilitated car use with increased road capacity and car parks⁽²²⁾ from the 1950s onwards, as the car was becoming more popular⁽²²⁾. They ignored cyclists and pedestrians and observed significant cycling declines from 50-85% of trips to 14-35%⁽²²⁾. In the mid 1970's citywide transport and land use policy changes that favoured walking, cycling and PT were introduced against the growing tide of car use. The policies saw cycling trips returning to approximately half of their 1950s levels. Other countries, like the UK, that did not change policies dwindled to less than a seventh of their 1950 levels.⁽²²⁾

Personal factors, perceptions, feelings and attitudes

Demographic factors that positively influence people to AT to work include people without children living at home⁽¹⁹⁾, people with higher education (were more likely to walk)⁽²³⁾ and people with lower incomes⁽²³⁾. People with ability to develop coping strategies in unsupportive environments⁽⁹⁾ and with less favourable attitudes to car use⁽¹⁹⁾ also tend to AT to work more so.

The following perceptions, feelings and attitudes deter or inhibit participation in AT to work if people feel:

- they lack time (or the AT journey takes longer than car journey)⁽¹²⁾
- fear or concern for personal safety (traffic, exercising alone, dangerous dogs, crimes)⁽¹²⁾
- it is an inconvenience to use AT⁽²⁴⁾
- a lack of motivation to use AT⁽²⁴⁾
- there is an invasion of their personal space (in the case of using PT)⁽²⁵⁾
- inhibited in their ability and right to nurture oneself (in the case of using PT) as they are crowded or do not have their own space⁽²⁵⁾
- AT is a threat to freedom, choice, flexibility, autonomy and independence that using a personal car brings⁽²⁵⁾
- there is a lack of predictability with AT, compared to car travel⁽²⁵⁾

Behaviour change theory

The Theory of Planned Behaviour (TPB) suggests the interplay between attitudes toward the behaviour, subjective norms, normative beliefs and perceived behavioural control contribute to one's intention to perform a behaviour⁽²⁶⁾. Attitudes toward the behaviour of AT to work could be either positive, negative or ambivalent. The subjective norm could be one's perception of safety of AT dependent on whether significant others approve or disapprove. Normative beliefs towards AT to work could be one's beliefs of the normative pressures to undertake the behaviour or not. The perceived behavioural control regarding AT to work deals with one's available resources and opportunities to undertake the behaviour. The more resources or opportunities and fewer obstacles one has, the greater the perceived control.

Comparing the Theory of Planned Behaviour and studies in the literature on this issue, research tends to focus on attitudes and perceived behavioural control towards AT to work and to a lesser extent subjective norms or normative beliefs:

- attitudes (less so about how to change attitudes and more so about what the attitudes are⁽¹⁹⁾)
- perceived behavioural control (for example the ability to develop coping strategies⁽⁹⁾ and the structural resources available⁽⁹⁾)

The Capability-Opportunity-Motivation Behaviour system (COM-B) and accompanying 'Behaviour Change Wheel' of interventions and policy categories is another framework that helps to explain the factors at the core of behaviour and change intervention⁽²⁷⁾. The system suggests intervention functions of education, persuasion, incentivisation, coercion, training, restriction, environmental restructuring, modelling and enablement. When addressed these help to influence one's capability, opportunity and motivation to undertake a behaviour.

In regards to the COM-B system, research undertaken thus far relates to the following:

- environmental restructuring: changing the physical or social context (e.g. presence of bike paths⁽⁹⁾, bike racks⁽¹⁸⁾)

- enablement: increasing means or reducing barriers to increase one's capability or opportunity (e.g. flexible work practices⁽⁷⁾)
- incentivisation: creating an expectation of reward (e.g. workplace point schemes⁽⁹⁾)
- education: increasing knowledge or understanding (e.g. workplace campaigns about AT⁽⁸⁾)

RATIONALE FOR RESEARCH

Health improvements and benefits

Physical activity is not only important in the prevention of overweight and obesity, it plays a role in reducing the risk of and management of diabetes, heart disease and osteoporosis and a suite of other health conditions⁽¹⁾.

Technology such as TV and small screens (computers, tablets, mobile devices) have impacted negatively on our physical activity rates eating into time that might otherwise have been spent being physically active⁽²⁾. In NSW in 2012, the proportion of adults aged 16 years and over meeting the recommended amount of physical activity was 54.5%⁽⁴⁾ (150 minutes of exercise over 5 separate occasions), and in the MLHD 49.3%⁽⁴⁾.

Overweight and obesity and its impact on non-communicable diseases, is one of the world's largest and growing health problems, being the fifth leading risk for global deaths⁽²⁾. In NSW almost half of NSW adults aged 16 years and over were overweight or obese in 2012⁽³⁾, which has increased steadily over the last two decades⁽²⁸⁾. Similarly in MLHD, 55.0% of adults aged 16 years and over are living with overweight or obesity⁽³⁾.

Climate change

Climate change, whilst not caused by regional areas alone, has been recognised in NSW as a global phenomenon that will be felt locally and regionally⁽²⁹⁾. Many articles published in the last decade warn of the impact of climate change on health. Some of these link climate change to increased health risks related to heat exposure, air pollution, diseases, food insecurity and mental stress⁽³⁰⁾. The issue of transport and its link to climate change and health is also receiving much more attention in the last five years⁽⁵⁾.

In NSW in 2011, 23% of carbon dioxide gas emissions from fuel combustion was from transport (including cars, buses, trucks, rail, shipping and aviation)⁽³¹⁾.

Given transport is a major contributor to greenhouse gas emissions and increased concentrations are linked to climate change, reductions in the use of fossil fuel for transport could help reduce the rate and severity of climate change⁽³²⁾. This strong relationship between carbon dioxide emissions and global climate can affect a number of other eco-systems and social systems we rely on for good health, making this a priority for health and other government sectors to address⁽³³⁾.

Active Transport is one of many strategies to help address climate change, given motor vehicles contribute heavily to carbon dioxide emissions. It is presumed that a shift to more AT will also have co-benefits for health, given the extra physical activity gained and reduction in respiratory conditions with reduced pollution⁽⁵⁾.

Public transport

Public Transport in regional cities like Albury is limited compared with city areas (in terms of its frequency of service, areas serviced, time of journey compared with cars and hours and days of operation)^(34, 35). It has also been noted that population density, distance and growth in rural and regional areas does not make investing in increased PT services as viable as in metropolitan cities⁽³⁶⁾, thus the only way to reasonably expect to increase AT (to work and in general) in regional areas is by walking and cycling.

Most of the studies on AT to work to date have been in metropolitan cities rather than regional cities due to the pressure to address congestion, pollution, climate change and physical inactivity. This represents a gap in the research that requires addressing if regional cities in Australia are also to implement change and address their own unique issues. The issue of AT to work warrants attention in regional cities like Albury given we are still contributors to, and affected by, climate change and low physical activity rates. Encouraging AT through walking and cycling is increasingly important for the health of people living in regional cities, not only people in larger cities.

RESEARCH AIM

The aim of this qualitative study is to investigate the reasons, attitudes and issues that contribute to Albury City residents' choice of transport to work and determine enablers that are likely to increase the proportion of people that walk or cycle to work in full or part.

METHOD

The approach of this qualitative research was from a constructionist epistemology, in that truth or meaning about the factors that influence travel to work, in particular AT to work, come into existence in and out of our engagement with realities in our world. It is the belief that true meanings, in this case, come from an interplay between the subject (participants in the research) and the objects (influencing factors of travel to work) and therefore can be different for different people⁽¹³⁾.

Methodology

The methodology used was a combination of Delphi-like methodology and Phenomenology-like methodology. Delphi-like, in that opinions are obtained from employers or their delegates by once off interviews. They are deemed 'experts' and opinions are sought in one interview round rather than the typical two or more rounds, to reach a consensus⁽¹⁴⁾. Phenomenology-like in that it used focus groups (although considered incompatible with phenomenology by some) including decision makers, decision influencers (see focus group participant type 1 below) and employees to seek thoughts, feelings and opinions of individuals in regard to the topic⁽¹⁵⁾.

Sampling and participants

Interview participants: A list of major government and non-government employers with over 100 employees based in Albury City local government area was established. The researcher allocated a random number to employers on the list and then called in order from lowest to highest to avoid purposive or deliberate sampling.

Focus group participant type 1: A purposive sample of decision makers and decision influencers (Albury City Elected Councillors, Town Planner, Team Leader Traffic and Transport, Road Safety Officer, a member of NSW Police and a member of NSW Ambulance). These people were called directly to participate in a focus group.

Focus group participant type 2: A convenience sample of employees who live in Albury City within 10 km of their workplace. Recruitment was via several means: newspaper advertisements, posters in waiting rooms of GP clinics, Facebook and Twitter, letters to large employers and the Albury Northside Chamber of Commerce, letters to groups such as Pedal Power, Walking Groups and via media releases broadcast on Prime News TV, ABC Goulburn Murray local radio and the Border Mail newspaper.

Please see Appendix 1 for more information about the recruitment procedure.

Data collection

Between September and October 2014, three audio-recorded focus groups and six semi-structured interviews, up to an hour in duration, were completed. All participants completed some demographic questions prior to interviews or focus groups (see Appendix 1). No other data collection methods were used and no repeat interviews or focus groups were necessary as all topic areas for exploration were covered. All interviews conducted were at the workplace of the employer representative. One focus group was at an employer's meeting room and two were in meeting rooms at the researcher's workplace. A scribe was present for the focus groups, the only non-participant present, along with the researcher. Only the researcher and participant were present for interviews. Participants in focus groups were asked about thoughts, feelings and opinions on AT to work and trends in Albury. They were asked for their ideas on solutions to increasing AT and the feasibility of such. Depending on topics covered in the first questions, they were also asked for their thoughts on workplaces, neighbourhood/suburb/city factors, state/national/global factors and personal and health factors and their influence on AT to work. Participants in interviews were asked these questions and organisation specific questions about AT to work. Both sets of questions were pilot tested with colleagues to ensure understanding and were fine-tuned before use. See Appendix 2 for topics and questions for exploration.

Analysis

Interview and focus group transcripts were analysed thematically to find emergent themes.

The researcher read and re-read transcripts to familiarise and get a sense of key issues. Participants were not involved in reviewing transcripts for correction, as audio quality was excellent and no sections required crosschecking. Sections of text from all transcripts were open coded to pick out the main issues and entered into a codebook using Microsoft Excel. The codebook also contained descriptions of when to use certain codes. Participants did not provide feedback on the findings or codes. Codes were physically mapped to forge relationships between each other to make themes using axial coding. Reflections on the codes and examples from the transcripts were written to further explain how the code fits with the theme⁽³⁷⁾. Reflection on the importance of codes/patterns emerging and how the issues relate to existing beliefs and literature occurred throughout the analysis. The researcher checked for data saturation throughout the analysis. It appeared that data saturation was achieved, as no new codes or themes were emerging in the latter interviews or focus groups.

Reflexivity

The researcher recognises that personal experiences and background may influence the study. Brendan Pearson is a male who holds a Bachelor Nutrition Dietetics/Applied Science, is Health Promotion Coordinator with MLHD and undertook all aspects of the research. He has cycled and driven to work in the past in metropolitan and regional cities and has personal insight into the issues. He has experience in interviewing through clinical dietetic work and in focus groups through focus testing resources or assessing needs for health promotion projects. He also received guidance and research training from the Health Education and Training Institute's Rural Research Capacity Building Program.

The researcher knew some participants prior to the study by acquaintance, although for the majority, there was no prior relationship. All participants received a Participant Information Sheet written in lay terms, which included the researcher's occupation and information about the researcher's reason for the study and the purpose. When recruited participants had opportunity to discuss the study and ask questions as per the recruitment process (Appendix 1).

Ethics Approval

Greater Western Human Research Ethics Committee granted Low and Negligible Risk ethics approval on 3 June 2014 from, LNR/14/GWAHS/9.

RESULTS

Interview participant demographics

Twenty-two employers were contacted and of these, sixteen employers declined to participate or did not return calls. There were six employers, two private and four government. There were equal numbers of male (n=3) and female (n=3) representatives interviewed. The average age of interviewees was 44 years of age. Employers ranged from having 125 employees to 600 employees with an average of 299.

Focus group participant demographics

Recruitment of 29 participants occurred and six failed to attend due to sickness, unplanned commitments or unknown reasons. The 23 focus group participants consisted of almost two thirds male (n=15, 65.2%) and a third female (n=8, 34.8%) with an average age of 46 years. The modes of travel participants used to work in order of most used to least used were car (which 91.3% used), bike (47.8%), walking (34.8%), bus (4.3%) and other (4.3%) with an average distance travelled of 6.5km. Eighty-seven percent of participants had post year 12 education and almost half had a Postgraduate degree, Graduate Diploma or Graduate Certificate level of education. All participants were in the mid to high bands for gross weekly wages.

Table 1 Highest level of education and gross weekly wages for focus group participants

Highest level of education	n	%	Wages	n	%
Postgrad degree/Grad Dip/ Grad Cert	11	47.8%	Gross wk wage \$1-299	0	0.0%
Bachelor Degree	5	21.7%	Gross wk wage \$300-599	0	0.0%
Adv Dip/Dip	2	8.7%	Gross wk wage \$600-999	6	26.1%
Cert III/IV	2	8.7%	Gross wk wage \$1000-1499	8	34.8%
Yr 12	0	0.0%	Gross wk wage \$1500+	9	39.1%
Year 11 or less	3	13.0%			

Themes

The themes that emerged from the data of this qualitative study were as follows:

1. "Car is King"- Culture
2. "Facilities from door to door" – Lack of active transport infrastructure
3. "It's about the organisation's commitment" - Workplace commitment
4. "People are already stretched in the morning" - Personal hurdles or catalysts to active transport
5. "You need to get the cultural swing" - Opportunities for change

1. Theme: "Car is King" – Culture.

Sub theme: "an integral part of your lifestyle" - Car driven culture

Participants noted overcoming the barrier of car culture in Albury. Widely available all day car parking, lack of disincentives to drive, like increased commute time if actively travelling were

barriers. Policies or taxes in favour of car use like fringe benefits tax on cars contribute to this culture. The low density design of our suburbs, longer distances to work, streetscapes which give balance of power to cars and overall convenience of cars reinforce the car culture. This makes cars such an integral part of Albury residents' lifestyles and explains why they are the predominant choice of travel to work and in general.

"The ease of parking near work and being able to get your shopping after work, pick up the kids and do all those run around things in one go makes it (driving) a lot easier than riding, walking or getting public transport." – Focus group 2 participant

Sub theme: "What are you riding a bike for?" - Fashion trends of active transport

Using active transport in Albury is unfashionable despite some change in recent trends suggested by some. The perception by many participants is that not driving a car, or not obtaining a licence is still a bit odd and this cultural trend or fashion is a barrier to more using AT to work.

"If you watch 'Borgen' and the Prime Minister gets on a bike to parliament, you know then it's normal. And it's not sort of seen as daggy. Here it's seen as 'What sort of a kid or a weirdo are you?' you know, for riding a bike." – Focus group 3 participant

Sub theme: "You just feel vulnerable" - Perceived and actual fears and safety perpetuated by knowledge/understanding of road rules and culture

Fear for personal safety was cited by many as a barrier to AT in relation to poor light, late hours of the night or early morning and isolated areas. Some noting the fear generated by perception and media rather than actual risk or danger. Participants felt that levels of knowledge and understanding of road rules correlate with friction between road users and perception of road safety. People's experiences led to beliefs about whether it was safe or not to ride or walk in the streets thereby influencing people's choice of transport to work.

"I think that a lot of it (improvement in safety) can be done with behaviour of both bikes and cars. And that's an education thing." – Focus group 3 participant

2. Theme: "Facilities from door to door" – Lack of active transport infrastructure

Sub theme: "Come on make it easy for us" - Transport network design

The transport network design in Albury is predominantly geared towards the car. PT is considered mediocre and has little integration with cycling. Infrastructure for pedestrians and cyclists such as shared paths, on-road and off-road paths, safe crossings and traffic calming measures are considered good. However, these could be enhanced by way of increasing the number of facilities and the width and directness of paths. Public end of trip facilities (EOTFs) were inadequate in many places for employees of small business, whom have limited room for workplace EOTFs.

"Further developing the bike paths, because I think that's really good and making sure that they are very safe spaces....On and off road, because I think the combination works." – Interview 4 participant (Employer representative)

Sub theme: "The chicken and the egg" - The politics behind infrastructure provision

The feasibility of providing more active transport infrastructure from door to door was debated as a barrier to encouraging active transport. The cost of infrastructure and the politics of investing in active transport infrastructure, when participation rates are relatively low to car use, was the "chicken and the egg" conundrum expressed by some participants. Some participants grappled with what should come first to increase AT to work - the demand for AT infrastructure or the provision of AT infrastructure.

"You've got to get elected to deliver those policies and you've got to stay elected. Someone who is opportunistic politically will carve you up. You can do what's economically rational, you do what's good for the city and sometimes they coincide and sometimes they don't." – Focus group 1 participant

3. Theme: "It's about the organisation's commitment" - Workplace commitment

Sub theme: "Encouraging employees to take a healthy option" - Workplace culture, policies and programs

Albury employers in the study either have policies and programs supporting active transport to work incorporated in occupational health and safety, health challenges and events, environmental sustainability programs, or have nothing in place, but are considering this in the future. Barriers cited by employers for not increasing their focus on AT to work include businesses with shift work, concern over insurance and liability for accidents to and from work, upholding a corporate image and infrastructure requirements to enable employees to be presentable after active transport to work.

"We have talked about it, but the biggest drawback was, "Well there's only one shower here to do it." But, in all honesty the benefits far outweigh the negatives, so it's something that we should encourage more." – Interview 5 participant (Employer representative)

Sub theme: "You've got to have facilities...nobody wants to be smelly all day" - Workplace infrastructure

All participants recognised that workplaces need EOTFs to encourage AT to work, particularly cycling. Formal work uniforms or dress code was also a barrier to active transport to work due to difficulties transporting ironed clothing and suits. Presence of workplace car parking was also cited as a disincentive to AT to work.

"We've only got one shower on site; there'd quite often be a queue for that." – Interview 2 participant (Employer representative)

Sub theme: "Some are incredibly committed to it...others notice it in the background" - Participation in active transport to work

Four Albury employers in the study reported similar participation in AT to work as the broader Albury population, and two had greater participation than the norm. Very few were aware of staff that used public transport to work.

"You have some staff that are incredibly, strongly committed to it (active transport), and would be in that headspace. And other staff who sort of notice it in the background." – Interview 4 participant (Employer representative)

Sub theme: "There would be some huge benefits" - Organisational outcomes or benefits of AT to work

Employers resoundingly acknowledged if more employees used AT to work there would be health benefits for their employees and associated productivity benefits to their organisation.

"If people were reacting the same way I do to that kind of exercise (walking to work) then I would say that collective improvement in performance would have to have better business results." – Interview 6 participant (Employer representative)

Sub theme: “Healthy people and healthy environments” - Community benefits if more employees/ employers participate in AT to work

Employers all noted communities would be healthier if more in communities AT to work. Improvements in environment, reduced traffic and road demand were also noted as benefits of a community that participates more in AT to work.

“Less private motor vehicles, less impact on the environment. It swings between healthy people and healthy environments.” – Interview 4 participant (Employer representative)

Sub theme: “Not a high priority but we have interest in the future” - current employer interest in increasing AT to work

Amongst employers interviewed in the study, ambivalence exists towards increasing AT to work. Other corporate health interests and other competing business priorities contribute to this.

“Definitely interested. It has got support at the highest levels. It is just something that we’ve never really pushed.” – Interview 3 participant (Employer representative)

4. Theme: “People are already stretched in the morning”- Personal hurdles or catalysts to active transport

Sub theme: “You can’t just easily pick up your groceries or multi task on the way home as easily as you can with a car.” - Time and commitments impact on AT

Lack of time and before, during and after work commitments were reasons for driving to work instead using AT. Participants noted that perceived lack of time and some commitments were amenable to change depending on how individuals organised themselves.

“I used to ride my bike and I used to walk and that kind of stuff. But, I was young and free and had no kids and no responsibilities. So, you know, as you get older you have kids, more time pressures, and that kind of stuff. Riding is simply not an option.” – Focus group 2 participant

Sub theme: “It’s not like we’re in a war zone...it’s personal choice” - Personal interest and capacity and AT

Personal choice and one’s capacity to organise themselves to AT were cited as influencers of behaviour. Planning enough time to travel, having clothing at work, having comfortable and protective AT clothing/gear (e.g. pannier/“panny”) and factoring in showering and fixing hair were discussed as barriers that may affect behaviour.

“I used to have to get pretty organised. So, what I used to do was one morning a week I’d drive in, take all my shirts and all my clothes and that would then hang in the lockers. Then I could ride in the next days because I had a change of clothes. Otherwise you put your change of clothes in your panny and you end up looking like a, you know, a wreck (laughs). If you don’t need to look that smart...maybe it’s easier?” – Interview 4 participant (Employer representative)

Sub theme: “It’s good for your health”- Health factors influence AT participation

It was widely agreed that AT elicits health benefits and protects from conditions such as diabetes. Those benefits could be factors that encourage participation in AT as people will change behaviour to obtain health benefits. Although a barrier for some to commence AT could be poor personal health.

“When I moved here oddly enough I got really unfit, because I went to the car. I started running and once I was fit enough then I realised, “Hang on why do I go running? I can ride

my bike to work and get the same amount of exercise.” So the benefit that employers could apply is that there is actually good health benefits for you to ride to work.” – Focus group 2 participant

Sub theme: “You’ve got to hit the hip pocket” - Wealth and costs impact on travel choices

Driving related costs, be that new taxes or increased running costs, were suggested as ways to change behaviour towards AT. Higher costs of vehicles and petrol were suggested as enablers to AT, the cost of AT gear (e.g. panniers, clothing) was suggested a barrier; however, some dismissed these as influencing factors at all.

“To make a huge impact you’ve got to hit people’s hip pockets. You’ve got to charge for parking or there’s got to be ways there. How do you get more of society making that decision? It would probably be a financial incentive.” – Focus group 2 participant

Sub theme: “it’s too late, I’m too tired, it’s too dark, it’s not appealing” - Weather impact and inconveniences of AT

Seasonal issues like swooping magpies and poor weather, particularly hot or cold days and rain were deterrents to AT in Albury, however some dismissed this as excuses. Inconveniences of AT such as travelling with uniforms, time required for cooling down, indirect routes were also cited.

“You think about Albury, we get 40 degree days all through summer, so you’re bloody hot and sweaty when you get in and in winter; cold windy and wet.” – Focus group 1 participant

5. Theme: “You need to get the cultural swing” - Opportunities for change -

Sub theme: “Scope to really change people’s travel behaviour” - State, National and global system change opportunities

It was the belief that environmental concerns, advancements in technology such as electric bikes and GPS tracking for variable congestion taxes, tax reform could positively influence AT to work. Incentives for AT and large-scale campaigns to change culture at a state, national or global level were also suggested. Hydrogen fuelled and autonomous car technology however, may have the opposite effect.

“I guess the reason few people walk, ride or catch public transport, is that there really aren’t enough disincentives for driving. As they change things like the pricing mechanisms for vehicle travel and charge on a per kilometre and a time of day basis. That sort of thing has the scope to really change people’s travel behaviour.” – Interview 3 participant (Employer representative)

Sub theme: “Building more roads and more freeways is not the answer”- Local change opportunities

Local change opportunities proposed by participants included favouring of pedestrians and cyclists in more streetscapes and broadcasting the benefits of AT for business. It was also suggested that championing local campaigns to increase investment in AT infrastructure, behaviour change around AT and promoting road rules and harmonious road use by all road users would improve AT participation. Efforts to highlight the environmental benefits of AT and increasing housing density somewhat were deemed effective strategies. Some suggested capitalising on the trends of Albury’s ‘relative’ burgeoning road demand and traffic issues and large recreational cycling and walking interest to improve AT to work.

“There’s this understanding now within our community here in Albury that just building more roads and more freeways is not the answer and we need to look at what other options we’ve got. So in addition to public transport and autonomous vehicles, I think

walking and cycling is going to play a big part in that. – Interview 3 participant (Employer representative)

Sub theme: “Breaking down that mentality” - Personal change opportunities

Participants alluded to personal changes people could make to help increase participation in AT to work in the long term. Changes in upbringing were noted and it was suggested reviving activities such as cycling and walking to school. Encouraging more parents to model walking and cycling to their children to demonstrate the ease and change the mentality that all transport is by car.

“When I was a kid everyone rode their bikes to school. The schoolyard was full of bikes. Now kids don’t ride to school and I think that is probably a safety perception issue. But, if you examine statistics on road accidents it’s a far safer place to be when it was in 1960s when I road to school. There were far fewer road accidents with pedestrians and people on bikes. But, there’s a perception amongst parents that it’s dangerous. So they don’t start from the beginning, it’s not part of their lifestyle. As an adult they don’t continue because they didn’t start it!” – Focus group 3 participant

DISCUSSION

This study confirms why people in Albury love using their cars so much more than any other form of transport to work. It also enhances understanding about what issues need to be overcome and strategies employed to change travel behaviour to work and in general.

The interplay between attitudes, subjective norms, normative beliefs and perceived behavioural control suggested in the Theory of Planned Behaviour determine intention to perform a behaviour⁽²⁶⁾. This study elucidated that attitudes of Albury residents are predominantly negative towards the behaviour of AT to work. This is different to the pre-intervention phase of the 2005 study by Wen et al⁽⁸⁾ in Sydney. They found that 39% to 80% of people agreed and strongly agreed to statements with positive attitudes to AT and attitudes improved further post intervention.

In this study, it was explicit that AT to work is not normalised behaviour in Albury. The normative pressures in Albury sway one towards using a car to travel to work. Thus normative beliefs of most people are that you do not want to AT to work. Similarly, the subjective norm for most people is the perception that the behaviour of AT to work is not a desirable one. This is the case as judgement by significant others in peoples’ lives is that AT to work is not sensible or practical behaviour. This may be due to factors like road safety, personal safety or the inconveniences one has to go through to undertake it.

Perceived behavioural control over the behaviour of AT to work by people in Albury is also limited, as many are influenced by second hand information and experiences from acquaintances and friends. This coupled with limited physical resources or AT infrastructure increases the perceived difficulty of performing the behaviour. Thus, there is very little doubt as to why we see the trend of car use as the predominant mode of transport to work in Albury.

Enabling factors for AT to work discovered in this study which are consistent with other studies include presence of workplace showers⁽⁹⁾, change facilities⁽⁹⁾, bike racks, lockers⁽⁹⁾ or parking⁽¹⁸⁾ and clothes lockers⁽⁹⁾. Workplace campaigns about AT^(8, 20), workplace incentives⁽⁹⁾ and flexible work hours⁽⁷⁾, suggest it is warranted to encourage more employers to adopt policies and programs that are supportive of AT to work. Congestion taxes on vehicles⁽⁵⁾, short distances to work⁽¹²⁾ and good road and streetscape infrastructure such as adequate and well maintained on and off road paths for cyclists and pedestrians⁽⁹⁾, safe crossings⁽¹²⁾ and less road traffic⁽¹⁸⁾ were also deemed conducive.

Also consistent with the literature was participant understanding of the health benefits that AT to work elicits for individuals⁽³⁸⁾ and communities⁽⁵⁾ through the impact of physical activity on health.

There was acknowledgement that environmental benefits of AT to work⁽³²⁾ could be a way to promote more to undertake the behaviour of AT to work, be that for individuals having a better understanding of the reduced carbon emissions they make or organisations improving their sustainability and reducing their carbon footprint.

Barriers to AT to work that were consistent with other studies include fears for safety on roads and personal safety⁽¹²⁾, perceived lack of time⁽¹²⁾, the inconvenience of AT compared with car travel⁽²⁴⁾. Presence of car parking⁽¹⁹⁾, people with dependent children⁽¹⁹⁾ and poor weather, particularly heavy rain⁽²¹⁾ were also suggested and consistent with the literature. It was suggested by several participants that there needs to be some disincentives to use the car for AT to work to be encouraged. Although acknowledged it would be unpopular, metered parking or more time limited parking could deter some from driving to work and encourage AT. Some similarly sized inland regional cities such as Tamworth⁽³⁹⁾ already have this in place. This strategy correlates with a coercion intervention from the COM-B system⁽²⁷⁾.

Changing the culture of workplaces to be more aware of and supportive of AT has been noted^(8, 10). Heesch's study of cyclists that belong to Bicycle Queensland declared that the adoption of transport cycling for women in particular, would require Australia to adopt a transport cycling culture⁽⁴⁰⁾. This study also found the strength of the car culture in Albury and weakness of the cycling and walking to work culture was a large factor in mode of travel to work trends. Many participants cited the need to change the broad 'culture', not merely the workplace culture in order to effect significant population behaviour change. Several going so far as to say that AT to work in Albury is daggy, weird and unfashionable compared with metropolitan cities in Australia or overseas which was a barrier to AT to work. Social marketing-like campaigns were suggested as ways to strengthen attitudes towards AT to work and in general and capitalising on the trends of Albury's large recreational cycling and walking interest⁽⁴¹⁾ could assist. This could be an example of the COM-B persuasion intervention, which aims to induce positive or negative feelings or stimulate action, or the modelling intervention which provides an example for people to aspire to⁽²⁷⁾.

One of the questions about changing AT to work 'culture' at a workplace or broader community level is whether improved infrastructure and policy (e.g. off road bike lanes, safe crossings, good connectivity) needs to occur *before* we observe a better 'culture' regarding AT to work and in general. It was certainly suggested by many participants that more AT friendly infrastructure would make it easier for more people to AT to work and in general. Other participants suggested that if more early adopters (which is probably the 4.7% walking or cycling to work in Albury already⁽¹⁶⁾) started to AT to work that would shift the culture to being more supportive towards AT to work. If this occurred, AT infrastructure would be justifiable and provided and then late adopters would change their attitudes and practice around travel to work. This is unlikely to succeed when as observed in European cities, the provision of infrastructure and changes in transport policy⁽²²⁾ occurred *before* the improved AT culture and therefore seems the more prudent path to take to increase AT to work behaviour.

The political conundrum of increasing expenditure on AT infrastructure provision, when rates of AT were comparatively low, was cited in this study. When the majority of the constituency (ratepayers) are driving vehicles, there is an implied expectation that road services for cars will be maintained and traffic issues rectified, often by building more roads. Decision makers like councillors feel they need to please the majority despite the lack of sustainability in the policy. However the principles of induced demand⁽⁴²⁾ suggest that this strategy is flawed, as building more roads will only encourage more to use cars to get from A to B and congestion will not be alleviated in the long term. The "chicken and the egg" phrase was used by several in regards to AT infrastructure provision. The dilemma was whether one waits until there is demand for AT infrastructure and then provide AT infrastructure, or supply AT infrastructure and create or induce demand. The latter seems to be the

more appropriate course of action as creating demand for roads without roads or iPhones without iPhones would be difficult.

Articles recently published in mainstream media have been calling for tax incentives such as salary packaging purchase of bikes and related gear, offering depreciation of EOTFs to employers and tax free membership of bicycle organisations that provide accident and third party insurance^(43, 44). This expands on other tax areas that participants cited in this study which may encourage a shift towards AT and decreased car use, which are further examples of COM-B persuasion and incentivisation interventions⁽²⁷⁾. Participants cited changes in vehicle registration taxes dependent on annual kilometres travelled per annum and variable congestion taxes for vehicles on some roads (although more of a metropolitan strategy than regional city one). Changing the fringe benefits tax concessions for use of cars for 'business' was also noted by many. Some of these have been suggested in recommendations in Australia's Future Tax System Review⁽⁴⁵⁾.

Unique workplace findings were that several employers had concerns over liability if employees were encouraged to cycle or walk to work and were injured on the journey. This strengthens the case for pedestrian or cyclist insurances, which could act as an enabler, increasing the means or reducing the barriers to increase capability or opportunity⁽²⁷⁾. In the absence of workplace EOTFs, public EOTFs in strategic locations could be a means of addressing needs of these active travellers. Some employers cited the maintenance of corporate image and thus good quality EOTFs were required so employees were able to remain 'presentable'. Formal uniforms (e.g. those requiring ironing), suits and business attire were seen as a barrier to AT. Participants noted the inconvenience of having to make a separate car trip each week to ensure a supply of clean and ironed clothing was available at work.

Participants cited that personal finances or wealth to afford bikes and associated gear could be a barrier for many in regional areas, when you still need to own a car for some types of trips, which disadvantages those on low incomes. They also cited that long periods of extreme heat in the summer and magpies in late winter to spring were a deterrent to AT to work. This pertained particularly to cyclists and was not cited in the literature. This could represent a particular barrier in regional areas as opposed to metropolitan areas in Australia that don't have the same weather patterns or landscape and habitat for magpies and these types of issues may need addressing through social marketing-like plans.

People fearing AT due to road safety concerns or risk of personal assault is consistent with the literature⁽¹²⁾. However, this study highlighted the role media play in generating this fear and suggested calls to stop perpetuating unnecessary fear. Several participants noted the 'media' is to blame for their reporting of assault and spreading the idea that it happens more frequently than it does. Likewise with road safety concerns, some participants noted 'shock jocks' to blame for some of the attitudes towards cyclists as ABC's Media Watch⁽⁴⁶⁾ and Elizabeth Farrelly have highlighted⁽⁴⁷⁾ and the lack of understanding of road rules by all road users. This communication has persuaded people to induce these negative feelings and therefore can be corrected to induce positive feelings or stimulate action as the COM-B intervention suggests⁽²⁷⁾. In addition to the role media play in perpetuating fear, it was suggested by many participants that road rules education and social marketing campaigns to encourage respect and harmony on the roads was warranted. This would increase knowledge and understanding and is supported as one of the COM-B interventions to change behaviour⁽²⁷⁾. Fear is obviously counterproductive towards increasing AT to work and in general and contributes to a car culture.

Participants emphasized that new technologies in electric or hydrogen fuelled and autonomous cars may actually have a negative effect on AT to work and in general. With autonomous cars, they cited more cars would fit on the roads and non-fossil fuelled cars would pose less threat to the environment, thus making them more attractive and counterproductive to increasing AT. However

occurring parallel with this is improved technology is electric bikes⁽⁴⁸⁾ which provide assistance and make it possible for people of all physical abilities to actively travel and should be supported.

It was suggested that rates of AT to work was in part due to a generation of adults that have never walked or cycled to school. As the proportion of children that walk or cycle to school is also low⁽⁴⁹⁾, it was suggested that training programs to impart skills and campaigns focus on children walking and cycling to school with parents. The logic was that it would reinitiate the behaviour in the population that once was quite prevalent and build a younger generation that uses AT again. The inverse of this logic may occur as well. Wen et al⁽⁵⁰⁾ found that children's mode of travel to school is strongly associated with parents' mode of travel to work, so workplaces that encourage AT to work may unintentionally promote active transport to school as well. Mason⁽⁵¹⁾ cited a sequence that perpetuates driving culture and erodes AT, and appears to explain this trend. If more parents drive to school, traffic increases in volume and speed, roads appear riskier to cyclists and pedestrians, fewer children walk or cycle to school, parents are concerned and the cycle continues. A generation of adults that have never walked or cycled to school due to this sequence are unlikely to feel comfortable walking or cycling to work or encourage their children to do so.

Although improved PT services are not deemed as feasible due to cost per capita in regional areas⁽³⁶⁾, they should be improved for those in the community not able to walk or cycle long distances and for those living beyond a comfortable walking or cycling distance of their workplace. As suggested by participants in this study, considerations for future service could include routes that are more direct, higher frequency services, longer operating hours throughout the day and improved integration with cycling so users can use a mix of transport to reach their destination. Integration facilities such as cycle storage along PT routes or cycle storage on buses could increase those that use PT as part of their journey to work.

To address many of these issues at a local level, better systems are required to enact change. Local Traffic Committees in NSW exist under delegation by RMS. They include a member from council, NSW Police, RMS and local Member of Parliament, without requirement for representation from cycling, pedestrian or public transport groups⁽⁵²⁾. It is primarily a technical review committee to advise Council on traffic related matters referred to it, rather than a committee with focus on the transport network, modes of transport and issues relating to these. Councils such as Wollondilly⁽⁵³⁾ and Richmond Valley⁽⁵⁴⁾ have initiated Transport Advisory Committees to focus on issues like shared cycleways, public transport and alternative transport options for the community and advise council. Either establishing these types of committees, sustainable transport committees or extending the role of Local Traffic Committees appear important for regional councils to address the many challenges of change around transport options.

To determine the best approaches to social marketing and education campaigns around active transport in regional areas, further research is required. Intervention studies in regional areas could also shed further light on whether changes and improvements in AT infrastructure or employer EOTFs and programs result in positive changes to AT behaviour and the perceived culture of the city around transport modes.

It is acknowledged that changing culture and improving AT infrastructure in regional cities is more difficult than in cities. Regional councils have a small ratepayer base to provide similar levels of infrastructure to cities yet have lower population density. Therefore, they require more AT infrastructure per square kilometre per capita than larger cities. Despite these challenges, we need to increase emphasis on sustainable and active transport in regional cities as regional cities also grow. Regional representative committees comprising of government, business and community can work together to advocate for and implement change in active transport to work options.

STRENGTHS AND LIMITATIONS

To the researcher's knowledge, this is the first study of this type to investigate the reasons, attitudes and issues that contribute to regional people's choice of transport to work and the strategies likely to encourage more people to walk or cycle to work.

The methods of focus groups with employees, interviews with representatives of large employers and the use of open questions and probing used in this study were a strength. This allowed teasing out of underlying issues that contribute to people's decisions about transport to work.

A limitation was the composition of the sample of focus group participants being different to the general population. Forty-seven percent cycle to work and 34% walk to work as opposed to 1.2% and 3.5% respectively in Albury. Participants were also relatively highly educated and had higher income representing a more socioeconomically advantaged sample. The composition of the sample limits generalisability of the findings somewhat.

Due to the constructionist epistemological approach used in this study the results and subsequent recommendations may not be relevant to anywhere else but Albury. A constructionist would indicate that true meanings around the issue of AT to work in Albury come from an interplay between subjects (people in Albury) and objects (their environment) and thus could not be generalizable to populations elsewhere. However, it is reasonable to predict that other regional cities in Australia of a similar geography, demographics, climate and population would have similar results and could benefit from similar interventions as suggested in the recommendations.

CONCLUSION

This study has demonstrated that regional dwelling people cite many of the same enablers or barriers for AT to work as metropolitan dwelling people note. However, this study found that changing the cultural attitudes around cars and cycling or walking to work is as important as improving AT infrastructure and EOTFs to increase the proportion of people that AT to work.

Improving all road user's understanding of the road rules, reducing conflict and engendering harmony on the roads or streetscapes is vitally important to improve participation in active transport to work. Well-considered and planned infrastructure for cyclists and pedestrians will help with safety and improving some aspects of PT services. The author proposes that tackling these issues will help to change the attitudes that people hold about active transport to work and encourage more to adopt the behaviour.

RECOMMENDATIONS

These evidence-based strategies are likely to address reasons, attitudes and issues that Albury residents cite as barriers to active transport to work. They are complex, challenging, multi-faceted and require partnership approaches. However, these strategies are the most likely to increase participation in active transport to work, in regional cities like Albury.

- **What:** Implement state and local based education campaigns using 'champions' to inform all road users of road rules and promote acceptance and harmony on the road. **Who:** State and Local Government/ RMS.
- **What:** Implement state and local social marketing campaigns and communication strategies encouraging cycling and walking to work as a viable and possible option for many people. This may include promoting the health and environmental benefits, giving tips on undertaking it within lifestyle constraints and seasonal variances and capitalising on the strong recreational cycling interest in Albury to shift attitudes. At a local level this could help make it trendy and

fashionable and detach the 'daggy' tag that some perceive it has. **Who:** State and Local Government/ NSW Department Transport/ NSW Ministry of Health/Local Health Districts.

- **What:** Advocate for local and national media to report on assault and crime within context and resist comments that incite hatred among road users, so as not to increase the perception that communities and roads are more dangerous than they actually are. This type of reporting could perpetuate the perception that AT to work is unsafe and may deter many people, particularly women, from participating in active transport to work and in general. **Who:** Local Government/ State and Local Bicycle user groups/ Pedestrian advocacy groups.
- **What:** Increase number of schools that encourage AT to school. Increase the proportion that educate about road rules, how to safely walk, ride and drive and discuss the benefits of different travel modes to people, communities and environment to encourage informed decisions about transport. **Who:** NSW Department Education/Ministry of Health.
- **What:** Advocate for tax reforms such as variable congestion taxes on busy roads and registration fees based on annual kilometres travelled. These may send pricing signals to commuters at certain times of the day making car travel less desirable. **Who:** State and Local Bicycle user groups/ NSW Department Transport/ Federal Government.
- **What:** Advocate for depreciation being available to employers who provide new or better EOTF infrastructure such as shower and change facilities, clothes lockers and secure bike storage options. In the case of clusters of smaller employers with limited room, Local Government should be able to receive the same depreciation provisions to provide such facilities in business hubs. **Who:** Industry groups/ Unions/ Chambers of Commerce/ Local Government/ State and Local Bicycle user groups/ NSW Department Transport/ Federal Government.
- **What:** Advocate for employer salary packaging, similar to motor vehicle novated leases, whereby employees purchase bikes, associated safety and travel gear and running costs like bike services and repair costs are included. **Who:** Industry groups/ Unions/ Chambers of Commerce/ Local Government/ State and Local Bicycle user groups/ Federal Government.
- **What:** Advocate for tax-free membership to state cycling organisations that provide cycling and pedestrian journey insurance to remove the barrier of employer liability for journey to work insurance. **Who:** Industry groups/ Unions/ Chambers of Commerce/ Local Government/ State and Local Bicycle user groups/ RMS/ Federal Government.
- **What:** Support development of technology such as electric bikes through policy and funding grants, which enable more people of all physical abilities to be more physically active in their travel to work. **Who:** Federal Government/ NSW Department Transport.
- **What:** Encourage employers to adopt policies or programs supportive of AT to work such as flexible working hours and promotion of AT to work through wellbeing programs or environmental sustainability programs. **Who:** Industry groups/ Unions/ Chambers of Commerce/ Local Government/ NSW Ministry of Health and Local Health Districts.
- **What:** Consider metered council parking and/or more time limited parking, which may deter people from parking all day to attend work and prompt alternative transport modes to work. **Who:** Local Government
- **What:** Continue expansion of good quality city, suburb and neighbourhood AT infrastructure. Include wide, direct and integrated on and off road paths (shared paths in lower populated areas), safe crossings and traffic calming measures, extending throughout the city, not just to tourist destinations. **Who:** Local Government.
- **What:** Encourage decision makers in local, state and national government to change their policies from the notion that building more roads will alleviate car traffic congestion and improve transport times. 'Induced demand effect' states otherwise and a switch to investing more in and increasing AT infrastructure is suggested. **Who:** State and Local Bicycle user groups/ Pedestrian advocacy groups/ NSW Department Transport/ Local, State (RMS) and Federal Government.

- **What:** Considerations for PT services should include routes that are more direct, higher frequency services, longer operating hours and improved integration with cycling, such as cycle storage along PT routes or cycle storage on buses so users can use a mix of transport to reach their destination. **Who:** Department Transport/Local Government.
- **What:** Establishing sustainable transport committees or working parties with wide representation in local government. Alternatively, extending role of existing Local Traffic Committees to progress local transport options and issues and lobby for changes. **Who:** Local Government/ Ministry of Health/ RMS/ NSW Department Transport/ Local Bicycle user groups/Pedestrian advocacy groups.

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APPENDICES

Appendix 1. Recruitment process and information collection prior to interview/focus group

The groups of participants in the study will be recruited and information collected prior to interview/focus group according to the following table.

Participant type	Recruitment process	Information to be collected prior to interview/ focus group
General Managers (GM)/ Chief Executive Officers (CEO)/ Site managers or delegate (Government and Private Organisations/ Employment site)	<ol style="list-style-type: none"> 1. Large employers will be randomly allocated a number and called in order from lowest to highest number. 2. One phone call 'inviting to participate' and offering to send PIS will be made to large government and private employers as mentioned in the above list (order to be randomised). Time for questions about the study will be offered. 3. This will be followed by a second phone call, 2 weeks after the first. If no response is received, no further phone calls will be made to that employer and next employer will be called 4. Employers that agree to participate will be offered a time for interview within 2 weeks. 	<ol style="list-style-type: none"> 1. Gender of representative 2. Age of representative 3. Number of employees in organisation (>100) 4. Status as Government or Private employer/employment site
Key decision makers and influencers	<ol style="list-style-type: none"> 1. One phone call 'inviting to participate' and offering to send PIS will be made to decision makers/influencers as mentioned in the above list. Time for 	<ol style="list-style-type: none"> 1. Gender of person 2. Age of person

Participant type	Recruitment process	Information to be collected prior to interview/ focus group
	<p>questions about the study will be offered.</p> <ol style="list-style-type: none"> 2. This will be followed by a second phone call, 2 weeks after the first. If no response is received, no further phone calls will be made to that person. 3. People that agree to participate will be offered a place in one of the three focus groups consisting of 10 people. 	<ol style="list-style-type: none"> 3. Position held at relevant organisation (Albury City, NSW Police, NSW Ambulance Service) 4. Mode/s of transport used to travel to work 5. Suburb of residence 6. Suburb of work 7. Distance travelled to work (km) 8. Employment status 9. Income range 10. Highest level of education attained 11. Cultural background 12. Country of birth
Currently employed (FT, PT, Cas) Albury City residents 15 years and over	<ol style="list-style-type: none"> 1. Two newspaper advertisements will be included in the classified section of the Saturday Border Mail, two weeks apart, inviting residents to participate in a focus group about travel options to work. 	<ol style="list-style-type: none"> 1. Suburb of residence 2. Suburb of work

Participant type	Recruitment process	Information to be collected prior to interview/ focus group
	<ol style="list-style-type: none"> 2. An A4 and A3 poster will be sent to GP services in their waiting rooms, which will be inviting residents to participate in a focus group to discuss travel options to work. 3. A Facebook page and Twitter Page will be established to engage with Albury based social media sites and residents, to raise awareness of the study and invite participation. People will be able to call or email Chief investigator for more information and download a Participant Info Sheet and consent form. 4. One letter and phone call ‘inviting local businesses’ employees to participate’ will be made to Albury Northside Chamber of Commerce and other large employers in Albury City. <ol style="list-style-type: none"> a. A second letter will be sent 2 weeks after the first if no response is received. At which point no further letters will be sent 5. One letter to Bicycle User Group – Pedal Power, Walking group – Border Bushwalking Club, Public Transport advocacy groups and other such user groups, ‘inviting their member’s participation’. 6. Several media releases will be issued during the recruitment period to local media regarding the research and related issues. This will hopefully raise the 	<ol style="list-style-type: none"> 3. Distance travelled to work (km) 4. Mode/s of transport used to travel to work 5. Employment status 6. Age 7. Gender 8. Income range 9. Highest level of education attained 10. Cultural background 11. Country of birth 12. Ability to speak and understand verbal English

Participant type	Recruitment process	Information to be collected prior to interview/ focus group
	<p>profile of the issues, research, and encourage participation.</p> <p>7. The participants that are recruited in this group will be offered a \$20 grocery voucher upon attendance at on of the three focus groups consisting of 10 people.</p> <p>8. People that call up about the study and agree to participate will be offered a place in one of the three focus groups consisting of 10 people. Time for questions about the study will be offered in this phone call.</p>	

Appendix 2. Topics and questions for exploration in interviews and focus groups.

Organisation specific questions – for interviewees only

1. What is the current participation in active travel to work in your organisation (including walking, cycling, and public transport)?
2. Do you see any positive outcomes for your organisation if more staff cycled or walked to work? If so could you tell me?
3. What organisational policies or programs that encourage active travel to work in ways others than private cars do you have?
4. What benefits is your organisation and employees aware of for people or communities that actively travel to work, as opposed to use of private car?
5. What does your organisation's current physical infrastructure look like for people that actively travel to work?
6. What is your organisation's current interest in encouraging employees to actively travel to work?

Personal insight in to phenomenon – for interviewees and focus groups

1. Why do you think people in regional areas like Albury do not actively travel (walk and cycle) to work as often as they do in private cars?
2. What ideas do you have that would be likely to encourage more people to walk or cycle to work in Albury?
3. What do you think about the feasibility of some of these ideas that you have raised?

Workplaces in general – for interviewees and focus groups

1. What are your thoughts on some of the workplace related factors that might be seen as enablers or barriers to walking and cycling to work in a regional town like Albury?
2. What are your thoughts on: - Presence or not of End of trip facilities like showers, bike racks, bike lockers, change facilities, clothes lockers, car parking, employer policies/programs/campaigns, Transport Access Guides (TAGs) and Workplace Travel Plans?

Neighbourhood, Suburb and City factors – for interviewees and focus groups

1. What are your thoughts on neighbourhood, suburb, or city factors that might be seen as enablers or barriers to walking and cycling to work in a regional town like Albury?
2. What are your thoughts on: Off road/on road paths, distance to travel, car parking availability, presence/lack of traffic crossings, high or low traffic volume, aesthetics of streetscapes and neighbourhoods, mixed land use/uniform land use, destinations or lack thereof en route to work, crime or lack thereof, walking or cycling as benefit or detriment to business, permeability or not of neighbourhoods/ suburbs/ cities?

State, National or Global factors – for interviewees and focus groups

1. What issues at a state, national, or global level do you feel might be seen as enablers or barriers to walking and cycling to work in a regional town like Albury?
2. What are your thoughts on: climate change, declining oil supplies, overweight and obesity epidemic, population physical activity rates inadequate, population growth and congestion, national trends of car travel to work slowing?

Personal and health factors – for interviewees and focus groups

1. What personal or health factors do you feel might be seen as enablers or barriers to walking and cycling to work in a regional town like Albury?

2. What are your thoughts on: presence or lack thereof of time, households with/without children, perceived convenience or inconvenience, feeling of safety or lack thereof, the opportunity or threat to freedom/choice/flexibility/autonomy/independence, the predictability or not that one mode of travel has over another, ability to problem solve or develop coping strategies, income level as determinant of travel mode, education as a determinant of travel mode, ethnicity as a determinant of travel mode, attitudes to travel modes as predictor of travel mode, personal health benefits, perceived health benefits associated with travel mode?