Experienced driver behaviour change – A review of approaches used in United States, Sweden, Denmark and the Netherlands, and some recommendations for action in Australia

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Abstract

Road safety is often described as comprising three areas: the vehicle, the road environment, and the road user. In recent years the Australian emphasis has been on improving the road environment, and the safety of the vehicle. Improvements to the road user contribution to the toll are usually expressed either as enforcement programmes, or education programmes.

This paper reviews the road safety philosophies, and specific practices used to achieve mature driver behaviour change in four countries: the USA; Sweden; Denmark and the Netherlands.

In order to make the next quantum leap in road safety improvements for our communities, road safety professionals must re-engage with the behavioural side of the road safety triangle. Local Government is best placed to implement such programmes through its powerful, and direct connections to communities.

The approaches to road safety varied greatly across the countries visited. An inspirational approach is considered to be the next level of improving road safety outcomes. This type of communication is not the engineering profession's usual technique, and requires the development of links to other professions.

Notwithstanding this significant change in approach, a number of local scale programmes are proposed which can be tailored using social research techniques to suit individual communities' concerns and needs.

Six recommendations are detailed to achieve these outcomes.

Introduction

"What is a city made of? Dreams of glory, wonderful riches, active people struggling to get ahead, selfish people holding back, life and death, vices and virtues, all this in one place."

Joan Maragall, Catalan poet 1909.

You might rephrase the question – *What is traffic made of?* A text book response might refer to road users - including drivers, cyclists and pedestrians- vehicles of all types, and roads. But reflect on the answer above– it could be a description of road users. Traffic is not an inanimate mix of steel, concrete and asphalt. It is also seething collection of conflicting desires, wants and needs of the users.

Traffic sometimes feels like a life-form, an almost organic thing. So how do we describe it, and how do we work with it? Traffic lends itself to many models. As engineers, we are technical professionals. We are most comfortable responding to traffic in a predictable, mechanistic form. But consider light. It cannot be described by one model alone. Is light best

understood as using the wave model? Or is light better understood through the particle model? Both models provide key insights into the properties and nature of light, but neither are the full story. Traffic can similarly be considered using more than one model, and this paper considers the models used in various countries to influence traffic behaviour, with a view to selecting an alternate model to achieve improved driver behaviour in Victoria.

Traffic is often controlled through the use of devices, which improve the road geometry and remove hazards from the travel zone. Other devices improve the safety of the vehicle for occupants, and some for those who might be struck by the vehicle. These two areas of the safety triangle provide the comfort of known measurable outcomes. It is believed that with care in design and construction it will be possible to create an environment which is safe for all vehicle occupants.

The road user (which will include cyclists and pedestrians, and also passengers) does not lend themselves to such confident management. Humans are unpredictable, and prone to be self-determining. What levers can be used to amend road user behaviour? Education? Enforcement? And are there any other options? The modelling of the driver is often managed through the highly concave lens of enforcement; education approaches are reserved for student drivers, perhaps recidivist offending drivers; and for the general population reliance is placed on the assumption that the provision of knowledge is enough to bring about behaviour change. It is understood that without knowledge, behaviour change is unlikely to occur, but it does not follow that knowledge alone is sufficient to create any outcome, let alone the desired change.

Is it possible that drivers, and other road users, are complicated, and that alternate models might allow for improvements in road user behaviour with benefits flowing to all?

Research Objectives

The 2007 MEFV study tour provided the participants with the opportunity to compare and contrast attitudes, programs and interventions being undertaken in four countries concerning the education of drivers to improve the driver/human contributions to the number and severity of vehicle crashes.

This report looks at the different education visions espoused at national and state government levels, and the practical application of these visions at local government levels. It is local government which most frequently attempts to connect with residents.

This report identifies what learnings might be built upon in Victoria to assist in the retention of the good ranking of Victoria, and Australia in vehicle crash data when compared to other nations.

It is recognised that the human element is one of a three-pronged approach which also allows for safer vehicles, and safer or more forgiving road environments. The emphasis of this report is the ability to create improved driver attitudes, behaviour and compliance with road laws to contribute to reduced fatal and serious injury road crashes.

Typically driver behaviour/education approaches around the world are based in early intervention, pre-licence programmes which might commence with children as young as 3 or

4 year olds, and through the use of mass media advertising aimed at the "mature" already licensed drivers.

All countries expressed a desire to find better ways to interact with already licensed drivers, and many were using similar approaches to those employed in Australia.

The more recent emphasis in Victoria has been to improve the road element of the infrastructure. This perspective has been strongly endorsed by the RACV who have adopted with enthusiasm the approach of classifying roads, to provide drivers with additional information about the risks of different roads. This is a potentially sophisticated tool, which can be used to assist road authorities in determining the priority order in which roads should be upgraded. Unfortunately, this approach is often only reported in short sound bites, and the message transmitted is more frequently understood as all roads should be upgraded to be class A roads.

A further view is that all reasonable gains in the area of education/driver contribution that can be made, have been made. Evidence to support this claim is usually quoted as the considerable investment made annually by the TAC in television, cinema and radio advertisements to remind drivers of the risks associated with fatigue, alcohol, drugs and speed. But evidence of expenditure is not the same as evidence of effectiveness.

Policy Context for Road Safety: Culture Vision and Targets

During the study tour, quite divergent approaches to the regulation of driver safety were observed. A spectrum was observed ranging from the paramountcy of individual rights at one end, (more strongly demonstrated in the USA) to one where impacts on the community are considered highest (more strongly demonstrated in European countries).

The Swedes in particular were extremely comfortable with the concept of having a vision. The Americans preferred to set a range of goals or targets. The difference in approaches is interesting to consider. Setting a vision is a bold strategy. Using the phrase "vision" is even bolder. The striking thing about "Vision Zero" is the confidence with which it is asserted. As one commentator noted, it is extremely hard to argue against Vision Zero – how can anyone *not* support the idea that there should be no deaths on the roads.

Yet this bold strategy is clearly understood by professionals as not meaning that there will be no deaths. One analysis undertaken in the UK noted that even if all proposed measures were fully implemented, there would still be deaths on the roads. The key thing about the use of Vision Zero is that it is simple to communicate, and that it is seen as a goal, but that it is not expected to be achieved. The approach is one of: set a high goal; work towards it; measure against past performance; and keep on trying. Failure is not defined by not achieving the goal, rather as having made no progress towards the goal. This is a very forgiving approach, which is reflected in the language used to describe the road system.

The Dutch have also identified a vision as their goal. As a point of differentiation, they have included the phrase "sustainable" to communicate that any gains in this area can be reversed without continuous effort. Successful road safety improvement requires continued diligence and attention.

Other countries' approaches are more pragmatically expressed. For instance, in the USA, the State of California has an extensive list of targets it is hoping to achieve. The list becomes almost self defeating. It is incredibly detailed, breaking down into individual factors and proposed acceptable number of fatalities and serious injury crashes. The Swedes might consider such an approach unacceptable as it clearly indicates that there is an acceptable number of deaths/injuries. Such a long list tends to allow for measurement which says we achieved 80% of our goals, but does not allow for simple communication to the general public. The data becomes confounding and obscures the simple objective of fewer road crashes.

Australia can be considered to be somewhere between these two cultural models. Here, there is a strong belief in the road user's right to drive, rather than it being seen as an expensive, albeit still highly desirable privilege. However, this is married with a willingness to submit to laws which might be considered restrictive of individual's rights and personal choices.

This paper explores how these visions and strategies are implemented in the USA and Europe - particularly in the area of driver contribution, and possible education approaches to positively reduce this contribution to the road toll.

Europe

Analysis of road fatalities has been undertaken around the world for decades, with the view that it is possible for societies, governments, and road authorities to reduce the number of people killed in vehicle related crashes. Sweden and the Netherlands have long been considered leaders alongside Australia in efforts to reduce the number of fatalities.

Sweden

In 1997, Sweden passed the Road Traffic Safety Bill founded on *Vision Zero*. It represented a major shift in the way road safety interventions were considered. The premise of Vision Zero is that similar to other areas of public interaction such as air travel, it is not acceptable for road users to be at risk of death. As stated by Elvik and Amundsen:
Swedish road safety work is based on a refusal to accept human deaths or lifelong suffering as a result of road traffic.

The Swedes describe Vision Zero as
"Rather than emphasising the responsibility of the road user alone, Vision Zero explicitly states that responsibility is shared both by the system designers and the road user.

This shift is important in ensuring that engineers look beyond the function of roads and vehicles as a mean of transport, and understand that vehicles and roads are also potentially places and tools which can contribute directly to human health outcomes. It is no longer acceptable to consider the possible adverse outcomes as the reasonable cost of movement of people and freight.

The emphasis in all these discussions is the increased recognition of the contribution of designers of vehicles and roads to road safety outcomes.

The necessary consequence of this increase in emphasis on these areas, is the commensurate reduction in the third element, being the contribution of the road user.

It is interesting to note that in 2006, Whitelegg reported an expert focus group opinion that road safety education has been downgraded in Swedish schools.

This approach is consistent with Vision Zero. The responsibility for safe road use outcomes has shifted from the humans, to the road and vehicle designers. The concept that individual road users may be able to assist in reducing the crash statistics, through making better choices is submerged beneath the more controllable and deliverable outcomes of altering vehicle and road design and construction.

While this shift in Sweden has occurred in practice, rather than through intent, it is also apparent in Australian road safety practice. This shift is re-inforced by the increased likelihood of legal challenge in the event of a crash, and allows the road user to disengage from the consequences of their use of behaviour. A disengaged community is less likely to exhibit better behaviour than an engaged one.

Denmark

The Danish Road Safety Plan is based on three "pillars" - safer roads, safer vehicles, and the use of new technologies to improve the interaction between road and vehicle. There is no pillar associated with the driver or road user.

In 2000 a new national action plan on road safety was launched by the Traffic Safety Commission. The main objective of this plan is to reduce the number of fatalities and serious injuries by 40 % in the period 2001-2012, compared to the base year 1998. The number of fatalities must be reduced to a maximum of 300 persons and the seriously injured to a maximum of 2,443 persons in 2012.

The Danish Ministry of Transport website states:

"Approximately 450 people are killed (2002: 459) (2001: 431) and 9000 injured (2002: 8820) (2001: 8456) every year on Danish roads. The main objective for traffic safety in Denmark is to reduce the number of fatal accidents and accidents with severely injured by at least 40% by the year 2012 compared to the year 1998.
The action plan "Each Accident Is One Too Many" encourages municipalities and counties to focus on traffic safety work, including elaborating the local action plans for traffic safety.

In 2001 Denmark adopted its "Every Accident is one too many" vision. The vision

"sets a course towards a future road system without any road accidents whatsoever and retains focus on preventative measures. Thus the objective of all initiative will be to prevent road accidents."

The broad vision was underpinned by specific targets as follows:

- *The number of people killed or seriously injured on Danish roads must be reduced by at least 40 per cent during the next twelve years. The basis for calculations is 1998 statistics. This is to say that in 2012, the number of persons killed in traffic must not exceed 300, and the number of serious injuries must not exceed 2,443.*

While road user behaviour is not noted as a pillar of the plan, the Danish plan states the following:

- *The behaviour of individual road users is a decisive factor in most road accidents. If all drivers followed these three golden rules: observe the speed limit, fasten your seat belt, never drink and drive, we would experience an immediate reduction in the number of deaths in road accidents of at least 40 per cent.*

- *This entails allocation of more funds to more intensive national campaigns for road safety. Such campaigns must be forceful, direct, target specific, and systematic, and they must be repeated regularly – partly because the target group changes continually. Electronic media should also be used to a much greater extent that at present to communicate messages regarding individual road user behaviour.*

The Netherlands

The Dutch legislative context is described as follows on the eSafety website.

"The Dutch road safety policy centres on the concept of sustainable road safety. In the 1980's, the Dutch Ministry of Transport, Public Works and Water Management, set the following road safety targets: 50% fewer fatalities and 40% fewer hospital admissions resulting from road crashes by the year 2010 compared to 1986. In 1991, it became apparent that these targets would not be met if traditional policies were continued, even if the related activities would be intensified, and new, scientifically based and data-driven policy was developed with the aim to develop a sustainable and safe traffic system. This comprises an infrastructure that is adapted to road user capacities and limitations, safer road vehicles, and road users that are adequately trained, informed and – where necessary – controlled.

Since the early 1990's the Dutch Institute for Road Safety Research, SWOV has developed and promoted the concept of sustainable safety.

The Dutch have placed considerable resources into improving the physical infrastructure, and to creating road environments that are fit for all users, not only vehicles. Great emphasis has been placed on the safety of pedestrians in residential areas, with the adoption of a 30 kph speed zone in all such areas. These speed zones are re-inforced with a high density of infrastructure to remind drivers of the desired speed, and the priority of pedestrians.

The first three areas involve signage and physical treatments to the road infrastructure to ensure maximise the survivability of the road system in the event that a road user should make an error (the fourth area).

The concept of state of awareness is elaborated as below.
State awareness refers to the capacity or possibility of the road user to correctly estimate his own fitness to drive. This means that he must know which skills he possesses and if they are sufficient to drive safely. Road users should also know themselves if they are, temporarily, unfit to drive because of alcohol, stress, or fatigue.
Of importance to the Dutch in their recent analysis is the notion of sustainability of outcomes. The relocation of crashes to other physical areas is not an acceptable solution, and they are now beginning to turn their attention again to the road user's part in the equation.

It is noted that a key point of differentiation between the Dutch and the Swedes is the inclusion of the word "sustainable" in the Dutch vision. This is emphasised to demonstrate that short lived outcomes are of little value to the community.

SWOV has identified five themes which are the main focus of traffic education. These are:

- Insufficient road safety problem awareness and low acceptance of Sustainable Safety measures;
- no or insufficient use of strategic safety considerations in traffic choices (vehicle choice, route choice);
- deliberate violations;
- incorrect and dangerous behavioural habits; and
- poorly prepared novices.

SWOV have researched the processes involved in learning, and make clear distinctions between what people can learn from being in traffic, and other subjects (such as driving speed) which cannot be clearly derived from the traffic itself. This latter class of subjects are the areas where there is most resistance from the general public. It is these areas, where individual's personal experiences and developed automatic behaviours present the greatest challenge to achieving improved behaviours. SWOV recommends that
"traffic education should change its focus from improving operational skill (eg. Vehicle control) to promoting the traffic insight which is crucial to safe road use."

SWOV literature further notes that reliance on the school education system is insufficient to achieve the full results required. SWOV promotes the involvement of parents to strengthen behavioural routines acquired during formal lessons. However, SWOV does not specifically identify this as an opportunity for parents to revisit and perhaps self-assess their own driving practices.

SWOV literature identifies that pressures within school curriculum programs can result in inhomogeneous presentation of material, and that there is a risk that specific road safety expertise will diminish, unless formats are developed that are, and remain over time, attractive to both teachers and students.

SWOV considered the question whether *"… efforts to further improve the behaviour of the average road user can make a substantial contribution to road safety?"* and reflected that the five identified educational themes would *"give a new stimulus to traffic education in the Netherlands"*. It is not apparent that these themes are yet being implemented, however, it is clear that SWOV considers that the benefits to be achieved from working with the road using public are not exhausted, and recommend as part of the education process the inclusion of the public in *"thoughtful participation in public hearings which decide on infrastructure measures."*

United States of America

The politics and philosophies of independence and federation strongly underpin relationships between jurisdictions in the United States. The fiscal context is heavily regulated, but the power of devolution of control of taxation to local community levels does not create a context conducive to vision or programme success other than compliance with auditable budget outcomes.

California – Office of Traffic Safety

The mission of the California Office of Traffic Safety is to obtain and effectively administer traffic safety grant funds to reduce deaths, injuries and economic losses resulting from traffic related collisions. Their objective is to receive grants from the US federal authorities.

There is a clear distinction between local roads and state roads on the part of the local authorities. The local authorities have no authority over state roads, and so take no responsibility for any crashes or incidents on those roads. These roads are the responsibility of the State.

The overall objective is to reduce the "mileage death rate (MDR) from the 2002 rate of 1.27 fatalities per 100,000,000 vehicle miles of travel (VMT) to 1.0 by 2008. In 2006 the reported MDR rate was 1.31.

Texas

TTI website:
The Center for Transportation Safety (CTS), within the Texas Transportation Institute, was established in 2001 by Texas Senate Bill 586 to conduct research, education, and technology transfer to assist the state in achieving the goal of reducing the overall fatality rate on Texas roadways. Through partnerships with federal and state government agencies and other privately owned organizations, the centre conducts innovative research to help reduce traffic crashes, deaths, and injuries and to lessen the economic burden of these crashes in Texas and the nation.

In Texas, the absence of any documented Road Safety Strategy, Road Safety Goals and Road Safety Plan, or similar government endorsed policy is disappointing as it reflects the lack of leadership from senior government.

Those organisations such as TTI which aim to improve road safety outcomes are heavily reliant on private sector funding. Researchers operate in a context where extreme caution is practices in order not to "bite the hand that feeds" them. The comparison to the breadth of research being undertaken and commitment to road safety in Europe could not be more stark.

Key findings and recommendations

The recommendations in this report are strongly predicated on interaction with the community. They require the time of a road safety or similar officer. Programmes can be developed as pilots, and then shared with others as their methodologies are tested and proven.

Some can be applied to the Australian local government context generally and with little additional assistance, needing only the courage to try something new; others require the development of strong relationships with other professional groups and organisations.

The USA and Northern Europe do not have innovative approaches for working with mature drivers

The study tour provided an opportunity to consider and discuss with other professionals the practices used in other countries. It is evident that that each of the other countries visited is

looking for new ways to engage with the community, and that there is close attention to programmes and initiatives undertaken in Australia, and particularly Victoria, which is considered by many to be a leader in road safety measures.

Education programmes for mature drivers are delivered through television, radio and print media and poster campaigns. No other mechanisms to educate or improve the behaviour of mature drivers were identified.

Nonetheless, a number of recommendations have been developed for consideration by local government and other road authorities throughout Australia in the area of mature driver education.

Road Safety strategies should be Inspiring

After review of the approaches used in several different countries ranging from visionary to pragmatic, and considering the "fit" of these approaches within Australian culture, it is considered that there are benefits to moving from the current education approach of information to one of inspiration.

The power of this approach lies in the simplicity of Sweden's Vision Zero: it can be readily understood by all members of the public, and it applies to every road user.

An inspirational approach can re-inforce positive behavioural attitudes, where they are practiced and be concurrent with enforcement approaches which discourage undesirable behaviours.

A strategy that relies on rational argument leaves room for individuals to claim exemption status due to their perceived superior driving skills, vehicle safety features, or other individual circumstances.

An inspirational approach will require a champion. A champion may function at a municipal, regional, state or greater level.

The adoption of a vision approach is challenging to the Australian psyche. As a nation we have our own mythology, which includes the "Tall Poppy" syndrome, and a distrust of authority. Nonetheless, there is a place for leadership in changing how Road Safety is communicated.

Leadership in road safety can be demonstrated at many levels of government from municipal programs and initiatives, to State and Federal programmes. Municipalities can create, and champion their own visions.

Recommendation 1: Seek to inspire!

Link to Medical Profession is important for Road Safety Outcomes

Engineering based road safety measures which emphasise the road and the vehicle, will deliver a reduction in possible road crash outcomes. These areas for improvement are well managed by the engineering profession at vehicle manufacturers, and road authorities. However, the driver component is not well managed by engineering professionals who are not

trained in education, psychology, and marketing. These specific skills are used by public health practitioners when seeking to change behaviours associated with illnesses such as cardio vascular disease, obesity, and addiction.

A failure to deliver safe roads, vehicles and behaviours most often results in increased effort being required in the medical field – typically in hospitals.

In Northern Europe, safety professionals work with medical professionals to analyse crash data.

The medical profession is well versed in communicating messages to the general public, and is widely respected by the public. Engineers have a much lower "respect" rating from the general public, and are not well regarded as communicators.

The placement of traffic education roles within the engineering driven roads sector may not be the ideal location.

The medical profession has not recently been active in preventative road safety campaigns. It is considered that building links with the Australian College of General Practitioners and the Australian College of Surgeons might be a way forward to improve the educational outcomes with adults.

Recommendation 2: Establish working relationship with medical profession to develop road safety as an adult education outcome.

Develop Programmes based on Adult Education Theory for use in Community Groups

The education approaches used in most countries are designed for people aged 3 to 18 years of age. There are important differences between young people as learners and adults as learners.

Adult education theory is developing beyond knowledge acquisition to

Some key points of adult education have been summarised as follows by Malcolm S Knowles:

- As they mature adults tend to prefer self-direction.
- Adults' experiences are a rich resource for learning.
- Adults are aware of specific learning needs generated by real life events such as marriage, divorce, parenting, taking a new job, losing a job, and so on.
- Adults are competency based learners, meaning that they want to learn a skill or acquire knowledge that they can apply pragmatically to their immediate circumstances.

The above describes the process of learning, which is about knowledge acquisition. This is important to understand, but not the final goal which is referred to as transference.

Transference requires reinforcement to encourage correct modes of behaviour or performance. Reinforcement can be positive - applied to recognise and reward desirable behaviours - or negative - to make undesirable behaviours disappear.

Typically, negative reinforcement comes in the form of police intervention through targeted campaigns. But what other forms of reinforcement, especially positive reinforcement are available?

Positive reinforcement is a more subtle subject to tackle. This has the potential to be a very diverse and large project. Previous Victorian campaigns have included the "Drive Right" campaigns, and there is little information available on the success or otherwise f these programmes. Anecdotal information often discourages such programmes, with feedback such as "rewards" are considered t be too small and too random in their awarding, or open to improper interference or manipulation.

Care clearly needs to be taken in designing and marketing such programmes. Nevertheless, it is considered that there are immense gains to be made through well planned positive change programmes. The aim should be to spark conversation and community approval around preferred behaviours. One possible area for attention , which is a common subject of comment from motorists is knowledge of road rules.

Positive improvement is the knowledge of current road rules. Most drivers learn the road rules when obtaining their licence, but fail to keep abreast of amendments to road rules. Many adults only re-learn the road rules when their children obtain their L-plates. This might be a gap of twenty or more years.

Positive reinforcement might be used to actively encourage adult drivers to refamiliarise themselves with the road rules. Councils might lead by example by running road rules competitions for their staff. These competitions might over time be expanded to include local businesses and community groups.

*Recommendation 3**:** Improve community's knowledge of current road rules through refresher "tests" of road rules, e.g. Parents vs. L-plater competitions at local high schools, or inter-departmental competition.*

<u>Develop driver feedback into Driver Training Programs</u>

The Dutch process of providing young L-Plate drivers with peer to peer feedback should be trialled. This will require the development with local driving education programmes such as METEC and Motorvate.

Recommendation 4: Develop and trial young driver feedback programme similar to that used for learner drivers in the Netherlands. Commence with student groups participating in METEC and Motorvate programmes.

A peer to peer driving feedback could also be developed for mature drivers. The basis for participation could be to challenge drivers to invite objective feedback.

The programme could be piloted within Councils, commencing with Council officers and then expanding the project to local businesses and community groups.

Recommendation 5: Develop and trial mature driver peer to peer programme similar to that used for learner drivers in the Netherlands.

The peer to peer feedback system combined with the road rules re-test process can be used to establish "better driver" rankings for businesses, community groups, neighbourhoods etc.

Focus Groups might assist in understanding community resistance to road safety programmes

Community Based Social Marketing principles indicate that a higher success level will be achieved where smaller objectives are set. Over time, a series of small successes can be converted to greater outcomes. Social marketing does not predict 100% uptake of concepts. However, it has great potential in re-inforcing positive behaviours.

CBSM works best with visible behaviours (e.g. waste management) within a community. Drivers often feel protected by their vehicles from detection. Many CBSM programs are aimed fundamentally at changing established behaviours. (e.g.: recycle more, use fewer plastic bags, compost organic waste).

TAC adverts, due to their context of utilising mass media, are open to rationalisation processes, where road users can differentiate their behaviour from that depicted in the advertisements, and so distance themselves from needing to attend to the message, and change their behaviours.

CBSM may identify locally applicable encouragement processes to reinforce desired behaviours. There are benefits in carefully targeted campaigns over mass marketing campaigns. The Dutch have begun using specific marketing campaigns aimed at new drivers, and report good connection to the target group, but are yet to assess the effectiveness of the campaigns.

The use of much smaller, targeted focus groups is a key element to CBSM. Collection of data from the community, on a much more segmented basis, may assist in the development of more specific programmes with greater ability to result in changed behaviour.

Local government is ideally placed to run such sessions in the context of their own road safety plans, and to develop socially acceptable behavioural change programmes for their communities.

Community education processes typically focus on driving behaviour within residents' own neighbourhoods. This is usually in response to residents' perceptions of speed on their local streets.
Community based social marketing principles can be used to work with communities to lower speeding behaviour in their neighbourhoods.

It is considered that social marketing projects could be undertaken with small communities, to improve speed behaviour of residents in their local streets. The focus of the trials would be the behaviour element of drivers, rather than the road configuration. This could be undertaken in areas which have recently been provided with physical changes, to optimise the participation rate.

Recommendation 6: Use social marketing practices with residents to reduce speeding in their local area.

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