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# RAPID ETHICS REVIEW

## PAYMENT FOR VACCINATION

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*Countries have employed various measures to increase covid-19 vaccination rates. Recently, some states have deployed vaccine payment schemes, which provide people with a payment*

*(financially or in kind) if they have been vaccinated. In this Rapid ethics review, we highlight the moral dimensions that are relevant to assessing the moral permissibility of these schemes as follows:*

### OVERVIEW

1. We outline whether payment in this context should be construed as an incentive, compensation for harm, or a reward, and clarify the relevant moral norms for these different forms of payment.
2. We explain how payment schemes compare to other methods of intervening in individual choice outlined on the Nuffield Council on Bioethics Intervention ladder, and suggest that their permissibility will depend largely on whether payment is likely to be effective, and necessary for achieving a proportionate public health benefit.
3. We survey the existing empirical evidence about the effectiveness of vaccine payment schemes. We suggest that existing data provides only limited guidance, since earlier studies may not transfer straightforwardly to the use of incentives to increase uptake of a novel vaccine in the context of a global pandemic. We note that uncertainty about the effectiveness of payment represents a significant obstacle for assessments of the necessity and proportionality of payment schemes.
4. We conclude by considering whether payment schemes would undermine individual autonomy and whether they are compatible with the demands of justice. Whilst payment schemes raise the possibility of undue influence and exploitation, it may be possible to mitigate these costs. Although some theorists have raised the concern that payment schemes are coercive, this relies on the contentious theoretical claim that offers can be coercive.

The UK has had a very promising start to its covid-19 vaccine roll-out. As of the 14<sup>th</sup> June 2021, 87.3% of over-18 year olds in the UK have received a first vaccination dose, whilst 66.4% have received a second dose.<sup>1</sup> Sentiment studies by the Office of National Statistics suggest that these figures will continue to rise steadily; the most recent survey suggests that 96% of adults reported positive sentiment towards the covid vaccine, while 4% of adults reported vaccine hesitancy.<sup>2</sup> However, uptake in

most other countries has not progressed as quickly,<sup>3</sup> and vaccine hesitancy has increased in response to emerging safety concerns with the use of some covid vaccines in certain groups.<sup>4</sup>

One reason to ensure a high uptake of vaccination is that this may reduce covid-19 community transmission and could potentially facilitate herd immunity to covid-19. Herd immunity obtains when a sufficient proportion of a population is immune

to an infectious disease to make person-to-person transmission unlikely. Estimates vary for the degree of herd immunity to covid-19 that will be necessary to cut the transmission chain, with estimates ranging from 60-90% of the population, depending on the R number of the virus, and the efficacy of the vaccines deployed.<sup>5</sup> However, there are other obstacles to achieving herd immunity beyond ensuring a high degree of vaccine uptake, including the possible development of vaccine resistant strains of the virus.<sup>6</sup>

Nonetheless, there are still strong public health reasons to increase the uptake of safe and effective vaccines, even if herd immunity cannot realistically be reached. The widespread use of vaccines that are effective in preventing severe disease will reduce the burden on healthcare systems. Moreover, if the vaccine is effective in reducing viral transmission, then there are strong public health reasons to aim for a high uptake amongst individuals who have significant contact with individuals who have a high covid-19 morbidity and/mortality risk (such as care home residents).

A range of measures could be employed to potentially increase vaccine uptake<sup>7</sup> – these include, amongst others, education campaigns, dialogue-based interventions, and mandatory vaccination policies.<sup>8</sup> One measure that some countries have recently started to use to increase covid-19 vaccine uptake is offering payment (either financially or in kind) to individuals who undergo vaccination.

## 1. FRAMING MATTERS: IS PAYMENT FOR VACCINATION COMPENSATION, INCENTIVE, OR REWARD?

The concepts of ‘incentive’ and ‘compensation’ are sometimes used interchangeably, but they differ in morally significant ways.<sup>13</sup> However, the way in which we conceive of a payment matters, because different moral norms are applicable for payments that serve different functions. As we shall now explain, the amount that it is appropriate to provide in a compensatory payment is governed by norms of justice, but it is not clear that incentives are similarly governed by such norms.

Broadly speaking, when we provide compensation to an individual, we are seeking to redress losses or harms that have been sustained in a given situation. Compensation thus relates to the assurance of a desert to the individual simply based on considerations of what is due to her in justice. For instance, in the context of vaccination, we might compensate individuals who have experienced a

In Serbia, citizens who get vaccinated before the end of May 2021 will receive 3’000 dinars (around 25 Euros).<sup>9</sup> In the USA, states are offering various payments to some citizens to get vaccinated. To take a non-exhaustive sample, these include: a \$US100 savings bonds to 16-35 year olds in West Virginia; a \$US100 payment to state employees in Maryland; \$US50 pre-paid debit cards to anyone who drives a fellow resident to a vaccination site in Detroit. In other states, including Kentucky and Ohio, vaccinated individuals have been entered into a cash lottery for a substantial cash prize.<sup>10</sup>

However, it is also possible to pay people ‘in kind’ to be vaccinated.<sup>11</sup> To take a frivolous example, in the US states of New Jersey and Connecticut, individuals are given a free beer with their vaccination.<sup>12</sup> Other incentives might include the promise of additional societal freedoms and privileges to individuals who chose to receive a vaccination.

This rapid review will outline the ethical dimensions of paying people to get vaccinated in order to increase uptake in a pandemic. Since existing incentive schemes have been deployed by the state rather than private enterprises, we shall focus our discussion on state incentive schemes. To begin, it is important to clarify the kind of remuneration or exchange that payment amounts to in this context.

severe adverse event following vaccination. In the context of research ethics, Gelinus et al. have argued that considerations of fairness speak in favour of only providing compensation for harms that have in fact obtained, and that compensation should not be given to an individual for merely assuming a risk of future harm.<sup>14</sup> However, as the authors acknowledge this is not universally accepted in research ethics guidance, and some have claimed that compensation for the assumption of risk in vaccination may be appropriate.<sup>15</sup>

Compensation can take many forms; outside of this context, the payment of wages can be partly construed as a form of compensation for the time and effort one has expended in the course of one’s employment.<sup>16</sup> Notably though, the payment of wages may also incorporate an incentive that goes beyond compensation for such harms. The level of

compensation that it is appropriate is determined by norms of fairness; in particular, it is determined by whether the amount of compensation is commensurate to the harms it is seeking to redress.<sup>17</sup> For instance, one understanding of what constitutes commensurate redress here is to claim that payment should be sufficient to restore the recipient of compensation to her status quo ante situation.

Incentives do not seek to redress harms and losses in this way; instead, they are rationalised by considerations regarding the individual's behaviour, and not necessarily anything that is due to her in justice. The behaviour in question may involve very little or no harm to the individuals, and it may even benefit them substantially. However, in cases where the changed behaviour will involve a risk of harm, then the payment may be a hybrid of an incentive and compensation.

Some have argued that the appropriate level of incentive to offer is not itself determined by norms of fairness, unlike compensation. Instead, what matters is whether the incentive is effective in changing behaviour.<sup>18</sup> However, it would be premature to suppose that considerations of justice are orthogonal to the use of even pure incentives. Moreover, these considerations may not be reducible to ones of individual desert alone. For instance, considerations of justice bear on the question of how many societal resources should be put towards financing an incentive scheme in public health. Even if an incentive scheme is highly effective, it may plausibly be unjust if the societal cost of the scheme is disproportionate to the societal benefits of the incentivized behaviour.

Prospective conditional rewards (i.e. those that are provided on the condition that the recipient performs some action that they have not yet been performed) arguably occupy something of a middle ground between compensation and incentives. Like incentives, conditional rewards are employed to change behaviour; however, like compensation, the recipient of a reward must deserve what is given to them in some sense.<sup>19</sup> However, rewards are also a broader category than compensatory payments, since we might plausibly reward individuals on a non-harm desert basis; for instance, we might reward (rather than compensate) altruistic behaviour. Notably, what is deserved here could potentially require more than simply returning a person to their status quo ante situation, and it may differ from the amount necessary to merely incentivise behaviour. To

illustrate, a deserved reward for an altruistic act like kidney donation might go beyond a financial payment that covers the harms associated with donating, and may differ from the amount necessary to sufficiently incentivise the behaviour. Additional payment could potentially be deserved on the basis of the altruistic nature of the donation; in such a case, altruism would function as a desert basis.<sup>20</sup>

Whether offering payment to individuals who undergo vaccination constitutes an incentive, compensation, or reward depends on the characteristics of the vaccine and the potential recipients of the payment. As noted above though, clarity on this point is important, because different norms govern the use of compensatory payments and rewards (i.e. fairness and desert) and incentives (i.e. effectiveness). In some circumstances, we might offer payment to increase the uptake of vaccination amongst individuals who will directly benefit from the vaccine. When the direct benefit is significant and involves little or no risk, then the offer of payment will constitute a straightforward incentive. When the direct benefit to the individual outweighs the risk to a lesser extent, it may be more plausible to construe the offer of payment as an incentive that incorporates a compensatory payment that seeks to not merely change behaviour, but also to recognise that payment may also be deserved on the basis of the risk the recipient assumes.

In other cases, payment may be offered to individuals in order to increase the uptake of vaccination when the direct benefits of vaccination for those individuals are either less clear, or even outweighed by the risks of vaccination. In such circumstances, framing an offer of payment for vaccination as a mere incentive is inappropriate; this framing overlooks the fact that these individuals are taking on a risk of harm which warrants compensation or payment for risk. When a significant part of the justification for vaccinating an individual is to secure the indirect benefits of vaccination for others (i.e. by reducing the recipient's risk of transmission), then payment to such individuals may also function as a reward for altruistic behaviour.

Whether payment for vaccination amounts to an incentive, compensation, or reward has important implications for when and whether such payment is compatible with the demands of justice. We shall return to this point below. First though, we shall consider how incentives compare to other ways of influencing choice and behaviour in public health, and the moral justification of different kinds of intervention.

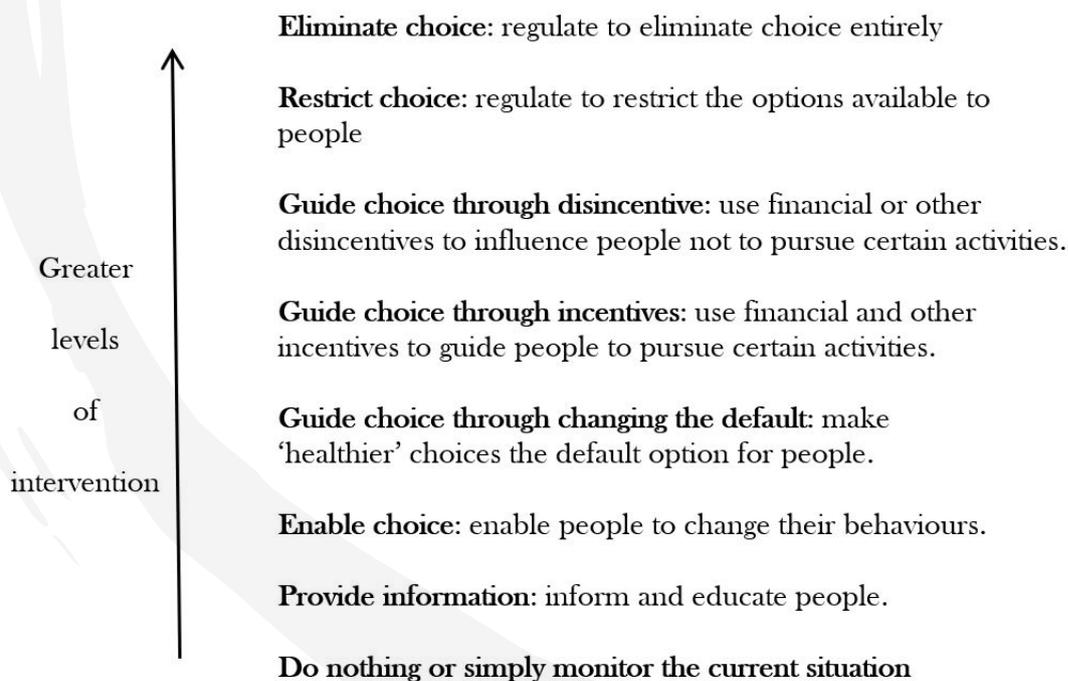
## 2. INCENTIVES, THE NUFFIELD COUNCIL'S INTERVENTION LADDER, AND JUSTIFICATORY FRAMEWORKS

Like other public health measures, the different strategies that might be employed to increase vaccine uptake involve different degrees of restrictiveness or interference with individual choice. The Nuffield Council on Bioethics has previously outlined an 'intervention ladder' to inform our understanding of the acceptability and justification of different public health interventions.<sup>21</sup> The ladder includes 8 rungs, and interventions on higher rungs of the ladder are understood to require stronger forms of justification than interventions on lower rungs.<sup>22</sup>

The 'use of incentives to guide choice' is the 4th highest intervention on the ladder. This approach is deemed to be a greater interference with individual choice than guiding or enabling choice through other means (such as changing default policies). However, it is deemed to be less restrictive than interventions that eliminate, restrict, or disincentivize choice.<sup>23</sup> Some theorists have suggested that these top three rungs of the ladder constitute forms of coercive interference.<sup>24</sup>

It is important to be clear about the understanding of coercion that is being invoked here. In a broad sense, coercion may be understood as the practice of the state requiring or mandating by law certain behaviours, rather than leaving it to the voluntary choice of individual citizens. However, coercion can also be understood in a narrower sense to refer to a particular form of controlling influence that involves a third party issuing conditional proposals (typically threats) that render certain options ineligible for rational choice. As we shall explain below, some theorists claim that only the third rung of the ladder can constitute coercion in this sense; however, others contend that the use of incentives could also qualify as coercion. We return to this below. Whatever one's view on that matter, coercion in this sense is a graded concept; for instance, the coerciveness of a disincentive will depend on the nature of the consequences of non-compliance.

### The Nuffield Council Intervention Ladder



A number of different moral and legal frameworks have been outlined to clarify when the different kinds of intervention on the ladder may be imposed in the name of public health.<sup>25</sup>

However, there are some areas of convergence across these different frameworks. First, they all seek to justify restricting the liberty of individuals by appealing to the moral reasons we have to benefit (or prevent harm to) others (rather than benefitting the restricted individual herself). This form of justification can naturally be accommodated within broadly consequentialist frameworks that aim to promote good outcomes; however, it can also be accommodated within deontological frameworks that claim that it can be permissible to infringe upon the rights of an individual who poses a threat of harm.<sup>26</sup> There is less agreement about whether benefits to the restricted individual herself can also be invoked to justify the imposition of restrictions. For instance, such benefits may be a relevant consideration for a straightforward maximizing consequentialist analysis, in so far as such benefits may contribute to a good that the consequentialist might seek to maximize. Yet, such an approach runs contrary to Mill's more complex consequentialist approach, as evidenced in his famous harm principle, which claims that "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others".<sup>27</sup>

### 3. EFFECTIVENESS

In order to determine whether the use of incentives to increase vaccine uptake is either a necessary or proportionate public health policy, we must first assess whether the intervention is likely to be effective in increasing uptake.<sup>30</sup> Of course, if an incentive scheme is not effective in increasing vaccine uptake, then it cannot be a necessary or proportionate public health measure.

Some critics have suggested that the amounts that government-level vaccine payment schemes in a pandemic can feasibly offer are likely to be ineffective, because it is only feasible to offer a very small incentive if everyone in the population would need to receive an equal payment in order to achieve herd immunity.<sup>31</sup> However, it is not clear that incentive schemes must be targeted at a population level – they could instead focus payments on groups who are less motivated to be vaccinated. Nonetheless, it might be possible that incentive schemes could be counter-productive in increasing uptake. This might

Despite this point of disagreement, public health ethics frameworks typically converge on the claim that such restrictions of liberty must, at least, be (i) necessary and (ii) proportionate. In applying the ladder to the context of vaccination, the Nuffield Council notes that approaches that go beyond merely providing information and encouragement may be justified, but that such approaches must be assessed on a case-by-case basis.<sup>28</sup> This assessment will depend on whether the approach minimises risks of harm to others, the risks associated with the vaccination and the disease itself, and the seriousness of the threat of the disease to the population. The report also notes that when the measure under consideration includes the use of incentives, the size of the incentive involved must not unduly compromise the voluntariness of consent.<sup>29</sup>

In a similar vein, Savulescu has argued that the permissibility of using the top three rungs of the ladder to increase vaccine uptake depends on: (i) the gravity of the threat to public health, (ii) the safety and effectiveness of the vaccine, (iii) how the cost/benefit profile of the intervention compares to alternatives, and (iv) the proportionality of the coercion involved. He notes that the use of incentives to increase vaccine uptake is, all things being equal, preferable to coercive measures, since individuals can choose voluntarily to accept or reject the incentive in question.

be the case if they served to raise doubts about the safety profile of the vaccines.<sup>32</sup> Studies in behavioural economics have also suggested that the use of incentives in some contexts can serve to crowd out or undermine other intrinsic motivations to engage in targeted behaviours.<sup>33</sup> Accordingly, assessments of the effectiveness of incentive schemes should accommodate the wider effects of such schemes.<sup>34</sup>

The evidence regarding the effectiveness of vaccine payment schemes is somewhat limited, and the evidence that is available is mixed. There have been relatively few controlled large-scale field studies of the effects of incentives on vaccine uptake quite generally, let alone with respect to the uptake of a novel vaccine in the context of a global pandemic.

One survey study has investigated the effect of incentives on willingness to receive a covid-19 vaccine.<sup>35</sup> In a sample of 1'349 German participants, this study found that that payments of up to £200 did not increase

willingness to receive a covid-19 vaccine. However, there are important limitations to this work. The survey sample was relatively small, and the study did not consider incentives above £200. Furthermore, the survey was also based on a fictitious scenario; as such, it is not clear that the intentions revealed in the survey responses would predict real world behaviour. More recently, there have been some published studies assessing the impact of the Ohio lottery on real world vaccination rates. However, the results of these studies are conflicting.<sup>36</sup>

Higgins et al. have argued that the available scientific evidence regarding incentives schemes for promoting vaccine adherence in the context of hepatitis B and influenza suggest that financial incentives could be helpful in promoting adherence to covid-19 vaccines.<sup>37</sup> They cite a systematic review suggesting that a financial incentive was the most effective intervention in improving adherence to hepatitis B vaccination.<sup>38</sup> This position is also supported by an earlier meta-analysis which found that financial incentives were amongst the interventions that were most likely to positively affect vaccine uptake.<sup>39</sup> However, a more recent systematic review of strategies to address general vaccine hesitancy identified incentive-based interventions (using conditional or non-conditional cash transfers) as amongst the least successful measures in increasing vaccine uptake.<sup>40</sup> That said, as the authors of this review acknowledge, the interventions considered by the studies considered in the review usually targeted general preventive health interventions and not just vaccination.

## 4. NECESSITY, ALTERNATIVE MEASURES, AND THE LEAST RESTRICTIVE ALTERNATIVE

An incentive scheme may not be justified if there are other less problematic (or cheaper) ways to achieve the same public health benefit.<sup>44</sup> In such circumstances, an incentive scheme will not be necessary, even if it is effective. A number of critics have suggested that vaccine payment schemes are unethical for this reason.<sup>45</sup>

In assessing the necessity of a restriction, we have to weigh the moral costs of the restriction, against the moral cost of alternative measures, including doing nothing, or imposing a less restrictive intervention. As noted above, there are a number of public health interventions that could be employed to increase vaccine uptake without resorting to incentives. Some of these interventions (such as optional education) are plausibly less burdensome than offers of payment, although there is room for reasonable disagreement

Systematic reviews of the effects of payment often face a paucity of data. Indeed, the systematic review that Higgins et al appeal to in support of their position included only 3 studies that employed financial payments for vaccination.<sup>41</sup> In a similar vein, a systematic review on the effect of financial incentives and quasi-mandatory schemes for increasing preschool vaccination uptake found only 4 studies using either of these interventions and concluded that there was insufficient evidence to establish whether or not these interventions were effective.<sup>42</sup> Finally, a Cochrane review of strategies to improve vaccination uptake in adolescents found one study that could provide only low certainty evidence to suggest that financial incentives may improve human papillomavirus vaccine uptake compared to usual practice.<sup>43</sup>

Ultimately, whilst the available data can provide some limited guidance, it is not clear that the results of these earlier studies will transfer straightforwardly to the use of incentives to increase uptake of a novel vaccine in the context of a global pandemic. Nonetheless, the effectiveness of an incentivisation scheme in increasing uptake is a sine qua non of its moral justification. Given the paucity data in this regard, whether or not incentive schemes are morally justified will depend on deeper questions about the standards of evidence (and justification) we require of wide-scope state public health interventions.

about whether incentive schemes are more burdensome than other potential interventions, such as nudging strategies, and mandatory education.

On some interpretations, the requirement of necessity is understood to be equivalent to the claim that public health authorities should always employ the least restrictive measure available to achieve a particular public health benefit.<sup>46</sup> However, on such an interpretation, it is crucial to index the alternatives under consideration to a particular level of effectiveness in achieving a public health benefit. The reason for this is that in some cases, a less restrictive intervention may also be much less effective in achieving a given benefit than an alternative, more restrictive intervention. Broader interpretations of the necessity criterion might permit the use of such an intervention, if it is proportionately more effective in achieving the public health benefit.

Given the mixed and limited available data discussed above, it is not clear how the effectiveness of incentive schemes for increasing vaccination uptake will compare to the effectiveness of alternative,

less restrictive strategies. In the absence of such data, assessments of necessity face a significant epistemic obstacle. This is also true of assessments of proportionality.

## 5. PROPORTIONALITY

In assessing the proportionality of a restriction, we are concerned with the question of whether the benefit achieved by an intervention is sufficient to outweigh its moral costs. To do so, we have to weigh the moral costs of the restriction, against the public health benefit that it will achieve.

The public health benefit of using a payment scheme to increase vaccine uptake naturally depends on the extent to which it will modify people's vaccine behaviour. However, the extent of its benefit will also depend on the transmission risk of the targeted individuals, the effectiveness of the vaccine in reducing this transmission, and the safety profile of the vaccine. If the aim of increasing vaccine uptake is to achieve herd immunity, then the likelihood that an incentive scheme will lead to an increase in vaccine uptake that is sufficient to pass this threshold will also be relevant to assessing the benefits of such a scheme.

In order for a payment scheme to be proportionate, these benefits will have to outweigh a range of different potential harms and costs. One obvious set of costs is the financial cost of a payment scheme. Of course, the overall cost of the scheme will depend on the amount offered and the number of people targeted by the scheme. Critics have argued that it may be economically unfeasible to offer an amount to all citizens that is likely to be effective in changing their behaviour, and that incentive schemes are thus short-sighted and unsustainable.<sup>47</sup>

## 6. AUTONOMY AND INCENTIVES

The use of payments or incentives in medical contexts often gives rise to concerns about the autonomy of the individuals receiving the incentive. This is a particularly pressing concern given the importance we attribute to autonomy and valid consent in the provision of

However, an assessment of the economic feasibility of an incentive scheme has to take into account the significant economic costs of the alternative measures that may otherwise be necessary to prevent the spread of the virus in the absence of widespread vaccination, such as national lockdowns. Moreover, as noted above, there may be ways to make a payment scheme more efficient than a scheme offering all citizens an equal amount. First, the scheme could be targeted at specific populations in order to obtain an optimal cost/benefit trade-off. For instance, the scheme could target individuals who are most likely to modify their behaviour in response to payment, or who pose a particularly high transmission risk, perhaps by virtue of their high exposure to vulnerable individuals in the course of their profession. Second, rather than paying every individual an equal amount, vaccine recipients could be entered into a lottery where they have a small chance of winning a substantial sum of money (as per the Kentucky scheme). Notably, this approach would also avoid other problems with a flat rate incentive scheme, such as the concern that, since a given financial amount will not have equal value to everyone, a flat rate approach will likely lead to systematised patterns that track relative socio-economic position.

Nonetheless, these ways of rendering incentive schemes more efficient in these ways may raise concerns about inequality and autonomy, as we outline below.

medical interventions. As noted above, the Nuffield Council have suggested that the use of incentives is only permissible if the size of the incentive does not "unduly compromise the voluntariness of consent".<sup>48</sup>

On the standard account of autonomy in medical ethics, an autonomous decision is one that is made:

1. With sufficient understanding,
2. Intentionally,
3. In the absence of controlling influence<sup>49</sup>

Some critics have claimed that it is psychologically naïve to suppose that respect for autonomy is compatible with a payment scheme, and that true respect for autonomy requires a dialogical approach.<sup>50</sup>

However, whilst dialogue and rational persuasion are clearly compatible with respect for autonomy, the mere fact that incentives can be an effective way of externally influencing choice does not entail that they are incompatible with autonomous decision-making. The key issue here is to identify what it is about certain kinds of incentives that can serve to undermine the rational deliberation that is at the heart of autonomous decision-making.<sup>51</sup> This is an ethical question about the nature and value of autonomy, rather than a wholly psychological issue.

One way in which an offer can potentially undermine autonomy is if it involves “an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance”.<sup>52</sup> This is known as undue influence.<sup>53</sup> The problem in cases of undue influence is not simply that the offers in question are irresistible; in some cases, it can be perfectly rational to accept an irresistible offer.<sup>54</sup> Rather, the problem with undue influence is that it can serve to undermine the recipient’s understanding of their alternative options;<sup>55</sup> the promise of a large payment can make recipients fail to attend to the risks they may be taking on in accepting the offer.<sup>56</sup>

Yet, there is little evidence that undue influence actually occurs in the context of incentivizing covid-19 vaccination. Indeed, an arguably more realistic concern is that the offer of large payments may make vaccines appear more dangerous, a form of ‘informative inducement’.<sup>57</sup>

It may be possible to protect against undue influence by ensuring that the amounts offered to individuals are small (or very unlikely in the case of lotteries). However, as detailed in the next section, this may conflict with reasons of justice, which may speak in favour of offering larger amounts in some cases. It might also be possible to protect against undue influence by implementing robust consent procedures, in which risks are clearly communicated, and implementing procedures to minimise irrational decision making (such as cooling off periods).<sup>58</sup>

Alternatively, it might be argued that payment for vaccination threatens autonomy because it is likely to be coercive in the narrow sense outlined in section II.<sup>59</sup>

<sup>60</sup> The objection that the use of incentives is coercive has been raised in a range of medical contexts.<sup>61</sup> Recall that coercion, in the narrow sense under consideration here, is a form of interference that involves the use of conditional proposals that render certain options ineligible for rational choice.<sup>62</sup> The paradigm case is that of a robber who threatens to shoot their victim unless the victim hands over their wallet. Like undue inducement, coercion can serve to undermine the voluntariness of an individual’s decision to authorise a medical treatment, and potentially undermine the validity of their consent.

However, whilst some theorists have defended the possibility of coercive offers,<sup>63</sup> the claim that incentives can be coercive in a manner that undermines autonomous decision-making is highly controversial.<sup>64</sup> Many theorists have argued that coercion necessarily involves the use of threats, where a threat is understood to amount to a proposal to make the recipient worse off (relative to some baseline course of events) if they choose not to comply with the threatening party’s demands.<sup>65</sup> In contrast, incentives typically expand, rather than the diminish the recipient’s available choices, without changing their status quo situation.<sup>66</sup> When this is so, it is hard to see how they are coercive; the recipient can simply refuse the offer, and nothing will change for them. This is where incentives differ from threats of sanctions (such as fines or imprisonment), which can be coercive. When an individual refuses to comply with a threat, they pay a penalty; when they refuse a genuine offer, they do not.<sup>67</sup>

Of course, some proposal may offer a benefit that is so good that it is almost impossible to refuse, and it might be claimed that is enough to make the offer coercive. However, the claim that irresistible offers are necessarily coercive has some problematic implications; to illustrate, the fact that the benefits of some life-saving medical treatment far outweigh its minute risks might mean the offer of that treatment is irresistible to a patient who needs it to survive. However, it would be absurd to claim that such a patient is thereby coerced into treatment in a way that undermines the validity of their consent to the treatment. The real problem with irresistible offers is that they raise the spectre of undue inducement.

Nonetheless, a number of theorists still support the claim that offers and incentives can be coercive in a manner that undermines autonomous decision-making.<sup>68</sup> A further complicating factor here is that without further market interference, positive fiscal

disincentives may arise in a vaccination drive. For instance, this may occur if employers do not allow workers time off to get vaccinated, or do not provide proper sick pay following an adverse reaction to vaccination. Notably though, these issues also arises if

vaccination is not incentivised in any way; accordingly, the use of incentives may serve to weaken the impact of the sorts of disincentives that can arise in non-incentivised vaccination drives.

## 7. IS THE USE OF INCENTIVES COMPATIBLE WITH JUSTICE?

Even if individuals can autonomously accept offers of payment, payment schemes may still be morally problematic if they are incompatible with the demands of justice.

Some critics have argued that a payment scheme for vaccination would have unequal societal effects, as incentives would be more effective in groups that are already worse off.<sup>69</sup> However, it is not clear that the mere fact that a policy will have unequal societal effects is sufficient to render it incompatible with the demands of justice. Indeed, if the payment is a pure incentive (in that it aims to motivate people to do something that is clearly in their best interests), then the fact that incentives may be more effective in worse-off groups may serve to level up the all things considered interests of the worst off.<sup>70</sup> Such levelling up is clearly compatible with the demands of justice on a wide range of theories.

However, payment for vaccination is not a pure incentive in this sense, since vaccination does carry some degree of risk of serious adverse events, as well as minor side-effects. Payment for vaccination is thus likely to incorporate features of both incentives and compensation, depending on the particular risk profile of the targets of the intervention. Payment in this context may alternatively be understood to constitute a reward, particularly if it is premised on a non-harm desert basis. In any case, the greater the extent to which payment constitutes compensation for risk as opposed to a mere incentive, the more problematic the unequal effects of the payment scheme will be on theories of justice that champion equality of outcome, or prioritising the interests of the worse off.

Yet, it is important to acknowledge that market economies typically have many unequal effects, and payment for vaccination may have weaker implications for inequality than other payment schemes for other risky or unpleasant jobs.<sup>71</sup> Of course, this is not to say that the unequal effects of vaccine incentive schemes would thereby be permissible. It may be that those other unequal effects of market economies should not be as widely permitted as they are. However, the

point here is one of consistency and contextualisation; simply pointing out that an incentive scheme may have unequal effects is not alone sufficient to render it impermissible.

Since payment for vaccination is likely to incorporate compensation for risk to some degree, payment for vaccination raises other questions about justice. As noted above, the level of compensation that it is appropriate to offer is determined by norms of fairness concerning fair redress. Payment for vaccination may be unjust because the offer fails to observe these norms.

In such cases, an offer of payment for vaccination may be exploitative, where exploitation is understood to involve the offering party taking advantage of the recipient, due to the fact that the recipient of the offer is only likely to accept the terms of the offer due to their vulnerable situation.<sup>72</sup> One way in which an offer can serve to take advantage of the recipient is if the compensation offered is not proportionate to the harms or risks involved in the action that the recipient is being asked to perform. For instance, offering a very low wage for a very risky job like coal mining might be exploitative in this way.<sup>73</sup> Such disproportionate offers may take advantage of the fact that vulnerable recipients might be willing to accept them only in light of the paucity of any other attractive alternatives. The fact that an offer is an individual's most attractive option does not entail that it represents a fair trade. Indeed, the injustice involved in this sort of exploitation may take advantage of vulnerabilities that are attributable to deeper background structural injustices,<sup>74</sup> such as poverty borne from previous discriminatory policies. The economic effects of the pandemic have also significantly increased the number of people who are potentially vulnerable to exploitation in this way.<sup>75</sup>

It is possible that a compensatory payment for vaccination could be exploitative if the risks are great, and the payment is not proportionate to those risks. However, such exploitation is not inevitable. Even if we cannot easily remedy the background injustice that explains why the most vulnerable will be more

attracted by an offer of compensation for risk, we can avoid exploitation in the offer of such compensation by ensuring that recompense is high enough to constitute a fair reward for risk.<sup>76</sup> It is far from clear that payments involved in covid-19 vaccination schemes are not proportionate to the risks of vaccination.

There is also a more fundamental challenge to the claim that payment for vaccination would be exploitative. In some ways, the claim that it can be is puzzling because in normal circumstances individuals are not paid to get vaccinated, and this does not appear to be exploitative. Indeed, even without payment, individuals may be vulnerable to various structural disincentives to vaccinate (if they cannot get time off work for example). If it is not exploitative for an individual to receive no payment in return for some action, it is hard to see how it could be exploitative to give any level of payment for the same action.

Here though, there may be a significant difference between payment that serves as an incentive, and payment that serves as compensation. It is not exploitative to not offer payment when the individual does not deserve compensation for harm; in such cases an offer of payment will serve as an incentive, rather than a form of compensation for harm. As detailed above, the amount it is appropriate to offer as an incentive is not governed by norms of fairness concerning fair redress (unlike compensation); so no amount of incentivizing payment could be exploitative.

However, the claim that it is not exploitative for an individual to receive no payment for vaccination is only plausible if we assume that individuals do not deserve compensation for taking on the risk of harm involved in vaccination. That may be the case if the direct benefits of vaccination outweigh the risks of harm, or if the risks of harm are negligible. Indeed, it might be argued that citizens have a duty of easy rescue to take on some small risks in order to obtain significant benefits for others.<sup>77</sup> Those in the medical or care professions may even have duties to take on greater risks in the care of their patients. In any case, if one has a duty to be vaccinated, then one may not deserve compensation for accepting the risk of harm involved in doing one's duty.

However, if the risks of harm are substantial enough to preclude the possibility of a duty to be vaccinated, this does not entail that people who choose to undergo vaccination deserve compensatory payment for accepting that risk. For instance, it might be argued that a form of compensation cannot be deserved if there are independent in principle reasons for why it would be immoral to provide it. Notably, these arguments would also speak against the use of

payment as a form of incentive. For instance, it might be argued that it would be immoral to use financial payments in the context of vaccination because such payments would serve to commodify the human body. Similar arguments have been raised in the context of offering payment for surrogacy<sup>78</sup> and organ donation<sup>79</sup> amongst other practices.<sup>80</sup> However, these anti-commodification arguments are not universally accepted.<sup>81</sup> There may also be in-principle arguments against the use of certain non-financial payments in kind, due to their implications for equality and discrimination. To take one example, some have argued that the use of vaccine passports would serve to give greater societal freedoms to individuals who have been vaccinated, and that this would lead to unacceptable forms of inequality and discrimination.<sup>82</sup> Once again though, these in principle objections are not universally accepted, and some ethicists have defended the use of vaccine passports.<sup>83</sup>

### About this submission

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### About the UK Pandemic Ethics Accelerator

The UK Ethics Accelerator is a UKRI/AHRC-funded initiative that aims to bring UK ethics research expertise to bear on the multiple, ongoing ethical challenges arising during a pandemic emergency. We provide rapid evidence, guidance, and critical analysis to decision-makers across science, medicine, government, and public health. We also facilitate public stakeholder deliberation around key ethical challenges.

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