



TravelSmart Programs for Communities

Australia is at the forefront of international experience with the development and delivery of household-based TravelSmart programs. They are often run as part of a broader community-based TravelSmart initiative usually arranged through a partnership with local government and targeted on individuals who reside in a particular area such as a suburb or a municipality. These programs are designed to increase people's awareness of their travel options and where feasible, make travel choices which reduce their use of the private car. Their local community focus makes them an ideal link for a TravelSmart officer who is working in the relevant local government authority.

The most widely applied household travel behaviour change programs are based on either Travel Blending® or IndiMark® – which are both described in this section. You may see those programs referred to as Household Travel Behaviour Change Tools. While there is still much more to learn about the impacts of these programs on people's travel behaviour it is fair to say that the results to date have been very positive overall. Increases in public transport use, walking and bicycling have been observed along with reductions in the distance travelled by car by about 10 per cent.

This component of the Training Resource Guide provides insight into the nature of these programs and is structured around the following topics:

- Evolution of Household Travel Behaviour Change programs
- IndiMark®
- Travel Blending®
- Impacts of Travel Behaviour Change programs

- Other approaches, initiatives and developments

The running of the travel behaviour change programs themselves requires a great deal of specialist expertise (as you will come to appreciate as you learn more about the programs in this section). The programs (Travel Blending®, IndiMark® or other variations) are usually delivered by consulting organizations which may be engaged by the State Government Department running the TravelSmart program. In this way the local government-based TravelSmart officer has an important supporting role to play in the assisting with the delivery.

In addition to households in the community being given the opportunity to participate in one of the travel behaviour change programs mentioned above, other initiatives may be undertaken to promote community participation in travel behaviour change. For example, the travel options available to access a local festival could be emphasised by noting the availability of bike parking, public transport routes serving the venue etc.

The local TravelSmart officer can play a valuable part in maximising the exposure to the TravelSmart message in the community. You can also assist in putting the consultants, who are delivering the program, in touch with key members of the community who could assist with tailoring the programs to local needs. There is also scope to provide feedback to the community (through local government or community group newsletters, local presentations etc.) about the success of the program and its local impacts. Once the initial program has been delivered, the local TravelSmart officer has an important

role to play in 'maintenance' activities which could be developed to maintain the momentum of travel behaviour change initiated with the original program.

To be able to effectively support the work of the consultants who are delivering the travel behaviour change program, you need to have an understanding of the nature of the programs they will be delivering. That is precisely what this section of the Training Resource guide is designed to do.

EVOLUTION OF HOUSEHOLD TRAVEL BEHAVIOUR CHANGE PROGRAMS

The term "travel awareness" began to be used in the UK in the early 1990s to describe campaigns designed to encourage people to reduce car use. These campaigns aimed to make people aware of the need to reduce car use and the ways in which this could be achieved.

A key component of these early initiatives was usually an advertising campaign assisted by a set of brochures, posters, bumper stickers and logos to highlight the problems of congestion and pollution and to point out the alternatives (e.g. car sharing or pooling, use of public transport, trip chaining, and so on). As these campaigns developed, they often included more targeted efforts such as 'walk to school' weeks or 'ride to work' campaigns and facilitated discussions with community groups to get them to understand the issues more thoroughly than can be done with an advertising campaign. The two main examples initiated by local authorities in the UK are TravelWise, begun in Hertfordshire (Hertfordshire County Council, 1993), and HeadStart, (Hampshire County Council, 1993).

The current day travel behaviour change programs differ from these initial travel awareness campaigns because of a desire

to obtain greater engagement with the participants. This greater engagement or interaction is believed to provide a stronger motivation for travel behaviour change. The term now being used in the UK for these enhanced programs is 'Personalised Journey Planning Techniques'.

Separate efforts in Australia and Germany lead to the development of two distinct travel behaviour change tools: Travel Blending® and Individualised Marketing, known as IndiMark®. These two programs now form the basis for most of the operational travel behaviour change programs in Australia.

TRAVELWISE

The major thrust of TravelWise has tended to be publicity with an emphasis on advertising on the outside of buses, leaflets and radio advertising. TravelWise is however, more than a publicity campaign because it has also been promoted through 'branding' transport strategies and public transport timetables with a TravelWise logo. In addition to the publicity campaign and branding of documents, particular events such as 'walk to school weeks', 'bike to work days' etc. have been organised under the banner of TravelWise.

HEADSTART

HeadStart was launched by the Hampshire County Council shortly after Hertfordshire introduced TravelWise. However, Hampshire describes its approach as being a 'bottom up' approach in contrast to the TravelWise 'top down' approach. The distinction is that TravelWise is aimed at everyone; trying to influence them to a greater or lesser extent by recognition of a name, logo and concept via a mass media campaign. In contrast, HeadStart focuses on taking the message to community groups and trying to significantly affect the ways these groups think about transport (Steer Davies Gleave, 1996).

The main thrust of the HeadStart campaign is the conduct of workshops with community groups. Target groups include parish councils, parent and toddler groups, fitness groups etc. In addition business conferences have been held with the aim of getting commitments to the development of commuter plans and on another front a 'Safe Routes to Schools' campaign was developed.

PERSONALISED JOURNEY PLANNING TECHNIQUES

Personalised journey planning techniques have been defined in the Department of Transport, Local Government and the Regions (DTLR, 2002) as:

'a set of techniques or approaches that provide individualised analysis or advice to people based on their journey making characteristics. It therefore does not include marketing campaigns such as awareness raising, general exhortations to use particular modes of travel, or the general provision of information about particular forms of transport.'

Development of Travel Blending®

A key Australian project provided an opportunity to develop a new generation of travel behaviour change tool which relied on greater engagement with the program participants. The Travel Blending Program was initially developed for the NRMA, Australia's largest motoring membership organisation, by Monash University and Steer Davies Gleave (Rose and Ampt, 1997).

The NRMA funded a major public initiative called "Clean Air 2000" which aimed to reduce pollution caused by car travel in Sydney prior to the year 2000 Olympics. Clean Air 2000 was a twofold initiative (Gollner, 1996). It focused on encouraging

behavioural change in the way people used their cars, and progressing solutions to vehicle induced air pollution and increasing traffic congestion. The Travel Blending Program was developed to primarily focus on the first of those aims, specifically by reducing car use.

The Travel Blending® approach was designed to incorporate two important components that most of the earlier travel awareness initiatives lacked. First an objective and a method to ensure that there are *behaviour changes* as well as awareness and attitude changes (i.e. people actually use the car less); and second an in-built monitoring system, to measure whether and what type of changes are actually occurring.

After the pilot study had been completed in Sydney, the Department of Transport in South Australia (TransportSA) engaged Steer Davies Gleave (SDG) to undertake a trial in Adelaide, the capital of South Australia. As the program delivery methods were further refined, other applications of Travel Blending® were undertaken in Leeds, New Jersey (USA) and Chile. In South Australia, Travel Blending® was also central to a community development program known as Living Neighbourhoods®. Travel Blending® continues to play a key role in TravelSmart programs in South Australia and Victoria.

Development of Individualised Marketing

In parallel with the work being undertaken in Australia to develop Travel Blending®, SocialData (a German consultancy firm) was pioneering the direct marketing of public transport. That work has seen the development of a program for direct marketing of travel behaviour change known as IndiMark® (short for Individualised Marketing).

While IndiMark® originally focused on marketing of public transport it has now

evolved to encourage use of walking and cycling. IndiMark® has seen application in a number of cities in Europe and is the cornerstone of a major travel behaviour change program run in Perth, Western Australia under the banner of TravelSmart.

IndiMark®

IndiMark® is a method for conducting direct marketing of travel behaviour change. It involves targeted personal approaches to people identified as potential mode switchers with personalised information, advice and incentives provided to encourage change (DTLR, 2002).

The developers, Brög and Schadler (1998), emphasise that IndiMark® is built upon the

belief that there is a gap between public perception of public transport and the reality, with a large proportion of the population believing it to be worse than it really is.

IndiMark® is generally used for direct marketing of public transport but has also been applied to encourage use of walking and cycling. It is also described as 'Dialogue Marketing' because it aims to establish a dialogue with the participants.

IndiMark® involves four main stages, includes rewards or incentives for participants and has seen successful implementation in Europe and Perth.

Summary of the IndiMark® Method

Stage	Description
Contact	All households are contacted by mail and phone and a short survey is used to determine if they are Regular/Extensive users of Environmentally Friendly Modes (R), are Not at all interested in changing (N), or are Interested (I).
Motivation	Problems and requests from the R and I groups are responded to.
Information	The R and I participants select the information they want which can include maps, timetables and further information on particular modes. Individuals in the R group may also receive rewards (LINK 6 REWARDS AND INCENTIVE SECTION) for their use of environmentally friendly modes.
Convincing	Consultation phone calls and home visits on request are made, with selected households in group I receiving tickets to use on public transport for a limited period.

Source: Derived from Brög and Schadler 1998

Contact

All households are sent a letter introducing the initiative and indicating that they will be contacted by phone. The phone contact aims to open the 'dialogue' with the household. A short series of questions is used understand more about the household and classify it into one of three groups, N, R and I as follows:

- Not at all interested in changing (N) – that is they are likely to

continue to rely heavily on the private car for their transport needs,

- Regular/Extensive users of Environmentally Friendly Modes (R), or
- Interested (I) in using environmentally friendly modes more.

Households which are initially assessed as not interested in changing (the 'N' group) are not pursued further. The focus shifts to those who are regular/extensive users of public transport, bike or walk modes (the 'R' group) and those assessed as being interested in using those modes more (the 'I' group). The 'R' and 'I' are either rewarded for current behaviour or provided with information to assist them to change their travel behaviour.

Motivation

The second step involves responding to any problems or requests from the R and I groups. Some of the R group may be interested in receiving further information (for example, about other public transport services that they are not presently using).

Information

The R and I participants select the information they want from a list which is sent to them. In the current application in Western Australia, that information is hand delivered to the household. The range of information includes guides to walking and cycling in the area, as well as detailed maps showing local bike and public transport routes, shopping centres, etc. Timetables for public transport services may also be included and these are tailored to show times at a specific bus stop.

Convincing

Depending on the nature of their requests for information, some households in the I group will be followed up with consultation phone calls and home visits. The home visits include a simple bike check or a visit from a local bus driver who explains relevant features of public transport services. Selected households in the I group receive tickets to use on public transport for a limited period.

Rewards and Incentives for Participants.

While the processes of targeting and approaching people are generally carried out in a similar way in IndiMark® applications, the information, encouragement and incentives can vary quite widely, and include:

- maps and timetables for public transport routes that are of direct relevance to individual's needs (e.g. Timetables which provide service times at individual public transport stops),
- general maps and timetables, with guidance as to the routes that are of relevance to the individual,
- free travel tickets (usually for up to one month) to encourage people to try out the system,
- voucher cards for discounts at local bike shops,
- rewards for current use such as bike water bottles, key rings with a TravelSmart message, bags or backpacks for use when riding or walking, and
- information on other environmentally friendly modes (walking and cycling) usually in the form of general walk and cycle route maps for the area.

It is important to appreciate that these are not provided as a bribe up front to assist motivation but rather as a reward for those individuals who are already using environmentally friendly modes.

Successful Applications of IndiMark®

IndiMark® has been applied in 12 European countries and in Australia with these projects ranging in size from tens to

thousands of people. Its highest profile current application is in Perth where it is the household travel behaviour change tool employed in TravelSmart WA.

The first application of IndiMark® in Australia was in the South Perth region where it was run for the whole community. The results of the program were very positive with the distance travelled by car reduced by 14 % and strong increases in use of public transport (+21 %) as well as in walking and cycling.

Travel Blending®

Travel Blending® involves in-depth analysis of people's travel behaviour followed by detailed suggestions on how behaviour could be modified, with follow up monitoring and feedback (Rose and Ampt, 1997; Ampt and Rooney, 1999). The term travel blending is used to describe a way for individuals to reduce the use of the car by blending, or mixing, their travel choices over time. This could be through:

- thinking about activities and travel in advance (i.e. in what order can activities be done, who should do them, where should they be done etc.),
- blending modes (i.e. sometimes car, sometimes walk, sometimes public transport etc.),
- blending activities (i.e. doing as many things as possible in the same place, or on the same journey), or finally
- blending over time (i.e. making small sustainable changes over time on a weekly or fortnightly basis).

The blending notion is important, because a commitment to use public transport to work one day per week has the potential for an individual to reduce their weekday peak period vehicle use by 20 percent. In

this way, rather than saying people should always use public transport the message is to blend travel choices in a manageable but sustainable way to reduce motor vehicle use.

The program is delivered through a series of four kits. The Travel Blending® program has seen application in Australia and around the world.

The 4 Main Travel Blending® Kits

Individuals, preferably all members of a household, are engaged or recruited door-to-door, by telephone contact or through schools or workplaces. This usually takes place after an initial letter has been sent to the household, informing them of the purpose of the program and signed by a relevant local personality (e.g. local Mayor or State Transport Minister).

When the initial contact is made with the household basic data on the household is collected so that the household receives the correct number of travel diaries. In all, the Travel Blending® Program involves four 'kits' which are given to households which indicate a desire to participate in the program. The focus of the kits and their contents are outlined below. You can follow the links to learn more about individual kits in the program.



Summary of the Travel Blending® Kits

Stage	Description
Kit 1: Getting Started	The Getting Started kit includes – a letter of introduction, a "How and Why" booklet explaining the issues associated with increasing vehicle use and introducing the Travel Blending concept, and a "Before" travel diary for each household member plus aids to assist in its completion.
Kit 2: Help Make a Difference	"Before" diaries are analysed and a feedback kit is provided which includes a summary of each individual's travel during the survey week and an indication of car emissions produced. Positive steps people already make are highlighted and suggestions for reducing car travel are proposed. Kit 2 also includes a booklet "Thinking about your Travel".
Kit 3: Are You on Track?	The 3rd kit includes the "After" 7-day travel diary plus a booklet "Track Your Travel 2" explaining the importance of completing the second set of diaries.
Kit 4: Continuing to Make a Difference	The "After" diaries are analysed and a final kit is delivered which includes a summary of the travel revealed in the second diary, identifies the differences between the travel reported in the first and second diaries, and includes a log book to allow people to continue to monitor weekly car travel.

In general, about 40 per cent of those recruited remain in the program through to completion of the second diary sent out in Kit 3. (DTLR, 2002).

Kit 1: Getting Started

Included in the first kit is a letter of introduction from a prominent local personality (e.g. local Mayor or State Transport Minister). Also included is information dealing with 'Why' and 'How' issues. The 'Why' component addresses the link between vehicle use and urban transport problems, including air pollution, and describes why these problems will continue to worsen unless action is taken. The 'How' component outlines the range of potential solution approaches and places the need for individual action into perspective against other initiatives.

The information booklet also introduces the Travel Blending® tool for household travel behaviour change and explains that the first step for an individual in changing their travel patterns is to understand what travel they currently undertake. In this way the

rationale for completing a one week travel diary is explained.

Kit 1 includes a one-week travel diary for each member of the household. The travel diaries are used to record all travel outside the home with details obtained of destination, place and purpose, start and end time of each trip, travel mode and for car driver trips, the odometer reading at the start and end of the trip.

Also included is a box that serves as a depository for the diaries and an inbuilt reminder system. The diaries sit in the box in such a way that the people's names, and the day of the diary they have completed, are clearly visible. In some applications the diary box also has a magnet on the back so it can be placed on the fridge. A set of 'Count your Kilometres' stickers is included. These stickers are designed to be placed on the steering wheel of the vehicles to serve as a reminder for the

driver to complete the odometer readings in their travel diary. Participating households complete the travel diaries over a seven day period and return them in a pre-paid envelope for processing. Once the processing is complete the household is sent Kit 2.

Kit 2: Help Make a Difference

Once the travel diaries from Kit 1 are received at the study office, the data is coded into a database, analysed and used to produce tailored, personalised feedback sheets for the household. The travel diary data analysis and feedback generation is completed using a special purpose computer program. That program analyses the data and uses a series of inbuilt rules to determine which tailored tips should be included on the feedback sheets for that household or person. The feedback sheets are then sent to the household as part of the second kit.

In Kit 2, the feedback sheets are presented in a folder titled: "Did you know these things about your household?" There is one sheet summarising results for the entire household and a separate sheet for each individual. The ones for each individual contain the tailored travel tips.

Also included in Kit 2 is a booklet titled "Thinking about your travel". This brochure is designed to encourage households to think about their travel using the details provided on the travel feedback sheets. It also includes general Travel Blending® 'tips' to help people reduce motor vehicle use and emissions.

In some applications, a "goal card" is provided as part of Kit 2. This allows either the household as a whole, or individuals, to record their Travel Blending® goals. A magnetic strip on the back of the goal card enables it to be placed on the front of a refrigerator or filing cabinet.

Participating households are given about four weeks to practice changing their travel patterns and then they are sent Kit 3.

Feedback and Tailored Tips

Respondents who complete their travel diaries are sent a 'feedback' report and a set of tailored tips on action they could take to reduce their vehicle use. The feedback sheets summarises travel patterns for each individual (by name) and the household as a whole. This includes details of the total number of trips, trips by mode and total time spent travelling.

For each vehicle, the total kilometres travelled is summarised along with the number of engine cold starts and an indication of the emissions produced (e.g. kilograms of carbon monoxide, hydrocarbons and oxides of nitrogen and their equivalent volume in terms of 2 litre containers).

The feedback sheet also includes a number of ideas for how the household members could try to reduce the impact of the car. While some are fairly general, others are quite focused including details of specific public transport services, with relevant details (e.g. which bus stop to use, service times to suit travel needs, how to pay the fare etc.) enclosed, for some trips.

In all cases, the suggestions are tailored to the travel patterns reported by members of the household in their travel diaries. Consistent with the Travel Blending® theme described earlier, the suggestions made as part of the feedback are framed in terms of reducing vehicle use on a once a week or once a fortnight basis.

FEEDBACK EXAMPLES

These examples illustrate the type of feedback suggestions made to participants:

- Craig, would it be possible for you to travel by public transport one day a week or one day a

fortnight? You could catch the train from Blaxland Station and change to the 301 bus at Central Station. We have enclosed copies of the train times which seem to suit your travel pattern.

- Julie, we noticed that there were never any occasions on which you did two or more things on one car journey. This is often called trip chaining and many people use it to reduce their car trips.
- Graham, when you have the choice of using the Commodore or the Statesman, try to use the Commodore (if permitted) because it is less polluting.
- Everyone: Remember when you share a ride with someone instead of driving yourself, this is a real benefit to the environment in Adelaide. On the other hand, when someone makes a car driven trip especially to take you somewhere that you could walk, ride or even take a bus or train to, travelling as a car passenger does not help to reduce congestion and pollution.

Kit 3: Are you on Track?

The purpose of this kit is to measure the impact of Travel Blending® on the household's travel activity. This kit includes another set of travel diaries. The household completes these over a seven day period and returns them for analysis.

To encourage a higher response rate, a booklet titled, "Track your travel 2" explains the importance of completing this second set of diaries.

After analysis, the household is sent Kit 4, the final kit.

Kit 4: Keeping the Air Clean

This final kit includes the summary of travel activity from the second set of diaries and an analysis of the changes in travel between the first and second sets of travel diaries. This comparative summary identifies changes in the total time spent travelling and number of trips by mode for the household as a whole and also for each individual within the household.

Changes in motor vehicle use are reported in terms of the changes in total kilometres travelled and changes in the number of cold starts as well as the changes in emissions (kilograms of carbon monoxide, hydrocarbons and oxides of nitrogen). Where appropriate, additional tips are also given. For example, although people may have reduced their kilometres, they may not be using the least polluting car.

This final kit also includes a simple vehicle log book so that the household can continue to monitor their total weekly vehicle use over time as they continue to practice travel blending.

Travel Blending® Applications

Travel Blending® has seen application in Australia, the UK, USA and Chile. While the initial development work was undertaken in Sydney, the main Australian applications have been in Adelaide and a pilot in Brisbane. Travel Blending® is currently being used as a key household travel behaviour tool in the Victorian Travel Smart program.

Results from the application of Travel Blending in a trial in Adelaide were very positive with the reduction in car use, measured in terms of car driver trips or kilometres, being slightly over 10 per cent.

IMPACTS OF TRAVEL BEHAVIOUR CHANGE PROGRAMS

The growing worldwide experience with the application of travel behaviour change programs is providing valuable insight into the effect of these programs. Those effects or impacts can be viewed from a variety of perspectives: at the level of the individual, aggregate impacts and long term impacts.

At the level of the individual, it is possible to consider the types of travel behaviour changes which they produce. At a more macroscopic level it is possible to measure the aggregate impacts on travel behaviour. Extending that macroscopic view, the financial and economic evaluation of the programs is important.

An increasingly important issue is also the long term impacts of these programs and the need to include follow up, or maintenance, activities to sustain the changes in travel behaviour.

Impacts at the level of the Individual

The climate for change is produced through a variety of factors which relate to the manner in which travel behaviour change programs engage individuals. This is in part because people are choosing the changes that best suits their lifestyles, rather than having them imposed by someone else (e.g. through government regulations).

In parts of many cities, or in regional areas, which are served by limited public transport services, expecting people to make a simple mode change to use public transport may not be a convenient or feasible option. Presenting a range of options, including trip chaining or sometimes walking or riding a bike, maximises the opportunities to change. The motivation for change may also come

from outside the narrow transport context. Highlighting many other benefits to the individual and society in terms of health (ranging from increased opportunities for physical activity to a reduction in social isolation), personal safety, road safety, local economic development benefits arising from greater trade through local businesses and other benefits for an improved quality of life, may hold the key to producing a change in travel behaviour.

The experience with IndiMark® is that it results in increases in public transport use as well as increases in levels of cycling and walking. Travel Blending® has primarily resulted in changes in the way in which individual's use their vehicle. For example, by increasing the level of trip chaining (undertaking more than one activity while away from the home rather than doing a series of out and back trips) or carpooling (sometimes related to children's weekend sporting activities) to reduce vehicle kilometres of travel by car.

At the individual level these changes result in fewer kilometres travelled by car, less time in the vehicle, increased public transport trips and increases in the number of trips and travel time by active transport modes (walking and cycling). The latter is important from a health point of view given increasing concerns about obesity and the level of physical activity.

Travel Changes for the Community

When attempting to indicate the level of mode choice changes produced in a community, it is appropriate to highlight that there is a good deal of variability in the results obtained across the methods employed and the areas where studies have been undertaken. A range of factors could be responsible for the variability in results achieved across countries with these programs including the underlying efficiency of car use, prevailing congestion levels, quality and extent of public

transport provision, and cultural status associated with different travel modes.

Overall, it is fair to say that the results are positive with travel behaviour change programs consistently resulting in reductions in vehicle use, improvements in public transport ridership and increased use of walk and bike modes.

The South Perth application of IndiMark®, the distance travelled by car was reduced by 14 % and there were with strong increases in use of public transport (+21 %), walk (+16 %) and bike trips (+91 %). The large percentage increase in bike trips may reflect a low level of bike use initially with a modest absolute increase translating into a large percentage change (DTLR, 2002). Since no substantial changes were made to the bus services during trial, the increases in public transport patronage appear directly as a result of the IndiMark® initiative. In Europe, IndiMark® has been applied in a variety of case studies. Overall the increase in public transport trips averaged about 18 % (DTLR, 2002).

Quantitative results from the first Adelaide study of Travel Blending®, revealed a reduction in car use, measured in terms of car driver trips or kilometres, of slightly over 10 per cent for the population as a whole (Rose and Ampt, 2001). While there are statistically significant reductions in all the variables directly related to total car use, there were no corresponding statistically significant increases in public transport, bicycle or walk trips. This suggests that respondents were using their car more efficiently through increases in trip chaining rather than mode switching. Similar positive results have been obtained in other applications of Travel Blending although the reductions in car use are not always as high as those observed in the Australian applications.

Economic and Financial Impacts

Common questions which arise in relation to these (and all other programs) include:

- How much does it cost and can it cover its costs? and
- What results do we get for the money – specifically how do the benefits and costs compare?

Follow the links to understand the answers to those questions.

Costs of Travel Behaviour Change programs

Experience to date suggests that the implementation costs of IndiMark® and Travel Blending® are of a similar order of magnitude. The DTLR report (2002) notes per household delivery costs on the order of \$75AUD for IndiMark® and \$110 AUD for Travel Blending®. However there are substantial fixed costs associated with design and printing, so actual costs per household will decline with larger scale applications. To a large extent the costs of delivering these programs relates to the staff time required to conduct the dialogue with the household and to prepare the tailored information which is sent to the household.

Financial evaluation focuses on the extent to which travel behaviour change programs are able to pay for themselves through increased revenue from higher public transport ridership. Brog and Schlader (1999) indicate that the European experience with IndiMark® translates into sufficient additional revenue in the first year to cover the costs of program with a surplus after five years exceeding two times the original costs. An analysis in Perth (Kerr and James, 1999) found that the costs of applying IndiMark® throughout the metropolitan area could be recovered over a 30 year time frame under a high benefit scenario but not under a low benefit scenario. Kerr and James do note

however, that under both scenarios, the revenue collected by public transport passengers would be higher than that which would be obtained without Indimark®.

Benefit/Cost Evaluation

Economic evaluations, which attempt to quantify the benefits and costs for the whole community, have been conducted for both IndiMark® and Travel Blending®. This work has involved quantifying both the costs of delivering these initiatives and the impacts they produce.

A range of benefits have been analysed and quantified in dollar terms. Those positive or negative impacts, which make up the benefits of the initiatives, included changes in:

- Travel time (savings or increases) for individuals or the network (congestion changes),
- Vehicle Operating Costs,
- Fleet or staff cost or expenditures for public transport operations,
- Accident and road trauma costs,
- Health and fitness, and
- Emissions and pollution costs (air, noise, greenhouse emissions).

The economic evaluation of the IndiMark® program yielded a benefit cost ratio in excess of 10 to 1 (Kerr and James, 1999). This means that every dollar spent produces a return to the community of \$10. The benefit cost ratio for Travel Blending® was on the order of 6 to 1 (Tisato and Robinson, 1999) from which the authors concluded that 'besides being intuitively attractive, travel blending appears to be economically justified, promising to deliver both private and community benefits, and potentially significant increases in social welfare'.

The separate economic evaluations of the IndiMark® and Travel Blending® initiatives

which have been conducted to date suggest that investment in these travel behaviour change programs yields a net community benefit.

Long term impacts

An important question, which is now arising in relation to these travel behaviour change programs, is whether the changes produced by the program are maintained or does everyone go back to using the car?

In the German pilot studies of IndiMark® the longer term effects were about 75 % of those observed in the first year that IndiMark® was rolled out (DTLR, 2002). On-going monitoring in South Perth has indicated that the changes were maintained and in some cases improved more than a year after the program was introduced (DTLR, 2002).

A small scale follow-up study of the longer term impacts of Travel Blending®, was reported by Ampt and Rooney (1999). Contrary to expectations, there was a further reduction in car kilometres, of just over 5 per cent, 6 months after the initial Travel Blending® program had been run. The sustainability of the vehicle use reductions was most often attributed by participants to the travel time savings which they experienced. In-depth interviews identified a number of reasons for the higher long term reductions in vehicle use:

- The need to plan or the inertia in their previous travel behaviour meant that some people could not implement the feedback suggestions within the time frame of the original Travel Blending® program. However, over a longer period they were able to implement changes which resulted in a reduction in vehicle use. The awareness generated by the Travel Blending® program motivated people to develop other own time-saving measures which reduced car use, and

- Changes in school, job or home locations along with changes in activities reduced vehicle use.

These initial results are encouraging. However, it is fair to say that this is an area where further work is needed to develop a more thorough understanding of the long term impacts of travel behaviour change programs and the need for follow up, or maintenance, activities to ensure that changes are maintained.

OTHER APPROACHES, INITIATIVES AND DEVELOPMENTS

Here we briefly consider a range of other approaches, initiatives and developments which are relevant to community based travel behaviour change programs. These have been grouped under the following headings:

- Development and Enhancement of Travel Behaviour Change Tools
- Global Action Plan for the Earth
- Supporting Initiatives for Household-based Travel Behaviour Change Programs
- Travel Behaviour Change and Community Development

Development and Enhancement of Travel Behaviour Change Tools

Australia continues to be fertile ground for the development and enhancement of travel behaviour change programs.

The Australian Capital Territory Department of Urban Services in Canberra piloted a marketing approach called 'Way to Go'. The campaign was developed and delivered by the Social and Government Department of Taylor Nelson Sofres and relied on 'Way to Go' packs, which were sent to a sample of households. The packs

included information on bus services in the area, cycleways maps, water bottles, hats, brand reminders like a fridge magnet and a multi-ride bus ticket. The program was evaluated using a series of three two-day travel diaries and the results were positive. A small trial of a similar approach was also undertaken with a focus on workplaces and the results there were also encouraging. The results of the pilot are being considered by the Department of Urban Services in Canberra before a decision is made on the subsequent roll out of a travel behaviour change program.

The Department of Infrastructure in Melbourne (Victoria) is currently trialling an approach that combines elements of both IndiMark® and Travel Blending®. In this program, a wide range of options for behavioural change will be offered to households ranging from the highly detailed level of Travel Blending, specifically customised journey planners for bicycle, walking or public transport, information on local activities for those people who would find it simplest to reduce trip length, rather than trips, and general information where no other information is applicable. Final results will be available in mid-2003.

Global Action Plan for the Earth

Founded in 1989, Global Action Plan for the Earth (www.globalactionplan.org) is a non-profit organization that promotes and supports the development of sustainable lifestyles and liveable neighbourhoods in communities.

Over the past twelve years Global Action Plan has developed a highly effective set of tools for behaviour change and neighbourhood-based community organizing. These empowerment tools have produced measurable results defined as behaviour change and neighbour-to-neighbour recruitment in a wide diversity of communities — small, medium and

large, urban, suburban and rural in over 30 states with 30,000 people. The tools have been continually refined and at this point could be considered state-of-the-art in community empowerment.

While the Global Action Plan offers programs in saving energy and reducing waste, there is also a component for reducing the negative impacts of the car. It uses what is termed The Household EcoTeam Program that is simple and strategic. Five or six neighbourhood households—an EcoTeam—meet eight times over a four-month period, with the help of a step-by-step workbook and trained volunteer coach. Choosing from a series of practical actions, the team supports one another to reduce waste, use less water and energy, buy “eco-wise” products, reduce air and water pollution, and encourage other neighbours to get involved. More than increasing awareness, the EcoTeam Program enables people to change the way they live—measurably. The Household EcoTeam Program has achieved reductions of between 16% and 20% in fuel use (the measure of change in this case).

Supporting Initiatives for Household-based Travel Behaviour Change Programs

There are a number of activities which can be initiated at the local or state government level that can encourage the adoption of a TravelSmart culture.

IndiMark® is linked to the TravelSmart initiative which forms part of The Metropolitan Transport Strategy (MTS) for the Perth Metropolitan Region in Western Australia. The MTS has set a range of targets for modal shift and TravelSmart has a key role to play in achieving those targets for reducing vehicle use while increasing use of public transport, walk and bike modes. Some of the key features of TravelSmart include:

- Local travel surveys are used as a form of feedback to inform local communities about their own travel behaviour and, via community learning, stimulate cultural change processes within the community. The results from these surveys can highlight the current use of the car to access local activities and services and the potential for the local community to make greater use of alternatives. Survey results can be featured in articles in council newsletters and community newspapers.
- Transport access options can be emphasised, under a TravelSmart banner, as part of the promotion of local events such as fetes, festivals and exhibitions. Providing details on publicity material about public transport services to the venue, availability of bike parking etc. can help to alert people to their travel options and reinforce the TravelSmart message.

Travel Behaviour Change and Community Development

In a project completed in Adelaide, a household-based travel behaviour change tool played a key part in a broader community development program known as a ‘Living Neighbourhood®’. In the trial ‘Living Neighbourhood®’ everyone who lived, worked, played and went to school in the area was offered a way to save time, money and create a healthier, more vibrant community (Steer Davies Gleave, 1999). This was done by presenting the opportunity for everyone in the neighbourhood to take part in Travel Blending®.

The Travel Blending® program was applied in the Living Neighbourhood® project along with other complementary measures

that were aimed at enabling and facilitating travel related and other community development changes in the neighbourhood. A common form of 'additional measure' was to employ a person to work in the area to act as a broker, or facilitator of change – very much the role played by current TravelSmart officers. The idea behind this was that many barriers may exist to people changing their behaviour, and many of these may be overcome by changes within the neighbourhood, such as re-routing of bus routes (or any other number of changes).

In addition to responding to resident suggestions other measures may be introduced – depending on the initiatives of the residents. These range from "green prescriptions" where local GPs will advise using walk or cycle to improve fitness and health for those for whom it is suitable, to quite major initiatives such as the community raising money and building a community playground (initially to avoid travelling to suitable ones) and the community raising money and converting a church hall to a medical centre to allow local access to a key necessity.

The concept of Living Neighbourhoods® provides one example of the value which travel behaviour change programs can add to community development.

WANT TO LEARN MORE?

There are a variety of resources you can draw on to learn more about household and community-based travel behaviour change programs.

USEFUL WEB SITES

If you are interested in a more comprehensive discussion of household-based programs, and where they have been applied, use the link below to access a recent study of Personal Journey Planning Techniques released by the UK Department of Transport, Local Government and the Regions (DTLR, 2002).

Department of Transport, Local Government and the Regions (2002) *A Review of the Effectiveness of Personalised Journey Planning Techniques*, accessed via the www at <http://www.local-transport.dtlr.gov.uk/travelplans/pjourney/index.htm>

Some states have web sites describing their current TravelSmart activities:

TravelSmart South Australia (LINK: <http://www.transport.sa.gov.au/environment/travelsmartsa/>)

TravelSmart Western Australia (Link: <http://www.dpi.wa.gov.au/travelsmart/>)

TravelSmart Victoria: (Link: <http://www.doi.vic.gov.au/doi/internet/transport.nsf/headingpagesdisplay/linking+vic+toriatravelsmart>)

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