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# TO NUDGE, OR NOT TO NUDGE, THAT IS THE QUESTION

By: David McDaid and Sherry Merkur

**Summary:** The use of techniques from behavioural science to nudge populations in subtle ways to choose behaviours and activities positive to their health and wellbeing is certainly fashionable. One question, yet to be resolved, is whether these nudges will become integral components of public health policy or just passing fads. There should be scope for nudging to play an important role augmenting other elements of health promotion and public health policy. This is likely to depend on whether or not the evidence base on the effectiveness and cost effectiveness of different types of health nudges, targeted at different population groups and in different settings, develops sufficiently.

**Keywords:** *Behavioural Science, Behavioural Economics, Health Promotion, Public Health, Nudge*

There are fads and fashions in all walks of public policy. Some of these fads will over time be recast as successful examples of radical and innovative thinking that have been demonstrated to be effective. They will go on to be mainstays of public policy for many years by successive governments. At the same time many erstwhile much heralded governmental interventions will eventually, albeit quietly, be consigned to that graveyard of failed or no longer ideologically sound policy initiatives.

Health policy-makers are no strangers to looking beyond orthodox approaches to the promotion and protection of public health. As this article will describe, the use of techniques from behavioural science to nudge populations in subtle ways to choose behaviours and activities positive to their health and wellbeing is certainly fashionable. One question, yet

to be resolved, is whether these nudges will become integral components of public health policy or just passing fads.

Governments have long had powerful tools at their disposal to influence population health, both directed ‘upstream’ at some of the underlying causes of poor health as well as at downstream challenges when poor health behaviours are already manifest. Actions might include income distribution policies or access to education. They will include legislation supported by enforcement actions, for instance to ban harmful substances or regulate what goes into our food. Fiscal policies have traditionally been used to increase the price of cigarettes and alcohol and less often to subsidise the price of health promoting products and activities. Governments will run health information and awareness campaigns; they may also

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take action to improve access to sports clubs and swimming pools, or invest in cycle lanes.

The problem is that any combination of these strategies will not work for everyone. Individuals can act in a way that economists would call irrational when it comes to health behaviours. For instance, many in society will be resistant to any changes in entrenched behaviours; they may be more influenced by peer pressure and addiction. Many people can have difficulties in weighing up the gains in participating in an unhealthy activity today, such as smoking, with the increased risks to health in years to come. A poor appreciation of risk is one reason why some individuals are highly optimistic about their chances of avoiding any future harm to their health. Individuals do not always respond and may be resistant to change their behaviours even in the face of significant financial cost.

“ Little evidence to suggest that nudges are an alternative

There may also be social or environmental factors that make it hard to adopt healthier behaviours. Countering obesity may only require modest changes to physical activity and dietary habits, but these changes are still difficult for many people to adhere to, particularly for those living in an obesogenic environment with less active jobs and easy access to high energy density foods and sugary drinks. Yet legislation to restrict access to unhealthy foods may be seen by elements of the public as an unnecessary encroachment into matters of personal choice. These challenges have been used to argue for a greater focus on behavioural science applications that can influence the choices that we make. Can our choices be influenced in subtle ways that ultimately help society achieve more of its health policy goals?

## The rise of behavioural science

Applying principles drawn from behavioural science to inform our understanding and influence health policy design is certainly in vogue. The award of the Nobel Prize for Economics to Daniel Kahneman in 2002 significantly raised the profile of behavioural science, while Richard Thaler and Cass Sunstein's book, *Nudge*, expounding on ways in which to make use of these insights came to prominence in some policy circles.<sup>1</sup> Subsequently in the UK, the Coalition government established a Behavioural Insights Team in the Cabinet Office to look at these issues in 2010.

The approach appears attractive to policy-makers. It does not involve compulsion yet in theory can powerfully persuade more individuals freely to engage in behaviours and activities that should be positive to their health and wellbeing. In fact much of this is not new, advertisers and retailers have relied on behavioural science for decades to influence our purchasing patterns and the prices that we pay for goods and services. Our general inertia has long been used by the banking industry to hook us into accounts with short term attractive interest rates, safe in the knowledge that very few of us will take the time and trouble to switch to a different account when the interest rate decreases.

## Applications of nudges to health policy

So how has nudge been applied to health? Actions which make use of behavioural science can be targeted at the general population or at specific population groups. One example focused on the general population concerns organ donation – a number of countries including France, Portugal and Spain have systems where individuals have to actively choose to opt-out of the organ donation system. At least 80% of the adult population are listed as potential donors, in contrast to most of the UK where an opt-in system is in place and there is a donor rate of roughly 20%. Understanding this, in Wales from 2015 a 'soft' opt-in system of presumed consent to organ donation will apply; individuals will be able to opt out while alive but close friends and relatives will also be able to object in the event of a death.

Behavioural science can also be used to influence public health campaign messages. Prompts can encourage behaviour change, by changing the way in which the population define 'good' behaviour. One example of this has been the use of the simple slogan 'five a day' to encourage fruit and vegetable consumption in the UK. This has had some success in increasing consumption of fruit and vegetable by 0.3 portions per day between 2002 and 2006. Low income groups appeared to benefit at least as much as higher income groups.<sup>2</sup>

Another example of how public health campaigns can be altered by behavioural science is the LazyTown scheme. Operating since 1996, initially in Iceland but now broadcast in almost 100 countries, this television programme and mobile media application focuses on the antics of a healthy superhero character, Sportacus, who motivates children to eat healthily and be more active. Young children sign an 'energy contract' with their parents and receive rewards for eating healthily (fruit is labelled 'sports candy'), going to bed early and being active. In Iceland, the programme has been associated with a sustained reduction in the rates of childhood obesity, while between 27% and 42% of pre-school children in a trial in Iceland perceived LazyTown branded food to taste better than identical non-branded food. These findings indicate children's preferences for child-oriented wrapping rather than regular wrapping.<sup>3</sup> While this fact has long been used as a tool by the food industry to market unhealthy foods, Lazytown suggests the same approach could be used as one element of a strategy to promote healthy eating among young children.

There are also approaches that are much more targeted at individuals rather than the general population. Financial and other incentives have also been used in an attempt to reinforce behaviour change, such as payments made for smoking cessation and weight loss. As Harald Schmidt points out in this issue, these incentive structures can be complex and it is impossible to draw one general conclusion on their effectiveness, this will depend on the nature of each individual scheme.<sup>4</sup> In saying this, getting public acceptance of schemes that reward

bad behaviour may be difficult,<sup>1</sup> while schemes will need to be carefully designed to ensure that there are reliable, accurate and acceptable measures of behaviour change, and opportunities for gaming are minimised.<sup>2</sup>

In a variant on the financial incentive schemes, individuals can also make a formal commitment to change their behaviour through commitment contracts. In many of these schemes real money can be earned or lost depending on progress in achieving a stated health promotion goal. Evidence on the effectiveness of these contracts remains limited, although they are fashionable. Any health benefits achieved, such as weight reduction, tend to be lost when programmes end. This then begs the question as to how long contracts should be and whether they represents a good way of achieving any health promotion outcome. Does the longer timeframe help to habituate the changed behaviour or is it simply delaying the return to poor health behaviours? If the time needed to generate health benefits is short, then both financial incentive schemes and commitment contracts may be a powerful aid: for instance a review of six financial incentive schemes targeted at pregnant women indicates that smoking abstinence rates increase, with benefits for foetal growth, mean birth weight, number of low-birth-weight deliveries, and breastfeeding duration.<sup>3</sup>

### Should governments use nudge or rely on budge?

There is certainly scope for governments to make use of insights from behavioural science in developing health policy. Behavioural science is undoubtedly fashionable but the techniques have long been used outside of the health sector, thus it makes sense to apply them in the health arena. What is crucial is the way in which these approaches are used.

At the heart of any health promoting policy must be actions to tackle social and economic factors that increase risks to health. Long standing public health actions, with fiscal policy, legislation and regulation at their core, have been shown to be highly cost effective in many areas of health promotion and disease prevention.<sup>4</sup> There is little evidence to suggest that

nudges are an alternative to mechanisms used to ‘budge’ the population towards better health. Instead policy-makers must look at how they can apply nudges, to paraphrase an advertising slogan, ‘to influence behaviour choices that no other mechanisms can influence’. There is scope for nudging to play an important role augmenting other elements of health promotion and public health policy. A good example of this could be the introduction of stark warning images on packs of cigarettes in an attempt to reach some of the hard core of smokers immune to other mechanisms.

## “influencing choices at the margin”

While the theories on behaviour change are well established, the actual application of theories and findings to public health policy is still developing. Much more needs to be done to build up this evidence base. It is important to build in evaluation to any implementation process, particularly given that actions may have more impact on some population groups than others, potentially widening health inequalities. There may also be other unintended positive or negative consequences of actions that need to be understood – for instance do those who give up smoking start eating more, and if so how can this be countered? Evaluating how these actions work in practice may also help in tailoring approaches to meet the needs of different groups, e.g. those from different cultural or social backgrounds.

Generally, in deciding on how to use scarce resources for health policy we are interested in assessing the cost effectiveness of different policy options. This remains somewhat of a black hole when it comes to evaluation of the use of ‘nudging’ tools; we know precious little about their value for money. Of course some tools may be almost costless or not borne by the health sector – take for example a decision to reduce the size

of plates used in a buffet restaurant, or a decision of a workplace canteen to provide pictures of balanced meals. Supermarkets may be willing to fund phased introductions of modified versions of supermarket trolleys to encourage the purchase of fruit or vegetables. However, many other nudging tools may have substantive development and implementation costs and we urgently need to build the evidence base on their cost effectiveness.

The way forward is to proceed with caution. Nudges can help society move towards health promotion goals by influencing choices at the margin, but they are no replacement for traditional stringent ‘budge’ measures such as taxation, legislation and regulation. Nudging has been a fashionable development. In early 2014, the high profile Behavioural Insights Team in the UK Cabinet Office was transformed into a private social purpose company whose mission is to help organisations in the UK and overseas to apply behavioural insights in support of social purpose goals. Their emphasis is very much on rigorous evaluation. If they and others can strengthen the evidence base, then nudging for health will avoid being a fad and instead become an established additional tool for health policy.

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