

## **Is a monetary incentive a feasible solution to some of the UK's most pressing health concerns?**

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A monetary incentive is not always the key to all of life's problems. It can only take us so far. When it comes down to morals and ethics the use of money can become a very complicated tool to implement, for example how can you price someones intrinsically moral decision to donate an organ? This essay will look at the effect a monetary incentive could have on three pressing issues which the UK faces: obesity, blood donation and alcohol/smoking addiction. Using behavioral economic theory such as loss aversion, moral hazards and intrinsic motivation not only can we argue why money doesn't always entice but also how another solution may exist.

Standard economics would tell us that people are always motivated by money and that a monetary incentive would therefore encourage a person to do something. Behavioral economics however, gives the insight that money doesn't always motivate people and that there are underlying factors that need to be addressed when encouraging motivation. This essay will look at three issues where a monetary incentive could encourage people to make the 'right choice' and look at behavioral economics theories such as people's reactions to loss aversion, procrastination and intrinsic actions to see if a financial reward will make a difference and whether a better alternative exists.

The three issues I have chosen are obesity, lack of blood donations and alcohol/smoking addiction. These three issues are of important concern to the UK as they put financial strain on the NHS and are decreasing the life expectancy of many people. A money incentive is an interesting solution to the problems as there is such a conflict of result on what would happen according to standard economic theory and behavioral economic theory. This essay will address both theories to see if money incentives are a feasible solution to these problems.

Tobacco and alcohol are two demerit substances in society, whereby their consumption creates negative externalities. They are widely consumed by large numbers and the figure of people suffering from illnesses related to the two substances is increasing. Alarming figures show a consistent increase in deaths by alcohol. Since 1990 it has increased from 4023 to 9031 in 2008. This is a 100% increase in alcohol related deaths in the last 20 years. Smoking statistics show similar results with over 90% of lung

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cancer deaths resulting from smoking. People consume both substances because they are addictive but would a monetary reward act as an incentive to counteract people's addictions and reduce consumption?

The idea is that a person signs up to a scheme where for every month they go without drinking or smoking they receive a monetary payment. Every month the person will be given two days notice of a random screening to see if they have been smoking or drinking, if the screening shows they have then they will not receive the payment. An important fact to remember is that studies show that the majority of smokers and drinkers tend to be poor. This is because it is a cheap way to relief stress and these people are not as aware of the long term damage it is causing. A monetary incentive for this group of people could therefore make a big difference and be a stronger incentive for them to give up smoking or drinking.

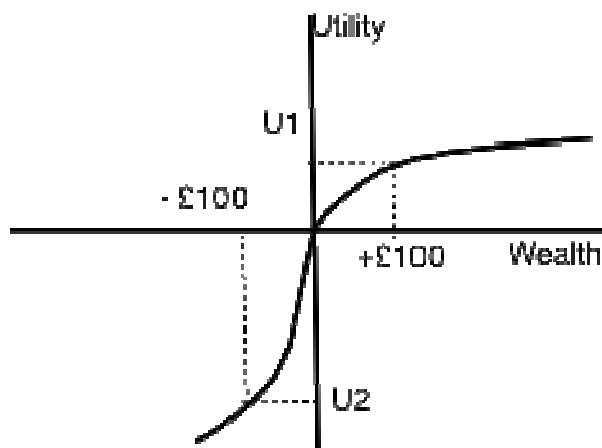
There are however several problems with this scheme. First of all the scheme could definitely cause moral hazards whereby people start smoking and drinking to get put on the scheme just to get the payment. Secondly there are practical difficulties associated with ensuring the screening tests are efficient. Finally the problem with alcohol and tobacco consumption is that because people are addicted their utility from consuming the good is extremely high thus a monetary incentive would have to be sufficient to provide an equal amount of utility.

Apart from monetary payments what else could decrease the consumption of alcohol and tobacco? One problem is that people who smoke or drink tend to discount the future. Behavioral economics tells us that people who 'discount the future' are more concerned about their utility in the present than their future utility. The effects of smoking and drinking are long term with no immediate negative short term effects. People may continue to consume these goods as they are more worried about their current utility than their future utility. Such people underestimate the consequences that will occur in the future. How to overcome this? One method is to make sure that people are made aware of the 'right' statistics. Take smoking for example, a case study showed that a woman who smoked a pack a day since she was 14 till she was 42 put her chances of getting lung cancer at 1 in 100. Many smokers may be willing to take the risk, however if given the statistic that 90% of lung cancer deaths are smoking related this is far more likely to have an impact on a person's choice of smoking. The success of the scheme would entirely depend on how much people discount the future, how to portray the significant loss of utility will be in the future and what approach people take to risk.

The second issue this essay will address is obesity. Obesity has become an increasingly pressing issue over the past few years. The 2009 NHS statistics report shows that 61% of all adults are overweight with 24% of that statistic counting for obese and 2% counting for morbidly obese. This is a pressing issue as being overweight is detrimental to people's health. It also puts monetary pressure on the NHS to supply time and effort to treat these people. Such an important issue seems to have a simple solution which is to eat healthily and exercise regularly, but people are failing to do this. A new solution currently being tested by the NHS is to pay people up to £425 to lose weight.

The scheme is very simple, a person is rewarded a monetary payment for every target weight loss met. For example a person would receive £425 for losing 50lb and only a £70 payment for losing 15lb. Many people argue this will cost the NHS more money. This may be true in the short term but it works out not to be true in the long run because for example an operation on the heart caused by obesity costs the NHS between £5000 to £20000. So the idea of the scheme is to prevent these long-term costs from occurring. But will this monetary incentive encourage people to lose weight and even if it does is there a simpler, cheaper way.

If an overweight person was told that they would be given £425 when they lose some weight then it is likely many will agree to such a scheme, but would this actually make them lose weight. Behavioral economics tells us the main issue with people trying to lose weight is procrastination, people want to lose weight but simply cannot be bothered or hold it off. So first of all the scheme may see people starting to lose weight but then after a while people will hold off losing weight and then stop all together when they see that the £425 isn't worth the effort as it is not going to make a difference. A solution here could therefore be to punish people for not meeting the weight target. For example a person could deposit a sum of money with the NHS and if they fail to meet targets they stand to lose money instead of being rewarded. A very simple example of this in practice is demonstrated in a case study shown in the book Nudge. A student is struggling to find the motivation to write his thesis. A lecturer makes a deal with a student that the first day of every month the student must place a \$100 check on the lecturer's desk. If he does not hand in a chapter of the thesis by the end of the month the lecturer will cash the check and he will lose the money. By the end of the four months the student had completed his essay and never missed a deadline. Originally the student was putting off completing his essay, but when he stood to lose something he became much more willing to do the essay. This shows people are loss adverse meaning that a loss of £100 will cause utility to fall by a greater amount than the rise in utility resulting from a gain in £100. This can be represented on a diagram.



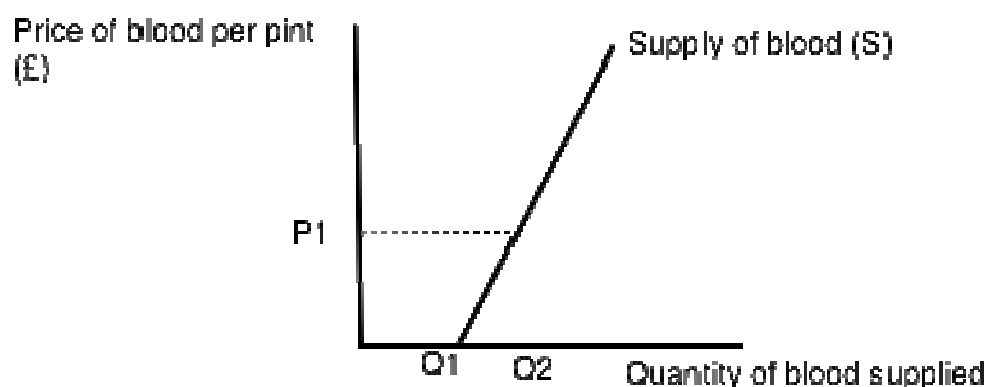
The y-axis represents utility and the x-axis represents wealth. If a person gains £100 for meeting their weight target their utility rises to U1. If however a person loses £100 for not meeting their weight target their utility drops to U2, as you can see the drop in utility to U2 is far greater than the gain of U1. The

constant fear of losing money will act as a strong incentive to continue losing weight. However it could be argued that because people are so loss averse that the risk of not meeting the weight target could be enough to not join the scheme at all.

What about a solution that doesn't require any monetary incentive at all. Behavioral economics tells us that a person is less likely to change if they are part of a 'social norm'. In this case if everyone is overweight in a person's community it is less likely they will want to lose weight, as they are part of the social norm. If however the person is given a letter from the NHS stating they are overweight and then goes on to say how much they are above average then they may feel more prone to exercise. This will make the person more likely to exercise, as they may now feel no longer part of the social norm when compared to the wider community. Another behavioral economic theory worth considering is the mere-measurement effect. The mere-measurement effect states that if a person says they are going to do something it is more likely that they will do it. A study showed that if a person is asked the day before an election 'will you vote?' the increase in the amount of people who vote increases by up to 25%. Taking into account this theory the letter given to people who are overweight should include a questionnaire that makes people plan out their exercise routine over the next few months. A face to face interview may also be used to reinforce a person's commitment to weight loss.

The final issue this essay will address is, will a monetary incentive increase the amount of blood donations in the UK. The donation of blood is a very important aspect of modern day medicine. Not only does blood go towards saving lives but it is also used in medical science to help the research and development of some threatening illnesses. However the process of giving blood is completely voluntary and relied upon by people's altruistic actions, which means the demand for blood is consistently exceeding the supply. Would a monetary payment increase the amount of blood donations each year thus decreasing the gap of demand and supply?

According to standard economic theory the answer is a simple yes. Like an increase in wages would see more supply for a certain job a monetary payment would see a higher supply of people willing to give blood. This can be shown on a simple diagram



The diagram shows people who can supply blood (S) and quantity of blood supplied with a monetary payment of zero at point Q1, the introduction of a monetary payment to P1 would increase quantity supplied from Q1 - Q2.

But there are problems with this method. Behavioral economics says that people either act extrinsically or intrinsically. An extrinsic action is the exchange of a person's time and effort for a monetary payment. Intrinsic actions see the exchange between a person's time and effort for internal motivation. The problem with paying people to give blood is the fact the action of giving blood now becomes an extrinsic action. Therefore people who gave blood intrinsically will feel less prone to do so now a monetary payment is being awarded. This is called intrinsic crowding out. The theory behind this is that people feel it is ethically wrong to be 'paid' for an altruistic action and will therefore not supply their blood. A report by Nicola Lacetera and Mario Marcis (2009) showed that in an Italian town 13.5% people would stop giving blood if they were paid. The conclusion of their findings was that people felt they were being 'paid' to give blood not 'rewarded'. In the UK if you give 50 pints of blood you are awarded with a certificate that details the person's generous donations to the NHS. For many people who give blood this document is worth more than any monetary payment. So the issue here is will the offering of a monetary payment increase the amount of people willing to give blood extrinsically more so than a decrease in the people who gave intrinsically. Secondly there is the issue of what price to set? If the price is set too high then blood donations could be seen as a profitable venture and people could lie about their habits, such as drug abuse thus supplying tainted blood, which would cause some serious problems if used. If the price is set too low then this may not motivate people enough to give blood but at the same time will discourage people who gave intrinsically thus decreasing supply of blood.

Unlike the two examples above with blood donations people are getting a monetary reward for helping others not for helping themselves. This puts a whole new angle on people's money motivations, whereas before the monetary incentive was a means of improving a person's lifestyle now the monetary payment is simply there to encourage you to help society. One non-monetary way of increasing blood donations is to make it so it seems the person is getting something back from doing it. For example ad campaigns that focus on the fact that the blood you donate could go to save someone close to you.

In conclusion it is fair to say that a simple monetary incentive is not enough to motivate people when considering behavioral economics theories. Procrastination, loss aversion, moral hazards and intrinsic actions are all factors that need to be considered when using money to influence a person's actions. In some cases a monetary incentive can actually motivate people to make the wrong choice such as taking up smoking to be put on a scheme to get paid to quit, or giving contaminated blood for money. So with all things considered it is fair to stand by the well used saying of 'Money complicates things'.

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