



Department for Planning and Infrastructure
Government of Western Australia



Couch Potato...or Gym Junkie??



...are large increases in Active Transport
(TravelSmart) sufficient to meet 'Find 30'
targets?



Colin Ashton-Graham and Honor Putland

It's how you get there that counts

•Presented by Colin Ashton-Graham and Honor Putland, Be Active Conference
Adelaide, 14 October 2007



Overview of Presentation

1. **What we already know** – Walking and Cycling contribute to Physical Activity
2. **The Intervention** – TravelSmart increases walking and cycling
3. **New Analysis** – TravelSmart moves an extra 3.1% of the population to 'Find 30' from Active Transport alone
4. **Key Question** – Is the extra Active Travel being done by Gym Junkies (little benefit to public health) or Couch Potatoes (significant benefit to public health)?
5. **New Research** – To address Key Question

This presentation focuses on how large increases in Active Transport realised through the TravelSmart program will contribute to WA's physical activity targets.

The presentation covers the following:

- **What we already know** – the fact that walking and cycling contribute to physical activity
- **The Intervention** – The TravelSmart Household program and how it results in increases in walking and cycling
- **New analysis** – findings that TravelSmart moves an extra 3.1% of the population past the 'find 30' benchmark from Active Transport alone
- **A key question** – Is this extra Active Travel being done by: '*Gym Junkies*' (sufficiently active individuals), making a small contribution to public health, or by '*Couch Potatoes*' (insufficiently active individuals), providing significant public health benefits
- **The presentation will focus on the new research conducted in order to address this question.**



1. What we know...

- **The World Health Organisation's Transport, Environment and Health program states that:**

'Sedentary lifestyle, one of the two most important risk factors for non-communicable disease and early mortality in Western populations is associated with the use of motor vehicles. There is a need to promote healthy and sustainable transport systems for human health.'

- **Marmot states that:**

'We can make it easier or harder for people to exercise. We can create conditions where it is easier for people to build activity into their daily lives...we do not just say "Don't be a couch potato - exercise".'

Michael Marmot is a Professor of Epidemiology and Public Health and Director of the International Centre for Health and Society at the University College London.



•The scene for this research can be set with 2 very pertinent quotes: The first highlights a problem, and the second, addresses the solution to that problem

•The World Health Organisation states *'Sedentary lifestyles and associated early mortality is strongly linked with the use of motor vehicles so there is a need to promote healthy and sustainable transport systems for human health'*

•And Professor Michael Marmot from the UK states *'We can make it easier or harder for people to exercise. We can create conditions where it is easier for people to build activity into their daily lives...we do not just say "Don't be a couch potato – exercise'*

•The research presented will focus on how the TravelSmart program provides an effective *solution* to the problem of *Physical Inactivity*.



Physical Activity Policy in WA

- 42% of the population in WA are **not** sufficiently active (1999)
 - Declining to 45% in 2002
- WA Physical Activity Taskforce target set for 2001-2011
'5% point increase in population sufficiently active'

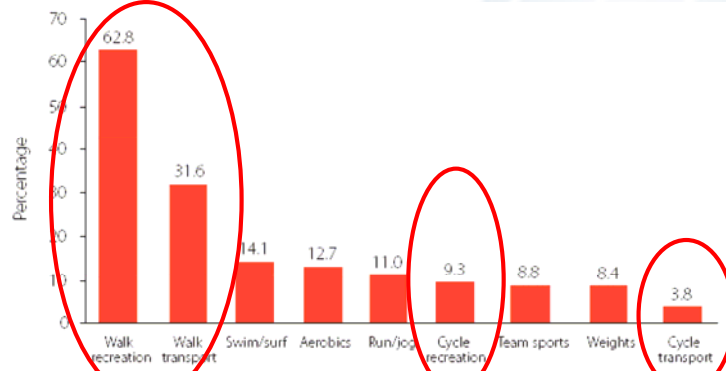


- The National Physical Activity Guidelines state that 30 minutes of moderate intensity physical activity on at least 5 days of the week are sufficient to provide health benefits.
- Levels of physical activity in WA have been declining in recent years
- In order to address these low, and declining activity levels, the WA Premiers Physical Activity Taskforce set a 10 year target of achieving a 5% point increase in the population who are deemed sufficiently active.



Active Transport – the answer to inactivity?

- **Active Transport (walking and cycling) provides an enormous range of health benefits and is a major contributor to physical activity**



Participation in Physical Activity

It's how you get there that counts

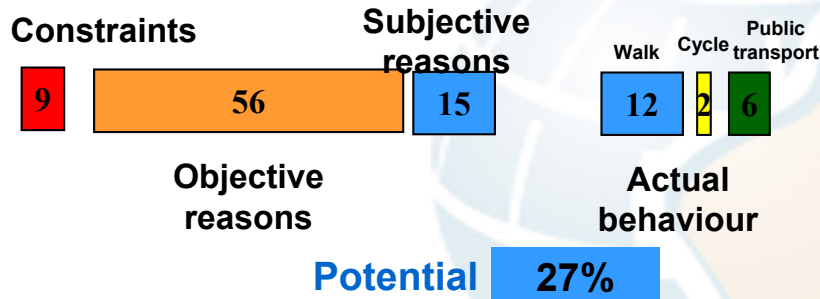


- **One of the ways in which these levels of Inactivity can be addressed, is through increases in Active Transport.**
- **Active Transport, such as walking and cycling, provides a range of health benefits.**
- **This graph shows the types of physical activity currently being undertaken by people in WA.**
- **Walking and cycling, both for transport and recreational purposes feature strongly as some of the most popular types of physical activity within the state.**



Potential for Change

- Travel analysis demonstrates a very large potential for increases in Active Transport



- 10% of all car trips are less than 1km
- Walking could more than double from 12% of trips to 27%
- People already commit 1 hr/day on average to transport and currently only 14 mins of this is active

WA research demonstrates that there is a huge potential for changing behaviour – from driving to modes of Active Transport.

- In the graph shown, the potential to change car trips to walking is demonstrated.
- Of all trips, only 20% are made by non-car modes such as walking, cycling or public transport.
- Examining every car trip shows that:
 - Just 9% of all trips are constrained to the car (for reasons such as carrying heavy loads)
 - And 56% of all trips are deemed too long to be easily walkable (longer than 2km).
- The remaining 15% of all trips (almost 1 in 5 car trips) could feasibly be changed to walking, more than doubling walking trips from 12% to 27%.

We also know that:

- 10% of all car trips are less than 1km in length
- And that people already commit 1 hr/day on average to transport - currently only 14 minutes of this is through active transport modes

So there is significant scope for behaviour change in this area and information and motivation can help people to choose walking as a mode of transport where possible.

Department for Planning and Infrastructure
Government of Western Australia

2. The Intervention

TravelSmart Household

An individualised marketing program delivered in the household setting focussing on encouraging and supporting residents to change trips made by car to walking, cycling or public transport.

Health Promotion Models

- Broad reach communication
- Individual counselling

Relationship Marketing

- Recruiting participants
- Ongoing behaviour change opportunities

Community Based Social Marketing

- Addressing barriers and benefits

TravelSmart

•The research presented is based on the outcomes of the TravelSmart Household program, a broad reach individualised marketing program that is delivered at the household level.

•By providing a suite of localised and personalised materials and services to residents, the program encourages people to change trips usually made by car, to walking, cycling or public transport trips.

•The program is delivered using an ‘integrated model’ including principles gathered from health promotion models, relationship marketing and community based social marketing - including such tools as individual counselling, addressing behaviour change barriers, modelling behaviour and the use of behaviour change prompts.



TravelSmart Household

- Delivered to 350,000 residents between 2000-07
- Large travel dataset of 14,000 people including 45,000 trip records

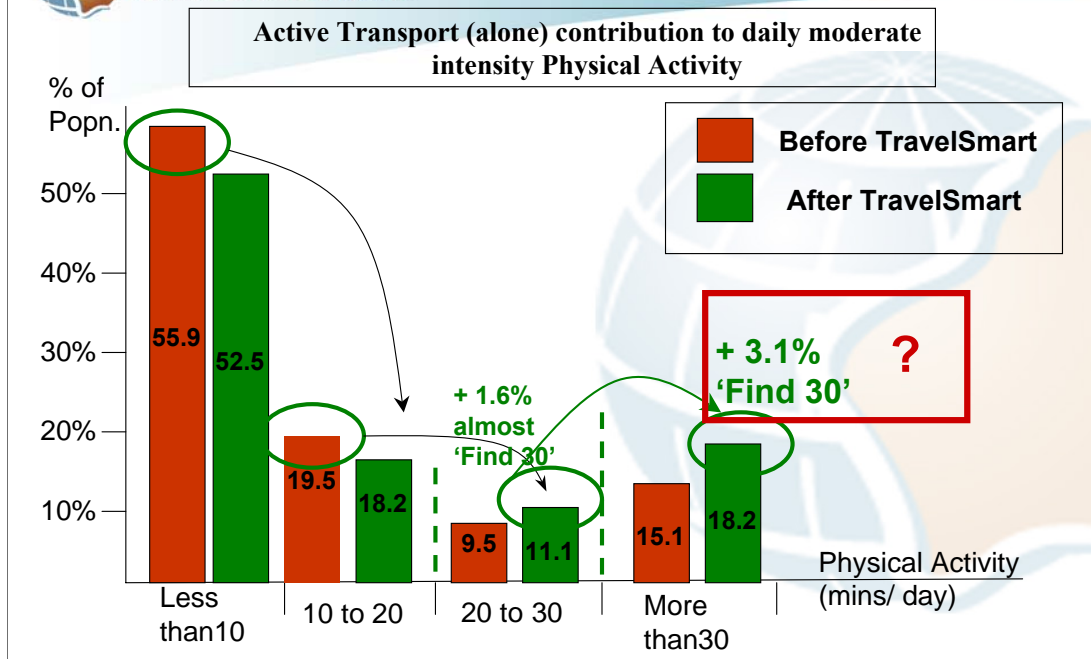
Program Outcomes

- Increase of 2.3 mins physical activity per person/day
- Walking participation increases:
 - Males 50.0% ► 60.4%
 - Females 52.2% ► 65.8%

- The TravelSmart Household Program has achieved broad reach across Perth, with 350,000 residents participating in the program between 2000-2007.
- TravelSmart Household research has captured a large dataset (including detailed travel information for 14,000 residents totalling in excess of 45,000 trip records)
- Program results demonstrate significant increases in Physical Activity by TravelSmart Household program participants
- Recent research conducted shows increases of 2.3 minutes of physical activity per person (this increase is an average across the target population including those who took part in TravelSmart and those who declined the service.
- Much of the increase came from people taking up walking. The proportion of the population walking on the travel survey day increased from 50% to 60% for males and 52% to 66% for females.



3. New Analysis



•Travel datasets readily show an overall increase in Active Transport. The extra 2.3 minutes per person (on average) initially appears to be a small increase.

•New analysis of this data shows that the increases in active transport are distributed across the population in such a way that large increases in physical activity are recorded against the benchmarks of daily activity levels.

•The time that each person spends on Active Transport each day shows without TravelSmart, 15% of the population are sufficiently active due to their travel alone. Another 9.5% get between 20 and 30 minutes per day from walking and cycling.

•When TravelSmart is added, an extra 4.7% of the population move into the higher categories (more than 20 minutes per day) of Active Transport.



4. Key Question

Are the 3.1% of the population who go from insufficient to sufficient physical activity levels as a result of TravelSmart:



Gym Junkies?

Already 'Finding 30' through other activity

Outcome: Minimal public health benefit as already sufficiently active



Busy Bees?

A mix of activities but not yet 'Finding 30'

Outcome: Significant public health benefits as moving from insufficient to sufficient activity



Couch Potatoes?

Doing little or no other physical activity

Outcome: Considerable public health benefits as moving from sedentary to some or sufficient activity levels

...and does the TravelSmart inspired activity displace participation in other activities?



It's how you get there that counts

- The travel dataset could (equally) overstate or understate the overall impact of TravelSmart on general physical activity levels.
- The key question concerning the increases in activity resulting from the implementation of the TravelSmart Household program, is whether these increases are being done by:
 - Gym Junkies
 - Busy Bees or
 - Couch Potatoes
- If TravelSmart participants are already sufficiently active – then TravelSmart would add little health benefit
- Even if insufficiently active people adopt TravelSmart activities there would be little benefit if they replaced their gardening or team sports activity with Travel (this is called a rebound effect).
- What is needed is a full analysis of ALL activity patterns of TravelSmart participants.



5. New Research

- **Survey:** Used basic version of Active Australia Survey to track general activity levels of subjects pre and post TravelSmart implementation
- **Subjects:** 210 subjects recruited via random selection of households, adult with most recent birthday.
- **Response Rates:** Both before and after 78-80%
- **Timeline:**
 - Pre survey - April/May 06
 - Intervention - June - July 06
 - Post survey - May 07
- **Scope:** **All** activities undertaken in previous week



It's how you get there that counts

- New research was conducted to further investigate these increases in physical activity resulting from TravelSmart Household implementation.
- The key questions from the Active Australia survey (sessions and duration of participation in ALL activity types in the past week) were deployed for a panel of residents before and after TravelSmart.
- The net panel (respondents both before and after) resulted in 210 survey returns. These respondents included active participants in TravelSmart and those who declined to participate. The analysis represents a population-wide response (for the whole target population). Response rates were 78-80%.



Baseline Data

- Demography matched well to ABS for the areas (small weighting applied)
- Inactive: No sessions of moderate or vigorous physical activity
- Sufficiently Active: Either
 - More than 150 minutes mod activity over 5 or more sessions
 - More than 60 minutes vigorous activity
 - 150 minutes of moderate activity plus 2 x vigorous activity
- Physical Activity level matched well to State-wide Survey

	TS Before	State Av (02)
Inactive	10	13
Insufficiently Active	37	32
Sufficiently Active	53	55

- Active Australia definitions were applied to the analysis of the data. The TravelSmart baseline was broadly similar to the WA average.
- The physical activity levels of the TravelSmart Household program before surveys and state-wide Active Australia survey results were very similar.



Results – TravelSmart impacts on overall Physical Activity Levels (% of population)

	Before	After	Change
Inactive	10%	8%	-2%
Insufficiently Active	37%	36%	-1%
Sufficiently Active	53%	56%	+3%

✓ + 3% points of population move from insufficient activity levels to sufficient activity levels

✓ Decreases in percentage of population in both inactive and insufficiently active groups

✓ Other activities are not displaced



It's how you get there that counts

- The overall results, using the Active Australia measure, moved 3% of the population from inactive to insufficiently active groups to result in an increase in the sufficiently active group, from 53% to 56%.
- A scan across the participation in each activity type (not shown here) reveals small changes in most activity types and a LARGE increase in alking.
- TravelSmart is the dominant influence and there are no rebound effects.



Large travel dataset (14,000 pn) ► Active Transport increases

+

Small Active Australia dataset (210pn) ► +3% points of sufficient activity

=

TravelSmart participants include ‘Couch Potatoes’ and ‘Busy Bees’

=

TravelSmart has a profound (positive) impact on public health

- WA Adult Survey (2006) shows increased walking ► increased sufficient Physical Activity
- TravelSmart has been delivered to 20% of the WA population.
- Is a large part of this population wide result due to TravelSmart?

•Although the physical activity data obtained using the Active Australia collection methods was relatively small (210 persons), the data set for TravelSmart is very large (14,000 persons) providing strong support for findings

•The Active Australia research measures suggest that TravelSmart adds 3% points to the portion of the population who are ‘Sufficiently Active’

•TravelSmart participants are more likely to be couch potatoes. As such the benefits from TravelSmart implementation will have a profound impact on public health.

•WA data in the 2006 Adult PATF survey shows an increase in sufficient physical activity driven by large increases in walking. TravelSmart has now been delivered to more than 25% of the metro population and may have had a significant impact on these measures.



Conclusion

- This research suggests that TravelSmart is a major contributor to the 'cure' for inactivity (achieving 60% of the PATF target)
- There is sufficient evidence to adopt TravelSmart as a major component of the WA physical activity strategy.
- A metro-wide intervention (building upon work completed to date) could be delivered with \$30 million (over 5 years) and could reduce health care costs by \$100m.



- The deployment of the TravelSmart intervention into a local population delivers a 3% point increase in sufficient activity. This is 60% of the WA Physical Activity Taskforce target (3% of 5%).
- The TravelSmart program has been delivered on a large scale and across a wide range of demographics.
- A further roll out to the whole Perth metro population would cost \$30 million. PATF analysis shows a \$96 Million per annum saving in health-care costs by meeting the 5% point increase.
- Analysis of TravelSmart sustainability shows a minimum 5 year durability of the result.
- The potential long-term cost savings of TravelSmart achieving a 3% increase in physical activity are:
 - \$43.9m (savings for PATF target) x 3/5 x 80% of whole population x 5 years = \$105m
 - A benefit:cost of 3:1 in an area of intervention where any evidence of success is hard to find (and associated environmental and transport benefits).



- This cartoon depicts a rather overweight gentleman expressing his concerns about transport, oil and war...He prays for a miracle that would provide clean air and good health - and is provided with an appropriate response...a bicycle.
- So, in summary, more walking and cycling certainly look like 'the' solution
- But as health professionals we can't just tell people to exercise...
- TravelSmart addresses the barriers to physical activity by providing relevant information – or the where and how, and motivation, or the when?...now!