



**ONE CAR LESS  
STAFF ACTIVE TRAVEL PROJECT REPORT  
MAY 2010**



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# Introduction

## Background

North Coast Health Promotion is engaged in a program that concurrently addresses obesity and global warming. This program is called *Resilience: building health from regional responses to climate change*. Within this program there are overlapping areas of interest between strategies to slow both the obesity epidemic and climate change.

Obesity levels across NSW have dramatically increased in the past decade and are now at record levels, with more than half of all adults and a quarter of all children overweight or obese. These figures are alarming because they will lead to significantly higher levels of chronic illnesses such as Type 2 diabetes, heart disease and some cancers.

Concurrently, we have witnessed a shift in travel within our communities from those which support healthy behaviours (active transport) to those which are unhealthy (car dependence). The trend has been to adopt planning strategies which make it more difficult to engage in active transport as is evidenced through such actions as road upgrades favouring motorised transport and institutions providing more parking for cars. There have not been similar increases in the provision of infrastructure for other forms of active transport such as cycle paths, end of trip facilities and improved public transport networks on the North Coast. Active transport is defined as any mode of transport that incorporates some physical activity such as walking, cycling and skating. The use of public transport and car pooling are also considered active transport because people often have to walk to a bus stop, train station or car pool pick up point.

Transport is a significant factor in our everyday lives and is a major determinant of health, both directly and indirectly. Integrating physical activity into people's daily routines is more cost effective and more likely to be sustained than structured exercise programs <sup>1</sup>. By far the easiest way to build physical activity into one's activity pattern is to walk or cycle to work and school. Using public transport is also good for increasing incidental physical activity as it involves walking to and from the bus stop and train station <sup>1</sup>.

Environmental factors (urban design, housing density and walking and cycling and public transport infrastructure) are major influences on levels of walking, cycling and public transport <sup>1,3</sup>. Individual barriers can also affect active travel uptake, such as a lack of skills and confidence have been found to prevent many people from cycling <sup>1</sup>.

Salary packaging and other fringe benefit deals encourage car dependency using taxpayer dollars. In 2003 it was estimated that government and company cars make up 40% of peak hour traffic and 20% of all traffic. Public transport passes or bicycles are not afforded similar tax concessions and until carbon emissions are incorporated into the costs, active transport will be disadvantaged<sup>4</sup>.

### Considerations in selecting strategies for increasing active transport:

- People perceive cars as more convenient for school drop-offs, pick up and work commitments. Parents who drive to work will often drop children off at school as well <sup>5</sup>.
- People are more likely to cycle if workplaces have end-of ride facilities <sup>5</sup>.
- People will walk and cycle more if there is safe infrastructure <sup>1,5</sup>.
- Walking for transport is associated with living in neighbourhoods that have population density, good connectivity, mixed use planning and neighbourhood aesthetics <sup>6</sup>.
- Establishing a cycling-friendly policy and regulatory environment is a significant challenge and one that is not entirely within the direct control of the health sector. A multi-faceted, whole-of-government approach is required <sup>2</sup>.
- Consider mass marketing campaigns highlighting the benefits of cycling <sup>2</sup>.
- Bicycle education programs can increase skills, confidence and safety <sup>2</sup>.
- Consider behaviour change initiatives to market alternatives to car use <sup>2</sup>.
- Policy and regulatory factors governing key influences on cycling, such as congestion charging, urban density and motor vehicle speed limits have been identified as non-health sector issues that nonetheless have important outcomes for public health through their effect on cycling <sup>2,3</sup>.
- Cycling events to provide incentives for people to ride in a supportive environment particularly for novice riders can be effective <sup>2</sup>.
- Cyclists organisations cite the following additional strategies to increase cycling: Slower traffic speeds (e.g. 40 km/hr) and traffic calming will increase the number of people riding bicycles, extensive driver education to raise motorists awareness of cyclists use of the roads and relevant road rules, traffic regulations and enforcement that heavily favour pedestrian and cyclists, restrictions on motor vehicle use, including limited parking <sup>2</sup>.
- "The "Cool commuters" program at Ballina Shire Council in 2007 used incentives such as coffee cups and water bottles to encourage community members to sign a pledge to reduce car use by at least two drive alone trips per week by walking, cycling, catching the bus or carpooling. 100 people participated in the program. Follow up phone calls 3 months later to 25 randomly selected participants revealed that 76% of these had been able to stick to their goal." (Project Officer, Ballina Shire Council)

The evaluation of Travelsmart projects in four Australian states and the ACT showed that the following strategies were effective in securing positive travel behaviour changes <sup>7</sup>:

- personal engagement at a one-to-one, household or local workplace level,
- functional materials – such as public transport tickets, maps and timetables that allow people to explore new travel options, plans and make decisions,
- support of local leaders – councils, senior company management, school boards,
- whole or community involvements – larger interventions have larger results, suggesting that individuals are supporting and reinforcing each others' behaviour,
- removing incentives for car travel,
- penalising car use or rewarding green alternatives by giving small incentives.

In October 2008 North Coast Health Promotion conducted the North Coast Area Health Service (NCAHS) Staff Travel-to-Work Survey to find out what could help staff use less fossil fuel and more body fuel to get to work. This was also an opportunity to inform staff of the intended development of a staff active transport project.

Results from the survey confirmed car dependence with 77% of all staff trips in a typical week were by drivers as sole occupants in cars. However the results strongly supported the development of an active travel program with 65% of respondents expressing interest in car pooling, 25% in cycling and 15% in using local bus services. Respondents also indicated that they were interested in incentives such as introductions to other prospective car-poolers or end-of-journey facilities for people who cycle or walk to work. As 19% of respondents lived within 5km of their workplace and 37% within 10km it was felt that there was potential to change current staff travel patterns. This information therefore provided the baseline for the pilot project *One Car Less* (OCL).

## NCAHS Workplace Context

North Coast Area Health Service (NCAHS) covers an area of 25,570 square kilometres extending from Port Macquarie in the south, Queensland in the north and west to the Great Dividing Range. The population is concentrated on the coastal strip, with large settlements at Port Macquarie, Coffs Harbour, Ballina and Tweed Heads. Inland there is a high concentration of people in the city of Lismore. The rest of the region is characterised by smaller towns and villages.

The North Coast areas have an estimated combined population in 2006 of 527,000. There is very limited public transport in the region. Larger towns have some buses, although with very limited services compared with options in metropolitan areas. State-subsidised school buses provide an addition to this network. These buses feed from villages to towns: they leave once in the morning and return between 3-4pm each afternoon. Most towns have very limited infrastructure in terms of cycle and foot paths. The train line from Casino to Murwillumbah has been discontinued. From an economic and social perspective, the region is vulnerable in terms of its dependence on private cars for transport. This dependence is problematic with respect to peak oil and to the carbon emissions trading necessary to mitigate global warming. Single-occupant car journeys are a major contributor to greenhouse gas emissions in Australia.



NCAHS has the equivalent of around 6,105 full time positions. As many staff work part-time, the actual number of employees is higher than this (approximately 9000). While the four major referral hospitals at Tweed Heads, Lismore, Coffs Harbour and Port Macquarie employ most staff, many employees work at services in smaller settlements scattered across the region. Many of the hospital sites have problems accommodating the cars of staff and visitors.

When applying current NSW population rates, it is possible that about 3800 NCAHS employees could not get enough physical activity on a daily basis and about 4500 staff could be overweight or obese. Many workers find it hard to fit the recommended 30 minutes of moderate activity into their busy lives. Active transport could be an important way for many staff to include incidental physical activity into daily routines.

## Benefits of One Car Less

Proposed benefits to the organisation included the potential to:

- Create a positive workplace culture that acts to promote health and protect the environment.
- Foster partnerships between departments within the NCAHS.
- Reduce demand for parking spaces at NCAHS facilities.
- Build social networking, community cohesion and better use of public transport.

In addition, this program could enhance existing partnerships between NCAHS and other locally based organisations and create opportunities for new ones to be formed. This is evidenced by the fact that OCL complemented transport strategies that have emerged from Sustain Northern Rivers, the action program of the Northern Rivers Climate Change Collaboration. It also met the Healthy People NSW strategy P3.2.11 to “Support State Plan initiatives relating to a high quality transport system and promoting active transport alternatives such as walking and cycling”.

## Aim

One Car Less was a staff health active travel program which encouraged staff to make a pledge to leave their car at home at least one work day per week and to use active methods of travel. By increasing levels of active transport, OCL aimed to increase physical activity levels of NCAHS employees and reduce car use. Those staff who committed by signing a pledge were rewarded with a certificate and a promotional OCL coffee mug.

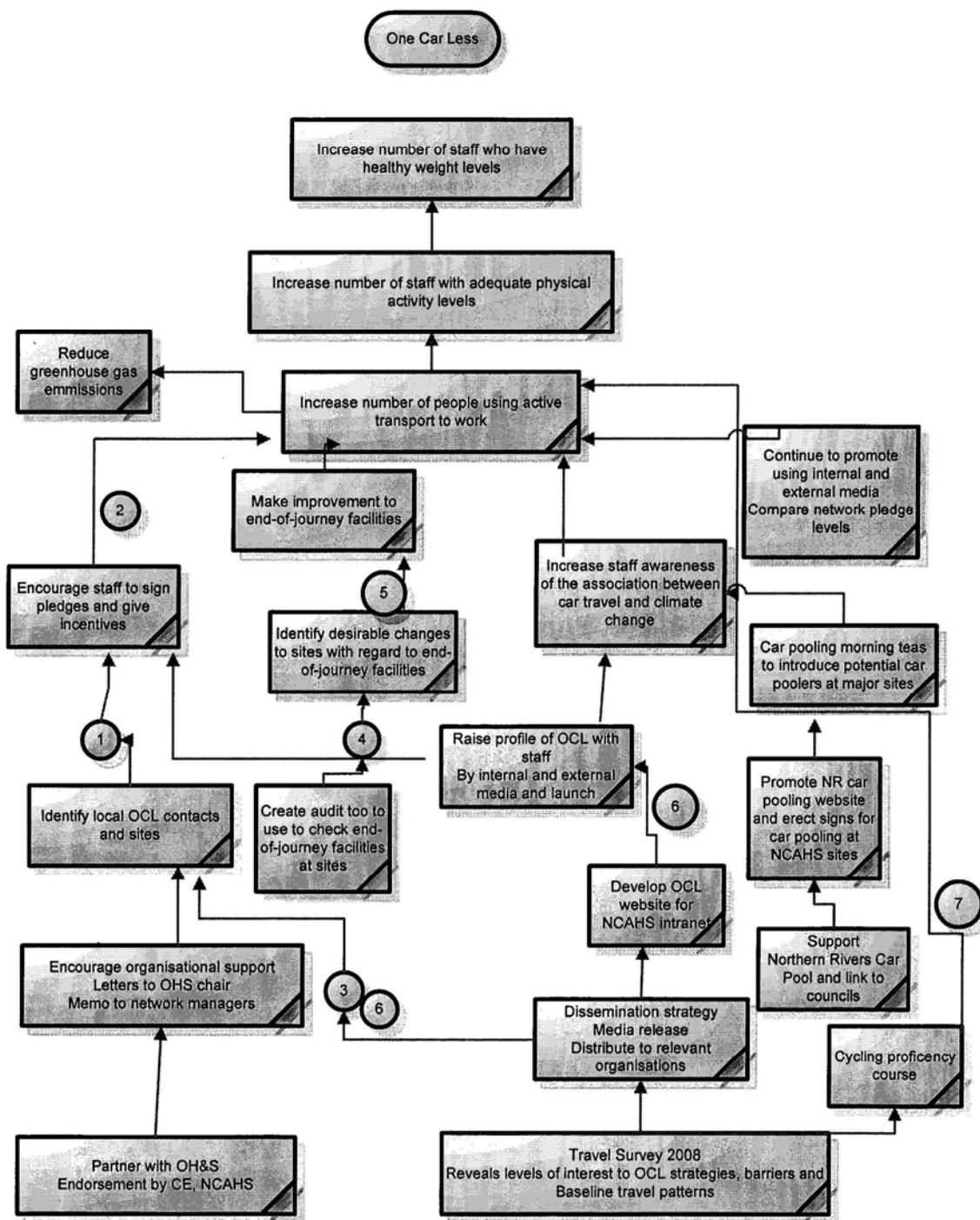
## Objectives

The objectives of the OCL program are displayed in chart below. Following this is the evaluation matrix which links directly to the objectives listed in the table.

<b>Aim or Objective</b>	<b>Logic model link</b>	<b>Indicator</b>
To encourage staff to sign pledge to leave car at home at least one day a week	1	Number of pledges signed
To increase the number or people who use active transport to work	2	Number of staff report using active transport or car pooling
To encourage NCAHS sites to take part in OCL	3	Number of sites with staff participating in OCL
Determine end of journey enablers of walking, cycling, using public transport and car pooling to work	4	Number of site audits conducted Number and type of improvements identified
Improve end-of-journey facilities for people who walk, cycle, use public transport and car pool to work	5	Number of sites with improvements to end-of journey facilities
To raise NCAHS staff's awareness of the one car less project	6	Number and types of hits and usage of site
To support local NCAHS staff to act as OCL contacts to encourage staff to sign pledges	3	Number of contacts and who they represent (e.g. OH&S, Health Promotion, bike users etc)
To provide cycling proficiency courses for staff who want to increase confidence in cycling	7	Number of staff who participants in cycling proficiency courses



## Logic Map



## Strategies

The OCL program was developed taking into consideration a range of organisational complexities. Some of these included the fact that:

- There are over 40 facilities geographically spread across the NCAHS.
- Approximately half the staff are nurses, and do not have log-on in the NCAHS computer system.
- Many staff are part time workers and many work shift work.

To support an organisational wide roll out of the program, it was preferable to integrate OCL with existing NCAHS infrastructure. As there was obvious alignment with staff health issues a partnership with Area Occupational Health and Safety (OHS) was established. NCAHS Occupational Health and Safety endorsement was considered crucial and was a key to the promotion of OCL to staff. As all facilities are required to have local OHS Committees, it also provided a structure by which information could be disseminated across the area.

### Implementation Model - OCL Local Contacts

Whilst OHS Committees were seen as integral to the sharing of information about OCL there was no expectation that they would be responsible for local implementation. Their assistance was requested in terms of recruiting a staff member at their site who could champion the cause and was interested and enthusiastic to be a 'One Car Less Local Contact' person between May and October 2009. At all times, participation in OCL was voluntary.

In part, the success of the program depended on the number of OCL Local Contacts across the area and their capacity and skills to promote OCL and recruit staff at their site's. All Local Contacts were supplied with necessary resources and access to support to fulfil this role.

The role of the local contact was to:

- Put up OCL flyers around site.
- Talk to staff either formally or informally about the importance of active transport.
- Encourage staff to sign OCL pledges.
- Give out OCL certificates and coffee mugs to those who sign a pledge.
- Collect OCL pledges and return them to NCAHS Health Promotion

Other Optional strategies included:

- Buddy people up who may be looking to find others cycling or walking the same route or wanting to share a car.
- Host a car pooling morning tea.
- Conduct a OCL site audit.

## Resource Development

A range of resources were developed to support this program. Considerable effort was put into creating a 'brand' appearance of the OCL resources to ensure they could be easily identified both within and across all NCAHS sites. All resources were packaged into folders ready for distribution to OCL Local Contacts as they nominated.

Resources include:

- One Car Less Poster (general)
- How to do One Car Less
- Role of the Local Contact
- Site Pledges \ Staff Record
- One Car Less Pledges
- One Car Less Certificates
- One Car less Site Audit
- One Car Less Car Pool Meet and Greet Poster
- How to host a car pooling meet and greet
- Car Pooling Frequently Asked Questions
- Cycling and Safety – Questions and Answers
- Healthy and Easy Snacks
- One Car Less stickers (for ID badges)



In addition to these packs, all information about the OCL program (including all resources listed above) was posted on the NCAHS intranet site. This ensured all staff had access to information and Local Contacts could easily download additional resources should they require them. One Car Less appeared under the 'What's New' section of the intranet homepage to ensure it could be located easily by staff.

## Promotion to Management \ Staff and Media

A range of strategies was used to gain management support and to promote OCL to staff. The NCAHS CEO, Chris Crawford strongly supported the program and encouraged it's implementation. Early in the program discussions were held with the Area Occupational Health and Safety Manager to explore potential for OCL to fall within the NCAHS OHS framework. Once this was endorsed a Memo from Area OHS was sent to the Chairperson of every site OHS committee across NCAHS explaining the program and requesting the nomination of one staff member at each site to oversee local implementation.

Given the complex nature of NCAHS in terms of its size, geographic distribution and numbers of staff, a two pronged approach to information dissemination was adopted. Thus, at the same time that OHS committees were receiving information, the CEO also requested Network Managers to table OCL information at their Network Executive meetings.

One Car Less was officially launched by the CEO at an Area OHS and Injury Management Forum held in Grafton in May 2009. A media release was prepared and disseminated to all North Coast media outlets. However the story was taken up by only one print media outlet which may be accounted for by the fact that at this time the area experienced a series of major floods which consumed media attention.

Following the official launch an internal global email was sent to all NCAHS staff from the Director of Health Promotion, Uta Dietrich, informing staff of the OCL program.

In addition we generally promoted active transport through the internal and external media as an attractive means of transport and recreation by stressing the availability and the environmental, economic and health benefits of these activities. Relevant car pooling websites were also promoted including 'My Spare Seat' and 'Northern Rivers Car Pooling' and car pool introductions to encourage staff to share vehicles especially where walking, cycling and public transport is not an option.



Staff at the OCL launch gives a hands up for car-pooling.

## One Car Less Site Audits

One Car Less local contacts were encouraged to complete a site audit for OCL which covered such aspects as availability of bike racks and access to end of journey facilities and staff lockers. Audits were conducted to identify potential changes that could be made to the site which would provide greater support to staff to take up active transport to work

## Cycling Proficiency Training Courses

To increase skills, safety and confidence in cycling, North Coast Health Promotion organised and supported free AustCycle training courses each valued at \$360 across the area. These courses were funded through Department of Environment and Climate Change. This program will continue until June 2010.

## Changes to the Environment

Other strategies included working with local government to advocate for inter-connected network of pedestrian pathways and bikeways that are safe, convenient and that many people can access. With the Premier's Council for Active Living and the National Heart Foundation we offered Healthy Planning Workshops to council planners so that they can incorporate these strategies into local government plans. We also advocated for active transport infrastructure by providing input and responding to local council plans.

We have worked and will continue to work with partners to create more accessible public transport links that suit workers hours and relieve road network congestion. Where possible, health promotion staff have been active contributors to local government Transport Working Groups and Sustainability Groups. The reports from our NCAHS Staff Travel-to-Work Survey are also available to local transport companies and the Ministry of Transport to help them plan future routes and timetables.

The following projects took place concurrently while the One Car Less program was being implemented. Each of these projects attracted their own media, further contributing to a greater understanding and uptake of active transport within the communities in which staff live.

## Northern Rivers Car Pooling

NCAHS in collaboration with six local councils, Southern Cross University and Northern Rivers TAFE have worked in partnership to obtain a \$54,000 grant from the Ministry of Transport for a campaign to promote car pooling to reduce traffic congestion, build social cohesion and mitigate the effects of climate change.

To the extent that car-pooling involves walking to pick-up points, it is active transport. This project, which covers from Tweed Heads to Grafton, explored options for a Northern Rivers car-pooling website. In its 6 month pilot phase a carpooling online matching service

[www.nrcarpool.org](http://www.nrcarpool.org) was developed for staff and students of the above organisations, and launched in August 2009. Over 250 people had signed up to the website by February, 2010.

On February 18, 2010 the project was launched to the general community and by April 2010 over 450 people had registered. In addition to the website, 66 Northern Rivers Carpooling road signs are located in major car parks across the region. Each road sign has supporting priority car parking spaces which are identified by a carpool logo painted on the ground.



Media launch of Northern Rivers Car Pooling

## Ride to Work \ Walk to Work

Ride to Work is a behaviour change program that encourages workers to feel good and have fun by or commuting to work by bike and experiencing the health, financial and environmental benefits of riding. It's the only national day on the calendar, where first-timers and regular bike riders can celebrate the act of riding to work together.

Ride to Work Day creates an opportunity for first timers to give riding to work a go and for others to get back on the bike. Thousands of people, of all ages across Australia attend community and workplace breakfasts held in capital cities and regional areas celebrating riding to work.

Participants are encouraged to register their ride on the day at no cost which assists in understanding bike commuter behaviours and campaigning for better riding facilities to councils, local, state and federal governments.

Similarly, Walk to Work is an annual national event to promote regular walking and physical activity. It is designed to encourage the community to become involved in a healthy and environmentally friendly activity.

NCAHS Health Promotion supports these events annually in a variety of ways including: promotion to staff via global emails, coordination of individual participation through a single workplace registration, support for workplace breakfasts at sites across the area and the dissemination of media releases. At one NCAHS worksite the Local OCL Contact has incorporated the promotion of these events as part of their ongoing OCL role.



Ride to Work Day

# Evaluation

## One Car Less Local Contacts

Across the area 19 staff came forward to take on the role of the OCL Local Contact. Seven staff were from within the Health Promotion Team and one a Chairperson of a local OHS Committee. The remaining Local Contacts represented a mix of disciplines from Nurses through to Hotel staff and from Hospital, Community Health and specialist services.

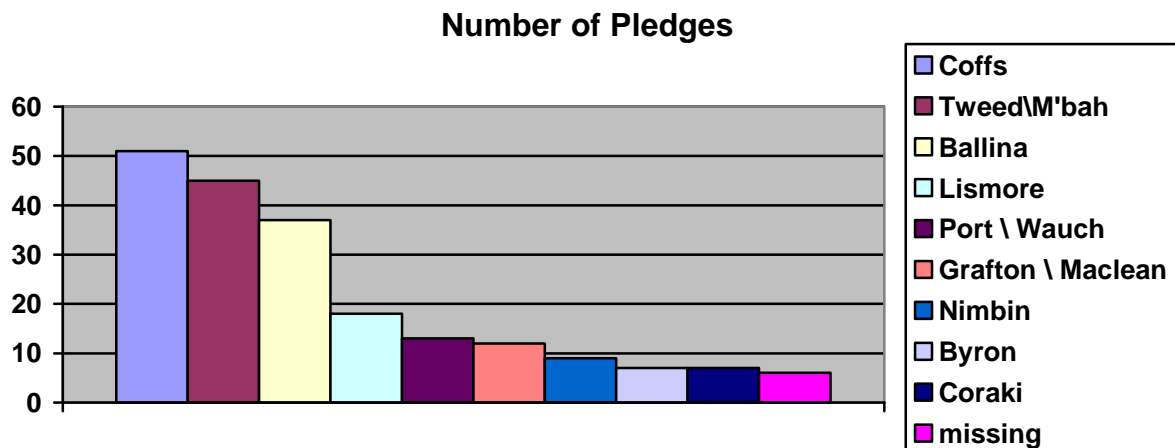
## Number of Sites with Staff Participating in OCL

Staff from 26 sites across the NCAHS signed a pledge to leave their car at home at least one work day per week.

## Information from Pledges

### Number of Pledges

A total of 205 pledges were received from staff across NCAHS sites. Due to the fact that some sites are large Base Hospitals and others are smaller rural outposts, it is not possible to compare participation results between sites.





## Intended changes to work travel patterns

Staff who signed a pledge indicated that they would change the way they travelled to work in the following ways:

- 104 said they would carpool.
- 67 staff would cycle.
- 58 staff would walk to work.
- 8 staff would catch public transport
  - 1 of these people would catch the school bus.
- 2 staff would run to work.

## How did OCL participants hear about the program?

To gauge which methods of promotion were most successful, staff who signed a OCL pledge was asked to indicate how they heard about the program with the following results:

- 169 heard about it from a staff member.
- 19 saw it on the NCAHS intranet.
- 14 received an email about it.
- 8 saw printed resources.
- 4 heard about it at the OHS Forum.
- 2 heard about it from OHS.
- 2 heard about it from Health Promotion.
- 1 heard about it on the ABC radio.
- 1 heard about it at Lismore Base Hospital Canteen.
- 1 learnt about it from a presentation at a manager's forum.
- 1 learnt about it from a staff meeting.

Of all responses to this question by far the greatest percent (76%) heard of OCL by word of mouth from another staff member.

## Results of 2009 NCAHS Staff Travel to Work Survey

A repeat of the baseline NCAHS Staff Travel to Work Survey (2008) was conducted in October/November 2009. The survey was used to identify some aspects of OCL such as; knowledge of the OCL program, changes to staff travel patterns to and from work, changes to interest in alternatives modes of transport, changes in factors which influence travel patterns. It was important to find out the number of staff who live within 5km of their worksites as it was considered these staff had the greatest potential to walk \ cycle to work. Similarly, those who lived further could be targeted with car pooling strategies.

### One Car Less Awareness

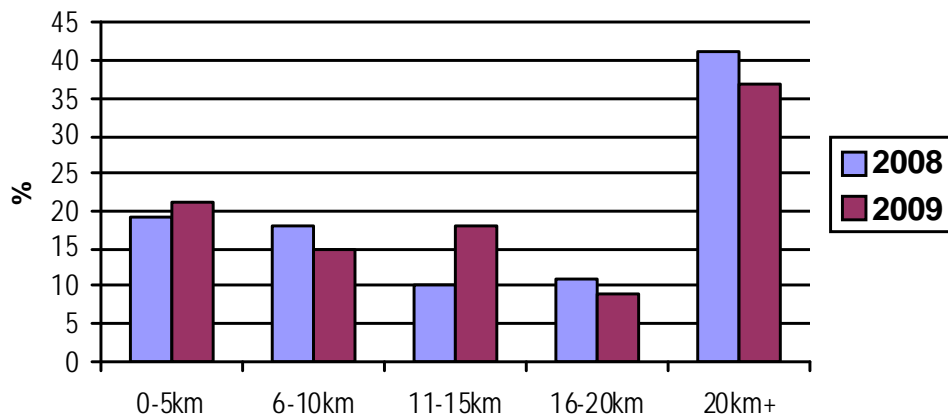
The question "*Have you heard of the One Car Less project*" was asked in the 2009 survey to gauge the saturation of the OCL message to staff. Sixty-three percent of staff indicated they had heard of OCL and 37% had not.

## Distance to work

The survey enabled staff to nominate distance to both a primary and a secondary workplace. The results from both 2008 and 2009 were consistent with approximately one in five (19% & 21% respectively) of respondents living within 5km of their work site/s and just over one third living within a 10km radius. Around 40% of respondents in each survey year travelled more than 20kms to work.

	0-5kms	6-10kms	11-15kms	16-20kms	20+kms	Total
2008	19%	18%	10%	11%	41%	100%
2009	21%	15%	18%	9%	37%	100%

## Distance Travelled to Work



## Car dependence

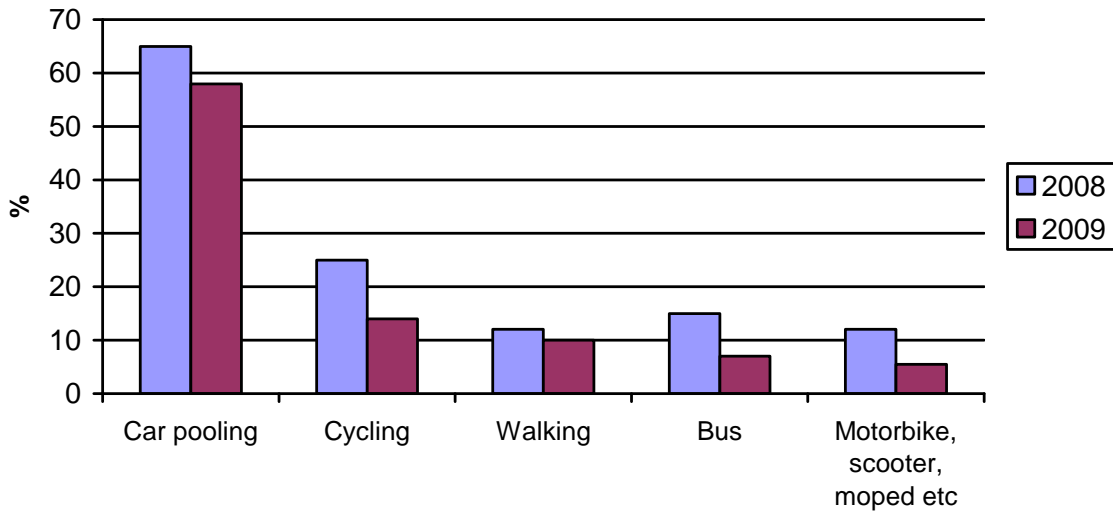
The results for mode of transport used in both 2008 and 2009 were similar and highlight the extent of car dependence of staff. The table below shows that in both 2008 and 2009, 77.3% of all trips to work reported on the week preceding the survey were solo car trips. There was a slight decrease in the numbers who car pool (one or more passengers other than the driver) from 12% in 2008 to 10.6% in 2009. The results for all other modes of transport were small with walking being the next highest at just over 4% in 2009. This was a slight increase from 3.5% in 2008. Similarly, there was a 1.1% increase in cycling, though neither change was statistically significant. As was evident in the previous survey, this survey again draws attention to the fact that despite a significant percentage of staff living within walking and cycling range very few trips were made in these ways.

<b>Modes of travel, expressed as percentage of all trips taken to and from work during the week before the survey</b>			
	2008 (5771 trips)	2009 (4338 trips)	Difference
Car – solo	77.3%	77.3%	0%
Car – 2+	12.0%	10.6%	-1.4%
Motorbike	2.0%	2.0%	0%
Bus	0.8%	0.3%	-0.5%
Taxi	0.3%	0.0%	-0.3%
Train	0.2%	0.0%	-0.2%
Walk	3.5%	4.4%	0.9%
Cycle	3.1%	4.2%	1.1%
Other	0.9%	1%	0

### **Interest in alternative ways to travel to work**

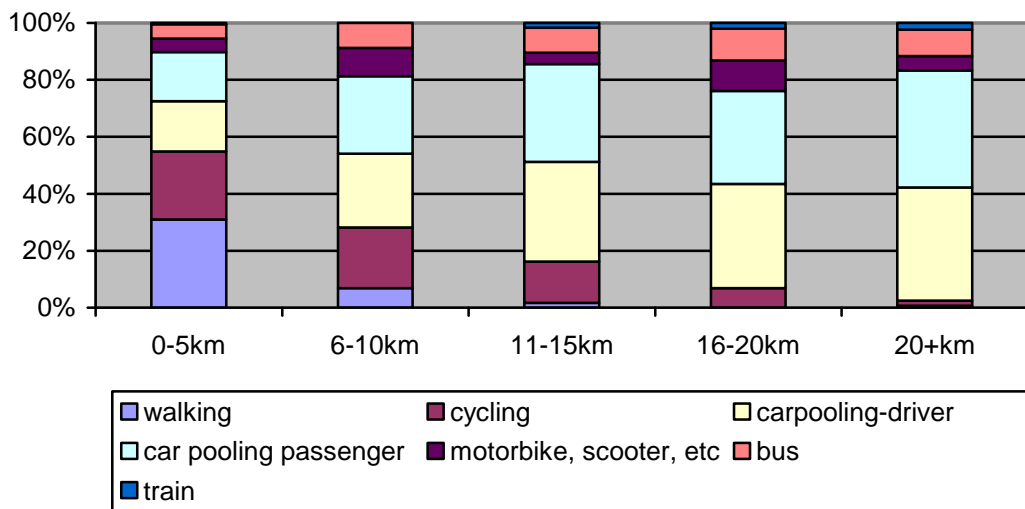
In both 2008 and 2009 considerable interest in alternative modes of travel was expressed. In each year the interest in car-pooling was the strongest with 65% in 2008 and 59% in 2009. Although there was continued interest in other modes of travel, the level of interest decreased in 2009. Twenty five percent of staff were interested in cycling in 2008 however this reduced to 14% in 2009. In 2008 15% of staff were interested in travelling by bus while only 7% were interested in 2009. Whilst 12% of staff expressed interest in coming to work via small motorised transport such as scooter, gopher, moped or motorbike in 2008, only 5.5% were interested in 2009. (Of the latter forms of transport, only the moped would be considered active transport, as the small motor assists, but does not replace cycling). Interest in walking to work remained the same at around 11% each year.

**Percent of alternative travel modes that interest respondents  
(more than one response could be ticked)**

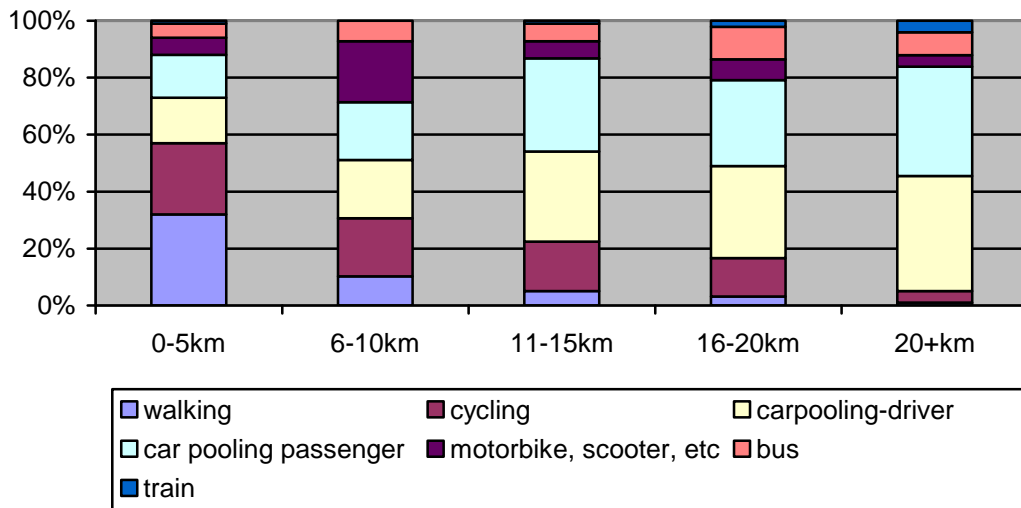


As would be expected, the survey results confirmed that those living closer (under 10kms) were more interested in walking and cycling and those living a greater distance away (20+kms) were more interested in carpooling. These results were consistent for both 2008 and 2009.

**Alternative modes of travel considered by those who drive alone - 2008**



### Alternative modes of travel considered by those who drive alone - 2009



### Factors that influence travel to work patterns

Factors identified as influencing the way staff travel to work are displayed in the below table. The three greatest influences in both survey years was distance (66% & 60%), lack of or infrequent public transport (61% & 55%) and weather (39% & 40%). The barrier with the greatest change is the cost of fuel which decreased from 32% in 2008 to 21% in 2009. Factors contributing to this are discussed later in this document.

Factors which influence mode of travel	% 2008 *	% 2009 *
Distance	66	60
Lack of or infrequent public transport	61	55
Weather	39	40
Unsafe to walk/cycle	36	29
Shopping	34	35
Cost of fuel	32	21
Too hilly to walk/cycle	27	24
Shift work	26	27
Dropping children off at school	22	25
Healthy Lifestyle	22	24
Environmental concerns	21	19
Carrying materials	20	21
Others	16	3
Public transport too expensive	15	12
AHS car which should be available for others	4	3
Disability	3	3
No licence	1	1

This is a % of the number of respondents for each survey year (2008 n=1174; 2009 n = 902).

## One Car Less Site Audits

Eight audits were completed between June and December 2009. These were from The Tweed Hospital, Byron District Hospital & Community Health, Nimbin Multi Purpose Centre, Ballina Hospital & Allied Health, Maclean District Hospital & Community & Allied Health, Coffs Harbour Health Campus, Lismore Population Health, Planning & Performance (Uralba St) and Wauchope District Hospital. Results of these audits can be seen in the table below.

A wonderful example of an outcome of these audits includes the installation of a staff shower at one of the participating sites. Negotiations are also currently underway to improve the bike parking facilities at two of NCAHS major hospitals.

Shower being installed at one worksite across NCAHS.



**Table 1: Feedback from One Car Less Site Audits**

Site	Bike Racks\ No of holders	Where racks?	Available staff/ public	Used	Secure Storage	More Racks needed	Staff Shower	Staff Lockers	Preferential Parking
Tweed	2 (14)	Front and side door hospital	Both	Yes	24hr camera surveillance (1)	No	6 / Yes	Yes	No
Byron	1 (6)	Front Hospital	Both	Yes	Yes	Yes	2 / Yes	Yes	No
Nimbin	0	-	-	-	No	No	Yes	Yes	No
Lismore PHPP	0				No	Yes	No	Yes	Yes
Ballina	1	Community Health	Both	Yes	No	Yes	6 / Yes	Yes	Yes
Maclean	0	-	-	-	-	Yes	2 / Yes	Yes some staff	No
Coffs	2 (18)	Entrance & Cancer Institute			Yes (15-20 bike spaces)	No	4 / Yes	Yes some staff	Yes
Wauchope	0	-	-	-	No	No	No	Yes	No

## Comments included on the OCL Audits

Ballina	<ul style="list-style-type: none"> <li>▪ To purchase fixed bike rack to be located in main car park and seeking funding from capital works program</li> <li>▪ More bike racks needed in central &amp; secure position for ED, theatre and amenities staff</li> <li>▪ Staff share lockers but could always do with more</li> <li>▪ Survey cars that park on site is needed</li> </ul>
Byron	<ul style="list-style-type: none"> <li>▪ The existing bike rack is often full and consequently additional bikes end up being chained to railings etc.</li> <li>▪ Bike racks full most often, more is needed</li> </ul>
Maclean	<ul style="list-style-type: none"> <li>▪ All staff not provided with lockers – use filing cabinets/desk drawers</li> <li>▪ On site parking is available for staff at Kooyong (converted tennis court) with an additional car park being funded by Rotary for community &amp; visitors in 2010. Fundraising being progressed. Not suitable for evening/night no lighting provided</li> </ul>
Coffs	<ul style="list-style-type: none"> <li>▪ Secure storage \$15 deposit for key from cashier (15-20 bike spaces available)</li> <li>▪ Shower access after hours from Fleet Desk only</li> <li>▪ All staff not provided with lockers which are small and have no hanging space</li> </ul>

## Cycling Proficiency Training Courses

North Coast Health Promotion organised and supported 20 free AustCycle training courses across the area. Twenty four organisations from the North Coast registered for the free vouchers through the NCAHS with a further five organisations initiating self directed registrations.

Twelve training courses were run for NCAHS staff with 49 staff participating.

All of the scheduled sessions were facilitated by Accredited AustCycle Trainers from Grafton and Coffs Harbour. Since this program commenced there are now two additional trainers based in the Ballina area.

## Web page usage

The number of hits on the One Car Less webpage was not able to be determined, since it was not a discrete website. It was initially intended to collect this data.

This webpage remains current and accessible to staff.



## Discussion

The implementation of OCL has not come without difficulties, especially in an organisation which presents with so many complexities both structurally and geographically. There are a number of aspects of the program which require some further discussion.

### Strength of OCL Local Contacts

One of the strengths of OCL has been the enthusiasm of the OCL Local Contacts. Local Contacts were a key in being able to play an advocacy role and could be reflected in the data indicating that 76% heard of OCL from a staff member. Local Contacts were also able to initiate and coordinate local activities. Significant achievements in terms of both changes to infrastructure and staff travel patterns were made where this enthusiasm was present. The Coffs Harbour Health Campus (CHHC) is a great example of this where over 65 staff pledges were signed, a OCL Site Audit was conducted, four AusCycle cycling proficiency courses were conducted with 13 staff attending and events to promote both Ride to Work and Walk to Work were initiated and successfully implemented. The results of the 2009 NCAHS Staff Travel survey for the CHHC showed that for all trips to work there was a higher frequency of staff reporting to be cycling to work (8% CHHC, 4% NCAHS). By contrast, sites which had no OCL Local Contact also had no staff member pledged to reduce car usage. This could suggest that the role of a local advocate is important in terms of bringing about behaviour change and highlights the importance of having a local driver. It is noted however that there needs to be caution in interpreting this data as it may be that recruitment in completing this survey by the local contact may have had the result of a bias sample in Coffs Harbour.

### Use of NCAHS OHS infrastructure

The Area Occupational Health and Safety Manager was extremely supportive of the OCL program and endorsed its implementation. Given that all sites are required to have an OHS committee, the OHS infrastructure across the NCAHS was an ideal medium for the dissemination of OCL information. However in reality, uptake of the program was dependent on OCL appealing to someone from the local OHS committee and the fact that there was higher management endorsement had limited effect. There has been some success in change of end-of use-facilities through the work of local OHS committees and this is encouraging. Site contacts may need more encouragement and support to follow up the audit recommendations with OHS committees in sites where there have not been improvements. If future health promotion programs were to be rolled out across the Area, consideration would need to be given to both who would be the most likely group within the organisation to partner with and how to encourage better relationships and understanding between both them and health promotion.

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## Is the issue of climate change enough to change individual travel behaviour?

Results of the OCL program suggest that despite people's interest in climate change, barriers to active transport could be strong enough to inhibit many from adopting more active travel modes e.g. over 60% of staff indicated that distance was the biggest influence of their travel patterns to and from work. Whilst approximately 20% of staff in each survey indicated that environmental concerns influenced their travel, there was no evidence to support that travel patterns had changed. One Car Less emerged at a time Health Promotion were looking for ways to integrate work with a climate health theme and an obesity prevention message – in this case active transport reducing impact on the environment and increasing physical activity levels. Literature reviewed at this time provided some evidence of success of like programs and supported the use of incentives such as pledges to bring about behaviour change. The issue of climate change driving changes in behaviour related to individual travel would be worth further investigation. This would need to be done viewing outcomes in terms of both climate change and changes to individual physical activity levels.

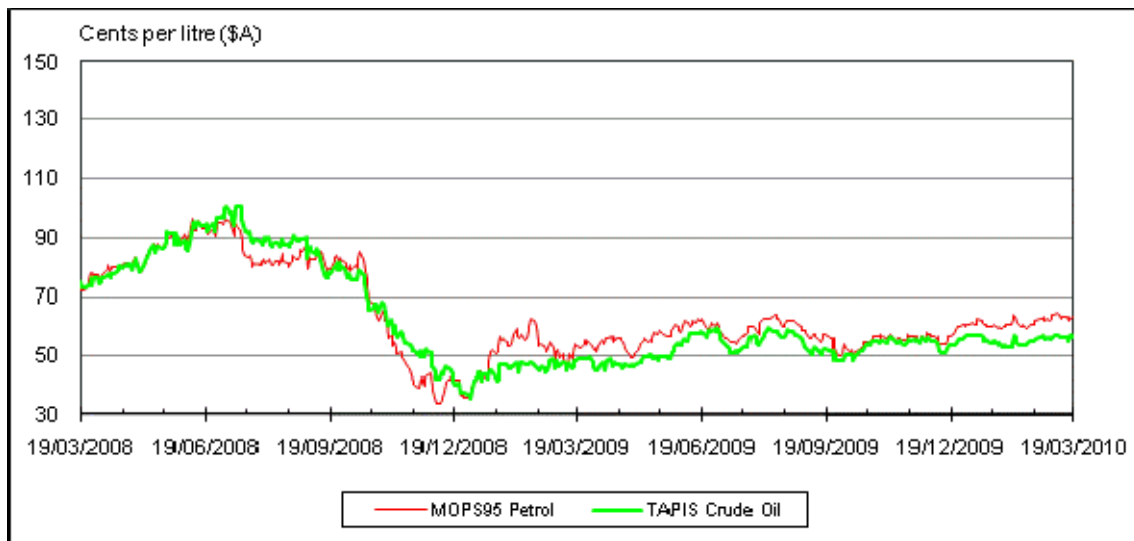
## One Car Less as an overarching banner

In some ways (mostly informal) OCL has evolved to be viewed as an overarching banner for all active transport initiatives within NCAHS. This includes activities such as Ride to Work and Walk to Work which are annual events. If OCL no longer existed, consideration would need to be given to the implications of where these initiatives now sit and the context in which they would continue to be implemented.

## Petrol Prices

At the time of the initial 2008 NCAHS Staff Travel Survey, petrol prices in Australia had reached an all time high. Concern about the costs associated with driving a vehicle could have influenced staff response to questions about intent to use alternative modes of travel. As can be seen in the below graph, the price of petrol in September 2008 was much higher than in October 2009 and may contribute to the decrease in expressed interest in using alternative modes of travel. One in three staff members cited cost of fuel as a factor which influenced their mode of transport in 2008 but only one in five cited this as a factor in 2009. The cost of fuel was the single biggest change in factors affecting mode of travel between 2008 and 2009.

## Comparison Of Singapore Petrol Price (Mops95 Petrol) With Crude Oil Price (Tapis)



**NOTE:** Australia is part of the Asia Pacific fuel market (Singapore is the regional refining/distribution centre) and the relevant market benchmark is Tapis for crude oil and Singapore petrol prices for unleaded petrol (MOPS95 Petrol).

## Saturation of a site

The issue of when do you stop OCL at individual sites has been asked. A main strategy of OCL was to get staff to pledge to reduce solo car use for commuting. This strategy has a limited lifetime since once staff at any one site have been canvassed, then you can no longer continue this strategy. This is so particularly for small and medium sites however this could be different for larger sites where there may be a greater turn over of staff. Even the larger sites however would reach a point where majority of staff were exposed to the OCL message and there would be limited merit in continuing for small numbers of new staff. The OCL program ran for between six months and less than a year which may not have been long enough to bring about behaviour change. Future work should consider more ongoing strategies or a rotation of a number of short term strategies that can have a cumulative effect.

## The 'journey to work' focus of OCL

This program aimed to change travel behaviour of one specific journey i.e. the journey to work. There are many other travel journeys that can take place on any one day. Information obtained in the question about barriers to using active travel to work suggests that whilst these barriers exist, travel patterns may not change. The three largest identified barriers (distance, infrequent/inadequate public transport and weather) are issues that are difficult to change i.e. staff are unlikely to move closer to work just to be able to use active transport. While changes to travel patterns may be difficult with the work journey, there may be other opportunities for individuals to make changes as a part of other daily routines. This could include alternatives such as walking or cycling to the local shop instead of driving. With this

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in mind consideration could be given to expanding the message of OCL to encourage individuals to consider active travel at other appropriate times rather than just to work.

## Tweed Heads TAG

Since the evaluation of this program a Transport Access Guide was developed for Tweed Heads Hospital as part of a Public Health Officer Traineeship. The printing and distribution of the guide will commence in mid 2010.

## Recommendations

The following options are recommended for Health Promotion to strengthen the work already undertaken:

- Continue with the OCL banner for a further 12 months to monitor any further uptake of the program and to provide a context for other active transport initiatives such Ride to Work and Walk to Work.
- Provide support to those Local OCL Contacts who progress their advocacy role and continue to be proactive at their sites. This could be done by Health Promotion staff maintaining regular contact and exploring options to provide assistance for specific requests. An example might be to help organise a car pooling Meet and Greet sessions and to seek approval for some level of financial support for this.
- Regularly gather success stories as they take place and promote them through both the internal media (Connections, Absolutely Positively and Coffs Clarence Newsletter) and external media.
- Review OCL Audit results and actively follow-up outcomes of the comments made in these, with particular interest in if there has been any changes to the placement or number of available bike racks.
- Continue to partner with Sustain Northern Rivers on the North Coast Commuter Mapping Survey which maps local commuter patterns, attitudes and behaviour using data from 16 regional organisations. These maps will provide information to generate strategies to decrease car dependence for all local government areas.
- Continue to promote the Northern Rivers Carpooling program to staff and the community.
- Actively promote the Transport Access Guide developed for Tweed Heads Hospital.
- Consider conducting a third NCAHS Staff Travel to work survey.

In summary, OCL should continue in a reduced capacity with a further review at the end of 2010. At this time any further information from the progress of Northern Rivers Carpooling could be used to inform future directions for the program and discussions could include the capacity to broaden the message to reduce car use beyond the journey to work.

While there have been some difficulties in implementing this program and the outcomes have not been significant, there is some evidence that OCL can generate active travel strategies at the local level such as has been seen at the Coffs Harbour Health Campus. If this is the case OCL may be of use to organisations that are able to generate incentives and leadership, especially if their staff are all located at the one worksite.

## References

1. Garnaut, R. Issues Paper 5, Transport, Planning and the Built Environment, Australian Government's Department of Climate Change., Canberra 2007.  
[http://www.garnautreview.org.au/CA25734E0016A131/WebObj/IssuesPaper5-Transport,planningandbuiltenvironment/\\$File/Issues%20Paper%205%20-%20Transport,%20planning%20and%20built%20environment.pdf](http://www.garnautreview.org.au/CA25734E0016A131/WebObj/IssuesPaper5-Transport,planningandbuiltenvironment/$File/Issues%20Paper%205%20-%20Transport,%20planning%20and%20built%20environment.pdf)
2. Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008 Cycling: Getting Australia Moving: Barriers, facilitators and interventions to get more Australians physically active through cycling, Cycling Promotion Fund, Melbourne.
3. Newman P and Kenworthy J. Sustainability and cities: overcoming automobile dependence. Washington DC: Island Press; 1999
4. Catford, R., (2003), Transport as a Determinant of Health: What Role for the Health Sector? Published by author. Email: [Robert.Catford@dva.gov.au](mailto:Robert.Catford@dva.gov.au)
5. Victorian Department of Health. Active transport fact sheet, Vic Health 2007  
[http://www.vichealth.vic.gov.au/~/\\_/media/ProgramsandProjects/PhysicalActivity/Attachments/active\\_transport\\_fact.ashx](http://www.vichealth.vic.gov.au/~/_/media/ProgramsandProjects/PhysicalActivity/Attachments/active_transport_fact.ashx)
6. Heart Foundation position statement on the built environment and walking
7. Evaluation of Australian TravelSmart Projects in the ACT, South Australia, Queensland, Victoria and Western Australia 2001-2005. Report to the Department of Environment and Heritage and State Travelsmart Programme managers 2005. Australian Government Canberra.