doi: 10.1111/j.1369-7625.2011.00719.x

Financial incentives to encourage healthy behaviour: an analysis of UK media coverage

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Accepted for publication
15 June 2011

Keywords: conditional cash transfer, health incentives, mass media, public opinion, public response

Abstract

Background Policies to use financial incentives to encourage healthy behaviour are controversial. Much of this controversy is played out in the mass media, both reflecting and shaping public opinion.

Objective To describe UK mass media coverage of incentive schemes, comparing schemes targeted at different client groups and assessing the relative prominence of the views of different interest groups.

Design Thematic content analysis.

Subjects National and local news coverage in newspapers, news media targeted at health-care providers and popular websites between January 2005 and February 2010.

Setting UK mass media.

Results The study included 210 articles. Fifteen separate arguments favourable towards schemes, and 19 unfavourable, were identified. Overall, coverage was more favourable than unfavourable, although most articles reported a mix of views. Arguments about the prevalence and seriousness of the health problems targeted by incentive schemes were uncontested. Moral and ethical objections to such schemes were common, focused in particular on recipients such as drug users or the overweight who were already stereotyped as morally deficient, and these arguments were largely uncontested. Arguments about the effectiveness of schemes and their potential for benefit or harm were areas of greater contestation. Government, public health and other health-care provider interests dominated favourable coverage; opposition came from rival politicians, taxpayers' representatives, certain charities and from some journalists themselves.

Conclusions Those promoting incentive schemes for people who might be regarded as 'undeserving' should plan a media strategy that anticipates their public reception.

Introduction

The use of monetary (and quasi-monetary) rewards to influence behaviour is commonplace in everyday life. Certain activities are encouraged through payment (performing one's job, for instance), whilst others are discouraged by making them more costly (by such means as speeding fines). In these cases, the offering or demanding of money is explicit, but other ways of delivering financial rewards and punishments can be more subtle. Taxes are raised on environmentally damaging means of transport, whilst more 'sustainable' practices receive tax breaks and subsidies. Similar methods have been used to influence behaviours important to health. For example, taxation is used to discourage smoking and alcohol consumption.[1,2] In the health field, incentive schemes involve giving people cash or quasi-cash (e.g. grocery vouchers) conditional upon an identifiable change in behaviour (e.g. quitting smoking and taking exercise).

Recent UK government initiatives have included health incentive schemes to tackle obesity,[3] encourage physical activity,[4] improve the health of pregnant women[5] and reduce illicit drug use.[6,7] Outside the government, other schemes have arisen, including the use of cash payments to improve treatment adherence for psychotic disorders[8,9] and a variety of local health service initiatives concerning smoking cessation[10,11] and testing for sexually transmitted infections (STIs).[12,13]

This article reports a study that aimed to describe the content of popular and professional media to assess the extent of favourable and unfavourable coverage of health incentive programmes within the UK, to compare schemes targeted at different groups and to compare the extent to which the views of differing interest groups gain prominence.

Background

Given the pervasiveness of money as a motivator for behaviour change, and the general acceptance of its use under certain circumstances for discouraging unhealthy behaviours (such as high taxation rates on tobacco and alcohol), it is perhaps surprising that financial incentive schemes attract much controversy. Yet, proposals to offer financial incentives to people encouraging them to adopt 'healthy' behaviours have been criticized by academicians[14,15] and, as the articles we retrieved in the media analysis reported here show, by politicians, patient representatives and a variety of others. Some criticism is targeted at the general idea of using financial incentives to change health behaviours, whereas other criticism targets specific incentive schemes (for example, in psychiatric treatment).[14,16,17]

Why is there any interest in proceeding with incentive schemes at all then, given the apparent hostility towards them? It cannot be said that there is overwhelming evidence for their efficacy.[18–21] Whilst there is evidence to suggest they could be useful in some areas,[22–25] rationales for incentive schemes in the UK are also influenced by social, cultural and political factors, one of which has been the 'choice agenda' of the UK government in the past decade. This focuses on individual choice and 'empowerment' as methods of promoting competition and quality of health, education and welfare services.[26–29]

Approaches to health care have become similarly individual-choice focused, with the major theme in bioethics in the last half of the twentieth century being autonomy.[30,31] Medical care has moved away from medical paternalism towards a system where patient choice is central.[32] Although autonomy and choice stand in a complex relationship, there is a tendency to identify them in practice and policy.[31]

This focus is rather in tension with another major theme in health care: an emphasis on public health and disease prevention. This typically involves non-specific interventions affecting large numbers of people. In some cases, those subjected to the intervention may not benefit directly and may have no option to refuse the intervention (for example, the introduction of fluoride into the water supply). Despite these worries, it is largely through such measures that the greatest improvements in public health have

been achieved.[33] Understandably, given growing concerns about the impact of chronic diseases that often result from lifestyle factors, preventive medicine has become a priority for UK governments. A new body, 'Public Health England', will have ring-fenced funding specifically for public health interventions[32] and will draw on the approach of the Nuffield Council on Bioethics in 2007 to tackle public health problems.[34] This approach tries to reconcile the population and individual perspectives, but there is a consistent emphasis on individual autonomy and freedom.[35]

Financial incentives should therefore be viewed in the context of the current trend for promoting individual choice and a need to address the potentially catastrophic effects of unhealthy lifestyles. Thaler and Sunstein[36] propose ways in which behavioural economics and social psychology can inform interventions aimed at behaviour change, largely by altering the physical or social environment in which the behaviour occurs. They propose to offer a way of 'improving' peoples' decisions without restricting choice. Although popular in policy circles, skepticism about the effectiveness of 'nudging' people in this way has been expressed elsewhere,[37] and financial incentives sit somewhere close to such nudges. However, financial incentives more explicitly alter the nature of the choices available to individuals.

The UK government in the first part of 2010 indicated a continuing interest in using incentive schemes to improve health.[32] Understanding the response of mass media to health incentive schemes is therefore important. In the UK, the National Institute for Health and Clinical Excellence (NICE) launched a consultation exercise to assess public opinion to inform NICE policy and guidance on health incentives.[38] This reflects concerns raised about the acceptability of the UK health incentive schemes listed earlier.

Mass media

Popular media both reflect and shape public opinion. Early studies of mass media audiences focused on measuring the effects that media messages were felt to have, treating these as propaganda that media producers were attempting to 'inject' into the minds of their audiences.[39] The view that audiences play a more active and sometimes oppositional role in relation to media messages subsequently grew in popularity. The growth of the Internet, though, has seen a breakdown of strict divisions between media producers and media audiences, as access to the production of messages using this medium has become increasingly democratized. This has been accompanied, in the case of British newspapers, by a significant trend towards 'tabloidization' and popularism, whereby journalists seek to reconcile their claims to act as the 'voice of the people' with their obligation to satisfy the business interests and political preferences of their owners.[40]

In addition, journalists depend on 'sources' for stories, or for injecting controversy into stories where the existence of differing viewpoints is an important element,[41] as they are in stories about health incentives. Much day-to-day journalistic practice depends on reporting the content of press releases issued by sources that journalists consider authoritative, such as the government, other politicians, leaders of professional or lobbying groups. On controversial topics, competition between sources for access to mass media coverage can be intense, so that the media becomes an important site for struggles over policy.[42]

In a media landscape marked by the proliferation of news and entertainment channels across different technological platforms, it is clear that the Internet, as well as democratizing access to production, has added to the ways in which conventional broadcasters and print media journalists reach their publics. Coupled with the effects of search engines in focusing attention on the sites of major institutions, this has ensured that the views of conventional 'big media' producers are highly prominent on the Web[43,44]

It is clear, too, that study of the more specialized media targeted at health professionals is important if we are to understand the messages that circulate around this constituency, who are the front line of workers seeking to alleviate

health problems that incentive schemes are designed to prevent or solve. Professional magazines targeted at doctors, nurses, health service managers and other health-care workers, the news sections of health research journals, and websites aimed at health professionals are relevant here.

Methods

Search terms (see Appendix S1; Supporting Information) were used to retrieve all UK national and local newspaper articles about health incentive schemes from the Nexis database, an archive of UK newspapers, published between 1/1/2005 and 18/2/2010. The terms were used in different combinations until new combinations retrieved no new articles. Prior to 2005, there was little coverage of UK health incentive schemes, and all of the schemes eventually identified were introduced after 2005.

The BBC online news archive (http://www.bbc.co.uk/news) and the online archives of *Pulse*, *BMJ, Lancet* and *Nursing Times* were searched for news items. We searched a further 19 websites providing medical and nursing news (for example, http://www.rcn.org.uk; http://www.medicalnewstoday.com), identified from the top 20 Google hits for 'medical news' and 'nursing news.'

Articles were included if they contained a minimum of one paragraph discussing the use of health incentives in the UK. News articles, editorials, letters, features and comment pieces were included unless they were from media targeted at health-care professionals (such as the *BMJ*) where only news items were included so that academic discussions of schemes were excluded. The final sample consisted of 210 articles.

Articles were first categorized according to the six types of health behaviour they discussed [weight control, health-promoting behaviour in pregnancy, antipsychotic medication adherence, illicit drug use reduction, smoking cessation and testing for sexually transmitted infections (STIs)]. A seventh category covering articles discussing incentive schemes in general was added (see Table 1 for results relating to this exercise).

A coding scheme was then developed to identify themes within articles. This firstly identified and categorized different arguments for and against incentive schemes (see Appendix S2 for a list of these categories with definitions and examples). Articles were then categorized into those that contained solely favourable arguments, solely unfavourable and a mixture ('mixed') (see Table 2). Finally, text reporting the views of the different sources used by journalists (for example, government spokespeople, opposition politicians, doctors) was categorized into the groups shown in Table 3.

Where statistics reporting the frequency of coding categories are reported in the text later, a count of the number of times a coded segment occurred is first given, followed by the proportion of articles in which at least one such coded segment occurred, expressed as raw numbers and then a percentage. For example, 'used 63 times in 47/210 (22%) articles' means that the coded item was found 63 times at various points in the text, that it occurred in 47 of the 210 articles and that 47/210 = 22%.

A kappa statistic of 0.8, indicating substantial agreement between independent coders (HP and CS), was achieved for a sample of 10 articles involving 370 coding decisions. Coding and retrieval of coded segments were carried out using *NVivo* software, which enabled statistical patterns to be identified.

Results

A breakdown of the 210 articles included in our analysis shows that articles in national (76 articles) and local (78) newspapers were more common than in media targeted at health- and social care professionals (11 articles). The BBC website produced 28 articles, with 17 on other websites. Nationally announced or government-sponsored schemes (health in pregnancy (60), weight control (37) and illicit drug use reduction (27)) received more coverage than local or wholly non-governmental initiatives [antipsychotic medication adherence (10) and STI testing (7)], with the exception of smoking cessation

Table 1 Number of articles: publication by type of incentive scheme (Supporting Information)

	Weight control	Health in pregnancy	Antipsychotic medication adherence	Illicit drug use reduction	Smoking cessation	STI testing	General	Total
Popular								
Local newspapers	8	30	1	7	26	4	2	78
Daily Mail	6	2	0	4	2	0	0	14
Mirror	3	6	0	0	3	0	0	12
The Sun	1	1	1	1	1	0	4	9
Daily Telegraph	3	1	1	4	1	1	0	11
The Times	4	2	1	1	1	0	3	12
Guardian	4	5	1	1	0	0	2	13
Independent	2	1	1	0	0	0	1	5
Total popular	31	48	6	18	34	5	12	154
Professional								
BMJ	1	0	1	1	0	0	0	3
Nursing Times	1	0	0	1	1	0	1	4
Practice Nurse	0	0	0	0	1	0	0	1
Pulse	0	1	0	0	0	0	0	1
Lancet	0	0	0	1	0	0	1	2
Total professional	2	1	1	3	2	0	2	11
Websites								
BBC	3	4	2	4	10	2	3	28
Other websites*	1	7	1	2	2	0	4	17
Total websites	4	11	3	6	12	2	7	45
Total all	37	60	10	27	48	7	21	210

*5 of 19 produced hits: http://www.healthcarerepublic.com; http://www.medicalnewstoday.com; http://www.news-medical.net; http://www.staffnurse.com; http://www.rcn.org.uk.

Table 2 Arguments by type of scheme (number of articles)

	Unfavourable	Mixed	Favourable	All
Weight control	10	22	5	37
Health in pregnancy	3	22	35	60
Antipsychotic medication adherence	0	9	1	10
Illicit drug use reduction	8	18	1	27
Smoking cessation	2	32	14	48
STI testing	0	6	1	7
General	5	13	3	21
Total articles	28 (13%)	122 (58%)	60 (29%)	210 (100%)

schemes (48), which were local (see Table 1 for a full breakdown).

Table 2 shows the overall argument of each article by the type of incentive scheme. The table shows that there were more favourable articles (29%) than unfavourable ones (13%), but the majority (58%) presented mixed coverage. Coverage of health in pregnancy was notably favourable (35/60 = 55% wholly in favour). Coverage of weight control schemes (10/37 = 27% wholly unfavourable) and illicit drug use reduction (8/27 = 30% wholly unfavourable) were the most critical of the use of incentives.

Whether a target group of recipients were deemed 'deserving' was a factor influencing support or opposition. For example, a politician who criticized the provision of a cash benefit to

pregnant women was vilified in terms that would not have been possible without the underlying assumption that this category of person was deserving of help:

> Callous Tory Peter Lilley has astonishingly attacked benefits given to pregnant women. The Mirror, June 2009.

Thirty-four conceptually different arguments were identified and coded. Fifteen were arguments in favour of incentives, and 19 were unfavourable towards them. These arguments are presented separately with examples in Appendix S2, but the major ones are described here in groups, which relate to common overarching themes. These concerned arguments about the problems the schemes were designed to solve, their effectiveness, benefits and harms for both participants in schemes and for society as a whole and the moral or ethical issues raised by the schemes.

The problems schemes are designed to solve

It was common for proponents of schemes to describe the disease or health problem that schemes were designed to solve (used 63 times in 47/210 (22%) articles) or to emphasize how widespread and serious this problem was (117 times in 78/210 (37%) articles). Examples are as follows:

> Low birth weight babies and premature deliveries are much more common in mothers who smoke. BBC (website), February 2008.

> Experts say that by 2050 at least 60 per cent of the UK population will be obese – so fat their health is in danger. Daily Mail, November 2008

The view that incentive schemes are best targeted towards the hard to engage, disadvantaged or vulnerable as a last resort was used 45 times in 32/210 (15%) articles, as in the following:

> Financial incentives might be a treatment option for a high-risk group of non-adherent patients with whom all other interventions to achieve adherence have failed. BBC (website), January 2007.

No arguments were found that took an opposite view to these.

Effectiveness

By contrast, arguments both supporting and opposing the view that schemes were effective were advanced. Supporters of incentives were commonly shown (130 times in 82/210 (39%) articles) presenting positive evidence, or good reason, to believe that they worked, citing research evidence, experts' opinion or individual testimonials:

> Such schemes have been used in the US with research showing participants stay drug-free for twice as long as those not taking part in incentive schemes. BBC (website), June 2008.

> Mrs Belcher of Whimple, Devon, who weighed 11 stone when she started, said, "It's a little bonus that kept me determined to finish." The Times, October 2009.

Arguments proposing that incentives were ineffective were also presented. Sometimes it was simply stated that there was a lack of evidence and sometimes that there was evidence of ineffectiveness (29 times in 19/210 (9%) articles). For example:

> There is however little research that shows that a financial incentive, combined with nutritional advice, is enough to persuade mothers from the most deprived areas to change their lifestyle. News-Medical (website), September 2007.

> Administrator Betty Reed, 46, who smokes 30 cigarettes a day, says "maybe the bribe would have a good effect. But for me, when you are spending £8 a day on cigarettes, £12.50 is really nothing." The Herald, June 2008.

The view that schemes would not offer long-term solutions, or did not address the root of the problem, was presented 46 times in 24/210 (11%) articles, as in:

> This is no kind of long-term solution- a temporary financial incentive won't stop people putting the weight back on once they have got the cash. Daily Mail, January 2009.

Occasionally [6 times in 4/210 (2%) articles], the opinion was asserted (unsupported by any evidence) that schemes simply would not work:

> If it were just a question of money, they would have stopped eating years ago. After all, if they ate less, they would be richer. The Daily Telegraph, January 2008.

Benefits and harms

Very occasionally (just 3 times in 2/210 (1%) articles), the view that no harm can come to people involved in incentive schemes was expressed, as if the author of this idea imagined that potential for harm was a possible criticism of the scheme being proposed:

> There is no harm intended or caused- the service users can revoke the offer at any time. The Metro, January 2007.

More commonly (124 times in 94/210 (45%) articles), the view that an incentive would help people to do what was in their best interests (including mentions of the health benefits to the individual) and the view (50 times in 34/210 (24%) articles) that incentives would help relieve some of the financial pressures on the recipient were mentioned:

> The one-off payment is intended to help pregnant mums stay fit and healthy in the run-up to the birth. South Wales Echo, April 2009.

> Stephen Timms, Financial Secretary to the Treasury, said: ''We understand that the run-up to a birth is an expensive time for families.'' The Western Mail, January 2009.

These are benefits to recipients, but benefits to others, including to society as a whole, were also mentioned. There was the view that incentives would lead to cost savings to the health service (79 times in 54/210 (26%) articles), and other benefits to society such as a reduction in crime committed by illicit drug users (26 times in 19/210 (9%) articles) were presented. For example:

> The National Centre for Health and Clinical Excellence says its plans – to be piloted in up to six centres – will save the NHS money in the long run. BBC (website), July 2007.

> If it works to keep people in treatment there would be considerable benefits to the public. The Daily Telegraph, January 2007.

> Even small incentives could make a real difference not only to patients' lives, but also to the lives of those around them. BBC (website), July 2007.

More rarely mentioned were the views that incentives could have a beneficial effect in addressing health inequalities (9 times 6/210 (3%) articles) and that an incentive scheme would introduce a more positive way of relating to patients, it being more honest and improving the doctor–patient relationship (8 times in 8/210 (4%) articles):

> The scheme by Tayside Health Board aims to break the link between low income and high levels of nicotine dependency. The Herald, June 2008.

> It provides a much better and positive way of relating to drug users than sometimes we have done in the past. BBC (website), January 2007.

Against this last argument, although similarly quite rarely expressed (9 times in 9/210 (4%) articles) was the view that an incentive scheme may have a detrimental effect on the doctor–patient relationship, or other relationships between clients and professionals because joint decision making was undermined. As one article put it:

> It undermines the therapeutic alliance the doctor and patient have- something crucial for long-term health care. Medical News Today (website), August 2007.

More commonly raised as a potential harm to participants was the view that incentives could coerce patients into making decisions they may not otherwise have made (33 times in 27/210 (13%) articles), as in:

> The option of being paid to take a drug treatment could unduly influence people's decision making over whether the treatment is right for them. BMJ, October 2009.

Negative health consequences because of such coercive effects, including drug side-effects, were also a concern for some (12 times in 7/210 (3%) articles):

> The mental health charity MIND says that paying people could coerce people into taking drugs that are known to have serious side effects. BMJ, October 2009.

Finally, in terms of harm to participants, on just one occasion, it was mentioned that incentive schemes might stigmatize participants:

> As well as risking further stigma of people suffering from mental illness. The Times, September 2007.

In terms of harm to others or to society as a whole, and going against the view that health incentives schemes could save money, there was a commonly expressed view (111 times in 61/210 (29%) articles) that the money would be better spent elsewhere:

> Is NHS cash going to be channelled into dance lessons and vouchers for fatties when people need cancer drugs and better end-of-life care? Belfast Telegraph, November 2008.

Moral and ethical concerns

In the last quote (and in the example of Peter Lilley earlier), it can be seen that moral concerns about the degree to which recipients deserved to be helped fuelled the objection. In other arguments, moral and ethical concerns were more prominent, and these exclusively contained objections to schemes. First, it was sometimes stated (18 times in 13/210 (6%) articles) that such schemes were plainly unethical, with no further explanation as to why:

> Three quarters of respondents said they had concerns about using financial incentives, most of whom said the practice would be unethical. BBC (website), January 2007.

The view that participants might misuse the rewards or lie to get them was a common objection (39 times in 29/210 (14%) articles), and the idea that they reward the unhealthy or undeserving (30 times in 20/210 (10%) articles) was also expressed. A further moral objection (19 times in 16/210 (8%) articles) was the idea that rewarding healthy behaviour sends out the wrong message because being healthy should be its own reward. Incentive schemes were also said to undermine personal responsibility for health (16 times in (11/210 (5%) articles) and to be given away too easily (10 times in 7/210 (3%) articles). Examples of these arguments are given below:

> Some charities have criticised the lack of measures to ensure the cash is actually spent on healthy food. BBC (website), November 2007.

> Why is this society so hell bent on rewarding the least deserving? Aberdeen Evening Express, January 2007.

> Staying healthy should be enough of an incentive for people to come in for testing, they shouldn't need to be bribed by the opportunity to win high-end electrical goods. Milton Keynes Citizen, July 2009.

> What is this great country coming to? Free gifts and handouts for junkies and failed asylum seekers. The Sun, July 2007.

Related to these moral objections was the view that such schemes represented another excess of the 'nanny state', the government's aim to right every wrong (12 times in 8/210 (4%) articles) and the view that a universal benefit (like the Health in Pregnancy grant) was unfair in not targeting only people in need (4 times in 2/210 (1%) articles):

> And why can't they admit that this is absolutely none of their business anyway? That's what never ceases to astonish me about this Government: its unshakable belief in both the duty and the power of the state to right everything that's wrong with our lives. Daily Mail, January 2008.

> Why wasn't it aimed at those women more in need, rather than being given to everyone, irrespective of their income? The Times, April 2009.

Somewhat related to moral objections, but also identifying an outcome that might arise if people lacked the capacity to resist being incentivized to behave in health-damaging ways, was the view (18 times in 14/210 (7%) articles) that schemes provided perverse incentives:

> Upgrade from being merely chubby to Rubenesque and the Government will help out. Break the scales and take up two bus seats and ministers will subsidise your fare. Consume four pizzas a day and they will pay for your gym membership; force-feed your children Haribos and ministers may cough up for their after-school carrot sticks. The Times, November 2008.

Other arguments

A variety of other arguments, both for and against, were identified. Firstly, there was the simple view that the schemes were either praiseworthy or to be regarded critically, without any reasoning given. Praise of this sort was given rarely (2 times in (2/210 (1%) articles), whereas criticism of this sort was offered more often (21 times in 21/210 (10%) articles). Examples include:

> Others feel it's an effective way to cut the problem. The Mirror, July 2009.

> Drug workers described the proposals as 'ridiculous'. Daily Mail, January 2007.

The views that incentive schemes were new (19 times in 15/210 (9%) articles) and not new (10 times in 10/210 (5%) articles) were both put forward as arguments for supporting schemes:

> Here at NHS Rotherham we want to be at the forefront of groundbreaking schemes which help encourage mums to quit. BBC (website), May 2009.

> Professor Priebe argued that financial incentives to influence healthy behaviour already existed, such as higher taxes on cigarettes and alcohol. BMJ, October 2009.

Finally, there was the view (4 times in 3/210 (1%) articles) that such schemes were an exercise for those in charge of things to provide evidence of activity, but with potentially system-damaging results:

> We would be concerned if incentives were used by poor-performing treatment services to mask problems and hit government targets. BBC (website), January 2008.

Sources

Table 3 shows how sources divided in their support for health incentive schemes. The majority (61%) of source quotes were favourable towards incentive schemes. Government spokespeople, public health representatives, services allied to medicine, academics and doctors were all prominent in coverage and largely favourable towards incentive schemes. These sources were sometimes supported in stories by interviews with participants in schemes speaking positively about their benefits or those representing business interests.

Table 3 Support for schemes by different sources (number of times a source was quoted)

Source type	Unfavourable	Mixed or neutral	Favourable	All
Government*	0	9	50	59
Public health†	2	3	40	45
Services allied‡	3	6	28	37
Charities§	14	7	18	39
Academics	1	9	17	27
Doctors	6	1	15	22
Participants	0	1	12	13
Business	0	0	11	11
Other lay person	4	4	6	14
Opposition politicians	18	6	2	26
Lobbyists¶	15	1	0	17
'Critics'**	8	0	0	8
Think tank††	2	3	0	5
Celebrity	1	0	0	1
Total	75 (23%)	50 (15%)	199 (61%)	324 (100%)

*Includes politicians and civil servants.
†Public health experts and NHS managers.
‡For example, the Royal College of Midwives.
§For example, the National Childbirth Trust.
¶For example, the Taxpayers Alliance.
**Unnamed people referred to as 'critics of the scheme'.
††For example, the New Economics Foundation.

Those representing charities were somewhat prominent but were more evenly split between support and opposition. Opposition politicians and lobbyists from such organizations as the Taxpayer's Alliance were largely critical of the schemes.

Discussion

This analysis shows that UK media coverage of incentive schemes has been more often favourable than unfavourable, although most articles reported a mix of views. For some issues, arguments and counter arguments were made in the overall coverage, most notably in relation to effectiveness, with schemes at various points being described as effective, ineffective or harmful. On other issues, arguments were put forward on one side, which were not contested by the other side. For example, supporters of schemes commonly put forward arguments that stress the seriousness and recalcitrant nature of the health problems addressed by schemes. No evidence was found that critics of schemes disagreed with these perceptions.

By contrast, the moral and ethical objections to schemes, which clearly drive a considerable amount of the opposition to incentives, many of which have been identified and debated in discussions of incentives in academic publications,[45–48] were not significantly contested in media coverage by supporters of schemes. A significant strand of moral objection starts from the view that participants in schemes are undeserving and that providing incentives could be interpreted as rewards for bad behaviour, rather than motivation for good behaviour. In addition, the response to individual schemes was somewhat related to the perceived moral standing of the proposed participants in the different incentive schemes.

Popular stereotypes about those considered deserving or undeserving of help came into play here. For example, the reporting of a scheme to provide cash grants to pregnant women was particularly favourable. By contrast, schemes aimed at overweight people or illegal drug users had a more critical reception, such people being regarded as having behaved irresponsibly in bringing about their health problems. Smoking cessation schemes received a mixed press, again reflecting a degree of moral opprobrium directed at those who have acquired this habit. Attempts to counteract the view that participants in schemes were morally blameworthy and therefore did not deserve help were not made by proponents of schemes, unless one regards the justification that some groups, such as illicit drug users, are otherwise difficult to influence by other means is some kind of recognition of a special moral status.

Underlying these popular judgements about the moral dimensions of incentive schemes are deep-rooted reactions to the fact that incentives appear to involve a taboo trade-off. Fiske and Tetlock[49] point out that moral outrage of this sort is a common reaction when such proposed trade-offs violate the integrity of elementary models that people use to think about their social relationships. In this case, incentives may represent an attempt to put a price on something that many feel ought to be priceless. Propositions to do such things as measure the monetary worth of one's children, loyalty to one's country, or acts of friendship, evoke similarly condemnatory responses. Kahan[50] too has noted the influence of such 'cultural cognition' on judgements people make about scientific and policy issues.

It seems that if proponents of schemes are going to successfully overcome objections that circulate in popular media, then moral arguments about who is deserving of help may need to be addressed more explicitly than hitherto. This will inevitably involve arguing for a special moral status for some groups, on the grounds of their relative lack of competence to behave in the way the moral majority prefer. This itself, of course, could contribute to the stigma that such groups already attract.[15]

The fact that most coverage was favourable partly reflects the fact that it was often stimulated by the announcement of government initiatives in which government spokespeople and their allies in the NHS and public health promoted the virtues of the schemes concerned.

The nature of this story is such that journalists are likely to have relied heavily on press releases from those announcing the launch of schemes. This ensures prominence of the views of sources favourable to the schemes, such as government and health service spokespeople. This should not be allowed to obscure the fact that objections to schemes were considerable and took the particular form we have described.

Given that media present significant opposition to incentive schemes, this study suggests that those proposing incentive schemes will more easily gain public support if evidence is presented for effectiveness and cost-effectiveness, if it exists. The latter may be particularly important in influencing the views of those who consider participants in schemes as undeserving: learning that it reduces the tax burden may be more persuasive than learning the scheme enables those with low self-regulatory capacity to change their behaviour.

Conflict of interest

None.

Sources of funding

This study was completed under the auspices of the Centre for the Study of Incentives in Health, funded by a strategic award from the Biomedical Ethics Programme of the Wellcome Trust (PI Marteau: 086031/Z/08/Z).

Acknowledgement

The Wellcome Trust funds Rebecca Brown's PhD studentship as part of the strategic award funding the Centre for the Study of Incentives in Health.

Supporting Information

Additional Supporting Information may be found in the online version of this article:

Appendix S1. Search terms.

Appendix S2. Arguments favourable and unfavourable towards incentive schemes, with number of times and in number of articles the argument occurred.

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