

The Effectiveness of the TravelSmart Individualised Marketing Program for Increasing Walking Trips in Perth

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Abstract

The Perth Metropolitan Region Pedestrian Strategy supports behaviour change programs that inform and motivate people to replace car trips with walking trips.

Individualised marketing is a major travel behaviour change program being applied in Perth. It is one of a number of complementary programs included in the Department of Transport's Travelsmart 10 Year Plan to replace car trips with the travel alternatives (walking, cycling and public transport trips).

An individualised marketing trial was applied to 380 households in the City of South Perth during 1997. It identified people wanting information on the travel alternatives and provided motivation and localised information to promote the use of them for all types of trips. Also current users of the alternative modes were rewarded for their behaviour. Evaluation surveys showed a 10% reduction in car driver trips with walking increasing by 16%. There was also an increase in travel based exercise including people previously not walking or cycling. Two surveys 12 months and two years later showed these changes to be sustained.

Based on the success of this pilot program, the first stage of a large scale program covering the City of South Perth was delivered between February and June 2000. The TravelSmart 10 Year Plan includes a staged program to expand individualised marketing to cover half of the Perth Metropolitan Region.

This paper outlines how the individualised marketing program has been applied in Perth focusing on the results to date and the potential for increasing walking trips.

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Introduction

The need to change the mode share for travel in the Perth Metropolitan Region is clearly enunciated as a set of targets in the region's Metropolitan Transport Strategy. The traditional mobility management approach to achieve mode change has been through the provision of transport services and infrastructure, including pricing, and the longer term land use policies. The application of a behavioural approach, especially in a car dominated city like Perth, has not, until recently, been in the transport planner's tool box.

This paper outlines how a behavioural approach known as individualised marketing (developed and delivered by Socialdata Australia under contract to Transport) has been applied through a pilot test and large scale application in the City of South Perth - an inner city municipality. The paper focuses on the effectiveness of individualised marketing for increasing walking in the community.

Transport Policy Setting

The Metropolitan Transport Strategy (MTS) provides the overall policy setting for the need to achieve a better balance in the use of the motor car. The reasons for this better balance are common for most developed cities through out the world. The MTS provides a vision for a livable city, of which transport is a contributor, and is supported by a set of principles and targets (Department of Transport *et al*, 1995).

The relevant MTS targets for the behavioural approach are:

- The car occupancy target is to increase car occupancy from 1.21 in 1991 to 1.25 by the year 2029 (the trend is to an occupancy rate of 1.13 by 2029).
- The trip length target for personal trips is to reduce the average trip length from 8.4 km in 1991 to 7.2 km in 2029 (the trend is to 10.7 km in 2029).
- The mode share targets are shown in Figure 1, which clearly illustrates the aim of redistributing car driver only trips across the preferred modes.

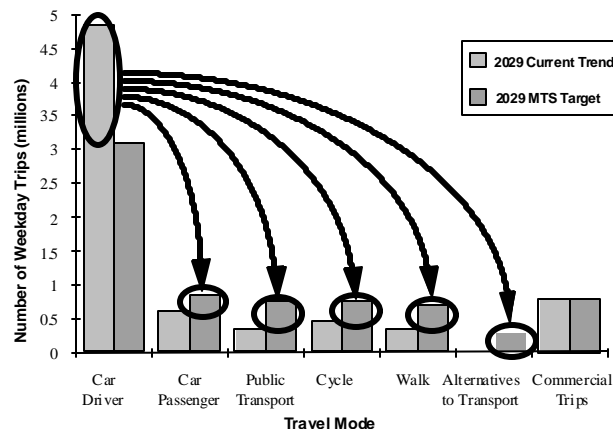


Figure 1. Metropolitan Transport Strategy Mode Share Targets

Existing Behaviour Trends

A way of describing the way a community travels is the percentage of trips for which they use each mode (main mode only) - referred to as “mode share”. Measured behaviour change from travel surveys in 1986 and 1997 from a random sample of the population in the City of South Perth, in terms of mode share of trips, is shown in Figure 2. Walk trips are defined as walking between the origin and destination (eg. home to shop). Walking trips do not include for example the walk to the bus stop to catch the bus, which is counted as a public transport trip.

Figure 2 shows the growth in the mode share of “car as driver”, at the expense of “walk”, “cycle” and “public transport”, while “car as passenger” remained constant. Walking as a mode share declined from 15 percent (174) to 12 percent (139) of all trips. Expressed another way walking trips declined from an average of 3.3 per person per week in 1986 to 2.6 per person per week in 1997.

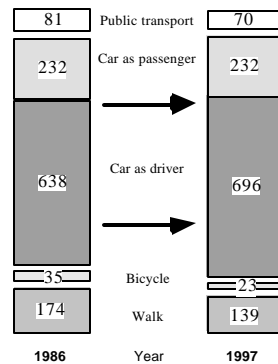


Figure 2. Previous Change in Mode Choice (trips/person/yr) in South Perth

The change in mode share has occurred within other mobility measures that have remained constant (refer to table 1).

The changes in travel behaviour over this time coincides with the community health observation that “over the last few decades the amount of physical activity in our day-to-day lives has decreased significantly” (Department of Health and Family Services, 1998, p5).

Individualised Marketing for Travel Demand Management

The traditional approach to changing community behaviour, especially in the health promotion area, is social marketing (Andreasen 1995, p7 in Brog, W. Erl, E. Funke, S. James, B. 1999). However, Brög (1998) argues traditional social marketing focussed on target audiences is not appropriate to change travel behaviour on the basis that:

- people’s travel decisions are based as much on their environment as their attributes;
- people’s misperceptions of cycling and public transport are best improved through direct experience of the modes; and

- people need help to identify which trips can be used by alternative modes, which is different for each household and each household member.

Application of an Individualised Marketing Pilot Program to South Perth

To test the validity of individualised marketing in Perth, a rigorous measurement program was applied. The first project was a pilot with a small random sample (380 households) in the City of South Perth. The project had three distinct stages:

- a benchmark travel survey of existing behaviour (August 1997);
- implementation of the individualised marketing program (Sept-Oct 1997); and
- travel surveys to measure travel behaviour after the program – immediately after (Nov 1997), one year later (Sept 1998) and two years later (Feb 2000).

The first two after surveys also contained two separate control groups. This was undertaken to identify any changes that may have occurred due to effects outside of the marketing intervention. The sample size for the twelve month survey was 206 households for the marketing group and 207 households for the control group. The only maintenance marketing function performed was the circulation of a newsletter to participants outlining the results of the marketing intervention.

The third after survey contained only the respondents of the second after survey in the South Perth marketing group. There were no further maintenance marketing activities other than some local advertisements advising the commencement of a large scale marketing program in February 2000 (this did not commence until after the third survey had been completed).

Pilot Program Results

An examination of the results of the evaluation surveys in relation to mode choice, mobility, travel time and trip purpose are of most interest to walking.

Mode Share

The mode share, expressed as the proportion of trips per person per day, shown in Figure 3 shows the extent of the behaviour change achieved by the marketing intervention. The share of trips people make by the different modes are shown as walking trips, bicycle, car as driver, car as passenger and public transport.

Car as driver trips declined from 60 per cent of all trips to 54 per cent and a further 1per cent to 53 per cent 12 months later. Public transport trips rose from 6 per cent of all trips to 7 per cent, cycling trips doubled from 2 per cent to 4 per cent of all trips and car as passenger increased from 20 per cent to 21per cent. All three modes were the same 1 and 2 years later.

Walking trips increased from 12 per cent to 14 per cent and a further 1per cent 12 months later. This explains why the car as driver trips changed from 54 per cent to 53 per cent of all trips. This change reverted back to the initial change after 2 years. It is also interesting to note that walking trips increased in all age groups with no special tendency.

The sustained behaviour change is important for justifying funding for large-scale marketing interventions, especially in terms of “non-built” solution for strategic asset management.

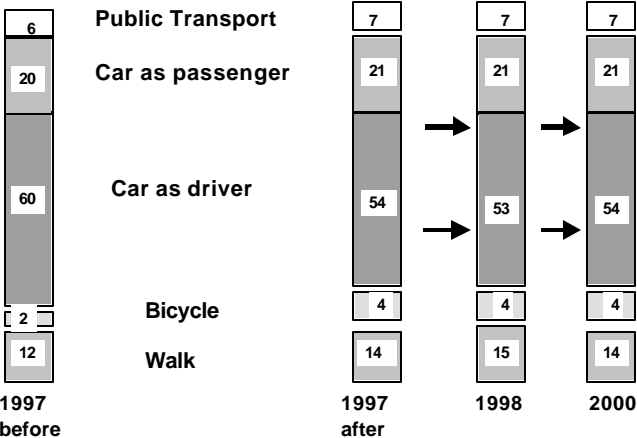


Figure 3. Change in Mode Choice (% of trips/person/day)

If we compare the results back to 1986 we see the trial effectively turned back the clock 11 years (refer to discussion relating to figure 2).

Time Engaged in Physical Activity

The prime measure of improved health benefits is increased time spent engaged in physical activity (ie walking and cycling). The average increase in time spent in physical activity as part of people’s travel increased from twelve minutes per day to sixteen minutes per day immediately after the marketing intervention (refer to figure 4). Twelve months later this had increased to 17 minutes per day.

The time spent walking increased from 10 minutes per day to 12 minutes per day immediately afterwards and a further 1 minute per day 12 months later. This additional minute was added to walking from car as driver trips which is in direct alignment with public health policies identifying reduced community physical activity due to increased car use. These figures apply to the whole sample population so it includes people who chose not to change their behaviour.

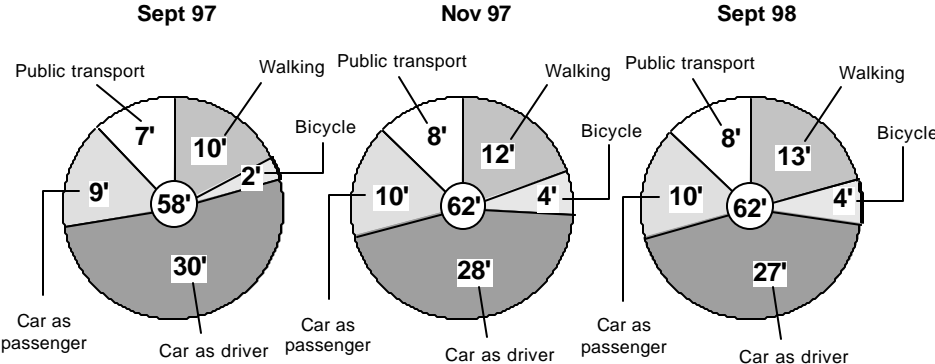


Figure 4. Average number of minutes spent using each mode per day

Mobility

The aim of the marketing intervention is to achieve changes in travel modes but not through restraining mobility. The surveys showed that Individualised Marketing made minimal change to individual mobility measured by the number of activities people visited each day and the number of trips they made (see table 1).

The two variations are travel time and overall travel distance. The increase in travel time is due to greater use of alternative modes (shown in Figure 3). The reduction in travel distance is coupled with the greater use of the alternative modes and a greater propensity to access local activities, such as shops. This is consistent with an increase in the number of trips made entirely within the City of South Perth from 41 percent to 45 percent of all trips.

Table 1. Mobility Indicators

Measure (per person per day)	1986	Before Survey Sept 1997	After Survey Nov 1997	1 yr After Survey Sept 1998	2 yrs After Survey Feb 2000
Activities visited	2.0	2.0	2.0	2.0	na
Travel time	61 minutes	58 minutes	62 minutes	62 minutes	na
Trips	3.4	3.4	3.4	3.4	3.4
Distance (km)	30 km	27 km	25 km	25 km	na

Trip Purpose

Figure 5 shows that the higher number of walking trips in the group with individualised marketing (after group) is mainly due to increased trips for shopping and personal services, for education and for leisure. Typically many of these facilities are local allowing short car trips to be replaced with walking trips.

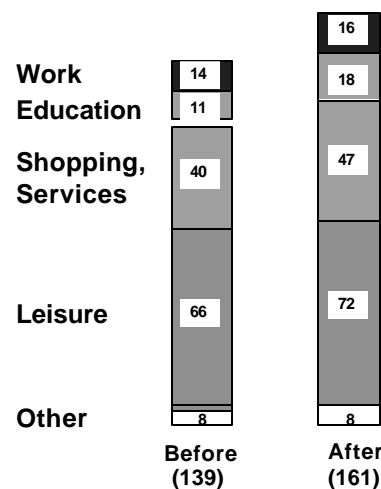


Figure 5. Purpose of Walking Trips(trips/person/yr)

Application of a Large Scale Program to Perth

The successful pilot program provided the justification, including a cost benefit analysis that included health benefits from additional time spent walking and cycling, to obtain funding for a large scale application of individualised marketing for the entire population of the City of South Perth - 35,000 people.

The large scale program was delivered between February to June 2000 with an evaluation survey conducted in October 2000 (the results of this survey were not available at the time of preparing this paper). All participants, including those not interested in participating in the marketing program, are included in the evaluation survey to measure changes in travel behaviour. The evaluation survey also includes a control group from the adjacent municipality of Victoria Park so that corrections can be made for any outside influences.

How Does Individualised Marketing Work ?

The Individualised Marketing process (shown in figure 6) entails people being segmented into three main groups through their responses to six or so simple questions asked over the telephone. This then leads to a different implementation program for each household.

In the large scale program about 15,300 out of 17,500 City of South Perth households with names, addresses and telephone numbers could be identified (T). Telephone contact was made with each household - 94 per cent could be reached (S).

After answering the questions households are divided into three groups:

1. **N = not interested**; 39 per cent were in this group and these people were left alone. This is important because it saves scarce resources being spent on these people. This approach varies from normal mass marketing which aims at all households in the hope that those interested will catch the message.
2. **R = regular users** of walking, cycling and public transport; (15%) these people were given a reward that in turn led to these people using these modes more.
3. **I = interested**; 40 per cent were in this group and interested in starting to use alternative modes. These people were given information they requested and were offered a home visit if it seemed necessary. People having a home visit were sometimes given the opportunity experience public transport with a “test ticket”.

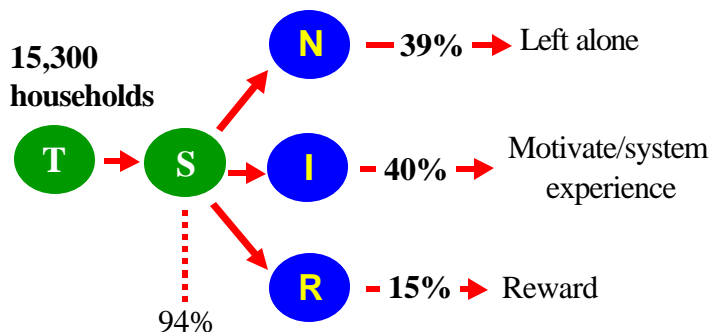


Figure 6 Individualised Marketing Process

For all people in the **R** and **I** groups, people could select from a range of localised travel information. This is discussed further in the following section.

Large Scale Program – Early Results

The evaluation survey of a random sample of residents within the City of South Perth was conducted in October 2000 to measure travel behaviour change. The results of this survey were not available at the time of preparing this paper. However, measures of interest in the program from participation, information requests and comments received from participants together with bus boardings from the Transperth electronic ticketing system provide early indications that the large scale program is likely to achieve increases in walking at least to the levels achieved in the pilot program.

Participation and Information Requests

Figure 6 shows that 55 per cent of households (8,465 households) participated in the program. This is a 20 per cent increase compared to the pilot program where 46 percent of households contacted participated.

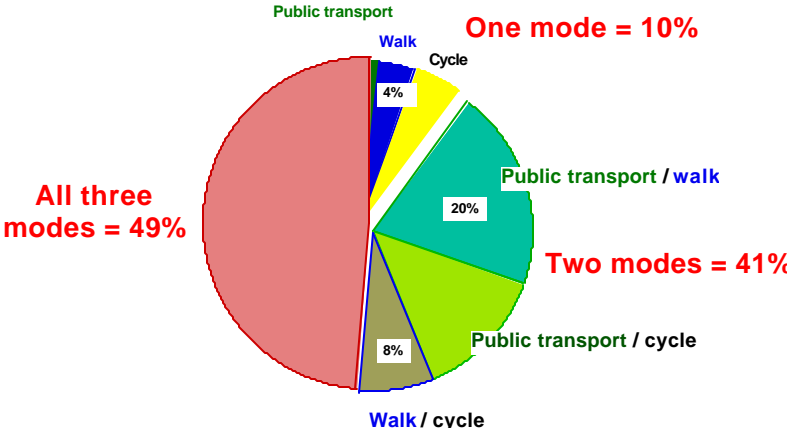
Almost all of the households that participated in the large scale program (7,795 households) requested information by completing and returning a service sheet. Approximately 81 per cent of information requests included walking. The majority of requests for walking information also included a request for information on cycling (8% of requests), on public transport (20% of requests) or cycling and public transport (49% of requests). Only 4 per cent of requests were for information only on walking. This indicates that the vast majority of people are interested in walking are also interested in using at least one other mode. The link particularly with public transport is apparent when we consider that 69 per cent of requests for walking information also included a request for public transport information.

This suggests that campaigns that promote public transport may also benefit from the inclusion of walking and visa-versa. This approach has been incorporated in events such as

Figure 7. Information Requests

the annual Walk to Work Day run by the Pedestrian Council of Australia (coordinated in Perth by the National Heart Foundation WA Division in partnership with Transport and other sponsors).

The walking information provided was focused on health as a motivator. Approximately 2,100



“Heart Movers Kits” and 1,200 “Be Active Walk It” brochures were requested and personally delivered to households. A local access guide was also popular amongst people requesting information on walking, with a total of 8,600 being distributed. The materials were packaged in a TravelSmart shoulder bag suitable for carrying items while walking. Linkages with the health sector (National Heart Foundation WA Division) and local government the (City of South Perth) to assist with the preparation of these materials was an important aspect of the program reflecting its cross-sectoral nature.

Households also had the option of requesting a personal visit by consultants with practical skills and knowledge on relevant aspects of walking and cycling including the availability of local facilities. Information materials were delivered personally by these consultants to 2,601 households in relation to walking and cycling so that possible questions could be answered at once. Approximately 2,073 of these requests involved walking. The number of requests for personal visits far exceeded expectations.

What the participants think

All residents that received home visits also received a short questionnaire asking what they thought about the TravelSmart program. Almost one third of the households contacted about walking and cycling responded. A total of about 758 questionnaires were returned from 2,600 participants. About 90 per cent of the responses were positive.

The following are a selection of comments received, which illustrate that individuals were motivated by the project, initiating changes in travel behaviour.

“ My friends started to walk just thanks to your walking kit, before I was not able to convince them to do it. Now they do, twice a week! We are not young ones they are 58 and 67 I am 65!”

“I found your material on walking most useful – I now frequent the local shop (I have cancelled newspaper delivery and walk to collect my paper). I walk a friends dog morning and evening and walk with a friend to the Boat Shed/Coode St jetty several times a week.”

“It certainly makes you think again about all those short car trips and realize that every trip counts. ... Later ... At that point (it being 2.50) I felt guilty about using the car to pick my son up from school – so I walked! Have started something now. Always said he liked to walk there and drive home – not now.”

“The kit provided is so easy to follow and I found it motivated me to walk to work in the city each day.”

“It gave me information I required and also inspired me to get walking. Thanks.”

“Its reminded me that things are pretty close and I can walk or ride there fairly fast.”

Public Transport Boardings

A further measure of behaviour change is the increase in bus boardings made within the City of South Perth. Monitoring of bus boardings and transfers through the Transperth electronic ticketing system from February to June 2000 compared to the same period in 1999 indicate a 25 per cent increase in patronage. This takes into account a small increase in patronage across the entire Transperth network.

It is noted that this increase exceeds the results achieved from the pilot program, although improved public transport information including 180 bus stop information stands were installed that have timetable information specific to that stop. Nevertheless, this increase in public transport suggests there are potential synergies associated with a large scale program. The same synergies are expected to apply to walking particularly when we consider that walking represents the greatest behavioural change opportunity (eg. mode share of 12 per cent compared to 6 per cent for public transport and 2 per cent for cycling).

Conclusions

This paper demonstrates that individualised marketing is an effective means of increasing the mode share of walking trips in Perth, in line with the MTS targets, without constraining mobility. This includes a 16 per cent increase in walking trips (from 12% to 14% of all trips). This paper also demonstrates that the increases achieved are sustainable.

Early results from the large scale application of individualised marketing over the entire population of the City of South Perth show considerable interest in information and materials that assist and motivate people to walk. Qualitative feedback from participants in the program indicates that participants in the program have been motivated to increase their walking trips. This feedback together with results from monitoring of the Transperth electronic ticketing system suggest that the large scale program is likely to achieve increases in walking at least to the levels achieved in the pilot program.

The results of the program to date also indicate that health is a significant motivator for increasing walking in the community and there are clear cross-sectoral benefits with other government and non-government agencies interested in promoting walking as a means of increasing physical activity. The participation of the health sector in the program including the National Heart

Foundation (WA Division) and Healthway (funding contribution) has contributed to the success of the program to date.

There is also some evidence to suggest there may be mutual benefits from the linking of public transport and walking promotions. Further research into the potential benefits and the nature of such linkages should be considered.

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