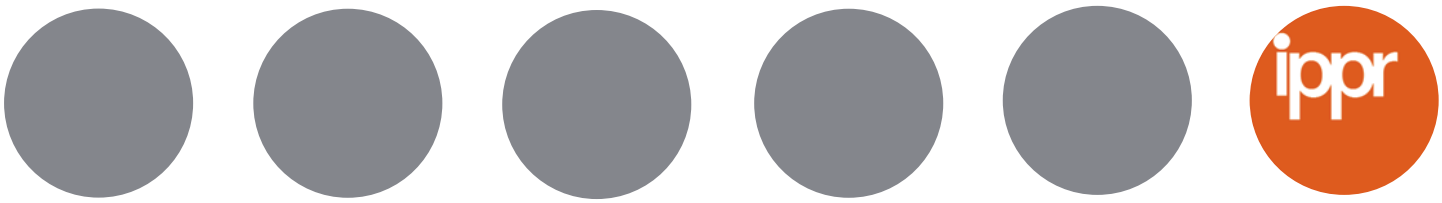

Improving our Health

A holistic approach

Lula Durante

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About this paper

This paper is based on two high-level seminars, funded by Prudential and PruHealth, and a literature review. It forms part of ippr's flagship project on behaviour change and personal responsibility. The project aims to develop a framework for progressive government intervention in public behaviour across different policy areas, including health, the topic that this paper summarises. The project's final report will be published in April 2007.

For more information about ippr's work on behaviour change please go to www.ippr.org.

About the author

Lula Durante is a Research Assistant at ippr. Previously, Lula worked as a project assistant at London Community Recycling Network. Before that, she worked on human rights issues as part of the Education Unit at Save the Children. Other human rights work experience includes assisting the Guatemalan Team while doing an internship at Amnesty International. Lula's research interests include public attitudes and involvement. She has conducted work on a range of qualitative research methodologies on various topics including the educational and employment opportunities of young people in rural areas. In 2002, Lula completed a MA in International & Comparative Legal Studies from the School of Oriental and African Studies, University of London. She also holds a BA in Modern Iberian & Latin American Studies from University College London.

Introduction: Why is health-related behaviour change important?

Some of the major causes of death in western societies are now associated with conditions such as obesity, heart disease and alcoholism (Marks *et al* 2000). Improving public health requires a commitment to change the individual behaviours that underpin these lifestyle-related illnesses, alongside efforts to tackle the other factors that can negatively affect health.

The increased focus on behaviour change in policy indicates a change in emphasis, as the Government outlines the responsibilities as well as the rights of citizens. This reflects a broader shift from paternalistic welfare provision to the role of the state being recast as enabling and working in partnership with citizens. This approach is evident in many recent government policies. For example, the choice agenda offers greater choice in public services, and many health-promotion interventions provide information to encourage people to make healthy choices.

Alongside this philosophical shift sits an economic argument that changing behaviour is more cost effective than treating the long-term results of unhealthy behaviours. We also now know more than ever before about how behaviours are formed and changed, and there is growing acceptance of the fact that government needs to work in partnership with the private and voluntary sectors to change behaviour.

This paper sets out some of the key challenges the Government faces in changing the public's health-related behaviour and examines the Government response. It then outlines whose behaviour we need to target by considering the impact of our environment, psychology and biological characteristics. Finally, a strategy is put forward for changing and maintaining desired health behaviours.

Health challenges

Despite improvements in health and life expectancy[1], there are still a number of behaviour-related challenges that the Government must overcome. In recent years, there has been growing concern in government about the impact of binge drinking, drug abuse, obesity and sexually transmitted diseases. Causes for concern include:

- Alcohol consumption in the UK has shown the steepest rise in rates in Western Europe (Room 2006).
- Young people aged 11 to 15 in England doubled their average weekly consumption of alcohol during the 1990s – from 5.3 units in 1990 to 10.4 in 2004. This level has since stabilised for boys but continues to increase for girls. The greatest increase has been among girls aged 14, from 3.8 units in 1992 to 9.7 in 2004 (ONS 2006a). Heavy drinking is more common among young people than older people: 31 per cent of men and 22 per cent of women aged 16 to 24 reported having drunk heavily at least once in the previous week when surveyed by the General Housing Survey 2005. Among those aged 65 and over, these proportions were just 4 per cent and 1 per cent respectively (ibid).
- Obesity in the UK is rising faster than in any other OECD country. The proportion who were categorised as obese (with a body mass index, or BMI, of over 30) increased from 16.4 per cent of women in 1993 to 23.8 per cent in 2004 and for men from 13.2 to 23.6 per cent in the same years (ONS/NHS Health and Social Care Information Centre 2005).
- Cancer is one of the biggest killers and 30 per cent of cancers are attributed to smoking (Slote Morris and Dawson 2006). People in manual occupations are nearly twice as likely to smoke as people in managerial and professional occupations, and this accounts for a great deal of the difference in life expectancy between socio-economic groups. Recent evaluations of the Government's smoking cessation programme suggest that it does not reach smokers in the most disadvantaged areas (Kings Fund 2005).
- The prevalence of stroke has increased in both sexes: in women from 1.6 per cent in 1994 to 2.1 per cent in 1998 and 2.3 per cent in 2003, and in men from 1.8 per cent to 2.3 and 2.7 per cent over the same years (ONS/NHS Health and Social Care Information Centre 2005).

1. There has been a dramatic increase in life expectancy among older adults in recent years. Between 1980-82 and 2003-05 life expectancy at age 65 in the UK increased by 3.7 years for males and 2.5 years for females. Mostly, the increases in life expectancy have been similar for each country within the UK. However, on average, for males in Scotland the increase was lower, at 3.2 years. Also, females in Northern Ireland experienced a higher increase than the average, at 3.1 years. Women continue to live longer than men, but the gap has been closing in recent years. Life expectancy at birth is also at its highest level for both genders. Boys and girls born in the UK (2003-5) can expect on average to live to 76.6 years and 81.0 years of age respectively (ONS 2006b).

- Health inequality is a major barrier to improving public health. In 1980, the *Black Report* (Black *et al* 1980) found that inequalities had widened in the previous 20 years with wealthier people improving their health while disadvantaged ones did not.

What is the Government already doing?

In recent years the Government has aimed to influence public attitudes and behaviour by promoting a preventative approach to health through a range of health and healthcare strategies. *Choosing Health* (Department of Health 2004) and the NHS Improvement Plan cemented a shift towards prevention and aimed to improve public health and reduce health inequality by empowering people to make healthier choices based on three key principles: supporting informed choices, personalising support and promoting partnerships to enable this. This approach provides individuals with the power to choose and book health providers according to their own preferences. Health providers are incentivised to improve their services through payment-by-results initiatives. The choice approach to healthcare cross-cuts different policy areas and has been taken up by all political parties (Farrington-Douglas and Allen 2005).

In practice, the Government has not done enough to specifically target public behaviour change. Some examples of its efforts are awareness-raising campaigns such as 'Think!' to get people to think more about road safety, and 'Know your limit' to raise awareness among young people over the negative consequences related to 'binge' drinking. While these types of campaigns are an important first step in changing behaviour, they need to be part of something larger that tackles the key factors affecting people's behaviour. This paper now focuses on these factors.

Targeting behaviour change interventions

The factors that influence and impact individual behaviour are the main focus of this paper. However, behaviour change strategies need to take a broader approach, targeting particular groups and also creating the environment in which people are empowered to change.

Individual behaviour in context

There are a number of factors that affect an individual's behaviour. They include someone's socio-economic situation, their local physical environment and wider social norms.

The more economically and socially affluent individuals are, the better their health and the longer they live. There is growing recognition that income inequality is linked to health inequality. This limits the Government's ability to address poor health solely through behavioural interventions.

The current Government has developed a strong approach to health inequality, and recognises that individual differences in socio-economic levels have an impact on health. Reports such as the *Independent Inquiry into Inequality in Health* (Acheson 1998) and *Saving Lives: Our healthier nation* (Department of Health 1999b) acknowledge the need to reduce health inequalities. In 1999, a further *Action Report, Reducing Health Inequalities* (Department of Health 1999b), was published. The initiatives in these Department of Health reports focused on factors influencing health such as housing and unemployment. They launched a contract between people, local communities and national authorities. In 2004, the Public Service Agreement (PSA) health targets set out to 'Reduce health inequalities by 10 per cent by 2010 as measured by infant mortality and life expectancy at birth' (HM Treasury 2004). Meeting health inequality targets is not easy as it requires tackling embedded social problems of poverty and inequality, with strong and well coordinated action across the relevant government departments.

Poor areas tend to have worse provision of resources and healthcare than wealthier areas (Farrington-Douglas and Allen 2005). Causes of inequity in the NHS include variations in transport provision and distance to local services; in employment and personal commitments; in voice, in terms of the ability to communicate with professionals and understanding the system; and in health beliefs and health-seeking behaviour (Dixon *et al* 2003).

Poorer people often have fewer choices in terms of accessing the education, jobs and resources necessary for good living standards. Lack of money limits opportunities to make healthy choices – such as buying fruit and vegetables – which can be expensive. And living in poor areas where there is a lack of well-lit cycling and walking routes can discourage people from integrating healthy routines into their lives.

Health inequalities are also based on persistent social and income inequalities. Unless these problems are

tackled by ending poverty, improving the life chances of children from poor backgrounds and promoting full employment, ill health will not be prevented. This is a fundamental social justice issue (Miller 2005).

The market economy presents a double challenge for improving health. First, a quasi-market model for healthcare can be detrimental for poor people if it is unregulated; and second, powerful market players such as the alcohol industry can undermine the Government's preventative approach by promoting products that are damaging to health. The Government needs to work to address these challenges.

The quasi-market model of choice aims to improve healthcare by lifting standards and reducing waiting times among providers through competition. The aim is for market forces to create competitive pressure for improvement and ultimately to eliminate poor providers in favour of better ones.

There is a danger that this economic approach to health could lead to a two-tier health service (6 Perri 2003). The effect of dividing hospitals into good and bad could lead to inequality in services and health inequalities. It could create a disadvantage for poor patients living near declining hospitals, as poor people have fewer resources to travel to other hospitals.

However, there may be cases where closure can work in favour of patients. Where patients have abandoned a service due to its poor quality, getting rid of that service would be necessary to protect the patient. Market elimination needs to be regulated so that closure of bad hospitals happens together with adequate replacement, and so that it does not reduce quality and access for all patients (Farrington-Douglas and Allen 2005).

The private sector has an impact on people's behaviour. For example, the media, entertainment and advertising industries aim to influence people's consuming and lifestyle choices. The food and drinks industries encourage the public to eat and drink certain products. These industries are both part of the solution to poor health and part of the challenge to it.

For example, there is a direct link between levels of alcohol consumption and harm to health (Jochelson 2005, Academy of Medical Science 2004). However, there is a conflict of interest between the benefits to our economy from the alcohol industry and alcohol's potential negative impact on health. The Government has a challenging role in regulating the private sector to make sure its actions do not contradict a positive behaviour change agenda. The Alcohol Harm Reduction Strategy for England, 2004 (Strategy Unit 2004) recognises that the alcohol industry has a vital role in tackling alcohol misuse. However, the Strategy also acknowledges that this industry contributes substantially to the UK economy.

People's behaviour is strongly influenced by their belief systems. These are first acquired during primary socialisation, which shapes behaviour (Abraham and Sheeran 2005). Individuals have little control over the quality of their early relationships and the type of belief systems adopted at this stage. Later in life, belief systems are affected by external factors such as peers and physical environment.

Peer pressure and group dynamics are crucial in influencing behaviour. People's behaviour is not merely the result of rational choices, but can also result from the powerful influences of social norms. Certain groups may choose not to carry out certain activities or form certain habits because it is not the custom in their social environment; for example, some Asian women may choose not to smoke.

The physical environment affects behaviour in terms of how it enables access to resources that will enable certain behaviour. For example, factors that affect alcoholism are the availability of alcohol and the average consumption of alcohol by the general population. Comparison studies across different countries have found strong correlations between the number of deaths through liver cirrhosis and the average consumption of alcohol (Leon and McCambridge 2006). In the case of smoking in the UK, since 1970, any increase in price has led to a decrease in smoking, with the overall effect that fewer people now smoke than did three decades ago (Jochelson 2005).

These complex factors affecting public behaviour require direct government intervention. When it comes to smoking, diet and exercise, an individual's capacity to make healthy choices varies depending on social and economic conditions that are beyond their control. For example, people may not be able to afford to buy fruit and vegetables. Certain areas may lack access to local leisure facilities and people may not have the transport options to go to other areas. As Coote argues, only government interference can create the equal opportunities necessary for everyone to make healthy choices, regardless of their background (Coote 2004). Even if an enabling environment is created to tackle health inequalities, it may take longer to influence the set social norms that can make people less inclined to make healthy choices.

Psychological and biological insights

Understanding human attitudes and behaviour requires a holistic approach that takes into account multiple levels of influence. Human behaviour is the collection of activities performed by human beings and is influenced by culture, attitudes, emotions, values, ethics, authority, relationships, persuasion, and law enforcement.

Individuals need to be motivated to change or maintain their own behaviour. Knowing how to enact this motivation necessitates an understanding of human psychology. Humans are creatures of habit and have a tendency to use different psychological mechanisms to avoid change. For example, drinkers may tell themselves they will give up soon instead of taking immediate action. This is known as cognitive dissonance (Festinger 1957): in lay terms, feeling uncomfortable when we do, think, feel or believe things that go against or conflict with something else we do, think, feel or believe. This theory explains that contradicting cognitions serve as a driving force that motivates the mind to acquire or invent new thoughts or beliefs in order to reduce the amount of dissonance (conflict) between thoughts. Dissonance is often strong when we believe something about ourselves and then do something against that belief. Cognitive dissonance is a strong motivator that often leads us to change one or other of the conflicting beliefs or actions.

There are a number of different models to explain our health-related behaviour. The Health Belief Model (HBM) is one of the most comprehensive. It explains health-related behaviour as being based on a two-step assessment: perception of threat and behavioural evaluation (Abraham and Sheeran 2005). An individual facing a health risk will assess the threat by considering its degree of seriousness and their possible vulnerability to it occurring. If the threat is perceived to be serious, an individual is only likely to act if there is a clear cue to action (Banyard 2002). Such a cue may be a physical symptom experienced by the individual or a close family member, or an advertising campaign. The other part of the assessment consists of evaluating whether the perceived benefits of changing a certain behaviour override the benefits of not changing that behaviour. For example, people may know that drinking less can bring benefits such as better state of health. However, they may feel that opting to continue to drink excessively brings better benefits such as being part of a social network. The social and economic environments are important variables in the cost-benefit assessment of the HBM. This model explains that knowledge about consequences of certain behaviour can lead to change.

Another approach uses Social Cognitive Theory, focusing on an individual's capacity to act and emphasising the importance of enhancing a person's behavioural capability and self confidence, and the role of personal control. Rotter (1966) explains that people perceive their 'locus of control' as being external or internal. This means that some people perceive their lives as being controlled by outside forces while others perceive that they have control of events in their lives. In the context of health, a person that suffers from insomnia with reoccurrence, for example, may explain it as the result of external climatic factors such as the weather making it too hot to sleep and accept it as being broadly outside their control. Another person may feel that his or her insomnia is a result of a personal psychological factor, and will take personal action to address it.

These models and theories show that there are often conflicts between behaviour and choice due to the complexity of our motivation systems. Simple models of choice fail to account for irrational behaviours and assume that humans mostly operate in rational ways. Our ability to change is determined by our wish to change, together with confidence in our ability to change. Therefore programmes to address behaviours need to take into account an individual's self efficacy and desire to change, otherwise they are unlikely to be successful.

Addiction is another major challenge to effective behavioural interventions. A number of health psychologists have argued that addictions are an irrational physiological condition where consumption becomes a habit and any reduction leads to withdrawal symptoms. Others claim that it is a rational choice where individuals weigh up enjoyment against the cost of giving up (Banyard 2002). A number of factors are believed to have an effect on addictive behaviour, including neurotransmitters, genetics, and environmental and social influences.

The nature versus nurture debate in psychology explores the extent to which behaviour is determined by our genetics (nature) (Cotton 1979, Bull and Murray 1994) and by our experience in life (nurture). Current thinking in biology suggests that genes alone do not usually determine a behavioural trait, but that certain environmental triggers can make genetic vulnerability more likely. The lack of clarity over the causes of addiction (Wanless 2004) is one reason why tackling it effectively is a serious challenge for policymakers.

Looking at behaviour only from the psychological perspective does not offer a comprehensive picture. Social and physical environmental factors also need to be taken into account. A biopsychosocial model (Engel 1977) can offer a more holistic perspective on behaviour as it interrelates three systems:

- a social system, which includes country, culture and family
- a psychological system of cognitions, which includes emotion and behaviour
- a biological system, which includes organs, tissues and cells. (Banyard 2002)

This model promotes a preventative approach to health. Its three Ps – people, prevention and psychology – challenge the three Ds in the medical model – diagnosis, disease and drugs (Marks *et al* 2000). Halpern *et al* (2004) found that an 'ecological' approach that takes into account internal factors such as psychology and external factors such as social norms is effective in informing actions to challenge unhealthy behaviours. There are two key concepts in the ecological approach that can help identify intervention points for promoting health: first, behaviour both affects and is affected by multiple levels of influence; second, individual behaviour both shapes, and is shaped by, the social environment.

Towards an effective strategy

Changing health-related behaviour involves developing a holistic approach to health that accounts for the complexity of factors that impact on public and individual behaviour. An ecological perspective shows the advantages of multilevel interventions that combine behavioural and environmental components. Such an approach could include the following (Halpern *et al* 2004):

- Educating the public to choose a healthy lifestyle. The evidence base of what we have learnt to date could be used to increase awareness, challenge beliefs, and convince people that they can improve their own health.
- Empowering people to make healthy choices. A more engaged NHS–patient relationship based on reciprocity and commitment would result in better public health outcomes.
- Cross-departmental approaches to encourage alternative activities to binge drinking such as exercising or spending time in cafes. Social norms need to be shifted over the long term so that friends and relatives of heavy drinkers would be supportive of such activities.
- Considering taxes for unhealthy actions like heavy drinking to discourage them. In the long term this could help change such social norms.
- Mass media communication to change negative behaviours and social norms.

Government cannot act alone

The Government has a key role to play in shifting public behaviour. However, responsibility for changing attitudes to health lies with more than government health services. The Government cannot act alone and should support wider social support systems to deliver interventions where appropriate.

Messages to promote behaviour change need to come from credible sources. Consideration must be given to how the public perceives government; the likelihood of it being viewed as a motivating source is an important condition for the effectiveness of any intervention. There is considerable public distrust of the Government. The public may therefore place more value on interventions coming from the voluntary or private sector.

Partnership work between the private and public sectors and government needs to be brought to the forefront. A strategy should be able to meet self care, community, training and cultural needs necessary for promoting healthy lifestyles. The most effective interventions should be local and promote meaningful relationships through professionals such as GPs. At the same time, a national approach is needed to help change and legitimise social norms such as promoting responsible drinking.

Different types of intervention

It is hard to unpick the assumptions that guide human behaviour and consequent choices, as human behaviour is influenced by a range of factors including psychology, biology, and environmental pressures such as socio-economic and cultural background. Part of the challenge of designing an intervention is the complexity of the process; any intervention is going to need to work at multiple levels. This could mean

coordinating more than one intervention at a time.

Prevention has a key role to play. Education can be used as a preventative tool, but on its own is not enough; there is additionally a role for incentives (see conclusions below) to play in shifting behaviour.

The timing of interventions is important. For example, attempts to educate parents in the early stages of parenthood about cot death tend to be successful as it is relevant to them at that time. The length of intervention is critical; interventions to change human behaviour generally need to be long term.

Intervention strategies of course need to take into account the differences between children and adults. Initiatives for young people are not just about changing them but also about motivating them to maintain certain behaviours over time. Initiatives for adults will need to take into account that adults can have long established behaviour that cannot be changed over night.

Financial incentives work well but generally only in conjunction with other interventions. Social marketing and communication have important roles in complementing incentives and their successful use requires good understanding of the market.

Multiple interventions: the need for coordination

At the moment, government departments working on behaviour change are focusing on different parts of the jigsaw. A collective understanding is needed between all key stakeholders in the public and private sector who are involved in government work on health-related behaviour change. In order to attain a desired behaviour, various factors need to be tackled simultaneously. And in order to avoid overloading and overwhelming the public, the approach of different government agencies needs to be coordinated. Industry and stakeholders such as GPs and clinical nurses play a key role and must be included in this process.

Finally, in order to ensure the effectiveness of different interventions, an adequate evaluation process must be in place.

Conclusions

Health inequality is partly a barrier to changing behaviour and partly an outcome of certain kinds of behaviour. The Government needs to tackle health inequality by focusing interventions on changing the behavioural traits linked to disadvantaged socio-economic groups. Part of this involves changing triggers in the environment in order to affect human behaviour. Incentives in the form of taxes, charges or financial reward can help shift behaviour and send strong social signals. Enforcement in the form of legislation can also help to consolidate desired behaviours. For example, making seat-belt wearing obligatory and banning smoking are good examples of new legislation that has played a key part in influencing new social attitudes. At the same time, it is important to note that legislation appears only to be effective when it reflects prevailing social attitudes. A smoking ban would have been unthinkable 30 years ago. One important role government can play is to influence the development of social attitudes in the long term.

The debate around health inequality is ongoing and highly complex with few simple solutions. However, there is growing consensus that in order to affect behaviour, government interventions need to take into account the following factors:

- Health inequality continues to be a key challenge to improving public health and must be tackled to ensure the success of any intervention.
- Human behaviour is influenced by a number of internal (psychological, biological) and external (environmental, socio-economic and cultural background) factors.
- A multi-faceted approach to intervention is needed that takes into account all the factors that influence human behaviour. A number of different and well coordinated interventions are needed to create the right momentum for a shift in public behaviour. However, it is important to not overwhelm the public with too many initiatives.
- Central and local government cannot act alone but need to work with other influential bodies such as local voluntary organisations, and intermediate players such as GPs and industry.
- Interventions must have clearly defined objectives. Public values and concerns must be at the centre of any interventions. Interventions must be delivered by a trustworthy source, which may not be the

Government.

- Plans for future interventions must be in place with adequate monitoring systems to ensure their implementation and effectiveness.
- Interventions such as financial incentives, taxes and legislation need to work with and challenge public opinion in order to be effective and create new social trends.

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