

**Evidence for Behaviour Change from Media Based Public
Education Campaigns: Implications for a Campaign to Reduce
Time-to-care for Patients with Acute Myocardial Infarction**

By

Rob Donovan & Owen Carter

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Rob Donovan & Owen Carter
Centre for Behavioural Research in Cancer Control
Curtin University of Technology
Shenton Park, WA 6102

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1. Introduction

Health information was traditionally passed on in a clinical or one-to-one setting - doctor to patient, mother to child. However, as populations grew and communication technologies improved, mass media became available - and necessary - to supply health information to individuals. Initially, this was in the form of 'limited reach' print media such as brochures, pamphlets, posters and small circulation newsheets, but the 1940s and 50s saw a larger scale use of mass media for public education campaigns. Since then, the advent of sophisticated electronic media and a better understanding of communication processes has led to the development of campaigns that not only provide health information, but also attempt to persuade individuals to adopt recommended healthy behaviours (Egger, Donovan & Spark, 1993). Even more recently, the media have become a vehicle for advocacy for social, political and legislative change in modern societies (Donovan & Henley, 2003).

1.1 Early Campaigns Indicating the Effectiveness of Mass Media to Promote Health and Socially Desirable Causes

In the 1970s, several large-scale community health promotion trials involving the mass media were carried out. Three of the best known were the Stanford three and five city studies in the United States (Maccoby, Farquhar, Wood & Alexander, 1977), the North Karelia project in Finland (Puska, Toumilhto, Salonen, *et al.*, 1985), and the North Coast Health Lifestyle Program in Australia (Egger, Fitzgerald, Frape, *et al.*, 1983). These studies generally involved comparing control communities with mass media-only interventions and mass media plus community-based programs. The general conclusion from these studies was that maximum change is best achieved through the *combination* of mass media and community-based programs, but that mass media alone can have some impact, albeit limited. For example, road safety advertising and publicity alone can raise awareness of an issue, and may even result in a minor short-term behaviour change. However, without concurrent visible enforcement activities, any behavioural effect will be short-lived. At the same time, the impact of enforcement activities appears to be enhanced by accompanying advertising and publicity (Donovan, Henley, Jalleh & Slater, 1995).

The effectiveness of the media in tobacco control, both via publicity and paid advertising is well established for well designed and implemented campaigns (Elder, Edwards, Conway, *et al.*, 1996; Hafstad, Aaro & Langmark, 1996; Hu, Sung & Keeler, 1995; Pierce, Macaskill & Hill, 1990; Popham, Potter, Bal, *et al.*, 1993; Reid, 1996; Hassard, 1999). The effectiveness of the media, either alone or as a contributing element in comprehensive social marketing campaigns has been further confirmed in a number of different areas including injury prevention, racism, domestic violence, recycling and crime prevention (e.g., Egger, Donovan & Spark, 1993; Spark, Sinclair, Donovan, *et al.*, 1994; Middlestadt, Fishbein, Albarracin, *et al.*, 1995; Foerster, Kizer, DiSogra, *et al.*, 1995; Brannstrom & Lindblad, 1994; France, Donovan, Watson, *et al.*, 1991; Donovan & Leivers, 1993; Hindin, Kincaid, Kumah, *et al.*, 1994; Coleman & Meyer, 1990; Donovan, Paterson & Francas, 1999; Donovan, Francas, Paterson & Zappelli, 2000; Yzer, Siero & Buunk, 2000).

As with many areas, where mass media campaigns have failed, it is not so much that mass media are ineffective, but the message has been poor, the targeting ineffective, the objectives unrealistic, or the evaluation inappropriate (Egger, *et al.*, 1993; Snyder & Hamilton, 2002). Where the campaigns have been based on sound social and cognitive models, where community activities are included, and where all the principles of social marketing are integrated, the results have been positive (Marcus, Owen, Forsyth, *et al.*, 1998).

Health professionals with little understanding of the media often set unrealistic objectives for their campaigns. When these objectives are not met, media campaigns are often deemed ineffective. For example, it is unrealistic to expect that advertising alone could have a significant impact on a man's violent behaviour. However, it can have a substantial influence on encouraging a violent man to seek help for his behaviour (Donovan, Paterson & Francas, 1999). Where commercial marketers are quite happy to achieve 2-3% shifts in market share, many health professionals consider such small changes a failure. While the media can stimulate substantial increases in help seeking behaviours (e.g., as in calls to help-lines) and in screening behaviours, and can contribute to significant changes in beliefs and attitudes related to complex behaviour changes (such as racism: Donovan & Leivers, 1993), significant percentage changes in complex areas require sustained campaigns of substantial media weight in conjunction with other environmental supports. There is a vast difference between calling a Quit line (little effort) and actually quitting (a lot of effort). Media contributes to both, but the latter requires sustained effort by both the health promoter and the quitter.

Campaign exposure has been found to work in a number of different ways, including: increasing the opportunity for learning new information; increasing the perception that an issue is important to take into account; increasing the likelihood that social discussion of messages will be stimulated; and increasing the perception that a new behaviour is socially expected. Perhaps equally as importantly, it may also work by making politicians believe that the high exposure means it has caught public attention and requires money and policy changes (Donovan & Henley, 2003; Hornik, 2002a).

Changing health behaviours typically requires a shift in perceptions, attitudes and opinions that underlie an individual's health or lifestyle habits, before behavioural change occurs. Research points to some health behaviours being more responsive to media information campaigns than others. Health behaviours that are easy, of low cost and that have a highly valued outcome (i.e., changing an infant's sleeping position to avoid SIDS) are far more likely to be effective than behaviours that are more tightly woven into the social fabric of the target audience (i.e., diet, smoking, sun tanning, sexual behaviour, etc.). While behaviours that fall into the former category are likely to be improved by a simple function of increased public awareness, the latter behaviours require media campaigns to not only target individuals, but to also affect the social norms and expectations surrounding the behaviours themselves (Hornik, 2002b).

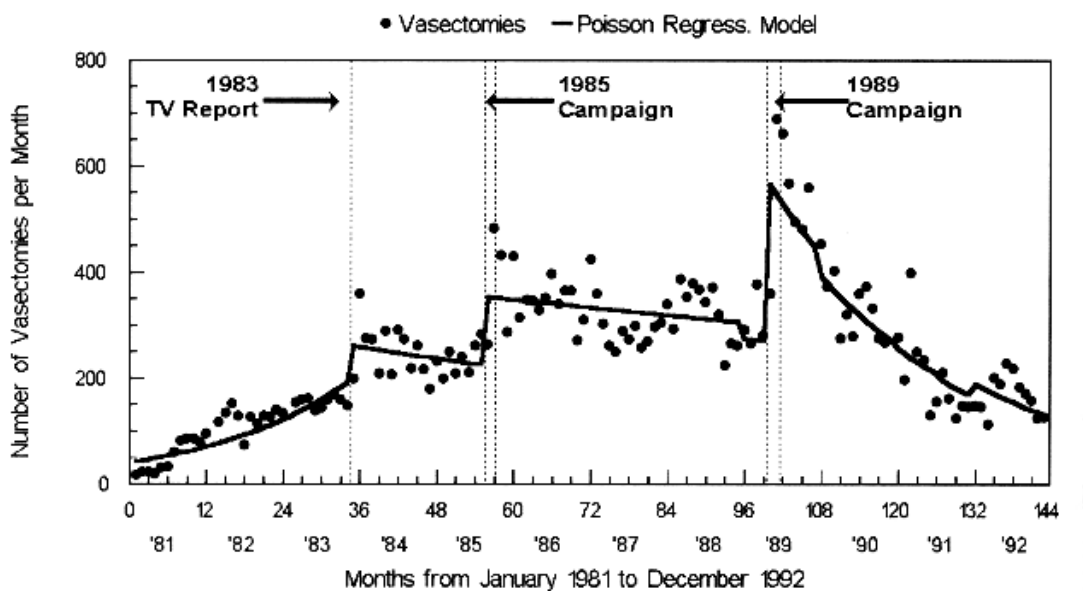
1.2 Recent Examples of Evidence of Behavioural Change

There is now a wide body of evidence to suggest that media campaigns can not only impact on beliefs and attitudes, but can also have a positive effect on health behaviours. There are numerous examples of national and international mass media campaigns that have induced positive health-related behavioural changes within target populations. Some examples include:

- a 2.6% and 2.9% drop in the prevalence of smoking in Sydney and Melbourne respectively in 1983 in response to the first Quit campaigns in Australia (Pierce, Macaskill & Hill, 2002);
- an increase from 54% to 65% in childhood vaccination rates in the Philippines between 1989 and 1990 (Zimicki, Hornik, Verzosa, *et al.*, 2002);
- an 81% increase in the number vasectomies performed in Brazil from 1989 to 1990 (Kincaid, Merrit, Nickerson, *et al.*, 2002);
- an increase from 12% to 21% for sunscreen use in Victoria between 1988 to 1990 (Hill, White, Marks, & Borland, 2002);
- an increase in driver seatbelt use from 64% to 80% in North Carolina in 1993 (Williams, Wells, & Reinfurt, 2002); and
- an increase from 35% to 45% in the use of condoms for casual sexual encounters in France between 1990 and 1992 (Wellings, 2002).

Figure 1 below illustrates a clear effect between mass media interventions and the number of vasectomies performed in a Men's Health Clinic in São Paulo, Brazil between 1981 and 1992 (Kincaid, Merrit, Nickerson, Castro & Castro, 2002).

Figure 1: Effect of media events on the number of vasectomies performed per month in São Paulo Men's Health Clinic in Brazil



1.3 Media Weights and Flight Frequency

Figure 2 from the 1996 Australian National Tobacco Campaign illustrates a relationship between calls to the Quit-line and the weight of media advertising (TARPs). Figure 2 shows that a behaviour such as calling a Quit-line, is very responsive to media weight: in general, the greater the advertising weight, the greater the number of calls to the Quit-line, and in the absence of any advertising, calls decline rapidly (Donovan & Henley, 2003). On the other hand, Figure 3 illustrates calls to a Men's Domestic Violence Help-line and shows a general relationship with media weight, which does not decline dramatically when the advertisements are off air. This clearly reflects the differences in the complexity of the decisions in each case. Figure 3 also shows the value of supporting radio ads to maintain a behaviour.

Figure 2: National tobacco campaign: calls to the Quit-line by media weight (TARPs)

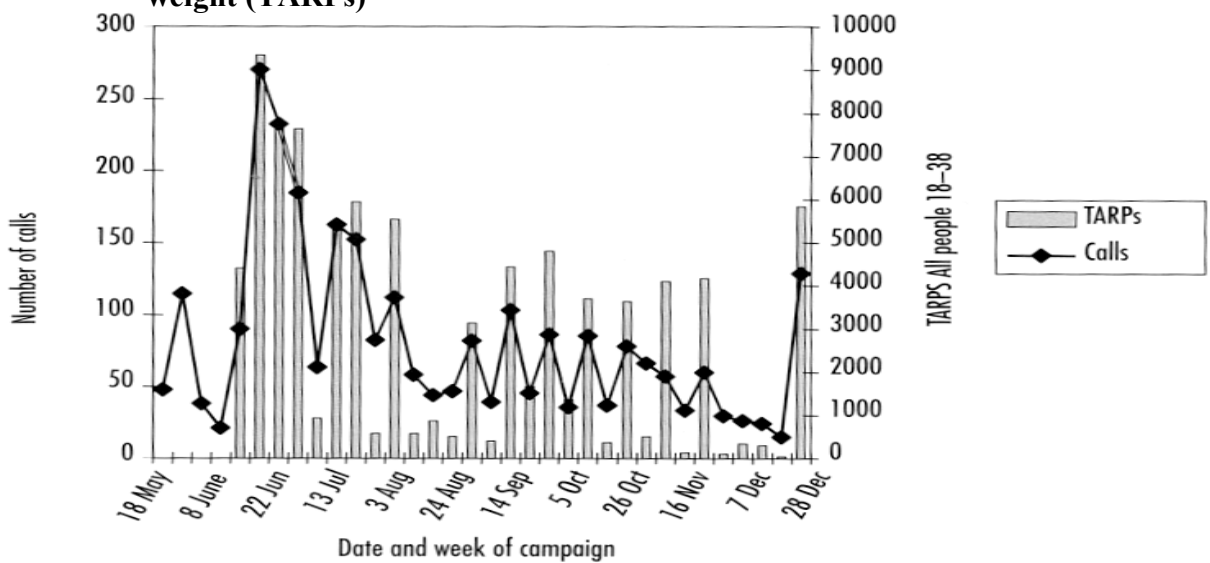
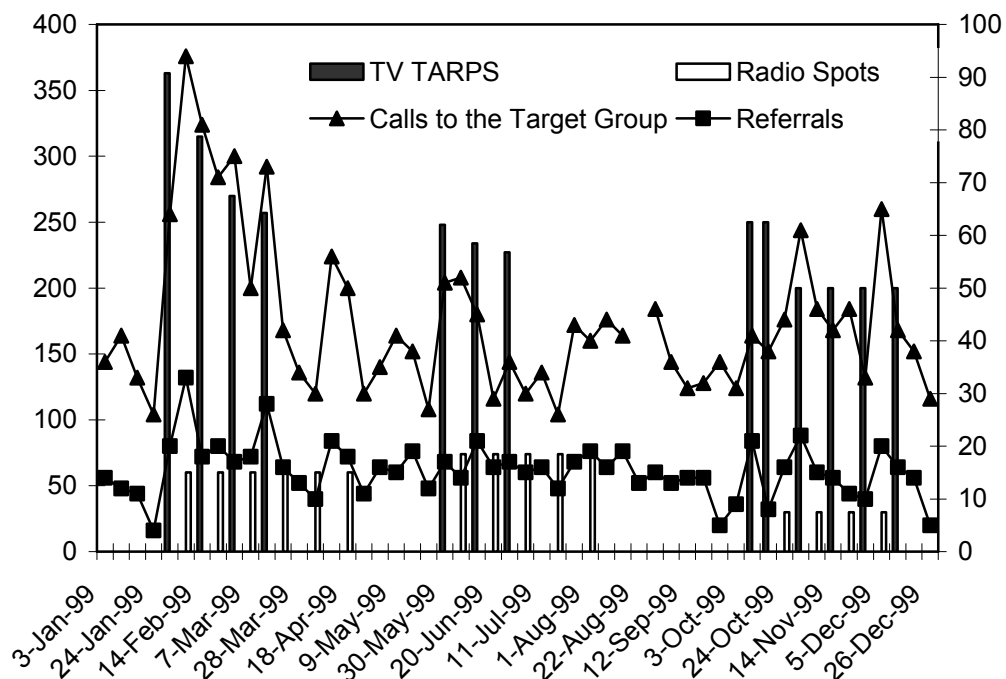


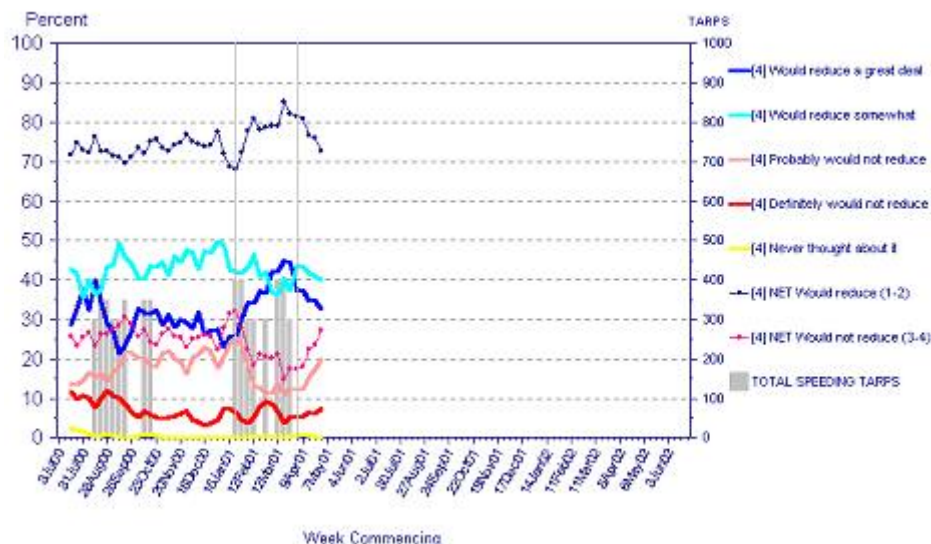
Figure 3: Calls to the *Freedom From Fear* Men's Domestic Violence Help-line and Media Weight



While it is difficult to establish a general rule for all types of health and social behaviours, the National Tobacco Campaign results and road safety tracking data suggest that around 200 – 250 TARPS per week alternating over an eight week period are necessary for an effective impact. However, once campaigns are established, creative advertising executions appear to maintain impact at levels as low as 80 – 100 TARPS.

While some knowledge effects (e.g., knowledge that a Quit-line exists; knowledge that a Men’s Domestic Violence Help-line exists), are relatively easy to establish and maintain at minimal media weights, other beliefs (such as a 10 kph increase in speed having a dramatic impact on the severity of injury and likelihood of a crash) require periodic media bursts at levels around 200-250 TARPS. Figure 4 shows that the belief that a 10kph decrease in speed ‘would reduce a great deal’ the risk of a crash, increases gradually over the duration of the campaign, but then declines to pre-campaign levels when the advertising ceases.

Figure 4: Impact of advertising on road safety beliefs



Again, it is difficult to establish a general rule, but many campaigns require ongoing monthly advertising bursts whereas for others, every three months seems sufficient. Unfortunately, given the relatively low budgets of most health advertisers, we do not have sufficient data to make definitive statements about TARPS required for various effects in various areas. However, there is clear evidence from the tobacco area, that when anti-tobacco advertising expenditure was reduced in the early-mid 1990s, the rate of smoking cessation also declined.

1.3 Meta-Analysis of Mass Media Campaigns

The level of behavioural change that health campaigns usually induce has been estimated by a meta-analysis undertaken in 2002 of 48 health promotion campaigns in the United States as an average of 9% of the target populations (Snyder & Hamilton, 2002). It was also found that the factors that were most important in predicting the effectiveness of a health campaign were the amount of ‘reach’, or exposure, that the

campaigns enjoyed, and the newness of the information contained within the messages.

Current wisdom suggests that 'reaching' 70-80% of a target population (i.e., exposing the target population to the advertising sufficient for them recall the advertising when prompted) is a necessary condition for a significant population impact. Furthermore, it is estimated that members of a target population require at least three attended-to exposures to learn simple informational messages in advertising. Hence the need for TARPS levels of around 240 for achieving an impact (TARPS are calculated by multiplying the reach of a media schedule by the average frequency of exposure. Reaching 80% of a target population an average of three times each yields 240 TARPS). With all else being equal, the more people who are reached by a message and the more frequently they hear it, the more likely they are to respond (Hornik, 2002).

The other important predictor of success for health campaigns is the presentation of novel information, or old information in a new way. (Snyder & Hamilton, 2002). 'New' information, or 'old' information presented in a new way attracts greater attention and hence has the potential for greater campaign impact. The National Tobacco Campaign deliberately sought new ways of presenting already known information about smoking and lung cancer and heart disease. The resulting graphic advertisements (particularly squeezing fat out of the aorta of a smoker) were very effective. Similarly, introducing the macular degeneration effects of smoking ('new news') attracted considerable attention to that advertisement execution. Advertising that is graphic in execution but in a way related to the message, attracts more attention and is retained in memory longer and more vividly than messages presented in a bland format.

1.4 Discussion

Our experience suggests that media would have the greatest behavioural effect where all, or nearly all, of the following apply:

- the desired behaviour change requires little time, effort, financial or psychological cost;
- the related social norms are important and favour the desired change;
- there are clear and substantial benefits to the individual (that outweigh any costs);
- there are no major environmental inhibitors; and
- the individual's attitudes are neutral or already mildly positive towards the behaviour.

The behaviour of dialling 000 if concerned about a possible heart attack at first glance appears to fit most of the above criteria. However, there may well be psychological and financial costs involved if it turns out to be a 'false alarm', and these expectations may inhibit the behaviour. There may also be environmental inhibitors in some areas (e.g., damaged public phones; no mobile coverage), and the social environment may not be conducive (e.g., a 'macho' work environment might inhibit a worker from revealing his symptoms to others; workmates might be unsympathetic). These sorts

of issues need to be identified from research prior to campaign development. They are dealt with in more detail in Section 2.

2. Developing a Successful Communication Campaign

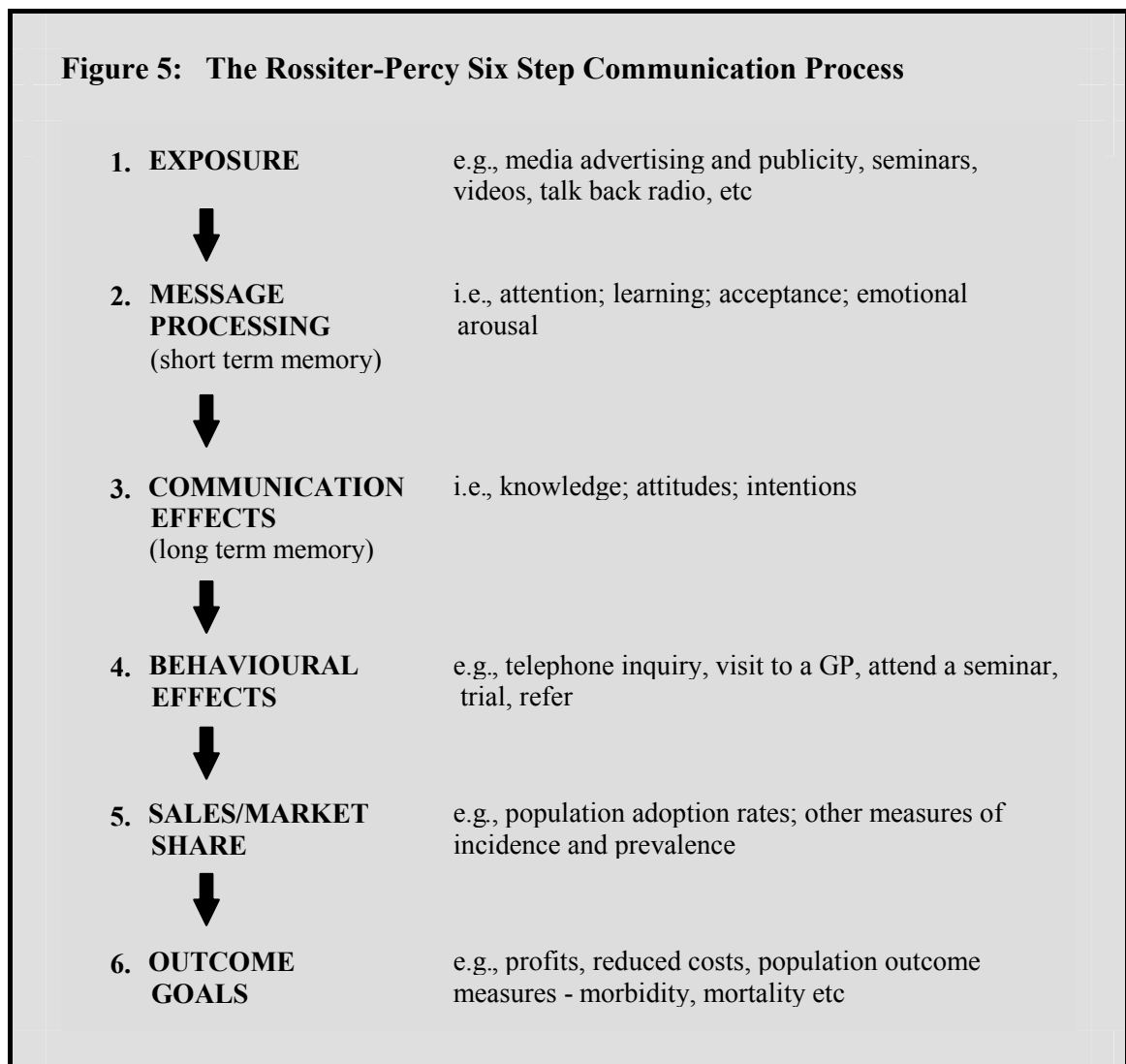
2.1 Principles for successful campaigns

A number of principles are relevant to conducting campaigns that meet communication and behavioural objectives (Donovan & Henley, 2001; Egger, Donovan & Spark, 1993; ONDCP, 1997):

- The receiver is an active processor of incoming information – the receiver acts far more on the message, than the message does on the receiver. That is, individuals interpret incoming messages in terms of pre-existing beliefs and attitudes. This is particularly important in sensitive, controversial or core values areas, where existing attitudes often screen out incoming messages that contradict the individual's existing beliefs and attitudes. Hence particular care is needed when constructing messages aimed at those antagonistic or sceptical towards the proposed idea or behaviour.
- Different target audiences may respond to different messages - target audiences must be segmented by beliefs and attitudes for the development of targeted messages.
- Formative research is essential - given the importance of existing beliefs and attitudes affecting message processing, formative research is essential to gain an understanding of each target audience's beliefs and attitudes on the issue to be addressed.
- Message pre-testing against target audiences is essential - it is crucial that messages be pre-tested to ensure correct message understanding and minimal counter-arguing occurs. Pre-testing is also necessary to ensure that messages aimed at primary target audiences do not have unintended negative effects on secondary audiences.
- Comprehensive, coordinated interventions are most successful.
- Communication campaigns must be coordinated with other environmental and on-the-ground strategies to ensure attitudinal and behavioural success (see Figure 1 for the relative impact of communication campaigns versus environmental factors at various stages in the hierarchy of effects).
- Use multiple delivery channels - communication campaigns involving a number of message delivery channels appear more successful than those that don't.
- Stimulate interpersonal communications - communication campaigns that stimulate interpersonal communications appear more successful than those that don't.
- Campaigns must be sustained to achieve and maintain success.
- Use a theoretical framework - campaigns that have been guided by theoretical frameworks are more successful than those that are not.

2.2 A Six-step Communication Model for Planning

Following McGuire (1985), Rossiter, Percy and Donovan (1991) developed a simplified hierarchical six-step model relating advertising exposure to company objectives and profits (see Figure 5). While developed for advertising in a commercial marketing context, the model is applicable to all forms of communication and has been applied in a number of health and social marketing contexts (Donovan & Francas, 1990; Donovan & Owen, 1994; Donovan & Rossiter, 1998; Egger, Donovan & Spark, 1993).



Step 1: The hierarchy of effects commences with *exposure* of the target audience to the message (step 1). Messages may be delivered in a variety of ways (e.g., advertising; publicity; edutainment; factual information), and in a variety of media and media vehicles (i.e., websites and CD-ROMs, newspaper articles, television advertisements, billboards, radio talk back, posters, magazine articles, soap operas, hit songs, videos, or face-to-face counselling).

Step 2: Attention to the message (in whatever form it appears) leads to conscious **processing** of the message in short term memory (step 2). This involves attention to the message content, emotional arousal, comprehension and learning, and acceptance or rejection of the message. Message execution (i.e., the use of colour and graphics), source factors (i.e., who delivers the message – whether that be an individual or organisation), and message content, all influence processing.

Step 3: Processing the message (and subsequent related messages) results in long term memory effects called **communication effects** (step 3). These are beliefs about, attitudes towards, and intentions with respect to the brand, message topic or promoted behaviour. The content of the message, the audience's initial attitudes and beliefs, the nature of the message exposure and the degree of repetition of the message all affect whether, how much, and what components of the message are stored in long term memory, and how easily these can be recalled during decision making.

Step 4: The desired communication effects when recalled during decision-making, facilitate **behavioural effects** such as purchase of the product or trial of the recommended behaviour (step 4), or intermediate behavioural effects such as seeking further information.

Steps 5 & 6: These behavioural effects take place amongst pre-defined **target audiences** that were subjected to the exposure schedule and message strategy. The accumulation of these behavioural effects amongst the target audiences leads to the achievement of the **objectives and goals** - which in commercial terms are usually sales and market share objectives that contribute to profit goals (steps 5 and 6). In the social and health areas, 'sales' or 'market share' objectives may be stated in terms of participation rates or prevalence rates, while the overall goals relate to things like risk reductions, health cost reductions or more positive life experiences for the general population (Donovan & Owen, 1994).

Taking an example from commercial marketing, a teenager (target audience) watches a television advertisement for a new candy bar (exposure). The television advertisement is aired during a show known to be popular with teens. The advertisement attracts and maintains the teenager's attention because it is fast moving, backed by a rap song, and features exciting, colourful graphics. The candy bar is shown being shared by several cool looking teenagers, who exclaim in unison that "tastes great". A voiceover lists creamy caramel, milk chocolate and crunchy nuts as the ingredients. Our teenager viewer is drawn into the advertisement, likes the music and talent, and accepts that the candy bar would probably taste good and might be worth trying (message processing). The advertisement appears twice more during the show. Our teenager now knows the candy bar's brand name, what the wrapper looks like, what its major ingredients are, and has formed a tentative positive attitude towards trying the candy bar (communication effects).

A few days later at the local delicatessen, our teenager sees a display of the candy bars on the counter and recognises the wrapping and the brand seen on television. Our teenager experiences a positive feeling for the candy bar and recalls the promise of "great taste" (communication effects). The price is slightly cheaper than other popular brands, our teenager has sufficient cash, so the decision is made to buy and

try the candy bar (behavioural effects) – thus, along with thousands of others – contributing to the company’s sales and profits.

With respect to a time-to-care campaign, a 45 year old blue collar worker (target audience) watches a television advertisement for the campaign (exposure). The television advertisement is aired during a show known to be popular with blue-collar men. The advertisement attracts and maintains attention because it features a blue-collar scenario of several men discussing handyman tools and tasks. A popular rock song from the 1970s is playing in the background. One of the men grimaces in pain and clutches his chest. A voiceover lists the symptoms of myocardial infarction as the camera shows the friends concerned but not knowing what to do. One of the men states that it could be a heart attack and that they must act promptly. He dials 000 and we see the ambulance arriving and a later scene showing the man thanking his friend for his prompt action. The viewer follows the advertisement story closely (message processing). The advertisement appears twice more during the show. Our blue-collar worker now knows that various symptoms could indicate a heart attack, and that if he or a friend experiences these symptoms they must act promptly and dial 000. He may have also has formed a tentative intention to do as such if the situation occurs in his workplace or elsewhere with his friends (communication effects).

A few days later at work, our blue-collar worker witnesses a workmate in pain and clutching his chest. He recalls the advertisement and its messages (communication effects) and offers to call 000. However, the worker in pain protests loudly at this and his workmates offer no support. He decides not to make the call. Unfortunately his workmates have not yet seen the campaign advertising, or have done, but have not been convinced that their fear of embarrassment is unfounded.

2.3 Planning a Communication Strategy

In using the Rossiter-Percy model to plan a communication strategy, the chain is in the opposite direction to the exposure process (Figure 6). That is, the campaign planner asks – and then sets out to answer - the following series of questions:

- Step 1: What are our overall goals that the campaign must help achieve?
- Step 2: What specific objectives do we want this campaign to achieve?
- Step 3: Who do we need to impact to achieve our goal, and
What do we want them to do?
- Step 4: What beliefs and attitudes do we need to create, change or reinforce to have them do this?
- Step 5: What sorts of messages do we need to create to have them adopt these beliefs and attitudes?
- Step 6: Where, how often and in what form do we need to expose these messages to reach these people?

Figure 6: Campaign Planning Sequence

The manager defines overall outcome goals and specific measurable objectives



Selects specific target audiences amongst which to achieve these goals



Specifies behavioural objectives for *each* target audience



Delineates the beliefs and attitudes necessary to achieve the behavioural objectives



Generates the content and type of messages that will be necessary to achieve these beliefs and attitudes



Determines how, where, how often and in what form these messages are to be exposed to the specific target audiences.

It should be noted that this planning process is an iterative, recursive process, in that previous levels in the hierarchy may be modified as a consequence of planning considerations lower down, resulting in even further modifications, and so on.

1. Overall goals: What do we want to achieve?

Overall goals can be stated in general – that is, to save lives, reduce the burden of disease, increase likelihood of survival and quality of life by acting promptly, and so on.

Specific goals should also be set: for example, an increase in the proportion of myocardial infarctions where the patient's time-to-care is within a specified time.

2. Target audiences and target behaviours: Who do we need to reach and what do we want them to do?

Broadly speaking, we want anyone who *experiences* or *witnesses* a possible myocardial infarction to dial 000 for an ambulance as soon as possible. There are a number of target audiences:

- individuals who have a heart condition;
- their families, friends, workmates and others with whom they interact;
- individuals who have not any prior condition but are in a high risk category; and
- people in general who are family members, workmates, carers etc

3. Communication Objectives: What beliefs do we need them to hold to do this?

Research is necessary to assess the extent to which we have to counter negative beliefs. However, the following beliefs are necessary for both the individual experiencing the attack and those present:

- one doesn't need to be totally sure of the symptoms to make a decision to call 000;
- the sooner a patient gets to hospital the greater chances of survival and the lesser subsequent damage/morbidity; and
- 'it's better to be sure than sorry' – embarrassment costs are unfounded.

4. Message Strategies to Achieve the Desired Beliefs

Issues here relate to the execution of the advertisements: whether to use medical experts in the advertisements; whether to model telephone dialling; whether to show typical situations and typical people responding appropriately versus inappropriately; whether to emphasise the negative consequences of not dialling versus the positive consequences – or both; and so on.

5. Media Strategies

Issues here relate to choosing a mix of advertising and publicity, whether to use television, radio or print, and in choosing appropriate media vehicles (i.e., which TV show; which radio station; etc) for different target groups.

3. A Practical Model For Media Use In Social Marketing Programs

The Donovan and Henley (2003) framework presented here extends that presented elsewhere (Egger, Donovan & Spark, 1993; Donovan & Owen, 1994). The framework shows five major media methods (advertising, publicity, edutainment, websites/interactive technology and civic journalism), for three major objectives (education, motivation and advocacy). This is shown in Figure 7, where the number of asterisks indicates the relative use of the methods for the various objectives.

Figure 7: A Framework for Using Media in Social Marketing

WAYS OF USING THE MEDIA

	<u>Advertising</u>	<u>Publicity</u>	<u>Edutainment</u>	<u>Websites</u>	<u>Civic Journalism</u>
OBJECTIVES					
Educate	**	**	****	*****	****
Motivate	****	**	****	**	***
Advocate	***	***	**	**	****

Advertising

Advertising is generally defined as the paid placement of messages in media vehicles by an identified source, including the situation where media organisations donate time or space for the placement of social change messages that are clearly in the format of paid advertisements (community or public service announcements: CSAs or PSAs). There is a large number of advertising channels available, from direct mail to the rear of a toilet door, to shopping centre noticeboards, from packaging to sporting team jumpers, from local newspapers to nationwide (and international) television networks, and the worldwide web. In fact, most media vehicles, and features within media vehicles (e.g., sections in newspapers such as gardening; home improvements; etc) exist simply to provide a channel for advertisers.

In most social change areas, the major roles of advertising are first to create awareness of the issue and second, to create a tentative positive attitude toward the issue that predisposes the individual to other components of the campaign and to positive social pressures. The extent to which advertising can directly influence behaviour in health and social policy fields depends on the nature of the behaviour and the extent of prior public education. For example, non-threatening one-off behaviours such as cholesterol testing, and even one-off behaviours with quite threatening consequences such as HIV testing can be influenced directly by advertising campaigns (in

conjunction with easily accessible test sites). In other cases, environmental factors are required to facilitate the eventual behaviour change.

However, addictive and more complex behaviours requiring substantial lifestyle changes can rarely be influenced directly by advertising. Advertising's role in these latter instances is to maintain salience of the issue, to sensitise the target to intervention components that might otherwise have gone unnoticed, to provide directions to sources of assistance, to generate positive attitudes towards *trying* to adopt the desired behaviour change, and, where the behaviour has been adopted, to reinforce that behaviour. Figure 8 shows the relative impact of media versus environmental factors on creating awareness, forming attitudes and intentions, and eventual behaviour change.

Figure 8: Relative Impact of Media Campaigns versus Environmental Factors at Various Stages in the Hierarchy of Effects

Effects hierarchy	Media campaigns	Environmental factors
Awareness	Very High	Low
Attitude	High	Moderate
Intention	Moderate	High
Behaviour	Low	Very High

Television advertising is ideal to create awareness for the 000 number for an ambulance and for promoting the message that ‘every minute counts’. The opportunity to show graphic life saving scenes provides the opportunity to communicate the urgency message. Radio and billboards would serve to maintain the salience of the message once established. Communicating the symptoms of myocardial infarction – if that is an objective – would need to be simplified for most people, regardless of the medium. Three or four major features would be the limit, and these should be related in some way for ease of learning. Of course another subtext is that ‘when in doubt, call anyway’.

Publicity

The high cost of advertising has led to social change practitioners paying more attention to unpaid methods to get their messages across. Publicity refers to the unpaid placement of messages in the media, usually in news or current affairs programs, but also in feature articles or documentaries. Publicity involves attracting the media to run a particular story or cover a particular event in a way that creates,

maintains or increases the target audience's awareness of, or favourable attitudes towards the organisation's products or message, or towards the organisation itself.

Many social marketing campaigns now involve press conferences with celebrities and staged events that attract considerable photo coverage by the media. These events can be supported by activities such as providing the media with feature articles (for newspapers and magazines), and making experts available for interview on radio and television.

Personal stories where an individual's life is saved by prompt action by his or herself, a family member, workmate or stranger (i.e., featuring all target groups) should be an integral and ongoing part of any campaign.

Edutainment

Edutainment (or Enter-Education) refers to the deliberate inclusion of socially desirable messages in entertainment vehicles such as television and radio soap operas, films, popular music, comics, novels and short stories, to achieve social change objectives (Singhal & Rogers, 1999). This may involve inserting pro-social messages in already existing or planned entertainment vehicles, or actually developing the entertainment vehicles as part of a social change program. The Johns Hopkins Health Institutions developed an innovative way of using people's interest in high profile television soap operas "ER" and "Chicago Hope". An informative 90-second health news segment dealing with the issue portrayed in each week's episode is produced to be aired immediately following the show. The segment also lists toll free numbers and Internet links to relevant information (Langlieb, Cooper & Gielen 1999). [It has been 'reported' that some GPs claim that the information they get from shows like *GP* and *A Country Practice* is so good that they should receive Continuing Medical Education (CME) points for watching! (Maegraith, 1994)].

There is clearly an opportunity to include this issue in soap operas regardless of the show's main theme.

Info-news

Info-news is the news equivalent of edutainment: it refers to the placement of desired messages in news items. Journalists are provided with standard paragraphs that can accompany news about various topics. For example, in reporting any news about the tobacco industry or reports on tobacco related illnesses, journalists can be encouraged to include closing statements such as "tobacco kills 18,000 people per annum in Australia". Statements about time-to-care and lives saved should be developed that can be easily tacked on to personal stories. These could include statements about attitudes inhibiting calling (e.g., "Bill was fortunate in that his workmates called 000 as soon as he complained about chest pains. Others are worried about the subsequent embarrassment if they call an ambulance and it turns out to be just indigestion. Unfortunately this sometimes leads to people not calling 000 when they should have. Any signs at all, please dial 000 said Dr Heartlove ...").

Websites – Interactive Information Technology

The arrival of the Internet has led to enormous advances in increasing people's access to information (provided they have a computer and Internet link). However, it has not increased people's ability to interpret information, nor to judge the reliability and validity of the information provided.

Many health organisations have developed interactive web sites where visitors can, for example, answer a questionnaire with respect to their dietary habits and receive an immediate 'diagnosis' and 'prognosis' regarding dietary changes. Anti-tobacco campaigners are developing similar methods that classify smokers according to their stage of change, and then present messages 'tailored' to the smoker's stage of change and other characteristics (Borland, Balmford & Hunt, *under review*).

The web offers an educational opportunity for occupational health information to include symptoms of myocardial infarction, the importance of prompt action, and the appropriate action to take (if not already part of such Internet access).

3.1 Choosing Media and Methods

The decision whether to use advertising, publicity, civic journalism, website technology, edutainment, or some combination of these in any social marketing campaign is determined by the objectives of the campaign, the budget, the relative effectiveness of the different modes in reaching and impacting the target audiences, the complexity of the message, time constraints, relations with professionals in the various media, and the nature and types of media and media vehicles available (Egger *et al.*, 1993).

The choice of print versus electronic media, television versus newspapers, radio versus magazines, and so on, also depends on budget, type of message required, target audience media habits, and so on. In general, television and outdoor media are intrusive and therefore have the capacity of reaching those who might not normally attend to a message; newspapers and web sites are passive, in that only those interested in the topic will read further or deliberately access the site.

The primary advantages of paid advertising relate to control factors; that is, control over message content, message exposure - timing and 'location', and hence target audience, and frequency of exposure. Advertising's major disadvantage is cost, both production costs. However, creative advertising people can, and do develop messages that don't require expensive production (see Donovan, Paterson & Francas, 1999), and media costs (by far the larger component). On the other hand, given the number of people exposed to network television advertising for instance, the cost per individual contact and impact is often quite low, especially relative to face-to-face methods.

Publicity in major media shares the ability of advertising to reach large numbers of people in a relatively short period of time, but has the disadvantage of less control over message content, message exposure and frequency (unless the issue is sufficiently newsworthy to attract continuing coverage for several days). A press release might be rewritten by a sub-editor in a way that omits or distorts crucial

information, be relegated to the later pages of a newspaper, only appear in a very late TV or radio news spot, or even be totally ignored. On the other hand, publicity is generally perceived as more credible than paid advertising (because the source is presumably unbiased, or less biased), and is less costly.

Edutainment in major media has the ability to reach large numbers of people in a relatively short period of time (given a popular show), but, except where the show is produced by the social marketer, has the disadvantages of less control over message content, and less control over message exposure and frequency - unless the theme continues for several episodes. The primary advantage of edutainment, which also applies to publicity, is the ability to attract the attention of people who might otherwise ignore or avoid messages that appear in an obvious educational form.

Websites are virtually *de rigueur* for any campaign, even if serving the same purpose as an entry in the 'yellow pages'. However, useful websites allow target audience members to access information about the issue, and allow stakeholders to access program information. Interactive elements can be built into the site, as well as links established to other sites. Website design becomes expensive when interactive elements are included, but the major issues are maintaining and updating the site.

The effective application of these media methods in social marketing requires close co-operation between media experts, marketing experts, content professionals, and behavioural scientists with expertise in communication theory and attitude and behaviour change. A realisation of this has been a long time coming. Nevertheless, the Australian Government's national tobacco campaign is directed by a special advisory group (headed by a behavioural scientist), and includes health promotion, social marketing and consumer behaviour experts, all with considerable experience in tobacco control.

3.2 Roles of the Media in Social Marketing Campaigns

Egger, Donovan and Spark (1993) delineate three major roles for the media components of social marketing campaigns, two of which apply primarily to the targeting of *individual* behaviour change and the other to the achievement of *socio-political* objectives or *structural* change. All of these objectives involve the targeting of beliefs (knowledge and perceptions), attitudes (and opinions) and values. A fourth role is a 'directing' or 'public announcement' role. In this case the information is not about the issue in question, nor does it attempt to persuade; it simply directs people to further information about the issue (e.g., promoting a telephone information service); to activities associated with the issue (e.g., a Cancer Foundation *Run For Life* event); or to opportunities for community involvement in policy making (e.g., announcing a public meeting to deal with local issues).

3.2.1 Specific Objectives

There are a number of objectives that can be classified under the three overall roles of informing, persuading or advocating (see Donovan & Robinson, 1992; Flora, Maibach & Maccoby, 1989). However it should be noted that the classification is not a mutually exclusive one. These are summarised as follows:

Informational Objectives

- informing (or educating) people about the personal and community disbenefits of various undesirable behaviours, and the benefits of alternative behaviours;
- clarifying misperceptions and/or confusions that people may have about various issues; and
- reminding people of the benefits and disbenefits of which they are already aware and maintaining the salience of this knowledge.

A time-to-care campaign clearly has these informational objectives.

Motivational or Persuasion Objectives

- reinforcing those already positive to or practising the desired behaviour;
- generating emotion arousal to increase people's motivations to cease undesired behaviours and/or to adopt various desired behaviours;
- sensitising or predisposing individuals to specific intervention components (arguably the major role as a facilitator of behaviour change);
- increasing awareness of both prescriptive and, where appropriate, popular norms (Cialdini, 1989), and hence providing social support for those who wish to adopt the recommended behaviour; and
- stimulating word-of-mouth communications about the issue in question and hence encouraging peer (and other) group discussion and decision making - a very important role for the diffusion of social issues (Rogers, 1995).

A time-to-care campaign also has these motivational objectives.

Advocacy Related Objectives

- increasing community awareness of the issue and placing the issue on the community's agenda (i.e., 'agenda setting'; Ghorpade, 1986);
- creating or increasing community awareness of a particular point of view with respect to the issue (i.e., 'framing' the community agenda);
- creating or maintaining a favourable attitude towards this particular view;
- creating a view that the issue is a significantly serious one for community concern (i.e., 'legitimising' the issue); and
- generating a positive community mood within which regulatory and other policies can be introduced with minimal opposition and/or maximal support.

A time-to-care campaign is not concerned with these objectives unless it is seeking policy changes in workplaces or other institutions such as sporting clubs, that would facilitate more prompt attention to possible heart attacks.

4. Concluding Comment

There is ample evidence in the literature that under the right conditions, mass media campaigns can induce large scale behavioural change. Reducing the time-to-care for an individual suffering acute myocardial infarction seems to fall into the category of a low cost behaviour with a highly valued outcome. As such, increasing public awareness of the *value* of such behaviour is highly likely to induce behavioural change in this respect. If the information is not already widely known and a mass media campaign was adequately funded to reach a large proportion of the target audience, the literature suggests that such a campaign would be highly successful in reducing the time-to-care for patients with acute myocardial infarction.

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