NICE Citizens Council meeting

The use of incentives to improve health

20th – 22nd May 2010

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Foreword

The National Institute for Health and Clinical Excellence (NICE) advises clinical and public health professionals on promoting good health and preventing and treating ill health. The Institute and its independent advisory bodies base their conclusions on the best available evidence. However, in doing so, they also have to make scientific and social value judgments.

The Institute and its advisory bodies are well qualified to make scientific judgments but have no special legitimacy to impose their own social values on the National Health Service (NHS) and its patients. These, NICE believe, should broadly reflect the values of the population who both use the service (as patients) and who ultimately provide it (as taxpayers). NICE therefore established a Citizens Council in 2002, to help provide advice about the social values that should underpin the Institute's guidance. Its views are incorporated into a guideline for NICE's advisory bodies: Social Value Judgements.

The members of the Council reflect the demography of the English and Welsh populations. They serve for three years with one third retiring annually. They do not represent any particular section or group in society; rather they are a cross-section of the population with their own individual experiences, attitudes, preferences and beliefs. The Council meets twice a year.

At its May 2010 meeting, the key question for the Council was as follows:

"In what circumstances are incentives to promote individual behaviour change an acceptable way of promoting the health of the public**?"**

The Council's report will be available for public comment before it is presented to the Institute's Board in January 2011. Once again, the Institute is extremely grateful to the Council for its continuing help in developing NICE's social values.

Professor Sir Michael Rawlins

Chairman

NICE Citizens Council meeting, May 20-22, 2010

The use of incentives to improve health

What we were asked to consider

The principal question we were asked to consider was: "In what circumstances are incentives to promote individual behaviour change an acceptable way of promoting the health of the public?"

In addition we were asked to tackle a number of subordinate questions:

1. If never, why?

2. If sometimes, does the acceptability depend (and if so, how) on:
    - The purpose of the incentive scheme?
    - Whether the behaviour change desired is short-term or long-term?
    - The desired outcomes (e.g. uptake, compliance, behaviour change and lifestyle, such as smoking, drinking, physical activity or nutrition)?
    - Whether the behaviour change involved is simple or complex?
    - The groups being offered the incentives (e.g. whether the scheme is universal or targeted in some way)?
    - The setting for the incentive scheme (e.g. workplace, education or commercial settings)?

3. To what extent is the Council concerned about incentives resulting in any negative or unintended consequences?
    - Do incentives lead to abuse such as cheating or delaying the desired behaviour change to reap the reward?
    - Do incentives encourage people to adopt unhealthy behaviours to reap the rewards?
    - Do incentives reinforce or encourage unhealthy behaviours?
    - Do they lead to feelings of failure or low self esteem if the target is not met?
    - Do they lead to undesirable peer pressure?
    - Do incentives undermine the development of long term behaviour change?
    - Does the use of incentives (i.e. an extrinsic factor) undermine the development of more personal and possibly longer lasting, motivations (i.e. intrinsic factors)?

4. What safeguards, if any, would the Council like to see put in place if and when incentive schemes are used?

The conclusions we reached

In response to a vote on the question "Are there any circumstances in which incentives are acceptable?" 12 out of the 32 members present voted "No", and 20 voted "Yes - but with conditions".

Votes against

Those of us who voted "No" offered the following reasons for their choice:

- A lack of supporting evidence
- The cost of incentive schemes, especially at the present time
- Their potential for abuse
- Incentives should not be needed to help people, particularly adults, to make decisions
- Much help is already available (e.g. through the benefits system, education and in primary care)
- Incentives are a reward for inappropriate behaviour
- Incentives raise concerns about the "nanny state"
- Incentives are not fair to those who make the right choices unaided, yet receive no rewards
- Incentives can have a negative effect on public opinion.

Votes for

Those of us who voted with a conditional "Yes" did so for the following reasons:

- Incentives must be tried before we can find out if they work! We also need to find out why they sometimes fail. When they are used, their outcomes should be followed up for at least three months
- Incentives help to show people that they are viewed as worthy of being helped
- Incentives are best when targeted. There are groups who need special help, for example, pregnant smokers and obese children. Our ultimate concern is for children.
- Incentives are best when used as part of a wider package, including e.g. other forms of help and support, and education.

Those of us who voted "Yes" did so with the following caveats:

- Incentives should not be exchangeable for tobacco and alcohol
- People seeking to join incentive schemes should not do so unless they have decided they really want to change

• Time limits and safeguards are needed if private companies are involved
• Incentive schemes should allow for the collection of evidence
• Cash incentives should be last resort
• Personal contracts should be arranged with participants
• The behaviour of participants while taking part in the scheme should be monitored.

Both groups offered additional suggestions to NICE. These are listed in the *Decision time* section towards the end of this report.

How we worked

Thirty two of the members of our Council were able to attend the meeting, held from 20th to 22nd May at NICE headquarters in London. It began with an introduction from Professor Mike Kelly, Director of NICE's Centre for Public Health Excellence. Over the following two and a half days we listened to presentations from a series of people with specialist knowledge of the use of incentives in changing health behaviour, or who had first-hand experience of putting this approach into practice. We also used case studies to try our own hands at deciding whether incentives might be justified. To record how our opinions on the value of incentives developed during the meeting we completed two tracking questionnaires, the first at the beginning of day one and the second at the end of day three (see Annex 1). We were able to question all of the experts who spoke to us and the entire meeting was punctuated with small group discussions, or together in plenary session.

What we did and what we heard

In his introduction to the question, Mike Kelly reminded us of the definition of an incentive which, for these purposes, NICE was using:

A thing of perceived positive value, offered in order that a desirable health outcome may be obtained, to motivate or encourage an individual to change his or her behaviour.

The use of incentives depends, in part, on knowing why we do what we do and what can be expected to change our health behaviours – which include eating, drinking, drug-taking, and lack of exercise. A great deal of modern ill health, including many of the public health problems that NICE seeks to tackle, is a product of these behaviours, so the potential gains are significant. But the factors that motivate and drive our behaviour are many and various, and not all are straightforward.

Incentives do not necessarily have to be monetary or indeed have any intrinsic financial value.

At this point Mike Kelly paused for our questions and received a couple that he acknowledged as in the Exocet class. One of our members asked about the boundary between an incentive and a bribe? While pointing out that the there is a strict dictionary definition to distinguish the two, Mike Kelly commented that critics were perfectly willing to employ the term "bribery" if it could be seen to discredit the use of incentives. All human life, he added, revolves around a complex mix of rewards and punishments. But this does not prevent their calculated use for social or medical purposes being seen as controversial. Another member raised another tricky question: Should we be considering disincentives (i.e. the opposite of incentives) as well? Mike Kelly acknowledged that these, such as taxes on tobacco and alcohol, have a key role to play, but hoped we would concentrate on positive incentives instead. This, he said, was the territory that NICE felt needed exploration.

At this point he resumed his introductory talk by reminding us that human behaviour is determined by at least four (sometimes competing) factors: rationality with its calculated attempt to minimise pain and maximise gain; emotion, characterised by a psychological cauldron of pleasure, fear, anxiety and other states of mind; creativity and its satisfactions, the driver of much human activity; and altruism in which satisfaction derives from nurturing and caring for others. This explains the variety of incentives that can motivate our behaviour. While cash is certainly prominent among them, love, self-esteem, the admiration of others and all sorts of non-cash rewards, can be equally powerful.

Having divided into three groups we then discussed our initial thoughts on incentives before reconvening in a further plenary session to report back. The first group feared that some people might be tempted to exploit an incentive scheme by remaining with it as long as the incentives lasted, and then returning to their previous behaviour. They stressed the need to monitor participants' behaviour, but had several worries including the cost to the public, the length of time for which any change in an individual's behaviour might be sustained, and the issue of paying people to overcome their lack of "moral fibre". Forms of non-cash incentives might be better. Either way, they added that it was important to target young people in these efforts.

The second group talked of the need for a range of incentives to allow different rewards to be offered to different people. You need to

understand the motivation to find the right reward. They suggested that raising self-esteem might also be important. One type of incentive could take the form of savings vouchers to be deposited in a bank. The remaining group added that while all of its members viewed incentive schemes favourably, they felt that in order to reach a full understanding of incentives, one should perhaps have an understanding of *dis*incentives as well. Their other main concern was over the cost to the NHS and the consequent need to concentrate on some areas to the exclusion of others.

Responding to our comments, Mike Kelly agreed that we had identified a number of key issues, of which he too was conscious. He suggested that some of these difficulties might be overcome by establishing a contract between participants and the agency administering the scheme. During further discussion he reminded us that schemes should not become so elaborate that they cost more to run than they saved and that some participants might require more than one attempt to succeed.

For and against

The next two presentations comprised a "for and against" pairing of two academics. We began with a talk given by economist Richard Cookson of the University of York who pointed out that incentives are commonplace in the relationships between parents and children, buyers and sellers, and employers and employees. So why the fuss when used in health? He suggested that this was a policy that was most often relevant to (if not consciously targeted at) the poor. It is part of an attempt to overcome health inequalities in circumstances where other more familiar and long-tried methods have failed. As such it runs the risk of being seen to be not just paternalistic but indirectly coercive. As other speakers were to emphasise, the evidence so far available to support incentives is limited and often weak. But Richard Cookson was able to instance a report by the King's Fund which concluded that personal incentives do change simple behaviours such as attending for dental check ups. This report also suggests that incentives only change more complex behaviours (e.g. smoking, drinking, diet and physical activity) when used as one element of a wider programme of behaviour change. He proposed that NICE should only back those incentive schemes that could be shown to be cost effective, did not have too many adverse effects, such as stigma or erosion of trust and could be readily evaluated. He felt that it was important to approach incentive programmes with scepticism. He added that he himself tried to avoid using moral judgments when assessing them.

Harald Schmidt of the Harvard School of Public Health and the London School of Economics had been asked to speak about the drawbacks of incentive schemes, which he did, although he later revealed that he himself can be sympathetic towards them, albeit with a number of reservations. He began with a warning: that what is sold as an incentive may actually be more of a stick than a carrot. For example, failing to get a reward can logically be seen as a stick. The kind of schemes he had in mind might be free membership of a local gym, or a monthly payment for maintaining blood pressure and cholesterol within a set range. The incentive principle, he argued, can break down for a number of reasons when applied universally. Some people, by reason of their physiology, are just lucky; they meet the chosen criteria without much effort on their part. Others by contrast are unlucky; for biological or medical reasons they cannot meet the success criteria however hard they try. Such differences can make a scheme seem very unfair to those taking part. Harald Schmidt concluded by asking us at what point do these differences constitute unfairness and how should we respond in policy? There were, he said, four options: offer incentives universally, regardless; offer them universally but with modifications; offer targeted instead of universal schemes; or abandon incentive schemes altogether.

The subsequent discussion ranged over the cost-effectiveness of incentive schemes, the desirability or otherwise of means-testing, the use of non-cash incentives, attempts to match incentives to individuals, and the payment of rewards to third parties or organisations. On all of these and the other topics, the message we received was much the same: the evidence is patchy or non-existent. One Council member felt that we had lost a generation when it came to understanding what made for good health; it was argued that a lot of people do not know how to cook anymore. We also discussed whether the benefits of an incentive scheme might wear off when they ceased to be a novelty or, alternatively, that once a new behaviour had embedded it might remain even though the original incentive was progressively tailed off. Another member suggested that incentives might reinforce what could already be perceived as a deterioration in human behaviour over the past generation or so. But the speakers were not persuaded that human nature had changed that much over the decades.

One of us suggested that one-to-one contact with medical staff or social workers might be more effective than cash incentives at changing peoples' behaviour. The speakers agreed, but pointed to the numbers of personnel that would be required and the cost as potential barriers. Our member responded that this might be a task for the voluntary sector. But

the speakers still felt that providing the required number of people would be onerous. The discussion concluded with a consideration of incorporating health behaviour incentives into the tax and benefit systems.

Some actual schemes

The afternoon began with two speakers who had had direct experience of incentive schemes. Andrew Radley of NHS Tayside described one aimed at pregnant smokers; previous non-incentive efforts at persuading the women concerned to give up tobacco had prompted little interest or uptake, he explained. His scheme, called *Give it up for baby*, relied on women registering with their local pharmacy and then making regular visits for a carbon monoxide breath test to ensure that that they really were keeping off tobacco. If they passed the test, they received a weekly £12.50 voucher that could be spent in a designated supermarket. The scheme attracted many more applicants than its predecessors; but there was, Andrew Radley noted, a disproportionate interest from the relatively more affluent areas of the region covered. The *Scottish Daily Express* headlined its report on the scheme "Mothers-to-be are bribed to stop smoking".

The scheme proved to be some two and half times as successful as might have been expected using a more conventional approach. Even so, by three months after giving birth, four fifths of the women were smoking again.

Claire Martin, a public health specialist working for NHS Eastern and Coastal Kent, turned our attention to weight control with the *Pounds for pounds* scheme commissioned in her area. The incentives were complex and for contractual reasons (the scheme was administered by a commercial organisation) we were given only limited details of its scale. But in essence, participants first agreed a target amount and rate of weight loss; then, the better they did the more money they received up to a maximum of £400 plus. 1200 people applied for the 300 available places (subsequently increased to 400). The intervention only consisted of advice on how to lose weight.

At 12 months after starting, a quarter of the participants had managed to lose 5 per cent or more of their initial body weight. Claire Martin reported a high drop out rate, but felt it was reasonable to judge the scheme as effective for some people.

In the discussion that followed the presentation we asked about the overall costs of the two programmes. We learned that the Tayside smoking scheme had cost £43,000 of which the incentives accounted for some 15 per cent. We requested similar details for the obesity programme, but the speaker declined to provide them. We found this response disappointing.

More evidence

Tammy Boyce of the King's Fund joined us to outline the broader picture of the available research evidence. The study of the use of incentives, she said, is a growing field - but cautioned us that the evidence is still limited, and that much of it comes from America where circumstances are very different from those in the UK. Incentives can be effective, and they tend to work best when designed to influence one-off changes in behaviour; for example, encouraging attendance at an immunisation clinic. The success of financial incentives is influenced by their size, and by their timing (they work best if the reward is immediate). They also work most effectively when used as part of a wider programme of change. Predominant among the problems for which they have been employed are smoking and obesity.

One of the most encouraging schemes which Tammy Boyce drew our attention to was the *Food Dudes* scheme for encouraging children to eat more fruit and vegetables. The rewards were modest (pencils, juggling balls and the like), and formed only one component of the scheme. In a controlled trial *Food Dudes* brought about an impressive increase in fruit and vegetable consumption which was still apparent four months later. But in spite of this morsel of encouragement, the only answer that Tammy Boyce could give to many of the questions that NICE had put to us was…we don't know.

In the discussion that followed we reflected on the disincentives to healthy and regular eating created by the modern abundance of fast food outlets. As Tammy Boyce observed, the strategies so far employed have been less than effective at tackling obesity, which is why it is so important to consider all possible alternatives. We also talked about the way in which incentives change behaviour and whether they may create a kind of dependency; Tammy Boyce was doubtful.

Personal perspectives

Still meeting in plenary session we heard two more views on the use of incentives; the first from Susan Ringwood, Chief Executive of the eating disorders charity, BEAT. She addressed the issue obliquely; first by

reminding us that evolution had hard-wired our brains to seek out and consume the richest food whenever it was available, and then by describing what she saw as the psychological steps involved in behaviour change. These are: contemplation of the desired change; preparation for it; action; and finally, maintenance. She had canvassed the views of her members and found there was no consensus on the use of incentives; some had a positive view and some had negative one, while others were ambivalent. She herself had an open mind on the issue but believed that if they were to be used successfully they would have to be incorporated into the pathway to change she had described.

Speaking partly from personal experience, Erin O'Mara, Editor of *Black Poppy* (a health and lifestyle magazine for drug users) described "the good, the bad and the ugly response" to drug addiction. The last of these was a project to persuade addicts to use birth control or, if pregnant, to have an abortion. The bad response was her own experience of the treatment system in the UK; the clinic she had attended had offered an incentive - heroin - but dispensed it under conditions that she described as demoralising, disempowering and, ultimately, of little value. She contrasted this with a Dutch project called *Proze*. This uses peer-driven intervention with addicts helping one another. Incentives are only one ingredient of the programme and not necessarily, she said, the most important. Where incentives are used, they have to be relevant to the individual concerned. Following her presentation we had a brief discussion on the importance of ensuring that people who took part in incentive programmes were at a point in their lives at which they really wanted to change their behaviours. A succession of failures can make behaviour change even harder.

We finished the day with further group-based discussions, so that we could pick out what we felt were the key points that had emerged during the day. Our list included the importance of having schemes that are appropriately targeted, combined with a support network and made available to people who have reached a point in their lives at which they really wish to change. Cash should not be viewed as the only incentive and people who have personally experienced the problem in question could be very helpful in arranging or facilitating schemes. For the moment, though, the paucity of evidence remains a hurdle to decisions on what is most desirable and most effective.

Case study exercises

The second day of the meeting began with a short address from Mike Kelly in which he clarified our role and emphasised what NICE was

hoping to get from our deliberations. As he explained, a few organisations had begun to try incentive schemes and many more were thinking about it. NICE was keen to know what it should be mindful of in deciding whether or not this is a development which should be encouraged. In short, NICE was interested to know what we saw as the possible "elephant traps" along the way.

Mike Kelly also told us that health ministers had asked NICE to identify "the most appropriate means of generic and specific interventions to support attitude and behaviour changes at population and community levels". In listing the factors that seem to facilitate such change he drew particular attention to what is known as "self-efficacy"; the extent of an individual's belief that he or she is capable of performing in a certain manner to achieve certain goals.

We then divided into three groups, each of which was allocated a case study exercise involving an incentive scheme. One featured drug misuse, another weight loss, and the third smoking in pregnancy. The details of the three case studies can be found at Annex 2. Our task was to consider the desirability and wisdom of the schemes, and so obtain first hand experience of the kind of assessment process that NICE would have to go through if asked whether it wished to recommend something of this kind.

Ethical considerations and unforeseen consequences

The case study exercise was followed by our final two presentations. The first was from Richard Ashcroft, professor of bioethics at Queen Mary University of London. Addressing the ethical aspects of incentives he reminded us that while a scheme may be demonstrably effective, it could be ethically unacceptable; the two issues have to be separately assessed. In passing he drew our attention to the way that language is used to describe these schemes. He showed us a selection of newspaper articles in which even if the story itself was neutral in tone, the headline was not; for example, "Bribery – the key to better health". Depending on your point of view the same scheme can be described in different ways: as bribery rather than an incentive; as voluntary or as coercive; as paternalistic or as promoting an individual's autonomy; as fair or unfair; as a waste of money or as promoting efficiency. None of these categorical descriptions are absolute or indisputable. Bribery, for example, is paying people to act against their wishes, but incentives can sometimes resemble bribes. Likewise, if the amount of incentive is very large, it might appear coercive: making someone an offer they can't refuse. And is it fair to reward people for doing what is anyway in their own interest, or even rewarding bad behaviour? One response to this argument is to note the

class-related gradient in smoking and other forms of adverse health-related behaviour; you can argue that targeting resources on people who not only need help but are anyway poorer is what fairness should be all about.

A second presentation in this session was from Theresa Marteau, professor of health psychology at King's College, London and also director of the Centre for the Study of Incentives in Health. As she pointed out, while there is frustratingly little evidence by which to judge the intended consequences of incentive schemes, there is even less by which to evaluate their *un*intended ones. However, she told us that a trawl through the literature revealed no confirmed evidence of participants adopting unhealthy behaviour simply to qualify for incentive schemes; of people least in need being recruited in the greatest number; of a negative impact on those who fail in incentive schemes; or of a tendency for people to become less altruistic and less sensitive to social rewards. Nevertheless, there were instances of participants delaying an intended change in behaviour in order to qualify for a scheme or faking urine tests, of health providers ignoring "bad" results out of misplaced sympathy, and of the wrath of citizens as expressed in newspaper articles.

To explore the acceptability of differing approaches to behaviour change, Theresa Marteau, Richard Ashcroft and other colleagues designed a thought experiment envisaging four different methods of tackling various health problems including drug addiction, smoking and obesity. The four methods were pills, injections, penalties, or rewards. Respondents were told that all four methods cost the same and that all were equally effective. They were then asked to say which methods the NHS should fund. The findings showed that pills and injections were regarded as far more acceptable for these purposes than financial rewards or penalties. But why? Theresa Marteau admitted that she did not know. But one explanation has to be that, for whatever reason, we simply do not feel financial incentives are acceptable in this context. In short, she said, while there are circumstances in which incentives work, they cannot be viewed as a magic bullet; and while they do have unintended consequences, we do not know much about the scale of this drawback.

Following the presentations one of us asked if convincing data on cost-effectiveness would help to make incentive schemes more acceptable to the public. The answer, we were told, was almost certainty yes - but Richard Ashcroft thought it would also be necessary to remind people of two other things: how difficult it can be to change ingrained habits, such as smoking or taking no exercise, and that present costs can bring future

savings, even though the latter may seem rather remote. As Theresa Marteau commented, some American incentive schemes had been called "contingency management programmes"; if these proved more publicly acceptable it might be that the obscurity of the name disguised what they really involved! She went on to tell us how little money is spent on research into the prevention of ill health; therefore when it came to having the kind of research data she would really like to see available, she wasn't holding her breath. The progress of research in this field is painfully slow. We also discussed the cost of monitoring participants to check that they were being honest about any changes in behaviour they claimed to be making. In this respect smoking in pregnancy is relatively easy to monitor because women would anyway be giving blood samples for other purposes.

We began the afternoon with small group discussions on incentives in general, on their ethics and unintended consequences, and on any safeguards necessary to ensure their appropriate use. This produced a lengthy list of issues to be considered, including:

- the importance of targeting individuals and doing so at the right time
- the risks of cheating and delaying
- the role of peer pressure, especially with children
- the need for accountability
- the desirability of long term contracts between participants and scheme organisers
- the importance of keeping schemes transparent and making commercial contractors answerable
- personalising the choice of incentive
- the importance of education
- targeting the younger generation
- the current paucity of evidence about the value of incentive schemes
- the need to support people who fail on incentive schemes
- cheating (though given that most incentives are relatively modest, this may not be huge problem)
- the need to anticipate unintended consequences.

This report-back session was followed by more group discussions in which we made our first attempts to decide whether we actually approved of incentives as a way of trying to change behaviour and what safeguards would be required to ensure their appropriate use. The latter were to form the substance of the following day's discussion of the caveats and suggestions we wished to put to NICE. Many were points that had

already been raised – but not all. Among the latter were the importance of seeing incentive schemes as an addition to health education rather than an alternative and the prioritisation of schemes for non self-inflicted conditions and for protecting unborn children (e.g. discouraging smoking in pregnancy). Other topics raised were the value of personal contracts for participants; the careful establishment of the goals to be achieved; the need to prevent individuals staying for an indefinitely long period on an incentive scheme; and the proper regulation of schemes, especially when private contractors were involved.

These group discussions gave us our first overall inkling of how we viewed incentives. Two groups had held votes. One of them reported two members as definitely opposed, one as in favour, and eight as in favour but with reservations. A second group reported two in favour, two opposed and six "maybes". The third had not held a formal vote, but agreed that most favoured the cautious use of incentives.

Decision time

We began the final day by voting as a single group on whether we were in favour of the use of incentives. Five of us voted "No"; the remaining 27 voted "Yes…but" – this implying that their endorsement was conditional.

We then divided once more into discussion groups: the "No" voters to list their objections; and the "Yes…but" voters to draw up a list of their caveats. These tasks completed we reconvened to report and refine our two lists and to discuss them.

Our final action was to take one more vote on the core question of whether or not there were circumstances under which incentives could be appropriate. For whatever reason - our final discussions, perhaps - the balance of sympathy had undergone a marked shift since the previous vote. While a majority of us still supported the use of incentives, the number of those disapproving of their use had more than doubled. In response to the question "Are there any circumstances in which incentives are acceptable?" 12 out of the 32 Council members present now voted "No", and 20 of us voted "Yes - but with conditions".

Votes against

Those of us who voted "No" offered the following reasons for their choice:

- A lack of supporting evidence
- The cost of incentive schemes, especially at the present time

- Their potential for abuse
- Incentives should not be needed to help people, particularly adults, to make decisions
- Much help is already available (e.g. through the benefits system, through education and in primary care)
- Incentives are a reward for inappropriate behaviour
- Incentives raise concerns about the "nanny state"
- They are not fair to those who, unaided, make the right choices yet receive no rewards
- They can have a negative effect on public opinion.

Those of us who voted against the use of incentives wished to emphasise the importance of education, particularly of the young, in minimising the need for such schemes.

Votes for

Those of us who voted with a conditional "Yes" did so for the following reasons:

- Incentives must be tried before we can find out if they work! We also need to find out why they sometimes fail. When they are used, their outcomes should be followed up for at least three months
- Incentives help to show people that they are viewed as worthy of being helped
- Incentives are best when targeted. There are groups who need special help; for example pregnant women (to help them stop smoking) and obese children. Our ultimate concern is for children.
- Incentives are best when used as part of a wider package, including other forms of help, support and education.

Those of us who voted "Yes" did so with the following caveats:

- The incentives should not be exchangeable for tobacco and alcohol
- People seeking to join incentive schemes should not do so unless they have decided they really want to change
- Time limits and safeguards are needed if private companies are involved
- Incentive schemes should allow for the collection of evidence
- Cash incentives should be last resort
- Personal contracts should be arranged
- The behaviour of participants while taking part in the scheme should be monitored.

Those of us who voted "Yes" also offered the following suggestions:

• With schemes targeted against smoking in pregnancy, the woman should be offered the incentive immediately
• Incentive or any other schemes should not be allowed to undermine the need for, and importance of, education
• Retail outlets should become involved in incentive schemes
• Incentives schemes should include prevention measures
• More money should be allocated to research into human behaviour
• Work should begin with problems where the sought-for behaviour change is relatively simple
• Monitoring of participants should be more effective and also cost-effective.

Tracker questionnaire findings

The responses (Annex 1) to Question Two on the tracker questionnaire reveal that the overall balance of opinion on the value of incentives did not alter greatly during the course of the meeting. Roughly three quarters of us began and finished feeling that they had a part to play under certain circumstances. When it came to the uses for which incentives might be appropriate (Question Three) there was a marginal hardening of opinion from "sometimes appropriate " to "appropriate" (i.e. without the qualifier) – but the change was very small. A more sizeable shift of opinion was revealed in the answers to Question Four which sought our views on particular features of the circumstances in which incentives might be offered. Although there was no alteration in our view that cost-effectiveness was a vital consideration, the end of the meeting found us more aware of the significance of the types of behaviour concerned, whether the sought-for change was of long or short term duration, whether it was simple or complex and also the category of person being offered an incentive. In some cases the shift in our opinion was substantial. In summary it might be said that the two and a half days of meeting did not greatly alter our general view that incentives are an acceptable means of changing peoples' behaviour in relation to health, but that what we had listened to had shaped our thoughts on the circumstances under which they might be most usefully and most appropriately deployed.

Finally, in response to the first question (did we consider ourselves advocates of NICE's work in general?), it was encouraging to note that more of us gave positive replies by the end of the meeting than had done at the beginning!

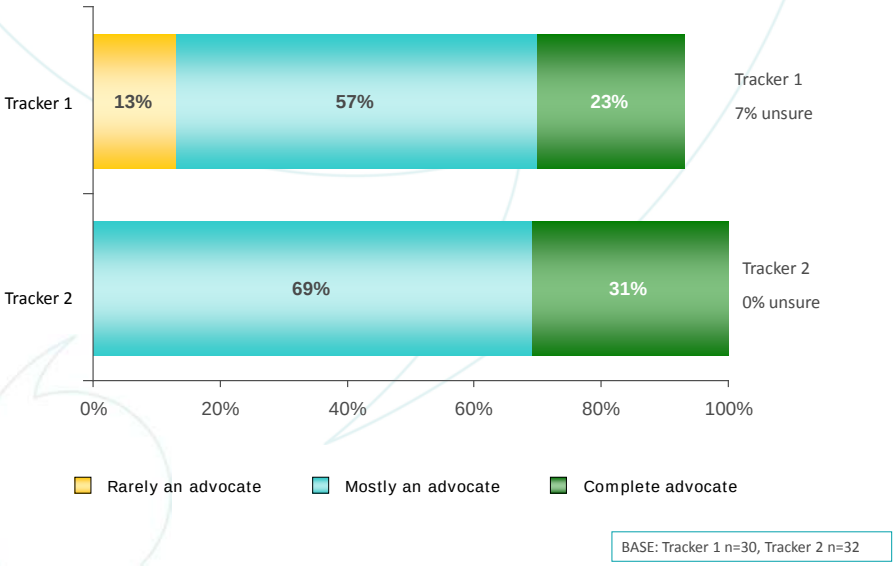
Annex 1
Tracking questionnaires

NICE Citizens' Council
Tracker questionnaire

May 2010

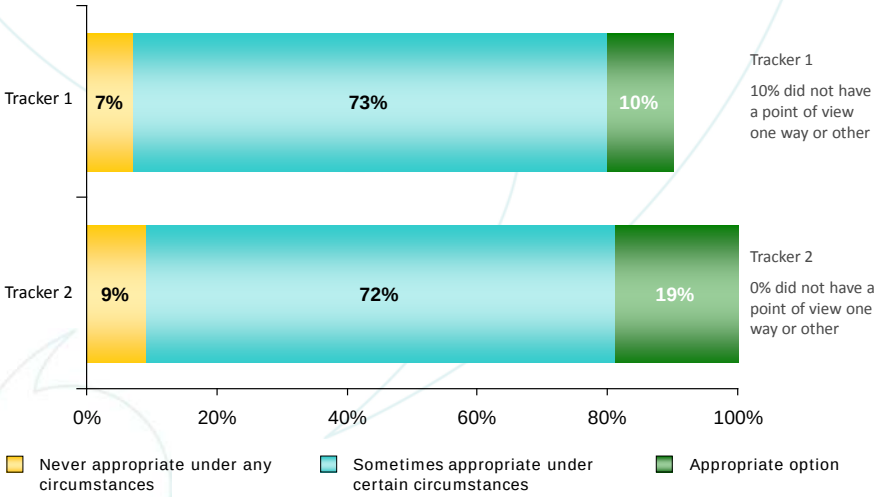
opinion leader

1: Thinking about what you know about NICE's work in general, to what extent would you consider yourself an advocate?



BASE: Tracker 1 n=30, Tracker 2 n=32

2: Which of the following best describes your point of view on using incentives to promote the health of the public?



Tracker 1

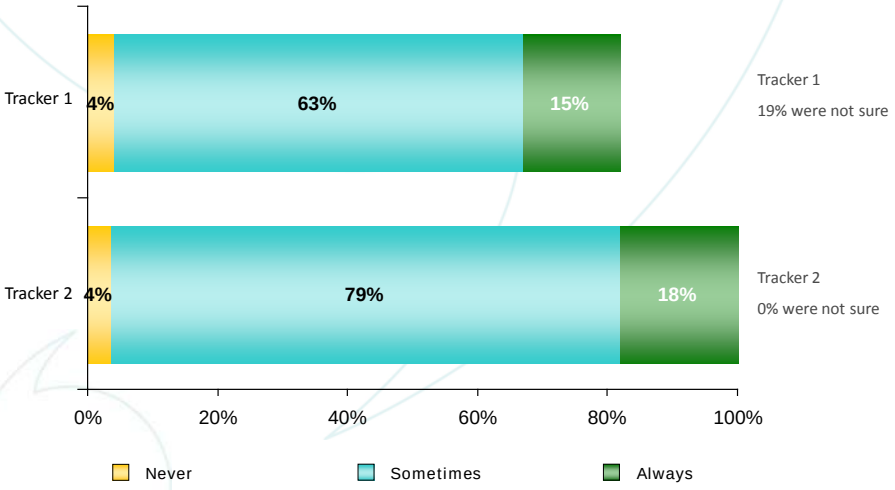
10% did not have a point of view one way or other

Tracker 2

0% did not have a point of view one way or other

BASE: Tracker 1 n=30, Tracker 2 n=32

3: In what circumstances are incentives appropriate?
a. To promote behaviour change to lifestyle e.g. stopping smoking, eating healthily, exercising



Tracker 1

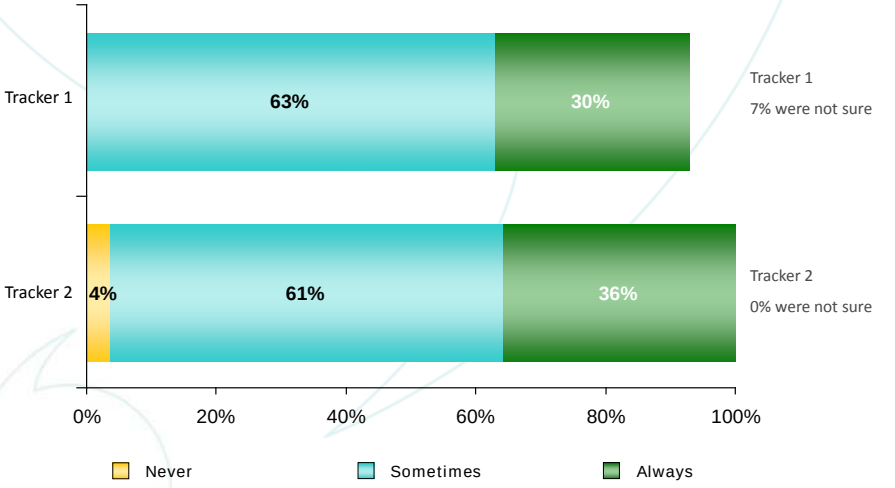
19% were not sure

Tracker 2

0% were not sure

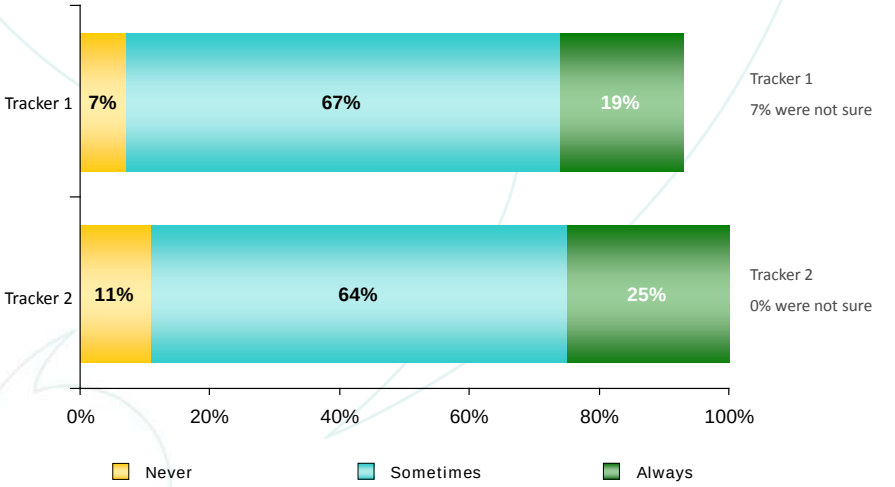
BASE: Tracker 1 n=27, Tracker 2 n=28

3: In what circumstances are incentives appropriate?
b. To encourage uptake of a health intervention or service e.g. HIV testing for injection drug users, children's vaccinations



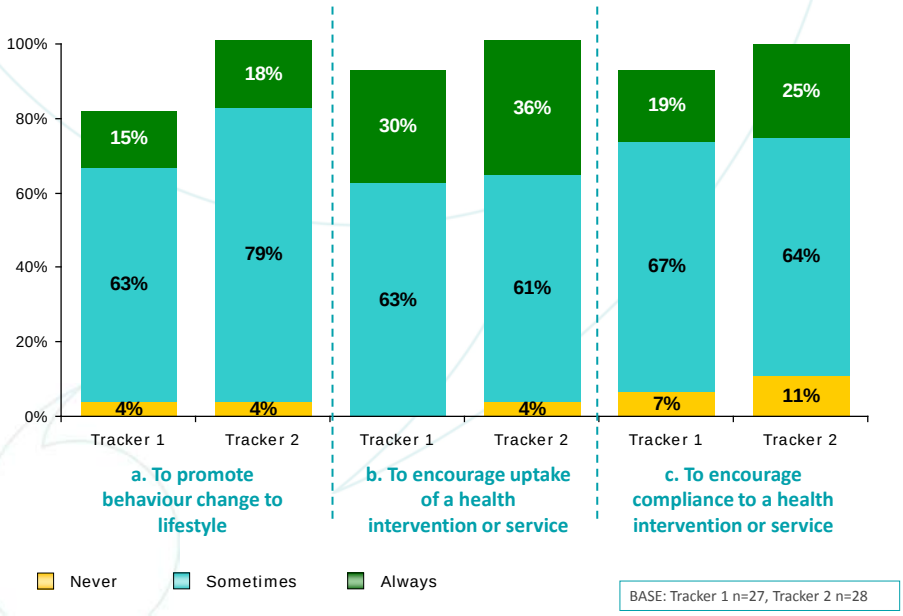
BASE: Tracker 1 n=27, Tracker 2 n=28

3: In what circumstances are incentives appropriate?
c. To encourage compliance to a health intervention or service e.g. continued attendance at a course on healthy eating



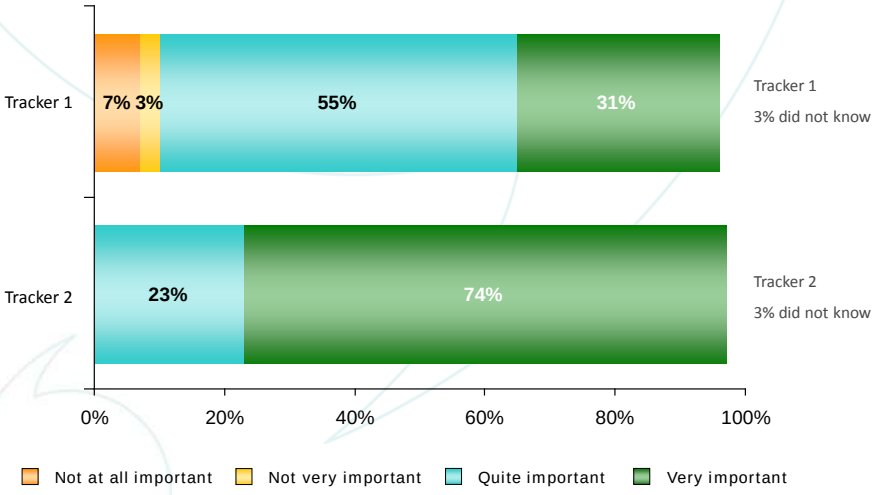
BASE: Tracker 1 n=27, Tracker 2 n=28

3: Overview - In what circumstances are incentives appropriate?



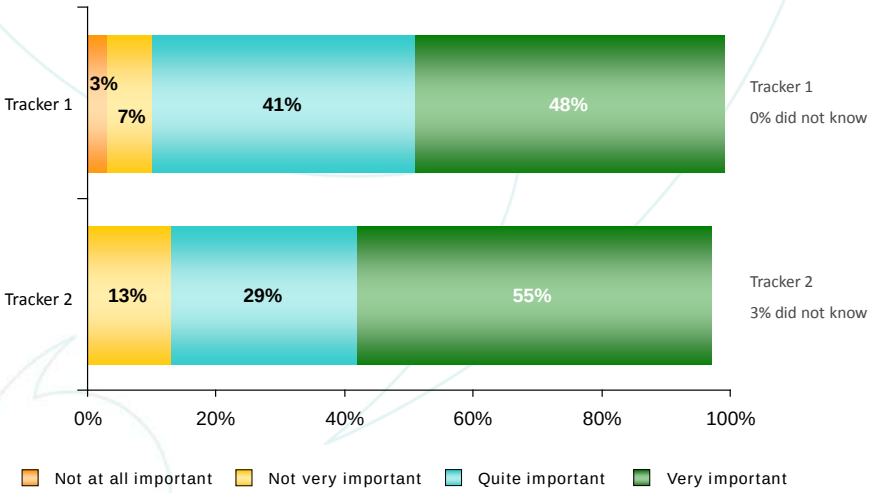
BASE: Tracker 1 n=27, Tracker 2 n=28

4: When considering where incentives are appropriate or inappropriate, how important are the following factors?
a. The type of behaviour the incentive is being used to encourage e.g. stopping smoking, increasing physical activity, stopping drug misuse



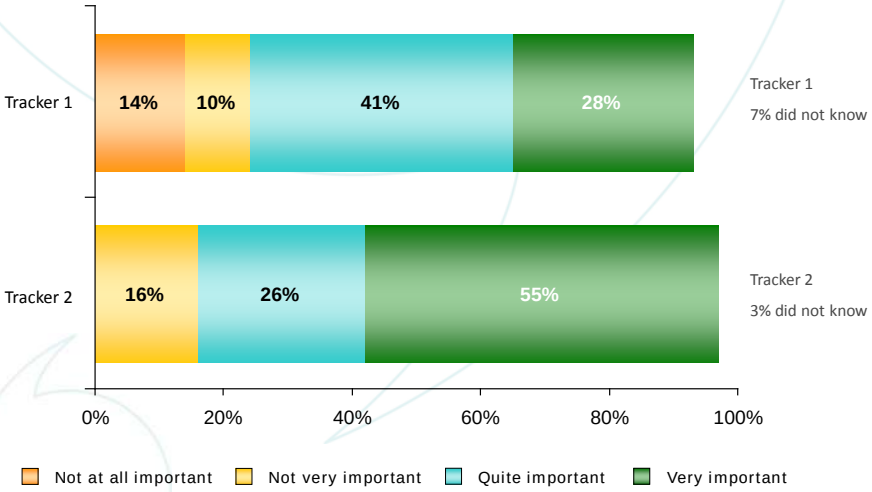
BASE: Tracker 1 n=29, Tracker 2 n=31

4: When considering where incentives are appropriate or inappropriate, how important are the following factors?
b. Whether the behaviour change is short-term or long-term



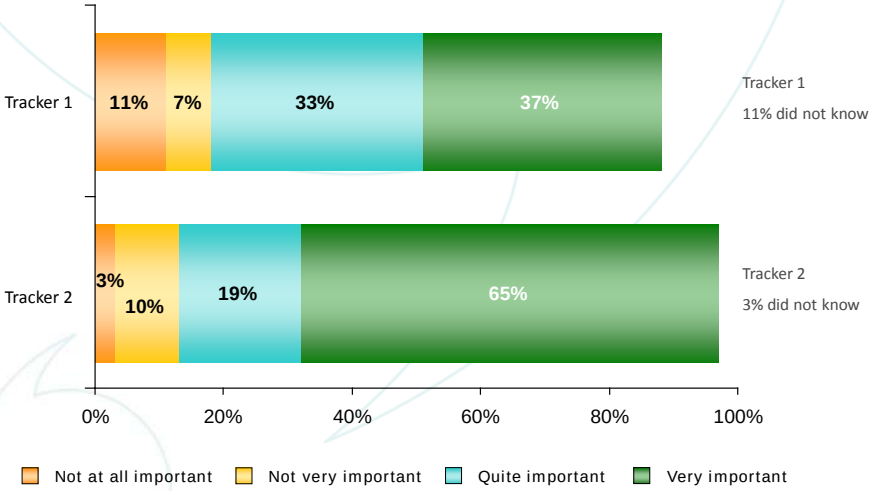
BASE: Tracker 1 n=29, Tracker 2 n=31

4: When considering where incentives are appropriate or inappropriate, how important are the following factors?
c. Whether behaviour change is simple (can be achieved easily) or complex (success reliant on a number of factors)



BASE: Tracker 1 n=29, Tracker 2 n=31

4: When considering where incentives are appropriate or inappropriate, how important are the following factors?
d. Who is being offered the incentive (whether it is for everyone or targeted to a certain group in the population)

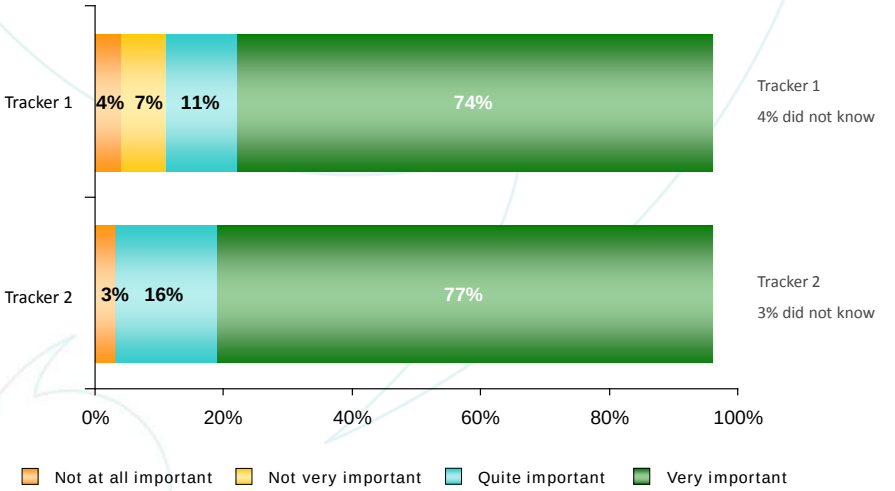


Tracker 1
11% did not know

Tracker 2
3% did not know

BASE: Tracker 1 n=27, Tracker 2 n=31

4: When considering where incentives are appropriate or inappropriate, how important are the following factors?
e. How cost effective it is for the NHS

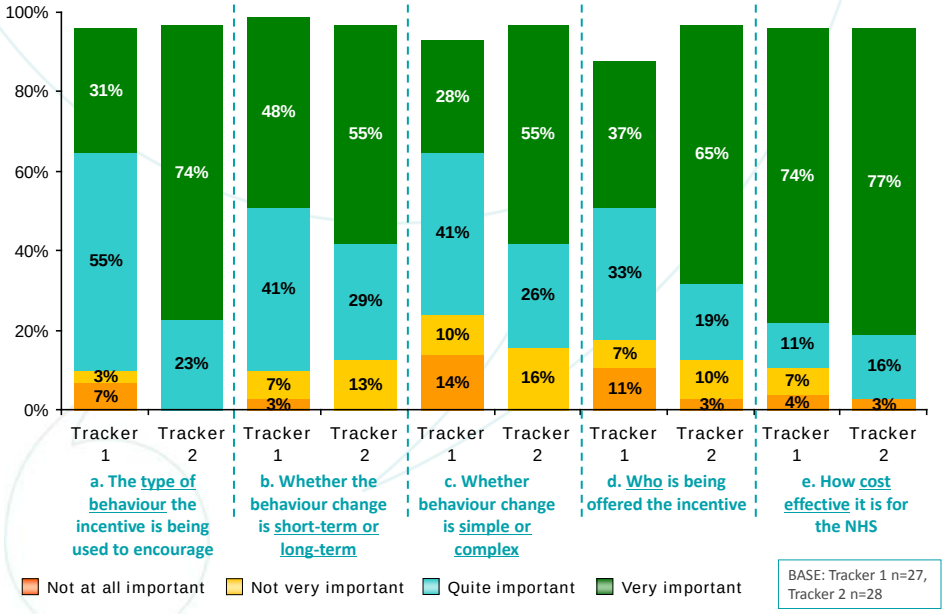


Tracker 1
4% did not know

Tracker 2
3% did not know

BASE: Tracker 1 n=27, Tracker 2 n=31

4: Overview - When considering where incentives are appropriate or inappropriate, how important are the following factors?



BASE: Tracker 1 n=27, Tracker 2 n=28

5: The most important factors for NICE to consider when making recommendations about the use of incentives to encourage individual behaviour change are…

Rank Order	Factor	Tracker 1 (average rank)	Tracker 2 (average rank)
1	Cost to NHS of using incentives	1.7	1.8
2	Availability of evidence to support the use of incentives	2.3	2.8
3	Particular behaviour that an incentive is being used to encourage e.g. quit smoking, weight loss	2.7	2.7
4	Type of incentive that is being offered e.g. cash, voucher, points system etc.	3.9	3.5
5	The safeguards that are in place to reduce the risk of unintended consequences	3.6	3.7
6	The risk of unintended consequences that may result from the use of incentives	3.6	4.1

BASE: Tracker 1 n=29, Tracker 2 n=31

6: What advice would you give NICE about whether incentives are an acceptable way to encourage individual behaviour change to promote the health of the public

- Schemes need to be closely monitored
    - For cost effectiveness
    - Especially if an outside provider is involved
- Initially trial in pilot schemes / targeted behaviours to gather evidence
- Acceptable in certain circumstances
    - For specific behaviours e.g. smoking in pregnancy and child obesity
- Schemes should try to offer non-cash incentives
- Needs clear and effective communications e.g. to raise awareness, PR

Annex 2
Case studies

Case Study: Incentive schemes for weight loss

The Problem

According to a 2008 government paper titled *Healthy Weight, Healthy Lives*, Britain is in the grip of an obesity epidemic.

- Almost two-thirds of adults and a third of children are either overweight or obese.

- It is predicted that without effective action, these figures will rise to almost nine in ten adults and two-thirds of children by 2050.

Being overweight or obese can have a severe impact on an individual's health – both are associated with an increased risk of diabetes, cancer, and heart and liver disease among others. These illnesses put pressure on families, the NHS and society more broadly, with overall costs to society forecast to reach £50 billion per year by 2050.

Incentives schemes

The government's Healthy Weight, Healthy Lives strategy for tackling obesity set out a range of approaches including piloting schemes that use financial incentives such as cash payments, vouchers and other rewards, to encourage individuals to lose weight and sustain weight loss, to eat healthily and to be more physically active.
As a consequence, programmes have been set-up to incentivise specific groups to change their behaviour in order to lose weight and increase activity. Here are two examples:

Subsidised gym memberships

- Programme funded by Department of Health from April 2009 – March 2010
- Subsidised gym memberships for 16–22 year-olds
- Participants paid a reduced rate of £5 a month for gym membership over a 12 month period
- Requirement to visit gym at least once a week over the 12 months
- Programme ran in parts of Newcastle, Bristol, Torbay, Manchester and Bury St Edmunds

Manchester's 'Points4life' pilot

- A joint programme by Manchester City Council and NHS Manchester that will be launched in mid-2010
- Rewards individuals making healthier choices
- Members of the public will join the scheme and use a loyalty card to collect points
- Points collected for purchasing healthy foods, exercising, attending healthy lifestyle courses
- Participants will then be able to redeem those points for "healthy" products and services
- Scheme will be backed up by a programme of investment in the infrastructure and services that people need to make healthier choices
- Manchester will receive £4.6 million from the Government, matched by local contributions

Further information about the 'Points4Life' pilot and a newspaper story about 'Health Weight, Healthy Lives' are available separately.

Given government interest in such incentive schemes, it is conceivable that NICE might be asked to produce guidance on them in the future. The last time NICE published a clinical guideline on obesity was in 2006. During work on this, evidence on incentive schemes for weight loss was reviewed but was found to be weak. Accordingly, no such schemes were recommended. The best findings were from physical activity incentive studies. Findings from one UK based randomised controlled trial which gave vouchers entitling free access to leisure facilities (i.e. exercise on prescription) reported increased physical activity scores at 12 weeks. However this effect was not maintained at 12 months.

In light of this information and the other things you have heard at this meeting, please discuss the following questions.

Main questions:

1. What factors do you think NICE should take into account if it was asked to produce guidelines on the types of incentive schemes described in this case study: subsidised gym memberships, Points4Life, etc? Why?

2. In what circumstances are incentive schemes for weight loss an acceptable way of promoting the health of the public? Why?

Additional questions:

- What safeguards would you like to see in place for these incentive schemes?
- Does the setting in which the incentive schemes takes place matter e.g. workplace, education, commercial, health setting?

Preparing feedback:

- Prepare the following to feedback to the rest of the council
  - A short summary of case study
  - A short summary of your discussion
  - A short summary of your answers to the questions on the case study task sheet
  - The reasons behind your thinking

Incentives to tackle drug misuse

The Problem

It is estimated that there are between 250,000 and 500,000 problem drug users in the UK, of whom about 200,000 were in treatment in 2008 / 2009.

'Problem drug use' can either be dependent or recreational. In other words, it is not necessarily the frequency of drug use which is the primary 'problem' but the effects that drug taking has on the user's life (i.e. they may experience social, financial, psychological, physical or legal problems as a result of their drug use).

Drug misuse can lead to family problems, social or criminal justice difficulties, and health problems including blood borne diseases and other drug and alcohol problems. The societal costs of drug misuse have been estimated at many billions of pounds, with drug dependence being the main cause of these costs.

Much of the current focus of treatment is on harm reduction (that is reducing the damage to the person and wider society) and many patients are on long-term maintenance treatment with medical drug substitutes e.g. long-term treatment with methadone as a substitute for heroin.

Psychological interventions such as counselling are also provided but are of limited effectiveness. Abstinence is increasingly promoted as a treatment goal for some patients but each year only about 10%-15% of patients will completely stop using drugs.

Incentive schemes

In 2007, NICE published a guideline on 'psychosocial interventions' for drug misuse. At the heart of this guideline were recommendations concerning the use of incentives to improve outcomes for people who misuse drugs such as heroin. By offering incentives, the intervention attempts to change specific behaviours, for example encouraging attendance for a Hepatitis B vaccination programme or reduction of illegal drug misuse.

In drug misuse, as in other fields of healthcare, these incentives can take a number of forms including vouchers that can be exchanged for goods or services of the service user's choice, 'privileges' such as take-home methadone doses, and modest financial incentives. It should be noted that in all cases the emphasis is on encouraging positive behaviour and not punishment or the withdrawal of already existing incentives. The financial value of the incentives is small; often around five pounds.

NICE's recommendations concerning incentives were based on strong evidence that it increases the likelihood of positive behaviours and is cost effective. A summary of the recommendations are given in the appendix.

Please read them and answer the following questions.

Questions:

3. What do you think of NICE's recommendations about using incentives for drug misuse? What aspects do you like and what aspects do you dislike? Why?

4. In what circumstances are incentive schemes designed to tackle drug misuse an acceptable way of promoting the health of the public? Why?

Additional questions:

- What safeguards would you like to see in place for this incentive scheme?
- Does the setting in which this incentive scheme takes place matter e.g. workplace, education, commercial, health setting?

Preparing feedback:

- Prepare the following to feedback to the rest of the council
  - A short summary of case study
  - A short summary of your discussion
  - A short summary of your answers to the questions on the case study task sheet
  - The reasons behind your thinking

Appendix – Summary of NICE guidelines on incentives for drug misuse

Principles of incentives

Incentives aimed at reducing illicit drug use for people receiving methadone maintenance treatment or who primarily misuse stimulants should be based on the following principles:

- The programme should offer incentives (usually vouchers that can be exchanged for goods or services or privileges such as take-home methadone doses) dependent on presentation of a negative drug test (for example, free from cocaine or heroin)
- The frequency of screening should be set at three tests per week for the first 3 weeks, two tests per week for the next 3 weeks, and one per week thereafter until stability is achieved
- If vouchers are used, they should have monetary values that start in the region of £2 and increase with each additional, continuous period of abstinence (non-drug use).

Incentives to improve physical healthcare

For people at risk of physical health problems (including transmittable diseases) resulting from their drug misuse, material incentives (for example, shopping vouchers of up to £10 in value) should be considered to encourage harm reduction.

Incentives should be offered on a one-off basis or over a limited period. To receive the incentive, an individual must complete a specific health intervention. Particular interventions include:

- Hepatitis B/C and HIV testing
- Hepatitis B immunisation
- Tuberculosis testing

Implementing incentives

Drug services should ensure that staff are trained and skilled in appropriate drug testing methods and in the delivery of incentives.

Introduction of incentives to drug services should be gradual with staff training and development of service delivery systems carefully assessed. This information should be used to decide how best to use incentives on a full-scale basis.

Incentive schemes for tackling smoking among pregnant women

The Problem

According to research conducted in 2005, nearly a third (32%) of mothers in England smoked in the 12 months before or during pregnancy. Nearly half of mothers (49%) gave up at some stage before the birth but three in ten (30%) were smoking again less than a year after giving birth. One in six (17%) of those who smoked in the 12 months before or during pregnancy continued to smoke throughout their pregnancy.

Additionally, almost four in ten mothers in England (38%) in 2005 lived in a household where at least one person smoked during their pregnancy. In most cases the person who smoked was the mother's partner.

Smoking during pregnancy can cause serious health problems including complications during labour and an increased risk of miscarriage, premature birth, still birth, low birth-weight and sudden unexpected death in infancy. Smoking during pregnancy also increases the risk of infant mortality by an estimated 40%.

Children exposed to tobacco smoke in the womb are more likely to experience wheezy illnesses in childhood. In addition, all infants of parents who smoke are more likely to suffer from serious respiratory infections (such as bronchitis and pneumonia), symptoms of asthma and problems of the ear, nose and throat.

Smoking during pregnancy is strongly associated with a number of social and economic factors such as type of occupation, type of housing and level of education. The most disadvantaged groups contain the greatest numbers of mothers who continue to smoke during pregnancy.

NHS smoking cessation services report that it is difficult to get pregnant women who smoke to quit. Those working for the services doubt that brief interventions alone are effective.

Incentive schemes

To address the problems mentioned, some NHS organisations have created incentive schemes designed to tackle smoking during pregnancy. You heard about one such scheme – NHS Tayside's 'Give it up for baby' programme – in detail yesterday. As a reminder…

Give It Up For Baby

- Programme available to all pregnant women throughout Tayside
- Any pregnant woman interested in joining the Give It Up For Baby initiative can go to their local pharmacy or smoking cessation group who will help them get registered
- Pregnant smokers encouraged to join the weekly Give It Up For Baby group at a local community centre
- For each smoke-free week, £12.50 will be credited to an ASDA gift card which the woman can use to purchase groceries and baby products
- This continues for three months after the birth of the baby, meaning that participants can collect up to £650 worth of credit on an ASDA card
- Preliminary figures suggest that pregnant women were much more likely to quit smoking by joining Give It Up For Baby

In light of the information above and the other things you have heard at this meeting, please discuss the following questions.

Main Questions:

5. What factors do you think NICE should take into account if it was asked to produce guidelines on the type of incentive scheme described in this case study; Give It Up For Baby? Why?

6. In what circumstances are incentive schemes for smoking during pregnancy an acceptable way of promoting the health of the public? Why?

Additional questions:

- What safeguards would you like to see in place for this incentive scheme?
- Does the setting in which this incentive scheme takes place matter e.g. workplace, education, commercial, health setting?

Preparing feedback:

- Prepare the following to feedback to the rest of the council
  - A short summary of case study

- A short summary of your discussion
- A short summary of your answers to the questions on the case study task sheet
- The reasons behind your thinking

Annex 3 - Agenda

NICE Citizens Council, May 2010, Incentives to promote individual behaviour change

Agenda

Time	Topic	Format	Content / rationale	Speaker / resource
Thursday 20th May 2010				
Introduction				
9.00 – 9.05	Welcome	Plenary	Open the day Welcome new members Observer introductions	Frances
9.05 – 9.15	Icebreaker	Whole group discussion	Energise and bond the group	Emma Exercise
9.15 – 9.25	Introduction to the question	Plenary	Introducing question and background to why this is important to NICE now – Including clear definition of what is meant by 'incentives to promote individual behaviour change' (i.e. incentives and disincentives, for patients/carers, financial only or also material?)	Mike Kelly, NICE
9.25 – 9.45	Introduce range of incentives	Plenary	Further detail on what exactly is meant by incentives and a range of examples (including health and non-health applications)	Mike Kelly, NICE
9.45 – 10.15	Discussion of question scope and definition	Small group discussion	- Capture initial reactions - Explore any differences of opinion between use in health and non-health settings - Gather questions of clarification	Nuffield Council 'Intervention Ladder' Handout

Time	Topic	Format	Content / rationale	Speaker / resource
10.15 – 10.30	Q & A on the question	Plenary	- Feedback from small groups - Ensure everyone is clear about the question that is before them and the scope of the definition of 'incentives'	Mike Kelly, NICE
10.30 – 10.45 BREAK				
Different perspectives				
10.45 - 11.30	Presentation for and against with Q&A	Plenary		Richard Cookson, University of York (for) Harald Schmidt, Nuffield Council on Bioethics (against)
11.30 – 12.15	Initial viewpoints	Small group discussion	Reactions to the arguments / considerations Reflecting on initial personal views for and against incentives Gathering additional questions	Handouts from presentations
12.15 - 12.30	Feedback on initial viewpoints	Plenary	Hear from group on any emergent themes, initial viewpoints and pressing questions	
12.30 – 1.30 LUNCH				
Current evidence				
1.30 – 2.15	Presentation on use of incentives in the NHS currently / examples with Q&A	Plenary	Provide concrete 'real-life' examples to ground the concept to include e.g. incentive to make appointments, scheme that has been practically quite difficult to run / have had limited success as well as those with proven success	Andrew Radley, NHS Tayside, on smoking in pregnancy. Claire Martin, Eastern & Coastal Kent PCT, on obesity

Time	Topic	Format	Content / rationale	Speaker / resource
2.15 – 2.45	Presentation on evidence for effectiveness with Q&A	Plenary	Provide overview of all known evidence of effectiveness – stats and costs	Tammy Boyce, Kings Fund
2.45 – 3.20	Discussion of evidence and of specific examples		- Reviewing the evidence and any impact this has on initial points of view - Consolidating understanding gained from the previous two sessions	
3.20 – 3.30 BREAK				
Personal perspectives				
3.30 – 4.00	Individual's perspective and Q&A	Plenary	Provide insight from a individual's perspective – benefits and negative impacts	Susan Ringwood, BEAT Erin O'Mara, Black Poppy Magazine
4.00 – 4.30	Discussions of the different perspectives	Small groups	Consider the practical and personal considerations outlines in the presentations and whether this impacts on views	- With previous speakers present if possible - Handouts of presentations
4.30 – 5.00	Feedback on personal perspectives	Plenary	Hear from all groups on their viewpoints and wrap up the day	Flipcharts
Friday 21st May 2010				
9.00 – 9.05	Welcome back	Plenary	Welcome back and set up task for the day	Frances
9.05 – 9.20	Recap and discussion	Plenary	Recap discussions yesterday and ensure record of the day matches with Council members' viewpoint	Geoff Watts
NICE guidance				
9.20 - 9.50	Presentation on NICE's role in developing guidance relating to incentives	Plenary	- Clarify importance of looking at this issue now and NICE's role - Introduce case study exercise	Mike Kelly, NICE

Time	Topic	Format	Content / rationale	Speaker / resource
9.50 – 10.30	Case study exercise on NICE guidance – psychosocial interventions for drug misuse – smoking (in pregnancy) – obesity	Small discussion groups	- Enable council members to put themselves in NICE's shoes - Enable focussed consideration on *when* incentives might be right and when they might not, and why	Fully worked up case studies with questions Steve Pilling at NCC will attend to help with drug misuse case study
10.30 –11.00	Feedback on case study exercise	Plenary	- Hear from members on their decisions - Hear response from NICE on their decision/future thinking	Mike Kelly, NICE
11 .00 – 11.15 BREAK				
Ethical considerations and unforeseen consequences				
11.15 – 11.35	Ethical considerations	Plenary	Stimulate council members' reflection on the full range of considerations – moral and ethical	Richard Ashcroft, Queen Mary College
11.35 – 12.00	Unforeseen consequences & safeguards	Plenary	Stimulate council members' reflection on possible consequences (possibly relating to and summarising the 3 previous perspectives) and equip them with knowledge of existing safeguards in place	Theresa Marteau, Kings College London
12.00 – 12.15	Q & A	Plenary	Interrogate the panel of presenters to ensure there is full clarity on the evidence and all of the considerations presented	Speakers as above
12.15 – 1.15 LUNCH				
1.15 – 2.15	Discussion on ethical considerations and unintended consequences	Small groups	- Understanding the Council's views on the ethical arguments - Understanding scale or and specific concerns about unintended consequences - Developing views on required safeguards	HANDOUT 'Common Moral Concerns'
2.15 – 2.30	Feedback	Plenary	Hear from the whole group to identify any themes in areas of particular concern and desired safeguards	
2.30 – 3.00 BREAK				

Time	Topic	Format	Content / rationale	Speaker / resource
Factors to consider				
3.00 – 4.00	Discussion of deciding factors	Small discussion groups	- Establishing the factors are when deciding when / if incentives are right (generate list for prioritisation on Saturday) - Establishing what safeguards people would like to see in place / conditions they would put in place	Handout on unforeseen consequences & safeguards presentation
4.00 - 4.30	Feedback on factors and wrap up	Plenary	Hearing back from the whole group, understanding themes and wrapping up ready for the final day's deliberations	Flipcharts
Saturday 22nd May 2010				
9.00 – 9:30	Recap	Plenary	Recap previous 2 days' discussions and ensure record of the day matches with Council members' viewpoint	Geoff Watts
9:30 – 12:30	Final response to the questions	Plenary	Drawing conclusions, voting and deciding what goes into the report.	
12:30	Close	Plenary	Wrapping up and talking about next steps	Helen Roberts, NICE