

Contemporary
Government

Challenges



Australian Government

Australian Public Service Commission

Changing Behaviour

A Public Policy Perspective



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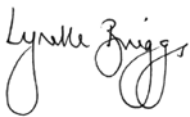
Commissioner's Foreword

This publication is one in a series designed to stimulate debate about contemporary government challenges. It deals with the challenge of how democratic governments can most effectively influence the behaviour of their citizens. The role of regulating or influencing behaviour is, of course, not a new one for governments—they have long used a range of traditional policy tools, including legislation, sanctions, regulations, taxes and subsidies, the provision of public services and information to modify behaviour in the public interest. What makes the current environment more challenging is the growing number of policy problems where influencing human behaviour is very complex and the effectiveness of traditional approaches may be limited without some additional tools and understanding of how to engage citizens in cooperative behavioural change.

It has become increasingly clear that a major barrier to governments 'delivering' key policy outcomes is a disengaged and passive public. In the areas of welfare, health, crime, employment, education and the environment, achieving significant progress requires the active involvement and cooperation of citizens. The rapid rate of growth in obesity, for example, is a complex and serious social health problem. Successfully addressing obesity depends significantly on the motivation and behaviour of individuals and only modestly on the quality of secondary health care.

As a result of the growth in policy problems where influencing human behaviour is very complex, policy makers and programme and service model designers need a more sophisticated understanding of the factors influencing human behaviour. They require a better understanding of how the traditional policy tools can be supplemented by insights from behavioural change theory and evidence at the individual, interpersonal and community levels. The potential payoffs are more effective outcomes, often delivered for less cost, particularly if a longer-term time frame is taken to evaluate the costs and benefits.

Achieving sustained behavioural change can be difficult. The Australian Public Service (APS) is learning from the different theories and empirical evidence on behavioural change and, on a case-by-case basis, from trialling different models for different situations. Learning from other agencies' experience, including from agencies in other democratic countries, is a good way of developing successful approaches to behavioural change. This publication is designed to help government and public servants make the best choices.



Lynelle Briggs
Australian Public Service Commissioner



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1. Introduction

Governments seek to regulate or influence the behaviour of individuals and organisations through a range of policy tools, including legislation, sanctions, regulations, taxes and subsidies, the provision of public services and information and guidance material.

What are the basic reasons that governments want to influence or change behaviour? The most fundamental reason is that it can confer economic, social and community benefits. Regulations to prevent collusive behaviour among businesses, for example, can result in lower prices and greater consumer choice. Some behaviours are simply undesirable and need to be prevented. Crime is one such example. In some cases, individuals do not always behave in their own or the community's best interests. There are many examples of this in the areas of public health (e.g. obesity and tobacco use) and in the environmental area (e.g. recycling and water use).

In many areas of public policy the range of traditional tools to influence behaviour works well. For some social policy problems, however, influencing human behaviour is very difficult and complex, and the effectiveness of traditional approaches may be limited without some additional tools and understanding of how to engage citizens in cooperative behavioural change.

In recent years a great deal more has been learned about why human beings behave in the ways they do:

... increasingly sophisticated marketing has rapidly put this knowledge to use. Yet speedy uptake of the new evidence by the marketers and advertisers has not been matched in government and policymaking circles. Policy is still being developed on the back of an anachronistic understanding of how behaviour is influenced and what makes people change. If we are to move beyond the current limited policy approach, then new thinking is required.¹

1 M. Lewis 2007, *States of Reason: Freedom, Responsibility and the Governing of Behaviour Change*, Institute for Public Policy Research, London, p. 5.

Governments in a range of countries are becoming increasingly interested in tapping into the improved knowledge about behavioural change. There are three key factors, outlined below, that have encouraged this interest.

(i) Government Cannot Solve Complex Problems Alone

There is a growing range of complex policy areas, so-called ‘wicked’ problems, where it has become increasingly clear that government cannot simply ‘deliver’ key policy outcomes to a disengaged and passive public. In the areas of welfare, health, crime, employment, education and the environment, it is clear that achieving significant progress requires the active involvement and cooperation of citizens. The Australian Public Service Commission has published a discussion paper, *Tackling Wicked Problems: A Public Policy Perspective*,² that outlines the characteristics of wicked policy problems and draws out their implications for the public sector.

Examples of wicked problems that require changing behaviour include:

- *Water resources.* The sustainability of Australia’s water resources for agricultural, industrial and domestic use is under serious pressure. How to balance competing interests and ensure adequate supplies are hotly contested issues. The water-using behaviour of citizens and organisations is of key importance.
- *Obesity.* This is a complex and serious social health problem with multiple factors contributing to its rapid rate of growth over recent decades. How to successfully address obesity is subject to debate, but depends significantly on the motivation and behaviour of individuals and only modestly on the quality of secondary health care.

Even where the issue is not necessarily complex, it is often crucial that people get involved to achieve desired outcomes. This is clear, for example, in areas such as health and employment services. It has led to a focus on co-production (where the achievement of outcomes is seen as a joint responsibility of the government and the community) and citizen-centred services. While many services to the public are still evolving from the mass production model of earlier times, there is growing interest in public servants focusing ‘not only on the internal workings and efficiencies of existing services, but also on how people engage with those services, and how they can be mobilised, coached and encouraged to participate in the “common enterprise” of generating positive outcomes’.³ Increasingly, the delivery of services themselves is being made contingent on certain behaviours, for example, making some component of family welfare payments contingent on children’s school attendance.

(ii) Improving Cost-Effectiveness

Detailed cost-benefit analyses in a number of key areas of public policy, such as health and crime, have shown that behaviour-based interventions can be very much more cost-effective

² Australian Public Service Commission 2007, *Tackling Wicked Problems: A Public Policy Perspective* <<http://www.apsc.gov.au>>

³ S. Parker and J. Heapy 2006, *The Journey to the Interface: How Public Service Design Can Connect Users to Reform*, Demos, London, p. 13.

than traditional approaches to policy and service delivery. This is particularly the case if a longer-term time frame is taken to evaluate the constraints, costs and benefits. British research has demonstrated that smoking cessation programmes, for example, deliver around ten times more quality-adjusted life years per pound than expenditure on drugs to reduce cholesterol estimated over a 20-year time frame.⁴

With complex policy issues, agencies may have a greater impact on key policy outcomes by using their limited resources to develop more sophisticated and comprehensive approaches to changing the behaviour of users and other parties, than by concentrating on traditional policy tools and service delivery.

(iii) Other Benefits from Enhancing Personal Responsibility

The appropriate division of responsibility between the individual, the community and government has been and continues to be a controversial issue. Most people have strongly held views and it has been a key distinguishing philosophical issue among political parties. Regardless of the exact balance of responsibility between these components of society, a citizenry that actively cooperates to achieve key policy goals can:

- enable society to function with a less coercive regulatory and judicial system
- enable public goods and services to be provided with a lower tax burden
- enhance the quality of life of the whole community.

If citizens display greater restraint and understand the impact their behaviours have on themselves, their family and the environment, this can actively improve the social capital of communities.

It is not just in Australia that there has been a growing policy interest in engaging citizens to achieve sustained behavioural change. The UK Government, for example, has recently convened a Behaviour Change Forum which is led by the Cabinet Office, the Department for Environment, Food and Rural Affairs, the Department of Health, the Department for Transport, the Treasury, the Home Office, the Prime Minister's Strategy Unit and the Sustainable Development Commission. Its purpose is to:

- exchange experience of behavioural change policies and their implementation
- pool research and policy evaluation on behavioural change
- disseminate research findings and good practice across government
- advise on and promote common policy tools and support for those engaged in behaviour-focused policies.

The UK Behaviour Change Forum presents a wide range of information on its website, <www.sustainable-development.gov.uk/government/task-forces/behaviour-change.htm>, with its major focus being on sustainable development.

⁴ D. Halpern *et al* 2004, *Personal Responsibility and Changing Behaviour: The State of Knowledge and Its Implications for Public Policy* (UK Cabinet Office, Prime Minister's Strategy Unit), p. 10 <<http://www.strategy.gov.uk>>; D. Wanless 2002, *Securing Our Future Health: Taking a Long-Term View* (Review of the NHS for HM Treasury), cited in D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 10.

The Canadian Government has also been actively interested in the area of behavioural change and has produced a set of guidelines known as the 'Tools of Change' for altering public behaviour around complex problems in the environmental and health areas. These guidelines can be found at <www.toolsofchange.com>. One of the purposes of such websites is to provide case studies of behavioural change interventions so that the public sector can learn from experience and assess the efficacy of different measures for different situations.

One of the key learnings from international experience is that public sector agencies need to be mindful that behavioural change policy goals have to be reasonably congruent with a particular society's views on the right balance between individual responsibility and government responsibility. These views vary according to policy area and over time. Public opinion regarding parental smacking of children, for example, is still fairly polarised with a significant proportion of society regarding government activity in this area as an unwarranted intrusion into the family sphere. Attitudes can change dramatically over time, however, and can be led and influenced by government measures. The overwhelming public support for the compulsory wearing of seatbelts, for instance, is far removed from the public resistance to its imposition in the 1970s.



2. Theories and Empirical Evidence about Behavioural Change

Achieving behavioural change in the public policy context is often difficult and complex. People may be being asked to:

- give up a pleasure (smoking, long showers)
- go out of their way (take public transport, hang clothes on the line instead of using a clothes drier)
- be embarrassed (have a colonoscopy, use a condom)
- confront their peers (advise a drunk friend not to drive)
- hear bad news (HIV test)
- learn a new skill (composting waste, adopting different farming methods)
- do something for a longer-term benefit where most of the benefit accrues at the collective level (recycle waste, conserve water).

In order to achieve behavioural change, particularly as part of tackling complex policy problems, a basic understanding is required of key determinants of behaviour. How people behave is determined by many factors and is deeply embedded in social situations, institutional contexts and cultural norms. This section of the paper focuses on theories and empirical evidence about behavioural *change* (rather than the causes of behaviour in general) as public policy is usually most concerned with attempting to change citizens' behaviour.

Two in-depth case studies have been conducted to inform this discussion paper. One examined the National Landcare Programme administered by the Department of Agriculture, Fisheries and Forestry (DAFF). One of the key goals of the National Landcare Programme is to influence landholders' behaviour by enabling them to identify, develop and implement improved natural resource management practices at the farm level. The other case study examined the National Tobacco Strategy administered by the Department of Health

and Ageing (Health). The National Tobacco Strategy aims to prevent uptake of smoking, to encourage and assist smokers to quit, to eliminate harmful exposure to tobacco smoke among non-smokers and, where feasible, to reduce the harm associated with continuing use of and dependence on tobacco and nicotine. The Australian Public Service Commission would like to acknowledge the high level of cooperation and the contribution of resources by these two agencies in providing information for the case studies.



3. The Rational Choice Model

The behavioural change theory that underlies much public policy is the rational choice model which assumes people rationally seek to maximise their welfare. People assess the choices before them in terms of costs and benefits and then select the choice that maximises their net benefits. The traditional policy tools follow from this model—sanctions (fines and other penalties), price signals (taxes, financial incentives), regulations and the provision of information.

These traditional tools often work very effectively in achieving behavioural change. In 2001, for example, the Irish Government imposed a levy on plastic bags of €0.15 (A\$0.25) per bag. The levy is imposed at point of sale and retailers are legally obliged to pass it directly to the consumer. The tax has been extremely successful, leading to a 90% reduction in the consumption of plastic bags.⁵ Similarly, evidence from the World Bank indicates that raising tobacco taxes is the single most important step governments can take in reducing smoking.⁶

Governments regularly provide information to attempt to influence behaviour using the underlying assumption of the rational choice model, that is, if people know that some behaviour and/or activity has adverse consequences they will reduce its incidence or eliminate it. Examples include tackling drink driving, HIV, drugs, child safety and smoking. It is clear, however, that in some cases information campaigns, while necessary, are not sufficient by themselves to change the behaviour of large numbers of people on a sustained basis.

While the model of rational choice will and should continue to be the fundamental building block model for policy making, it has limitations from a behavioural change perspective.

⁵ J. Collins *et al* 2003, *Carrots, Sticks and Sermons: Influencing Public Behaviour for Environmental Goals* (A Report by the Demos/Green Alliance for the UK Department for Environment, Food and Rural Affairs), p. 37.

⁶ The World Bank 1999, *Curbing the Epidemic: Governments and the Economics of Tobacco Control*, The Bank, Washington, D.C., p. 10.

For many social policy problems, human behaviour is very complex. People continue to choose unhealthy lifestyles, for example, despite knowing that such lifestyles will cause them long-term harm. The model of rational choice tends to ignore the wider environmental influences on human behaviour, such as the power of peer pressure and family expectations, and key motivators other than self-interest. It can also be difficult for individuals to accurately estimate future costs and benefits, particularly if there are relatively high levels of uncertainty around them.

There are now many theories of human behaviour that policy makers need to be aware of that can be used to supplement or refine the rational choice model. These draw on a large body of empirical research and observation. The following sections outline the key findings from these theories and empirical research at the individual, interpersonal and community levels, and draw out the policy relevance of these findings. They are based on a range of sources but particularly on a 2004 discussion paper published in the UK: *Personal Responsibility and Changing Behaviour: The State of Knowledge and Its Implications for Public Policy*.⁷

7 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*.



4. Behavioural Change at the Individual Level

There is a range of theories and evidence around the forces that influence behavioural change at the level of the individual.

a. Classic Conditioning and Conditionality Theories

Classic conditioning and conditionality are fundamental building blocks for understanding behaviour and behavioural change. Classical conditioning refers to when an unconditioned stimulus, such as food, becomes associated with another stimulus, such as a bell (e.g. Pavlov's dog). Even highly complex behaviours can often be explained through long chains of such associations. Behavioural change is achieved through learning new associations, or by removing existing associations. Hence, advertising seeks to associate a new product with existing stimuli that are experienced as positive. Until 15 years ago, for example, Australians were exposed to advertisements associating smoking with fun, sexual attractiveness, glamour and sophistication. Australia (both at the federal and state levels) has progressively restricted the promotion of tobacco products to limit the association of tobacco products with positive images.

Work over recent decades has shown that people appear to be innately predisposed to learn some associations (e.g. between a taste and subsequent nausea) in a single experience. It is much more difficult, however, for people to learn the more complex causal associations that characterise modern society, such as between diet and long-term health. Nevertheless, some understanding of classic conditioning is useful, for instance, ensuring that in communication campaigns the desired behavioural change is linked as much as possible with stimuli that are generally experienced to be positive such as linking recycling to smiling, happy people. Or, conversely, ensuring that an undesirable behaviour such as smoking is not associated with positive stimuli.

Conditionality is a fundamental tenet of learning—a reward or punishment is contingent on the behaviour of the individual. It is a common feature of our social and economic lives and is integral to everyday notions of responsibility—that people’s actions involve consequences. Policy makers tend to think of conditionality in terms of conditions attached to benefits or the use of public services, such as the requirement to seek work while on unemployment benefit. This type of more sophisticated use of conditionality, which also harnesses understandings from behavioural theories around commitment, reciprocity and mutuality, will be discussed in more detail in the following sections.

b. Cognitive Consistency Theory

The cognitive consistency theory proposes that people are motivated to seek consistency between their beliefs, values and attitudes and their behaviours. This can be a powerful policy tool in certain circumstances where a commitment can be extracted from the individual to behave in a way that is consistent with their existing beliefs and attitudes. Extracting a promise from restaurant-goers, for example, that they will call if they change plans reduces ‘no-shows’ compared to simply asking customers to do so.⁸ Quit lines that support smokers’ attempts to stop smoking, which operate in each state of Australia, also make use of cognitive consistency and commitments.

There is a growing number of other policy interventions that use such commitments. The UK Government, for example, has encouraged schools to use home-school agreements to increase parental commitment to certain behaviours. Parents are asked to formally sign agreements that set out the respective responsibilities of the parents (e.g. ensuring the child attends regularly, supporting the school’s homework policy) and of the school. Such agreements also harness conditionality and mutuality.

However, there are limits to the effectiveness of such commitments, particularly those made without other supportive measures. There is strong evidence, for example, that people do not always behave in a way that is consistent with their attitudes and beliefs, even if commitments are entered into. The gap is particularly acute for environmental issues. In such cases convenience is said to be a major factor⁹—people are more likely to keep to commitments such as recycling waste if it is convenient to do so. Also, if people are asked to commit to something that is not solidly consistent with their beliefs or attitudes, they are less likely to comply even if they are willing to make the initial commitment—thus information campaigns aimed at changing attitudes may be a necessary precursor to seeking commitment.

c. Social Cognitive Theories

Social cognitive theory focuses on skill and competency and emphasises the importance of enhancing a person’s behavioural capability and self-confidence. Self-efficacy is a key concept

8 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 19.

9 J. Collins *et al*, *Carrots, Sticks and Sermons*, pp. 25–6.

in the theory and refers to a person's confidence in their ability to take action and to persist with that action such as persisting with lifestyle changes for health or environmental reasons. Self-efficacy can be increased in a variety of ways, including by:

- setting small incremental goals—when someone achieves a small goal like exercising for 10 minutes each day for a week, their self-efficacy increases and the next, more challenging goal seems more achievable and their persistence is greater
- reinforcement—reward the achievement of incremental goals with feedback, praise and/or a tangible motivating reward
- monitoring—feedback from self-monitoring or recordkeeping can reduce anxiety about a person's ability to achieve a behavioural change, thereby increasing self-efficacy. Self-monitoring, for example, for controlling obesity, can work best when combined with a support group—indicating the importance of peer support.

Groups such as Weight Watchers and Landcare focus particularly on improving members' self-efficacy. Landcare groups provide feedback, ongoing advice and assistance for landholders in the process of adopting new natural resource management techniques.

d. Heuristics and Biases

It has been documented that humans use mental short-cuts or heuristics and display consistent biases in decision-making.¹⁰ This is a way of dealing with the overload of information and decision-making required in modern society, but one which can make people prone to misjudgement in certain circumstances and inhibit behavioural change.

- *Availability and simulation.* These are two rules of thumb used by many people to judge how likely something is to happen, and hence guide decision-making. People tend to assume that events that they can easily call to mind (availability) or are easy to imagine (simulation) are more frequent and therefore more likely to occur. Hence people tend to be more nervous about flying than driving because air crashes are easy to recall and capture the imagination.
- *Anchoring.* Behaviour is strongly affected by default options. People tend to stick to a starting point even when it is arbitrary. Countries with presumed consent regulations for organ donation, for example, have a higher rate of organ transplant than those—like Australia—which operate an opt-in system. One insight of anchoring for policy makers is to set the default option in appropriate circumstances to be one most consistent with the wider public interest. Policy makers also need to be aware of the inertia associated with anchoring. One reason why the introduction of choice and competition into a previously regulated industry may lead to fewer changes of supplier than expected, for example, is likely to be due, in part, to anchoring behaviour.
- *Scarcity.* People tend to value things that are scarce or likely to run out. This is one reason why a free product or service may not be valued highly by citizens (where the absence

10 A. Tversky and D. Kahneman, 'Judgment Under Uncertainty: Heuristics and Biases', *Science*, N.S., Vol. 185, No. 4157, 27 September 1974, pp. 1124–31, cited in D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 19.

of any price signal can be interpreted that the product or service is in unlimited supply). This partly explains why some programmes such as HIV-AIDS programmes charge a nominal fee for condoms—to increase their value to the user. Having to queue or wait for a product or service can also be used as a proxy for scarcity.

- *Loss or gain.* People tend to value things differently depending on whether they are gaining or losing them. Loss tends to be felt more keenly than gain. An application within the health area, for example, suggests that messages stressing the potentially negative consequences of ill-health are likely to be more effective than those that describe the benefits in terms of potential gains.¹¹ This insight has also been used to increase savings. In the USA a three-year trial was conducted within which employees could choose to join a pension scheme. Employees were asked to agree that a proportion of any future pay rise would be directed to their pension. By avoiding asking for any contributions from existing earnings the scheme avoided the disproportionate psychological pain of loss. The trial was successful with the average pension savings rate rising from around 3% to more than 11% over three years.¹²
- *Peak experience and recency.* People tend to place greater emphasis on short-lived peaks (or troughs) of experience than they do on average experiences. People also place greater weight on things that have happened more recently. This tends to reinforce the influence of the rule of thumb of availability discussed above. One suggested policy application of these observations is in the structuring of punishments for criminal behaviour. If the only object of imprisonment was to maximise its deterrent effect it could be characterised by peaks of discomfort and these should increase towards the end of the sentence. It is striking that most prison sentences have exactly the reverse pattern—a fairly constant and monotonous level of discomfort and decreasing unpleasantness towards the end.
- *Discounting.* Most people heavily discount future costs or benefits compared to immediate costs or benefits. The further into the future the costs and benefits are likely to occur the more they are discounted. This is a key tendency in helping to explain the difficulties people experience in making lifestyle changes where many of the health or environmental benefits are longer-term. It is a key barrier, for example, to giving up smoking as the harmful effects of tobacco are neither immediate nor obvious—most only manifest themselves after years of smoking. It is also crucial to note that while all people tend to discount, those living chaotic or impoverished lives apply especially high discount rates as a result of their immediate circumstances—making it less likely that they will make longer-term investments in their health, welfare or education.¹³

11 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 20.

12 R. Thaler and S. Benartzi 2000, *Save More Tomorrow: Using Behavioural Economics to Increase Employee Saving* <<http://economics.uchicago.edu/download/save-more.pdf>>, cited in D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 61.

13 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 21.



5. Behavioural Change at the Interpersonal Level

These theories stress the interpersonal environment with the key insight being that behavioural change is often better effected by focusing not just on individuals, but also on their relationships with those around them. People will generally be far more influenced by the views of family, peers and trusted well-known people than by advice from government.

a. Authority Theories

Most people will readily comply with authority they consider legitimate. The most famous example from social science research was the willingness of people participating in an experiment to administer electric shocks to others, ostensibly as a form of teaching, under the instruction of an experimenter. The shocks were fake, but the real experiment was about the compliance of the people participating in the experiment and it was found that more than two-thirds were prepared to administer 'life-threatening shocks' because the experimenter told them to.¹⁴

The basis of power or authority in a relationship may be categorised in six ways. The first four listed below can be useful in securing compliance in the short-term, while the last two may be more effective in securing conversion in the long-term:

- *expert*—acceptance that someone has the authority to direct behaviour because they are more knowledgeable and/or experienced (e.g. health professionals, parents, elders, teachers)
- *legitimate*—someone has the right to direct behaviour derived from social roles with credibility and authority (e.g. police)

¹⁴ S. Milgram 1974, *Obedience to Authority: An Experimental View*, Harper and Row, New York, cited in D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 24.

- *coercive*—when another can direct behaviour because they have the ability to punish (e.g. prison officials, teachers, supervisors at work)
- *reward*—when another can direct behaviour because they have the ability to reward (e.g. supervisors at work, teachers)
- *informational*—when others can direct behaviour through the power of persuasion and information provision (e.g. health professionals, life coaches, social workers, Landcare groups)
- *referent*—authority based on identification with the person trying to exert influence. This is among the most effective sources of authority (e.g. using high-profile sports people or celebrities to sell a message, or using the influence of those displaying leadership qualities in the community or at work).

It is clear that some people are in a position in society that enables them, if they are skilful, to use all six types of authority to influence behaviour (e.g. teachers). One hazard in using authority to influence behaviour, however, is psychological reactance—when people take the opposing view in reaction against authority. This can particularly occur if people are somewhat distrustful of the authority figure.

There are ways in which governments can boost their authority and minimise psychological reactance. Strengthening the independence of key sources of public information and guidance, such as agencies responsible for food, drugs, statistics or financial services, for example, increases legitimacy and expertise. It can also be helpful if the message around behavioural change is not owned by any one group. In the ‘Seven-a-day’ health promotion campaign aimed at increasing the intake of fruit and vegetables, for example, retailers, food manufacturers and health charities have all been involved in promoting the message—this has helped to give it more authority.

The National Tobacco Strategy has engaged the authority of general practitioners (GPs) and other health professionals to influence smokers’ behaviour. The Australian Government launched new smoking cessation guidelines for GPs in 2004 that aim to assist them to deliver effective assistance for smoking cessation. They were developed in consultation with stakeholders and are based on the long-running ‘Smokescreen Program’ which acknowledges that the smoker’s own motivation to stop smoking is a key issue and advice is provided based on the smoker’s readiness to quit in accordance with the 5 As (Ask, Assess, Advise, Assist and Arrange follow-up). The guidelines to GPs are linked to Quit line telephone counselling and other educational resources.

b. Reciprocity, Mutuality and Conditionality Theories

A person is more likely to act or change their behaviour if they have been placed in some sort of debt, even if unwillingly (reciprocity). This is the technique used in wine tasting at vineyards or in direct mail ordering of wine and books. Behavioural interventions can also be effective where both parties (the influencer and the influenced) stand to gain from the outcome. These two behavioural forces have been combined with cognitive consistency and conditionality (see above) in various public policy contexts.

One example from the UK is the tenancy agreements offered by a regional government's housing association. The Irwell Valley Housing Association operates a 'Gold Service' scheme which rewards good tenants. To qualify, tenants must have a clear rent account or an agreement in writing that they will pay off their rent arrears and commit no breaches of tenancy. In return, tenants receive quicker emergency repairs; priority modernisation; discounts on home contents insurance, fuel, funerals and eye care; and a discount card to use in local shops and restaurants. Over 80% of tenants have joined the scheme and arrears have fallen by 47%.¹⁵

Another example is the use of Shared Responsibility Agreements (SRAs) in Australian Indigenous communities. SRAs are voluntary agreements between the Australian Government and Indigenous communities or groups to provide a discretionary benefit in return for undertaking community obligations. These discretionary benefits may take the form of extra services, capital or infrastructure *over and above* essential services or basic entitlements. The community decides the issues or priorities it wants to address, how it wants to address them and what it will do in return for government investment. SRAs set out what families, communities, governments and other partners will contribute to addressing local priorities and the outcomes to be achieved.

An SRA was entered into by the Australian Government and the Billiluna Community in Kununurra, Western Australia, for example, in 2005. The Billiluna Community's priority was to strengthen its economic status. The Government agreed to invest \$155,000 to install fuel bowsers to strengthen economic status through fuel sales to tourists and to enhance employment and training opportunities at the garage. The community committed to ensure correct rubbish disposal, pest eradication and rent payments. Individuals and families committed to a range of initiatives, including implementing after-school sports activities for young people in an effort to support and encourage them to attend school on a regular basis.

The National Landcare Programme is another example of the use of conditionality and reciprocity. It provides funding incentives for landholders, particularly groups of landholders, to undertake natural resource management measures. The funding, however, is contingent on landholders signing contracts that include at least matching contributions of the landholders' own time and resources to the project funded by the National Landcare Programme. The actual results suggest that project applicants contributed between \$1.80 and \$2.60 in cash or in-kind for every dollar funded from the National Landcare Programme.¹⁶

c. Face-to-Face Approaches

The usefulness of reciprocity, mutuality and conditionality can be greatly enhanced by face-to-face approaches. Commitments made in agreements or contracts are more likely to be honoured if they are facilitated during a face-to-face encounter. Face-to-face approaches by public transport staff in Perth, for example, have been effective in encouraging people to make greater use of alternatives to the car.¹⁷

15 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 48.

16 Department of Agriculture, Fisheries and Forestry 2007, Internal Working Document, p. 9.

17 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 27.

Face-to-face approaches are often dismissed as prohibitively expensive or impractical. However, they have been shown to be cost-effective in some circumstances. In the USA, for example, a randomised experiment with 30,000 voters was conducted to see how voter turnout might be increased. Leaflets were found to have a modest effect, boosting turnout by around 2.5%. Telephone calls were found to have, if anything, a negative effect. But face-to-face contact—someone turning up on people's doorsteps to remind them in advance—was found to have a highly significant effect, boosting turnout by around 10% to 15%.¹⁸

d. Interpersonal Heuristics and Biases

Humans also use mental short-cuts or heuristics and display consistent biases in decision-making and behaviours in relation to interpersonal relations.¹⁹

- *The fundamental attribution error* refers to the tendency to over-emphasise dispositional factors about people and under-emphasise situational factors. An example is attributing the cause of a particular car accident to poor driving rather than to situational factors such as ice on the road or fatigue. This is one reason behind the 'it won't happen to me' syndrome.
- *False uniqueness and false consensus* essentially refers to the tendency for people to flatter themselves. When asked to list their best abilities and how others stand in relation to these, people tend to systematically underestimate their peers' abilities. People also tend to overestimate the extent to which others agree with their own position, hence providing false consensus for personal viewpoints. The false consensus effect may go some way to explain levels of distrust of democratic institutions. People can become frustrated that organisations do not better reflect their views (which they think are the views of the majority).
- *Inter-group bias* refers to people's tendency to attribute disproportionately good qualities and virtues to the groups they identify with, while seeing outsiders as less worthy and deserving. Experiments show how even completely arbitrary divisions of strangers into groups immediately trigger these inter-group biases. This tendency can be used to serve desirable ends if channelled into competition in areas of desirable activity, for example, tidy town contests and explicit recognition of streets or communities that are leading the way with recycling.

18 A. Gerber and D. Green, 'The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment', *American Political Science Review*, Vol. 94, No. 3, 2000, pp. 653–63, cited in D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 27.

19 D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, pp. 26–7.



6. Behavioural Change at the Community Level

There is a range of theories and evidence regarding the forces that influence behavioural change at the broader level of the community.

a. Social Capital Theory

Social capital consists of the networks, norms, relationships, values and informal sanctions that shape the quantity and cooperative quality of a society's social interactions. The core insight is that social networks and cooperative social norms have value—the quality of these networks can help explain variations in key policy outcomes between communities in areas such as crime, education and health.

In general, higher levels of social capital result in communities, and individuals within them, that are better able to act and take responsibility for themselves. When hit by natural disasters, for example, higher social capital communities suffer lower death rates due to people looking after each other more, and recover faster than otherwise equivalent low social capital communities.²⁰

Social capital can also assist in spreading behavioural change amongst the community in that innovation is likely to diffuse faster through a more linked-up community. One of the strengths of the National Landcare Programme has been the social cohesion fostered by the creation of rural Landcare groups.²¹ This social cohesion has increased the social capital of isolated rural communities and, while also assisting in spreading information and skills about sustainable agriculture measures, has facilitated social interaction as well. Other factors also influence how behavioural change permeates a society in the ways outlined below.

²⁰ D. Halpern *et al*, *Personal Responsibility and Changing Behaviour*, p. 28.

²¹ D. Hyndman, A. Hodges and N. Goldie 2007, *National Landcare Programme Evaluation 2003–06* (An ABARE/BRS Report for the National Landcare Programme Monitoring and Evaluation Project 2003–06), Commonwealth of Australia, Canberra, p. 1.

b. Diffusion of Innovation Theories

The nature of the spread of behavioural change has been likened by some researchers to the way in which a virus spreads. Central to this process are the intermediaries or network hubs that are able to influence others to change behaviour. Such people—labelled ‘sneezers’ in some of the literature—are the ones who are believed when they tell other people about something.²² These people are skilled socially and good at absorbing information and news. Any organisation—including governments—in order to communicate successfully, should aim to influence and engage with protagonists where these people (or organisations) can be identified.

A report prepared for the UK Department for Environment, Food and Rural Affairs suggests that this targeting of influential people can be facilitated by:

- *assessing the target audience and finessing the message*—commercial marketing campaigns always start out with a very specific demographic in mind. They understand that different sorts of people will respond to different messages, and target their campaigns accordingly. Government influencing, by contrast, often attempts to reach a wider group of people and downplays the need to tailor messages to particular audiences. The benefits of targeting the message are illustrated by the ‘Don’t Mess with Texas’ campaign designed to tackle the growing litter problem in Texas, USA. The advertisers carried out research that the main culprits, young males, were unlikely to respond to messages about not spoiling the natural environment. Instead, they decided to base the message on state pride (linking into inter-group bias—see above), hence the ‘Don’t Mess with Texas’ tagline. The number of litter incidents fell by 29% within 12 months and 52% over some 10 years.²³
- *communicate creatively*—governments often rely on conventional communication or advertising channels but there are other routes that may be more effective, for example, sponsorship of particular TV programmes (e.g. a Customs service sponsoring a reality TV show on border protection) or the red nose Sudden Infant Death Syndrome (SIDS) campaign. The goal of more creative communication is to create a buzz through word of mouth—which can be far more potent than any direct communication.
- *using other groups to deliver messages*—in the case of health messages, for example, use is made of active partnerships with schools, doctors, voluntary groups, supermarkets and self-help groups. This not only increases the authority of the message but also uses a wider range of potentially influential individuals or organisations to reach more people with targeted information.

Other factors which influence how new social practices and ideas spread through society include:

- *relative advantage*—refers to the degree to which the new behaviour is seen as better than the old. It may, for example, be preferable to specifically position some activities (e.g. recycling paper) as better than current practice (throwing paper away with the general waste) than just to extol the benefits of recycling.

22 S. Godin 2002, *Unleashing The Idea Virus*, Simon and Schuster, New York, cited in J. Collins *et al*, *Carrots, Sticks and Sermons*, p. 17.

23 Fenton Communications 2001, *Now Hear This: The Nine Laws of Successful Advocacy Communications*, Washington, D.C., cited in J. Collins *et al*, *Carrots, Sticks and Sermons*, p. 26; P. Kotler and N. Lee 2006, *Marketing in the Public Sector: A Roadmap for Improved Performance*, Wharton School Publishing, Upper Saddle River, New Jersey, p. 124.

- *convenience and compatibility*—refers to the degree to which a new practice or idea is easy to adopt in terms of convenience and consistency with people's values and habits. Kerbside recycling collection, for example, has dramatically increased recycling behaviour by making it much more convenient.
- *social proofing*—relates to how people look to those around them—including strangers—for guidance on how to behave. The use of canned laughter is an example. Some government interventions are designed to affect the social proof influences on individual behaviour. Regulating where people are allowed to smoke, for example, not only protects smokers and non-smokers from environmental tobacco smoke, it dramatically affects social norms concerning smoking. Research suggests that in those jurisdictions which introduced smokefree laws, fewer children took up smoking and numbers of smokers and cigarettes consumed declined relative to those jurisdictions without such laws.²⁴
- *complexity*—concerns the observation that people are more likely to adopt new practices and ideas that are easy to understand and/or use. Helplines are examples of government attempting to assist people to effect behavioural change (e.g. parenting helplines).
- *trialling*—refers to people often being more willing to adopt a new practice or idea if they can try it out before a commitment to adopt is required. Landcare groups use this behavioural insight. Landholders can observe if new methods work in their local conditions by visiting and observing other farmers who have already adopted the new methods. It also helps to bring the benefits of adopting change more into the present—even if the benefits of using such methods take several years to become apparent, more reluctant farmers are able to observe these benefits in the present time in a concrete way.

c. Cultural and Demographic Differences

A non-targeted approach to communication may be particularly ineffective for some of the diverse cultural and demographic groups within Australia. Messages targeting Indigenous groups, for example, may be most effective if they are tailored specifically to them (recognising that Indigenous culture is also heterogeneous). Other groups that may require specialised tailoring include recent migrants, the elderly and young people.

A greater capacity to tailor information and messages is useful even within relatively homogenous groups. In the area of sustainable farm management, for example, UK research suggests there is a need to recognise the diversity of farming styles and/or cultures and to better understand them in order to influence behaviour.²⁵

24 Ministerial Council on Drug Strategy 2004, *National Tobacco Strategy, 2004–2009: The Strategy*, p. 22
<<http://www.nationaldrugstrategy.gov.au>>

25 Department for Environment, Food and Rural Affairs 2006, *Enhancing Sustainability at Farm Level*, University of Gloucestershire, Countryside and Community Research Unit, pp. 4–5.

The Need to Tailor Messages and Information

A research paper by the UK Department for Environment, Food and Rural Affairs found that in the UK, farmers' decisions to adopt environmentally-friendly measures and/or behaviour are based on five primary factors.

First, they are determined by the nature of their farming systems and the particular style of farming practised. Farming style reflects both the values and knowledge of particular farmers. Four basic farming styles were identified:

- Technocrats—farmers who emphasise and value highly the technical aspects of farming.
- Inheritors—farmers for whom family succession and continuity of occupancy of the land is a principal concern.
- Entrepreneurs—farmers who emphasise the risk-taking and financial rewards from farming.
- Stockmen—farmers who emphasise good husbandry, and especially the stockmanship of livestock enterprises.

Second, there is abundant evidence that many farmers want to be seen as good farmers and that the visual integrity of their farming practices are important components of their social status. Effectively linking environmentally-friendly measures to this can be highly effective.

Third, the extent to which the farmer picks up and responds to signals from government and the wider society towards environmental goals depends on the particular social networks with which he or she engages and the nature of the messages transmitted through those networks.

Fourth, a number of surveys reveal that farmers are confused by and mistrust the environmental messages emanating from government. There is compelling evidence that new group-based participatory approaches can be used to rebuild farmer trust, but they need to be premised on different delivery systems to those currently practised, which still tend to hinge around rules-based, top-down implementation of new legislation.

Fifth, there is evidence from elsewhere in Europe that it is extremely difficult to engage certain groups of farmers explicitly in environmentally beneficial actions, particularly conservative farmers who are dismissive of explicit engagement with the new environmental agenda.²⁶

26 Department for Environment, Food and Rural Affairs, *Enhancing Sustainability at Farm Level*, pp. 7–8.



7. A ‘Social Marketing’ Approach

Social marketing is a distinct marketing discipline that has evolved since the 1970s. Its focus is on influencing behaviours that will improve social outcomes such as improving health or preventing injuries. Unlike marketing theories that aim to promote a certain brand of commercial product, its general intent is to improve people’s quality of life. As such, it is a useful approach for public servants tasked with achieving behavioural change.

Social marketing is a practical approach that integrates the insights from individual, interpersonal and community theories and evidence. Typically, the approach aims to change both the individual and the environment around the individual. The changed behaviour of individuals and the changed environment interact, gradually establishing new social norms.

The following 12 principles of an effective social marketing approach have been devised by P. Kotler and N. Lee.²⁷

(i) Take Advantage of Prior and Existing Successful Campaigns

It is advisable to begin a social marketing campaign planning process with a search for similar efforts in public sector agencies around Australia and in other countries. Benefits can be substantial, including learning from others’ successes and failures, having access to research conducted in preparation for the campaign, finding innovative and cost-effective strategies and discovering ideas for creative delivery mechanisms and materials that can be adapted and/or adopted. The Internet makes such a search relatively easy. A Canadian Government sponsored website, for example, contains a list of nearly 100 case studies of public campaigns designed to change people’s behaviour—<www.toolsofchange.com>.

27 P. Kotler and N. Lee, *Marketing in the Public Sector*, pp. 193–211.

(ii) Target People Most Ready for Action

Efforts and resources are most effectively directed towards those people most likely to change (the low-hanging fruit) rather than those least likely to change. Social marketers often use a ‘stages of change’ model which categorises people into four groups:

- *precontemplation*—where people have no intention of changing their behaviour
- *contemplation*—where people are beginning to think about a change, as something may have woken them up to the need for and/or the benefits of change
- *preparation/action*—where people have decided to do something and are beginning to put things in place in order to change (including people who may have begun to change but it’s not a habit)
- *maintenance*—where people are performing the desired behaviour on a regular basis although they sometimes struggle with relapses and would benefit from reminders and recognition.

One of the factors underpinning the success of Landcare groups in influencing landholders’ behaviour is that they target the landholders most ready for action. As Landcare groups are voluntary, they usually comprise landholders who are either at the contemplation stage (beginning to think about change) or actively involved in change.

The successful National Tobacco Campaign, a mass media campaign which began in 1997 and ran until 2004, explicitly made use of the stages of change model. The campaign was the result of a cooperative partnership between the federal, state and territory governments and interested NGOs. The National Tobacco Campaign was informed by the Transtheoretical Stages of Change model²⁸ which understands that smoking cessation is a process rather than an event. At an individual level, smokers are at different stages along a continuum of readiness to quit. This continuum or cycle spans the following: no intention to quit; some intention to quit but no time frame; intention to quit in the near future; attempting to quit; recently attempting to quit; and either maintaining non-smoking or relapsing back to smoking. Smokers migrate through these stages over time, often spanning a decade or more, and may relapse to earlier stages after failed quit attempts. The National Tobacco Campaign, which aimed to encourage people along the quitting continuum, particularly targeted smokers who were close to making a quit attempt and those who had successfully quit.

(iii) Promote Single, Doable Behaviours—One at a Time

Even if a complex problem requires multiple behavioural changes, it is best to present them one at a time. A simple, clear, action-oriented message is the most likely to support people who are in the ‘contemplation’ or ‘preparation/action’ groups. Each National Tobacco Campaign advertisement, for example, ended with a call to action—an exhortation to call the Quit line.

28 Department of Health and Aged Care [2000], *National Tobacco Campaign—New Phase: May 2000*, The Department, Population Health Division, Woden, ACT, p. 6.

Another example involves attempts to reduce greenhouse gas emissions. Although a wide array of public activities contributes to greenhouse gas emissions, the Canadian ‘Turn it Off’ project encouraged drivers to turn off their engines if they were going to be idling for more than 10 seconds. ‘Turn it Off’ signs were located at strategic sites, such as schools where children are dropped off and picked up. Drivers at such sites were asked to give commitments to ‘turn it off’ and those agreeing were given window stickers that said ‘For Our Air: I Turn My Engine Off When Parked’. As a result, idling was reduced by 32% and idling duration by 73% compared to control sites.²⁹

(iv) Identify and Remove Barriers to Behavioural Change

This is a crucial principle for effective behavioural change and is often directed at changing the environment rather than the individual. Policy makers and programme designers need to know why the target audience perceive they can’t or don’t want to do the desired behaviour. It may be a perceived lack of skill (composting), a concern with self-efficacy or confidence in taking the action (giving up smoking), or inconvenience (taking motor oil or batteries to a waste station). If barriers to behavioural change are not addressed, sustained or widespread behavioural change is unlikely. Large-scale advertising campaigns do not work in isolation. They need to be part of a wider package of measures.³⁰

Groups which focus on the target audience can be used to identify the barriers to change. Such focus groups often cover very specific issues (e.g. what are the barriers to taking your used batteries to the waste station) or they can be more general in nature. In a German climate change project, for example, small groups of citizens shared a moderated discussion on the risks of climate change and options for policy. The research focused on doable actions and participants’ willingness to act, thus helping to identify promotable, achievable behaviours.³¹

(v) Bring Real Benefits into the Present

Promoting the benefits of the desired behaviour can be difficult in some areas of public policy, particularly in the environmental arena where the benefits tend to be widely spread and long-term. Wherever possible, however, the benefits to the individual should be presented in the most compelling way. In many health messages, for example, good health is presented as a benefit in itself whereas more people value health because it makes them look more attractive.³² This link should be exploited (e.g. the ‘Kiss a Non-Smoker and Taste the Difference’ campaign). Similarly, given people’s high discount rates, campaigns should emphasise the benefits of the new behaviour (and the disadvantages of the old behaviour) as close to the present time as possible.

29 P. Kotler and N. Lee, *Marketing in the Public Sector*, p. 196.

30 J. Collins *et al*, *Carrots, Sticks and Sermons*, p. 7.

31 J. Collins *et al*, *Carrots, Sticks and Sermons*, p. 7.

32 P. Kotler and N. Lee, *Marketing in the Public Sector*, p. 199.

(vi) Highlight Costs of Competing Behaviours

This principle recommends highlighting the key costs the target audience will pay if they continue to engage in the old behaviour. Consider the costs listed by a district council in the USA, for example, when parents smoke around their children in their homes or cars.

Please Decide to Smoke Outside³³

More than 6,000 children die each year in the USA from exposure to second-hand tobacco smoke. Exposure to tobacco smoke is reported to raise a child's risk of:

- Ear infections by 19%
- Tubes in the ears by 38%
- Asthma by 43%
- Bronchitis by 46%
- Tonsillectomies by 60% to 100%
- SIDS by 200%

These specific costs were chosen after focus groups of smoking parents were found to be shocked by the actual statistics even though they knew smoking in confined spaces was bad for their children. A follow-up survey with 500 households six months into the campaign found that among those exposed to the campaign, 21% who had allowed smoking in their car changed their practice and rules regarding smoking and 17% who used to allow smoking in their homes had changed their habits.³⁴

(vii) Promote a Tangible Object or Service to Help Target Audiences Perform the Behaviour

Tangible benefits can provide encouragement, remove barriers and create more attention, appeal and memorability. Examples of a tangible object or service designed to help the target audience adopt the behaviour include:

- a helpline for domestic abuse
- Quit lines to assist giving up smoking
- a laminated instruction card for breast self-examination
- a university escort or campus bus at night for students to reinforce the message of not walking alone around campus late at night.

(viii) Consider Nonmonetary Incentives in the Form of Recognition and Appreciation

The principle here is to consider what can be given to the target audience in recognition and appreciation of their behavioural change. Examples include:

33 Key messages used in Snohomish County, Washington State, USA, to encourage parents to smoke outside instead of in the home or in their cars in P. Kotler and N. Lee, *Marketing in the Public Sector*, p. 202.

34 P. Kotler and N. Lee, *Marketing in the Public Sector*, p. 201.

- a window sticker for businesses that adopt environmentally friendly practices
- a bracelet for the designated driver, which also signals their eligibility for a free non-alcoholic drink at restaurants and bars working in partnership with government agencies
- a letter from a community health clinic congratulating a client on being smoke-free for 30 days.

Such recognition is often less expensive than offering monetary incentives and can work to increase self-efficacy. It can also serve as a reminder of the desired behaviour and social-proof the desired behaviour by increasing its visibility.

(ix) Have a Little Fun with Messages

Using humour and fun to influence public behaviours can be risky and there are issues for which it is clearly inappropriate (e.g. domestic violence or reporting suspicious activities relating to terrorism or crime). However, humour and fun can be powerful tools in securing the attention, appeal and memorability that can assist in achieving behavioural change.

An example is the use of novel garbage receptacles in high litter areas such as downtown shopping centres or city parks. Washington State uses a vacuum powered Garbage Goat in a city park that eats anything that comes close to its mouth. Children love to feed the goat and actively search the park for litter to feed it.

(x) Use Media Channels at the Point of Decision-Making

Often, the ideal moment to engage with the target audience is when they are about to choose between alternative, often competing, behaviour. Examples include:

- the use of a heart symbol on menus signifying healthy choices
- graphic warnings on cigarette packets
- a stencil on storm drains reminding citizens that what they put down the drain goes directly into rivers and streams.

(xi) Get Commitments and Pledges

Commitments and pledges to perform a behaviour can significantly increase the likelihood that the target audience will change their behaviour. Ways to increase the likelihood of obtaining effective commitments include:

- starting with small requests because research indicates that those who agree to a small step are more likely to agree to a subsequent larger one
- obtain written in preference to verbal commitments if possible
- facilitate the commitment with face-to-face interaction where possible
- seek commitments in groups (e.g. church groups, parent groups, Neighbourhood Watch groups)
- seek commitments at existing points of contact (e.g. when people purchase paint asking them to commit to disposing of any leftover paint properly)
- use durable forms and formats to display commitments (e.g. a sticker placed on recycling containers or on the cans of paint in the above example).



(xii) Use Prompts for Sustainability

Prompts serve as a reminder. They are targeted at people who have already decided to engage in the behaviour and are designed to overcome the ‘forgetting’ factor. Prompts are typically visual, for example:

- messages on fast-food packaging to dispose of containers properly
- fridge magnets reminding people when to put out their recycling
- signs in toilets reminding people to wash their hands
- posters in pub and club toilets graphically depicting someone bending over the ‘porcelain god’ to serve as a reminder to drink moderately.

Behavioural Change Techniques used by the National Landcare Programme

Influencing landholders to adopt more sustainable natural resource management measures is complex. This is partly because adopting natural resource management measures is not one decision (as, for example, deciding to give up smoking is one decision, albeit a difficult one). Adopting new management measures requires a large number of different decisions—both big and little, easy and complex—every week. It is as much a way of life decision as, for example, changing your lifestyle to overcome obesity issues. It requires ongoing commitment and considerable knowledge and skill and at times considerable investment in capital equipment and other inputs.

Despite this complexity, the National Landcare Programme and the Landcare movement have been successful in engaging with landholders and increasing their awareness and understanding of natural resource management issues. This, in turn, has helped a significant proportion of landholders to achieve behavioural change by adopting more sustainable natural resource management practices. Several surveys have shown that Landcare members are twice as likely to adopt innovative practices to address natural resource management issues as farmers who are not Landcare members.³⁵ A survey in 2004 revealed that 41% of broad-acre and dairy farmers were members of a Landcare group, with participation in Landcare being the most commonly reported form of engagement in natural resource management activities.

An evaluation of the National Landcare Programme over the period 2003–06 found that the main barriers to the adoption of sustainable agriculture practices identified by recipients of National Landcare Programme funding were a lack of knowledge of natural resource management issues and how to apply new management systems to an area. Also cited was a lack of financial capacity, including affording to pay for technical expertise, lack of awareness of natural resource management issues and lack of time.³⁶

35 Department of Agriculture, Fisheries and Forestry 2007, Internal Working Document, p. 6.

36 D. Hyndman, A. Hodges and N. Goldie, *National Landcare Programme Evaluation 2003–06*, p. 25.

What behavioural techniques have been used by the National Landcare Programme and how did they assist landholders to overcome these barriers to change?

There is a strong view among stakeholders, supported by a range of evaluation reports on the National Landcare Programme, that the programme's support for Landcare groups and other groups of landholders has been an extremely successful behavioural change technique. Landholder groups facilitate behavioural change in a number of ways:

- They target the landholders most ready for action. Because Landcare and other landholder groups are voluntary—they usually comprise landholders who are either at the contemplation stage (beginning to think about change) or actively involved in change.
- They increase landholders' self-efficacy by providing them with the skills and knowledge to adopt natural resource management measures. They provide feedback, ongoing advice and assistance for those in the process of adopting new techniques, that is, 'farmers teaching farmers'.
- They utilise peer pressure and peer support to influence members to adopt natural resource management measures. This is particularly apparent in group projects involving a number of landholders that have been funded by the National Landcare Programme. Many stakeholders observed that peer pressure was a very effective accountability mechanism—landholders delivered project outcomes partly because they did not want to let the other landholders down.
- They reduce the risk of adopting new methods because landholders can observe if the new methods work in their local conditions by visiting and observing other members who have already adopted the new methods. This also helps to overcome the fear of change barrier. Being able to observe the benefits of natural resource management methods on neighbouring farms was a particularly good method of influencing landholders who are often experiential learners. It also helps to bring the benefits of adopting change more into the present—because even if the methods take several years for the benefits to become apparent, more reluctant farmers are able to observe these benefits in the present time in a concrete way.
- The bottom-up, local nature of the projects funded under the National Landcare Programme enables landholders to feel a strong sense of ownership of projects. As well, this approach, by reflecting local priorities, enables landholders to see more easily the benefits to them and their local area of adopting new natural resource management methods.

The National Landcare Programme also uses other behavioural change techniques:

- It provides funding incentives for landholders, particularly groups of landholders, to undertake natural resource management measures. This helps in overcoming the lack of financial resources barrier. The programme, however, also utilises conditionality and reciprocity—funding is contingent on landholders signing contracts that include at least matching contributions of the landholders' own time and resources to the project funded by the programme.
- The National Landcare Programme, by supporting landholder groups and funding sustainable agriculture projects, has increased the social capital of rural communities.³⁷ While this has had significant social and health spin-offs, it also assists in achieving the spread of behavioural change amongst more linked-up rural communities.

37 D. Hyndman, A. Hodges and N. Goldie, *National Landcare Programme Evaluation 2003–06*, pp. 1, 7.



8. A Comprehensive Model of Behavioural Change

The discussion of behavioural change in this paper has focused particularly on the insights that behavioural theory and empirical research can add to the fundamental building block of behavioural change for policy makers—the rational choice model. These additional insights are especially useful when dealing with psychologically complex behaviours. The traditional policy tools that flow from the rational choice model will, however, generally still form a core part of a comprehensive approach to achieving widespread, sustainable behavioural change. Action needs to be taken on a range of fronts within an integrated, longer-term strategy for maximum behavioural change. The different policy tools used by government that potentially influence a certain public behaviour should be internally consistent and mutually supportive within this integrated strategy.

A good example of a successful, comprehensive behavioural change strategy is Australia's approach to tobacco control. There is a consensus in the Australian and international literature that a long-term and comprehensive approach to tobacco control is the most effective way of influencing the behaviour of smokers and potential smokers. Ad hoc, piecemeal action can have some impact but it is significantly more limited than a carefully planned, comprehensive, long-term approach encompassing education and information, legislation and restrictive measures and smoking cessation services. The comprehensive approach to tobacco control takes action in a range of areas using a range of policy tools. The effectiveness of the whole package is significantly greater than the sum of its parts.

The components of the comprehensive approach are set out in the *Australian National Tobacco Strategy 2004–2009*. The strategy was developed by the Australian Government in consultation with all state and territory governments and a range of NGOs. It sets out agreed areas for actions to be taken and makes clear the distribution of responsibilities. It was the consensus view of the representatives from NGOs and state government officials interviewed for the Australian Public Service Commission's case study that successive

National Tobacco Strategies have been very useful strategic frameworks for coordinating and focusing the activities of the large number of organisations involved in tobacco control. The comprehensive 2004–09 strategy includes the following measures:

- *Regulation of Tobacco*

The regulation of tobacco uses the traditional range of policy tools to influence behaviour, including taxes, legislation, fines and sanctions. Australia's federal, state and territory governments have regulated the promotion, sale, price, place of use and packaging of tobacco products.

- *Promotion of Quit and Smokefree Messages*

The social marketing approach used in recent mass media quit messages, which is sophisticated and well-informed by the research on what shapes and influences human behaviour, also extensively focus tested the demographic group being targeted.

- *Cessation Services and Treatment*

The provision of cessation services such as Quit lines, treatments such as nicotine replacement therapy and counselling and referral by health professionals are key components of a comprehensive tobacco control strategy. 'Without assistance, around 95% of quitters will fail on any single attempt.'³⁸

- *Community Support and Education to Prevent Young People Taking Up Smoking*

Research on the predictors of smoking uptake suggests that the most promising ways to prevent young people taking up smoking are to:

- help children develop negative attitudes to smoking
- teach children how to cope socially while resisting peer offers to smoke
- get parents to quit while their children are young
- prevent children from failing academically and becoming alienated from school.

- *Addressing Social, Economic and Cultural Determinants of Health*

Smoking is linked to general social disadvantage, other aspects of unhealthy lifestyle choices (e.g. lack of exercise, obesity, alcoholism) and also to the use of illicit drugs. Under the National Tobacco Strategy, all jurisdictions in Australia have agreed to endorse policies that prevent social alienation associated with the uptake of high-risk behaviours such as smoking and to advocate policies that reduce smoking as a means of addressing disadvantage.

- *Tailoring Initiatives for Disadvantaged Groups*

This is one component of Australia's comprehensive approach which has been less successful, and where less activity has occurred. More needs to be known about what might work in reducing tobacco use amongst particular groups, including Indigenous people, people with a mental illness and prisoners.

³⁸ US Department of Health and Human Services 1988, *The Health Consequences of Smoking: Nicotine Addiction*, The Department, Rockville, Maryland, cited in Ministerial Council on Drug Strategy, *National Tobacco Strategy, 2004–2009*, p. 29.

- *Research, Evaluation and Monitoring*

Australia has invested in research and a number of ongoing surveys and evaluations aimed at monitoring the impact of the tobacco strategy. These include the International Tobacco Control Policy Evaluation Study, three-yearly surveys of students' smoking behaviour and the three-yearly National Drug Strategy Household Survey. The resulting information and evidence base assists policy makers in planning the evolution of the comprehensive strategy and maintaining support for the long-term investment required for tobacco control by demonstrating its effectiveness.

- *Workforce Development*

This can be an overlooked part of any comprehensive behavioural change strategy. Investment is required in recruitment, training and continuing education in order to develop the necessary knowledge and skills among those working in tobacco control, including people employed in government departments and those delivering health services.

Australia's comprehensive tobacco control strategy is represented in the diagram at the end of this paper. The diagram used is an adaptation of the seven Es model developed by the UK Institute for Public Policy Research.³⁹ It is a tool for policy makers to assess their intervention approaches and to capture the dynamic interaction between the different types of interventions for influencing behaviour. In this model, enabling, environment encouraging and enforcing are the main categories under which specific interventions fall. Exemplifying, engaging and considering equity implications are all principles to which a comprehensive strategy would generally adhere. Evaluation is vital in enabling policy makers to learn as they go along. As revealed in the diagram referred to above, Australia undertakes significant actions under each of the seven Es. The key message from the model is that action needs to be taken on a range of fronts within an integrated longer-term strategy in order to maximise behavioural change.

The National Tobacco Strategy illustrates another general point about behavioural change—many approaches to influencing public behaviour are only effective if sustained over time. Approaches also need to evolve as community attitudes and behaviours change over time. As smoking has become the habit of a smaller and smaller minority, for example, new options have opened up for policy makers. The recent move in a number of Australian states and territories to ban smoking in all areas of public clubs, hotels and restaurants, for instance, would have been unacceptable ten years ago. The need for evolving approaches is particularly important in tackling the most complex policy problems as they tend to evolve over time, as new evidence or technology becomes available or as other constraints change. Behavioural change strategies are most effective in tackling these problems if planned, evaluated and refined over years or even decades.

39 M. Lewis, *States of Reason*, pp. 64–7.



9. Conclusions

Governments regularly use a range of traditional policy tools to influence citizens' behaviour, including legislation, sanctions, regulations, taxes and subsidies, the provision of public services and information and guidance material. In many areas this range of traditional tools works well. For some social policy problems such as so-called wicked problems, however, influencing human behaviour is very complex and the effectiveness of traditional approaches may be limited without some additional tools and understanding of how to engage citizens in cooperative behavioural change. It has become increasingly clear that government cannot simply deliver key policy outcomes to a disengaged and passive public. In the areas of welfare, health, crime, employment, education and the environment, achieving significant progress requires changing behaviour.

Detailed cost-benefit analyses in a number of key areas of public policy such as health and crime have shown that more sophisticated behaviour-based interventions can be very much more cost-effective than traditional approaches to policy and service delivery. This is particularly the case if a longer-term time frame is taken to evaluate the constraints, costs and benefits. Agencies may have more impact on key policy outcomes by using their limited resources to more effectively engage, involve and change the behaviour of users and other parties, than by concentrating only on traditional policy tools and service delivery.

Accordingly, policy makers in the APS need to have a better understanding of how the rational choice model of behavioural change can be supplemented by insights from behavioural change theory and evidence at the individual, interpersonal and community levels. A social marketing approach is one practical tool that tries to integrate these three levels of theories.

Adopting a comprehensive approach to behavioural change recognises that all the policy levers used by government that potentially influence a certain public behaviour should be internally consistent and mutually supportive. Ad hoc, piecemeal action can have some

impact but it is significantly more limited than a carefully planned, comprehensive, long-term approach. Experience with tobacco control illustrates that the effectiveness of a comprehensive package is generally significantly greater than the sum of its parts.

The tobacco control strategy adopted by Australia has clear strengths and insights for other policy makers tasked with achieving sustained and widespread behavioural change. These include:

- the importance of having an explicit behavioural change approach informed by behavioural theory and evidence and the alignment of all policy tools to reinforce behavioural change.
- the power of a comprehensive approach that achieves an effective balance between the various components (education, information, mass media, legislation, restrictive measures or in other policy contexts encouraging measures such as grants and assistance services)—within government policy parameters and funding constraints. While tobacco control evolved into a comprehensive approach over a 30-year period of ad hoc measures, a comprehensive approach, if implemented earlier, would have maximised the effectiveness of tobacco control at an earlier stage.
- the benefits of working effectively with other jurisdictions and stakeholders with an agreed framework which clearly outlines areas of responsibility and facilitates cooperation. This highlights the importance of effective governance structures and generating a shared understanding of the policy issues among jurisdictions and stakeholders.
- the need for a planned, long-term approach and investment. Ongoing investment in tobacco control, including improving the effectiveness of measures, maintaining funding for mass media promotion, and a progressive toughening of regulations are required to keep tobacco use on a downward trend.
- the importance of an evidence-based approach, including investment in research and evaluation to assist in planning the evolution of the comprehensive policy, where resources are best directed, and in demonstrating that behavioural change is being achieved.

Tobacco control also highlights some difficulties in achieving behavioural change, including:

- overcoming the more resistant barrier to behavioural change facing particular groups. In the case of tobacco control, these groups include Indigenous people and people with a mental illness.
- the difficulties in keeping communication channels open among the various jurisdictions and stakeholders, not only during policy formulation but particularly in the implementation phase of the current National Tobacco Strategy.

The need to formulate a comprehensive approach to behavioural change, to understand how components interact, to work cooperatively across jurisdictions and organisations and to engage stakeholders, highlights the need for a range of core skills in addition to the more traditional analytical, conceptual and project management skills. These include communication and influencing skills, the ability to work cooperatively, and big-picture thinking skills. There is also a need for policy makers to be aware of and apply behavioural change theory, and to understand the importance of investing in evaluation and research.



10. Possible Next Steps

Some suggested ways in which APS agencies could assist their employees to more effectively achieve sustained behavioural change are set out below.

At the whole of government level:

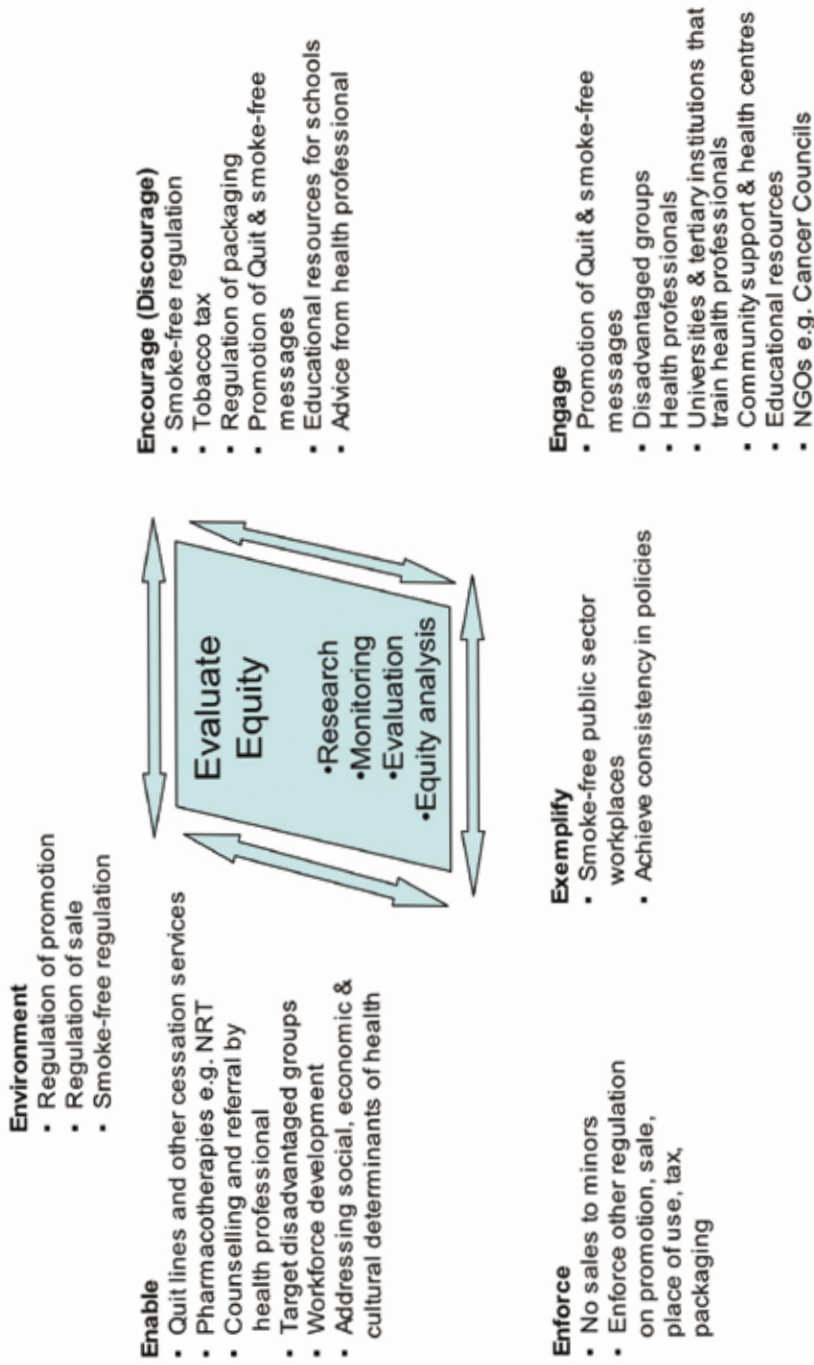
- consider whether a similar initiative to the UK Government's Behaviour Change Forum (discussed in the Introduction to this paper) should be implemented for Australia. In Australia, such a forum could be coordinated by the APS but also involve state, territory and local government. It might focus on:
 - exchanging experience of behavioural change policies and their implementation
 - disseminating research findings and good practice across government
 - advising on and promoting common policy tools and supporting those engaged in behaviour-focused policies.
- incorporate training and case studies on achieving behavioural change into the Australian Public Service Commission's programmes that focus on the broad range of skills required, including a basic understanding of behavioural theory and evidence.

At the agency level:

- focus on recruitment and investment in training and experiential learning to ensure that the necessary skills for policy makers and programme designers are available within the teams tackling policy issues that require behavioural change. Contracting in social marketing expertise can be one efficient mechanism for use by medium and small agencies.

- encourage a style of management that expects policy makers to consider whether an explicit behavioural change approach informed by behavioural theory and evidence would be useful in tackling a broad range of policy issues—not only those issues that most obviously require behavioural change. A broader culture that encourages initiative but recognises the need for learning would support such a management style and assist in modifying behavioural change measures in the light of what works and what doesn't. Such a learning culture, which is characterised by a willingness to think and work in new and innovative ways, also requires flexible and creative implementation (e.g. using trials, prototypes and multiple iterations).

Australia's Comprehensive Strategy for Tobacco Control – The Seven Es



Source: M. Lewis 2007, *States of Reason: Freedom, Responsibility and the Governing of Behaviour Change*, Institute for Public Policy Research, London, p. 64.

