What Money Shouldn't Buy?

Measuring Aversion to Monetary Incentives for Health Behaviors

Pol Campos-Mercade[1*], Armando N. Meier[2*],

Florian H. Schneider[3*], Roberto A. Weber[4*]

January 30, 2026

Abstract: We study attitudes toward offering monetary payments for vaccination. We develop the *Policy Lab,* an experimental paradigm to characterize policy preferences, in which participants decide whether to implement actual interventions to influence others' real-world behavior. In four pre-registered studies in Sweden, with representative samples of the population (N=3,529) and politicians (N=2,008), individuals decide whether to provide a group of others with monetary incentives for vaccination. In all studies, we find widespread opposition to the use of monetary incentives, even among individuals who favor implementing an information policy encouraging vaccination. Despite the prevailing perception that such incentives are an effective policy instrument, which is supported in our data, opposition to their use is driven by perceptions that they are coercive and unethical. Politicians exhibit, if anything, greater opposition to the use of monetary incentives. In a separate pre-registered large-scale study across 13 diverse countries (N=7,057), we document that this pattern of opposition, rooted in moral concerns, generalizes across most populations. Our studies provide evidence of public opposition to policies believed to be effective, potentially creating barriers to policy adoption. We further introduce a novel method to elicit policy preferences, widely applicable whenever researchers conduct randomized trials.

[1] Campos-Mercade: Department of Economics, Lund University and Institute for Future Studies, pol.campos@nek.lu.se; [2] Meier: Faculty of Business and Economics, University of Basel, armando.meier@unibas.ch; [3] Schneider: Department of Economics and Center for Economic Behavior and Inequality (CEBI), University of Copenhagen and CESifo, flsc@econ.ku.dk; [4] Weber: Department of Economics, University of Zurich and CESifo, roberto.weber@econ.uzh.ch. Nature reference number: 2024-12-26748A-Z.

Introduction

Much of the public and private burden of diseases is linked to modifiable individual behaviors (*1*, *2*). To improve healthy behaviors, governments use various policies, including providing information, nudges, and monetary incentives (*3*-*5*). Extensive research documents that offering monetary incentives—i.e., paying people to engage in behaviors that promote good health—can be a particularly effective policy instrument. For example, randomized controlled trials (RCTs) find that incentives can boost vaccination uptake (*6*-*10*), exercise and healthy eating (*11*-*14*), cancer screening rates (*15*), and smoking cessation (*16*, *17*).

Despite the demonstrated effectiveness of incentives for health behavior change, such payments have sparked heated public debates. Although public opposition to safe and effective policies can hinder the achievement of public health goals (*18*, *19*), evidence on the degree of public opposition to incentives for healthy behaviors and on the underlying foundations for such attitudes is lacking. Understanding why policy proposals encounter opposition and identifying the drivers of policy preferences are crucial for research in all social sciences, public health, and medicine, as well as for shaping effective public policy. This paper aims to carefully measure and analyze the foundations of such policy preferences.

We provide evidence from the context of payments for COVID-19 vaccination. This is a particularly important context, as high vaccination rates are crucial for protecting public health and are increasingly important in light of rising pandemic risks and the growing emphasis on pandemic preparedness. However, high vaccination rates are often difficult to achieve, prompting many countries to consider introducing monetary incentives (*20*).

Using large-scale studies, we analyze policy attitudes toward monetary incentives in the Swedish population (N = 3,529) and among Swedish politicians (N = 2,008). We document that most individuals oppose offering incentives for vaccination, including many who support

providing information to encourage vaccination. This opposition cannot be explained by beliefs that incentives are ineffective or cause negative unintended consequences—such as weakening civic responsibility or lowering perceptions of vaccine safety and efficacy—key concerns that have been raised in the academic literature (*21-33*). Participants generally view incentive policies as effective, and the only negative consequence they expect is that incentives may create feelings of pressure. However, participants tend to see such incentives as inherently unethical, and it is such ethical perceptions, and not impact perceptions, that account for much of the public opposition.

We extend the analysis to a large-scale international study conducted in 13 countries (N = 7,057). We find that opposition to monetary incentives for vaccination is not unique to Sweden, but reflects a broader pattern: across diverse cultural contexts, opposition to incentives is widespread and, as in the Swedish sample, is driven primarily by ethical concerns rather than by beliefs about policy impacts. Interestingly, we find substantial cross-population variation in opposition to incentives, although none of the populations we study exhibits less opposition to the incentive policy than to the information policy.

Measuring public attitudes toward monetary incentives in the domain of health, and policy attitudes more generally, is challenging. Using simple unincentivized survey measures, as is common in the literature (*34-38*), can be advantageous for introducing the relevant real-world context, but the hypothetical nature of these methods may introduce noise and biases (*39-41*). Moreover, to better understand the basis for support for or opposition to policies, it is important to understand the precise consequences that individuals expect to result from a policy. However, measuring beliefs about impacts, which are hard to foresee or quantify, can be particularly challenging in unincentivized surveys about imprecisely defined policies with complex and potentially unforeseeable impacts. Furthermore, the policies under consideration should ideally

align with those studied in RCTs, ensuring that we have complementary measures of public support and effectiveness for the same policies—key elements for informed policymaking.

To overcome these challenges, we introduce a new method to characterize such preferences and beliefs in an incentive-compatible way: the *Policy Lab*. In the Policy Lab, participants from a relevant sample (*policy planners*) decide whether to implement real policies that could affect the behavior of a large group of others with whom an RCT is conducted (*policy targets*). Planners' choices are implemented and have real consequences: Targets are randomly matched to planners, and policy treatment assignment is determined by planners' choices. This creates a proper RCT, but one in which treatment shares reflect planners' policy preferences, generating data on both policy effectiveness and public attitudes for a concrete and well-aligned policy. Here, we apply the Policy Lab approach to the context of monetary incentives for COVID-19 vaccination.

Taken together, our study not only provides insights into public attitudes toward the use of incentives to promote vaccination, but also makes a broader methodological contribution to the large literature that uses RCTs to study the effects of interventions on behavior. RCTs are widely regarded as the most reliable method for identifying feasible and effective policy options (*42*, *43*). For example, during the COVID-19 pandemic, large-scale RCTs provided valuable insights into the effectiveness of various policies aimed at increasing vaccination uptake (*9*, *10*, *44-49*). Although understanding the effects of policy interventions is crucial, an often-overlooked dimension is whether they have public support. Our Policy Lab approach offers a straightforward method for studying public attitudes toward policies and can be integrated with any RCT, making it broadly applicable across policy domains, including health, environment, and poverty.

Opposition to incentives among the Swedish population and politicians

Opposition to incentives for vaccination in the Swedish general population

We recruited three independent samples of participants that are broadly representative of the entire Swedish population in terms of age, gender, and region. Participants in Wave 1 (N= 1,004, April 2023), Wave 2 (N= 1,005, December 2023), and Wave 3 (N=1,520, October 2025) were recruited from the panel of the survey provider Norstat.

In all waves, we implement the Policy Lab approach to measure public attitudes. Individuals from the above samples serve as *policy planners*, tasked with deciding whether to offer payments for vaccination to another group of 100 *policy targets*. Specifically, policy planners have the option to incentivize targets with SEK 200 (~ USD 20) to take a shot of a COVID-19 vaccine within a 30-day timeframe (*incentive policy*). Previous work shows that offering this amount is effective in increasing vaccination uptake (*9*, *20*), a result we replicate by comparing vaccination behavior between targets whose planners assigned them to the incentive policy and those not assigned to the policy (see SI Section 2.7).

The *targets* are elderly individuals in Sweden (65 years and above) who have not yet completed their recommended vaccination schedule. They are recruited separately, through an invitation to complete a survey that includes exposure to the policy chosen by their assigned policy planner. Survey data are then linked to administrative records on vaccination uptake, allowing us to observe whether each target received an additional dose and to compensate them accordingly.

Figure 1 shows substantial opposition, similar across the three waves, toward offering monetary incentives for COVID-19 vaccination. Across waves, 52.7% of participants choose not to implement the incentive policy, expressing clear opposition toward incentives. This opposition appears to be strong: In a subsequent elicitation in Wave 1, 83% of participants who oppose

incentives are even willing to forgo substantial personal bonus payments to prevent the implementation of the incentive policy (see Figure SI.2).

Our analysis further reveals that this aversion toward monetary incentives does not reflect a general opposition to promoting vaccination. To study this, we examine support for a policy that provides information about the availability of the COVID-19 vaccine (*information policy*). Figure 1 shows that this policy is generally supported—across the three waves only 21.5% of participants opt not to assign it, meaning 78.5% choose to encourage vaccination with the information policy. In stark contrast, the incentive policy is assigned 31.26 percentage points less often ($p < 0.001$; $t = 35.26$; 95% CI: [29.5, 33.0]; see column (1) in Table 1 for details), a difference that is robust across specifications (see SI Sections 2.2 and 2.4). We interpret this difference as *incentive aversion*, indicating opposition directed specifically toward monetary incentives rather than toward vaccination policies more generally.

Perceived impacts and ethics of incentives

In all three waves, we measure planners' beliefs about the effects of monetary incentives on targets' current and future vaccination uptake, feelings of pressure, moral responsibility to vaccinate, and safety concerns—outcomes central to a large literature warning that monetary incentives may have unintended consequences (*21-33*). We elicit these impact perceptions by asking planners to predict treatment effects in the RCT conducted with the policy targets. We further measure planners' ethical perceptions of vaccination payments.

Figure 2*i* shows that policy planners believe that incentives are effective, expecting this policy to produce an 8.9 percentage point increase in vaccination uptake after 30 days. This estimate aligns with previous evidence (*20*) and the 6.5 percentage-point effect ($p = 0.008$) we document in the RCT with the targets in this paper (SI Section 2.7). Planners also expect that incentives will increase the share of targets who report feeling pressured to take an additional dose

of the vaccine—a prediction not supported by previous evidence (*10*) nor the RCT evidence in this paper. Contrary to other concerns raised in the literature, participants do not expect incentives to have negative impacts on targets' subsequent vaccination uptake or perceptions of moral responsibility or vaccine safety. Figure 2*i* further shows that policy planners perceive the information policy to be less effective—raising vaccination uptake by 5.8 percentage points after 30 days—but also creating less pressure.

Beyond beliefs about impacts, we measure participants' ethical views of the two policies. Figure *3i* shows that 39.4% of policy planners perceive the incentive policy as unethical, compared with only 6.4% for the information policy. We further study the foundation of these general ethical judgments and find that ethical opposition is largely driven by three concerns: infringement upon autonomy, perceptions of incentives as a form of bribery, and concerns that incentives exploit vulnerable populations (see SI Section 2.6.5 and 2.6.6 for details).

Explaining opposition to incentives for vaccination

We next study whether perceived impacts and ethical perceptions can explain why there is more opposition toward direct payments than toward information. We regress each policy planner's opposition to a given policy—either the incentive or information policy—on an indicator of whether the policy involves monetary incentives (see SI Section 2.4.1 for details).

Table 1 shows that opposition toward monetary incentives is largely explained by ethical perceptions, but not by beliefs about the impacts of monetary incentives. Column (1) replicates the main result: across all three waves, planners are 31 percentage points less likely to implement the incentive policy than the information policy. Column (2) adds controls for the five variables capturing participants' perceptions of policy impacts. Although adding these controls substantially increases the R^2, the estimated difference in opposition remains unchanged at 31 percent. Thus, although heterogeneity of impact perceptions partly explains planners' policy choices, it cannot

explain incentive aversion—i.e., the *difference* in opposition toward the incentive and information policies. This is because certain perceptions favor incentives over information (e.g., higher perceived effectiveness of the incentive policy), counteracting others that favor information (e.g., lower perceived coercion of the information policy).

Column (3) shows that controlling for ethical perceptions accounts for a large share of the observed incentive aversion, reducing the estimated difference in opposition by about two-thirds (to 11 percentage points). Another potential reason why people might oppose incentives is concerns about the costs of such policies. We find that these concerns are minimal and do not explain the opposition to incentives that we document (see SI Section 2.4.2). In SI Section 2.4, we provide further results that confirm these insights, including using willingness-to-pay measures for implementing each policy, non-linear logit panel regressions instead of linear regressions, analyzing different waves separately, and applying dominance analysis and mediation analysis.

To further understand opposition to incentives, we analyze open-ended responses collected in Wave 1 on why planners did or did not assign the incentive policy (see SI Section 2.6.6 for details). Consistent with the results in Table 1, most participants (50.3%) cite ethical concerns as the primary reason for opposing incentives, whereas substantially fewer mention negative consequences (10.6%) or cost-related considerations (4.2%).

Opposition to incentives for vaccination among Swedish politicians

Policy design depends not only on public attitudes, but also on the perspectives of policymakers and politicians who determine what policies are implemented. We collected data to study Swedish politicians' attitudes towards offering monetary incentives for COVID-19 vaccination using the same Policy Lab approach that we used for the Swedish general population.

In December 2023, we recruited a sample of 2,008 participants working as politicians for either a Swedish municipality or region and elected in the most recent elections (held on November

2022). We collaborated with Statistics Sweden, which provided politicians' postal addresses. Each participant received a physical letter inviting them to take part in the anonymous online survey. We sent letters to all 10,442 politicians at the municipal and regional level in Sweden, yielding a response rate of 19.2%. The share of respondents from each political party closely matches the population averages (see Table SI.4).

Figure 1 shows that politicians exhibit substantial opposition toward using incentives—56.4% of the politicians choose not to implement the incentive policy, while only 13.0% do not implement the information policy (difference = 43.48 percentage points; $p < 0.001$; $t = 36.38$; 95% CI: [41.1, 45.8]; see Table 1 for details). The remarkable opposition among both the general population and politician samples suggests that widespread opposition may be a major obstacle to the introduction of incentive policies.

We intentionally collected Wave 2 of the Swedish general population sample at the same time as the politician sample, with the aim to compare attitudes across both groups (for a more detailed comparison, see SI Section 2.5.1). While the difference in absolute opposition to incentives is rather small (56.4% vs. 53.1%, $p = 0.088$), the difference in incentive aversion is large and highly statistically significant (43.5% vs. 32.0%, $p < 0.001$), mainly due to large differences in opposition toward information (13.0% vs. 21.1%, $p < 0.001$). Given that politicians are more favorable toward intervening to encourage vaccination when using a soft-touch information policy, we conclude that they are more incentive averse than the general population.

Figure 2*ii* presents the perceived impacts of the incentive and information policies for politicians. Impact perceptions for the incentive policies are qualitatively and quantitatively similar to those in the Swedish general population samples (see also SI Section 2.5.1). However, politicians are more optimistic about the effects of the information policy than the general population. They expect substantially larger treatment effects on vaccination uptake and future

vaccination uptake and believe information to have positive effects on people's sense of moral responsibility and safety perceptions.

Figure 3*ii* shows politicians' ethical perceptions of the incentive policy. Politicians are more likely than the general population (from Wave 2) to view incentives as unethical (45.7% vs. 34.9%; OLS, $t = 5.74$, $p < 0.001$), and the distributions of these ethical perceptions differ significantly across the two samples (Wilcoxon rank-sum, $z = 2.48$, $p = 0.013$). By contrast, 67.1% of the general population sample and 82.1% of the politicians perceive the information policy to be ethical. In SI Section 2.5.1, we show that differences in ethical perceptions between politicians and the Swedish general population can largely explain differences in opposition towards incentives between the two samples. In Table 1, columns (5) to (8), we further show that ethical perceptions—rather than impact perceptions—account for a large share of politicians' opposition to incentives, similar to our findings for the general population samples.

Generalizability and robustness of incentive aversion

In each Swedish sample, we collect additional data to test the generalizability and robustness of our results.

First, Wave 3 focuses on whether opposition to incentives applies to groups that differ in demographics, political positions, vaccine attitudes, and beliefs about the reasons why targets did not vaccinate; we collect rich socio-demographic data for this purpose. Figure 4 shows that substantial opposition to incentives, both in absolute and relative terms, exists across subgroups. SI Section 2.5.2 show similar results for Waves 1 and 2 and for the politician sample. Opposition to incentives is thus widespread across subgroups of the population.

Second, in Wave 1, we study how the presence of alternative policies influences support for a policy of interest (see SI Section 2.6.1 for details). In one policy choice, participants are asked to select between implementing both a combined information and incentive policy, versus no

policy. This decreases opposition by 6.9 percentage points, a statistically significant decrease, compared to opposition toward the incentive policy in the absence of the information policy ($p < 0.001$). We replicate this finding in Wave 3 (see SI Section 2.6.2 for details). The result suggests that some of the opposition to an incentive policy can be mitigated by combining it with a more desirable policy. However, opposition to this combined policy remains high, and clearly higher than opposition to the information policy alone. In another policy choice, participants are asked to select between implementing the information policy, the incentive policy, the combined information and incentive policy, or no policy. When the information policy is available as an alternative, support for monetary incentives decreases by an additional 3.9 percentage points ($p=0.002$), consistent with concerns that "soft-touch" interventions, while attractive for their low cost and libertarian appeal, may diminish support for more effective but intrusive interventions (*50*).

In SI Section 2.6, we further study the generalizability of our results within Sweden. We document that informing politicians that their choices may be observed by the public does not impact their reported preferences (SI Section 2.6.7). Moreover, survey items in Wave 2 provide evidence that people's opposition to incentives is similar for other types of incentives, such as cash, tax deductions, grocery vouchers, and foods and drinks, and that incentive aversion may extend to other types of health behaviors (SI Section 2.6.4). Finally, in SI Section 1.5.1, we discuss multiple hypothesis testing and show that the results are robust to such adjustments.

Further evidence from 13 countries

To study the extent of opposition toward offering monetary incentives for COVID-19 vaccination across populations, we collected data using the Policy Lab approach in five European countries (France, Spain, Poland, Sweden, and the UK) and eight countries outside of Europe (the US, Mexico, Brazil, Bolivia, South Africa, Nigeria, India, and Japan). This set of diverse countries

span a wide range of geographic, institutional, cultural, and economic contexts (see SI Section 1.4.1 for details).

In collaboration with Norstat, we recruited a total of 7,057 participants from general population samples across the countries in January 2026. As Norstat did not have panels in all countries, they relied on a partner panel provider, Kantar. To ensure comparability across countries, we requested that Norstat recruit samples through Kantar in all countries, including Sweden.

The international study followed the structure of the Swedish studies, eliciting policy attitudes as well as impact and moral perceptions, but using shorter and simplified policy descriptions and survey wording to improve cross-country comparability. Payments in the incentive policy were set to the PPP-equivalent of 200 SEK (~20 USD) in the local currency, rounded to locally natural values (see SI Section 1.4.1 for details).

Figure 5 shows the share of participants who oppose the incentive and information policies in each country. We observe three main patterns. First, we find substantial opposition to the incentive policy in almost all countries. The only countries in which fewer than 30% of participants oppose the incentive policy are India, Nigeria, Brazil, and the US. Second, in every country, opposition to the incentive policy exceeds opposition to the information policy. We reject the hypothesis that opposition is the same for the information and incentive policies in every country except the US (see SI Section 2.4.3, Tables SI.26 to SI.38). As in the Swedish studies, these findings indicate that opposition is largely driven by concerns specific to monetary incentives. SI Section 2.5.3 further shows that incentive aversion is widespread across subgroups. Third, the magnitude of incentive aversion varies considerably across countries. The largest differences between opposition to the incentive and information policies are observed in Spain, France, and Sweden, followed by Mexico, Bolivia, Poland, the United Kingdom, and Brazil. Lower—but still

substantial—levels of incentive aversion are found in Japan, India, and South Africa. By contrast, incentive aversion is small in Nigeria and statistically indistinguishable from zero in the US.

Turning to perceived impacts, we find patterns similar to those documented in Sweden (see Figure SI.9). In every country, participants view incentives as more effective than information. Participants also generally perceive incentives as creating greater pressure, but do not predict negative effects on perceived vaccine safety or moral responsibility to vaccinate. Notable exceptions include India and Japan, where information policies are perceived as similarly pressuring as incentives; Nigeria, where incentives are expected to have more positive effects on perceived safety and moral obligations than information; and France, where incentives are expected to reduce perceived vaccine safety and moral responsibility.

The incentive policy is also viewed as less ethically acceptable than the information policy in every country (see Figure SI.13). We reject equality of the distributions of ethical perceptions between the two policies at the 1% level in all countries except Nigeria (Wilcoxon signed-rank tests). We also observe that countries in which incentives are viewed as less ethically acceptable exhibit higher levels of opposition to the incentive policy.

Finally, consistent with the Swedish findings, perceived impacts do not explain incentive aversion in any country. By contrast, ethical perceptions explain most of the greater opposition to incentives in all countries except for the US and Nigeria, where incentive aversion is lowest.

Overall, these results suggest that opposition to monetary incentives for vaccination—driven primarily by ethical concerns rather than worries about negative impacts—is common across varied global populations, though its magnitude varies substantially. For example, incentive aversion is particularly pronounced in Europe but markedly lower in the US, which may help explain why monetary incentives were adopted by many U.S. states following the availability of COVID-19 vaccines in 2021 (*10*) but remained uncommon in Europe. Similarly, the low level of

incentive aversion in Nigeria may help account for the frequent use of monetary payments by non-governmental organizations such as New Incentives to promote vaccination in African countries. Figure SI.5 shows that, more generally, countries with lower opposition to incentives are also those in which participants report a greater prevalence of vaccination incentive policies, although this observation comes from exploratory analysis.

These cross-country differences also highlight the importance of systematically collecting data on attitudes toward policy interventions: just as the effectiveness of interventions does not necessarily generalize across contexts, neither does public acceptance. The Policy Lab approach offers a systematic way to collect such data and to better understand the basis for policy acceptance across contexts.

Conclusion

Research has demonstrated the effectiveness of offering monetary incentives for promoting health-related behaviors across a wide variety of domains, but such incentive policies are nevertheless often controversial. There is limited evidence on their public support, which can be critical for policy adoption. We address this gap by measuring and characterizing public attitudes toward offering monetary incentives.

Across four large-scale studies in Sweden, we find that both the general population and politicians oppose policies involving monetary incentives. Using a novel Policy Lab design measuring policy implementation choices, we show that this opposition is specific to monetary incentives rather than reflecting general resistance to promoting vaccination, and that it cannot be explained by beliefs about the impacts of incentive policies. Instead, we find that many individuals perceive incentive policies as effective but unethical, and these ethical views explain a large part of the opposition toward incentive policies. Hence, despite public expectations that incentives are effective—which is supported by empirical evidence—a barrier to their introduction is the

perception that incentive policies are inherently immoral. Evidence from an international study across 13 countries shows that this pattern is not unique to Sweden. Opposition to incentives is widespread across populations and is similarly driven by ethical concerns, although its magnitude varies substantially.

Our findings suggest that additional evidence on the effectiveness of incentive policies may do little to increase their acceptance. Instead, improved understanding of the ethical foundations of this opposition may be necessary to understand when and why such policies gain public acceptance. A valuable path for future research would be to investigate the underlying foundations for these ethical views.

Of course, our work has several caveats. While our novel design provides individuals with choices that potentially influence the policy assigned to another group of target individuals, generalizing from our findings to actual support for policies adopted by governments requires caution. We do not observe how people's attitudes translate into how they vote for politicians or parties that advocate different approaches to public health. Moreover, the consequential choices we study are confined to the domain of vaccination, and attitudes toward monetary incentives may differ for other types of behaviors.

Nevertheless, individuals' support for public policies is an important determinant of whether such policies will be implemented and their effectiveness. Understanding opposition to directly incentivizing health-related behaviors and the basis for such opposition is not just important for scientific and ethical inquiry, but also crucial for successful policy design and adoption. This paper takes a first step in this direction and, we hope, creates a valuable new tool that can guide future research.

Methods

Data analysis and preregistration

Our studies investigate attitudes toward offering financial incentives for vaccination, how people perceive the consequences and ethics of such policies, and which factors shape these attitudes. We preregistered all studies on OSF (Wave 1: osf.io/qmgxu/; Wave 2 and politician sample: osf.io/vpxsq/; Wave 3: osf.io/fj9dh/; international study: osf.io/wsnym). The Swedish ethical review authority (Etikprövningsmyndigheten) and the Human Subjects Committee of the Faculty of Economics, Business Administration, and Information Technology at the University of Zurich approved the protocols of the studies (reference numbers 2022-05614-01, 2022-081, 2025-089, 2025-105). All code and data required to reproduce the tables and figures in the manuscript and the Supplementary Information will be publicly available on a Zenodo repository upon publication.

The analyses in the paper and the SI follow the preregistered analysis plans. We designated opposition to incentives as the primary analysis, and the analysis of impact and ethical perceptions as secondary analyses, reflecting the importance of first investigating the existence of opposition to incentives before examining its determinants. Importantly, for Wave 1, we deviated from the plan in our approach to quantifying the relationship between perceived impacts and ethics, as discussed below, as over the course of the study we learned how to improve these analyses. Importantly, this revised approach was preregistered for all subsequent studies (Waves 2 and 3, politician sample, and international sample) and the results were successfully replicated throughout. We provide populated preregistration plans in SI Section 2.8, following recommendations in Banerjee et al. (*51*). Across studies and empirical approaches, results are highly consistent.

To study attitudes toward incentive policies, we first describe the share of participants who oppose the incentive policy (Figures 1, 4*i* and 5). We estimate linear regression models using OLS with heteroskedasticity-robust standard errors to calculate 95% confidence intervals.

To identify opposition specific to financial incentives, we compare opposition to the incentive policy with opposition to a benchmark policy, the information policy, that informs individuals that vaccination is recommended and serves as a measure of general opposition to vaccination promotion. We construct a dataset in which each participant provides two observations: one indicating whether they implement the incentive policy and the other one corresponding to the information policy. We then regress opposition for either of the two policies on an indicator variable for the financial incentive policy (OLS regression):

$$oppose\ policy_i = \beta_0 + \beta_1 financial\ incentives_i + \varepsilon_i \quad (1)$$

where $oppose\ policy_i$ is an indicator equal to 100 if the policy planner does not assign a policy and 0 otherwise. We cluster standard errors at the individual level to account for serial correlation within individuals. The coefficient on the indicator for the financial incentive policy, β_1, gives incentive aversion (that is, the difference in opposition between the incentive and information policies). We provide estimates of β_1 in Table 1, columns (1) and (5), for the Swedish general population and politician samples and in Tables SI.25 to SI.38 for the international study.

We then build on this approach to examine the extent to which perceived policy impacts and ethical views explain incentive aversion. To do so, we estimate the following regression:

$$oppose\ policy_i = \beta_0 + \beta_1 financial\ incentives_i + \beta_2 controls_i + \varepsilon_i \quad (2)$$

where $controls_i$ includes varying controls such as impact perceptions and ethical views. While we preregistered this approach in Waves 2 and 3, the politician study, and the international study, we preregistered a different approach for Wave 1 that has important limitations (see discussions

and results for that approach in SI Section 2.8.1); importantly, the results of the original pre-registered approach lead to qualitatively similar conclusions, but we deviate from the Wave 1 plan in favor of the more appropriate analysis in the main text. Table 1, as well as Tables SI.25 to SI.38 for the international sample, report how estimates of incentive aversion change with the introduction of controls. Additional details are provided in SI Section 2.4.1. In all samples where we observe sizable incentive aversion—specifically, all samples and waves except for two in the international study (US and Nigeria)—we find that incentive aversion is explained to a large extent by ethical perceptions, but not by perceived policy impacts.

In SI Section 2.4, we demonstrate that our results are robust across a range of alternative specifications, including: (i) using only the first policy choice encountered by participants (between-subjects design); (ii) estimating logit models; (iii) conducting dominance and mediation analyses; (iv) using willingness-to-pay measures for implementing the financial incentive and information policies (available only in Wave 1); and (v) analyzing individual waves of the Swedish general population sample and the different countries in the international sample separately (with the exception of the US and Nigerian samples).

We also use the approach above to study incentive aversion across different subgroups. Specifically, we estimate specification (1) separately for predefined subgroups (Table 4*ii*; see SI Section 2.5.2 for details). Table 4 focuses on Wave 3 of the Swedish general population sample, which was specifically designed and preregistered to analyze subgroups and includes an extensive set of sociodemographic measures. In SI Sections 2.5.2 and 2.5.3, we show that the robustness of our results across subgroups also holds when using data from other waves and other countries.

Experimental Design: the Policy Lab

In our novel experimental paradigm, the *Policy Lab*, participants from a relevant sample (*policy planners*) decide whether to implement real policies that could affect the behavior of a large group

of others with whom an RCT is conducted (*policy targets*). Planners' choices are then implemented and have real consequences: Targets are randomly matched to planners, and treatment assignment is determined by planners' choices.

In this section, we first discuss how we implement the Policy Lab in the context of monetary incentives for COVID-19 vaccination in Waves 1–3 of the Swedish general population samples and the Swedish politician samples. We then explain how we conducted the international study closely following the Swedish studies.

In our study, the policy targets are always drawn from a general population sample of the elderly Swedish population (65 years of age or older), for whom an additional dose of a COVID-19 vaccine is recommended by the Public Health Agency of Sweden but not yet taken. In the remaining part of this section, we focus on the policy planners, as they provide the data that we use for the principal parts of our analysis; SI Section 2.7 provides a detailed description about the recruitment procedures for and the experiment we do with the target sample.

In all our studies, the policy planner survey consists of three parts. Part 1 elicits preferences over different possible policies encouraging the targets to take an additional COVID-19 vaccine. In Part 2, we elicit planners' beliefs about the impacts of different policies on outcomes, including vaccination uptake. Part 3 elicits participants' ethical views regarding these policies. At the end of the survey, we also collect socio-demographics and attitudes towards vaccinations (SI Section 2.5.2 provides details). These three parts are largely similar across the studies; in this section, we provide an overview of the three parts and later provide details specific to each wave of data collection.

Part 1: Policy preferences. In Part 1, each policy planner is told that he or she is matched with 100 targets and sees a description of the target sample's characteristics, as described above. Policy planners then receive the exact formulation of different policies that might be assigned to

these 100 targets and decide whether to implement them. We consider an incentive and an information policy. The incentive policy offers the targets a monetary payment of SEK 200 (~ USD 20) for getting an additional COVID-19 vaccine shot within 30 days. The information policy tells the targets that the Public Health Agency recommends that people in their age group get an additional dose of a COVID-19 vaccine shot. The policy planners make two choices that differ in the available policies:

- Choice I: assign the **incentive policy** or **no policy**.
- Choice II: assign the **information policy** or **no policy**.

For one out of every 250 policy planners, we randomly draw one choice scenario and implement their choice in this scenario, meaning that 100 targets will get the policy that the policy planner chose. The planner is told that assigning no policy means that the targets do not receive any encouragement to take an additional dose of the COVID-19 vaccine. We inform policy planners that, independently of their policy choices, we will verify whether each target receives an additional dose of the COVID-19 vaccine within 30 days, and that the implementation of the policies, including the incentive payments, is financed by public funds.

We randomize the order of the two choices, allowing for both within- and between-subject comparisons of the popularity of the incentive and information policies. In the main text, as pre-registered, we focus on the within-subject comparison. Figures SI.1 and SI.3 and Tables SI.13 and SI.39 show that results for all studies remain equivalent under a between-subject comparison.

Part 2: Impact perceptions. In Part 2, we elicit policy planners' impact perceptions of the policies. We inform planners that, in addition to the policies implemented based on their choices, we will randomly assign separate groups of 100 targets to the incentive policy, 100 targets to the information policy, and 100 targets to no policy. We then ask policy planners to predict the treatment effects of the incentive and information policies on various outcomes, including actual

vaccination uptake, and the targets' stated responses regarding planned future uptake, their perceptions of the moral responsibility to vaccinate, vaccine safety and efficacy, as well as feelings of coercion.

We measure vaccination uptake using registry data, and the other outcomes with a follow-up survey of the targets conducted approximately 30 days after the intervention. For example, to elicit beliefs about feelings of coercion, we ask targets the following question: "When you look back at your decision to take, or not take, and additional dose of a COVID-19 vaccine, did you feel forced or pressured to take or not take the COVID-19 vaccine?" Policy planners guess the treatment effects on the share of people that answer this question affirmatively (SI Section 1.1.2 provides details). In SI Section 2.7, we provide the exact questions posed to the targets in the follow-up survey and for which policy planners had to predict treatment effects.

Finally, we also included measures of cost considerations. Figures SI.15–SI.19 describe these perceptions, and Table SI.15 shows that they do not explain incentive aversion.

Part 3: Ethical perceptions. In Part 3, we elicit participants' ethical perceptions. To do so, we ask participants how ethically acceptable they perceive the policies to be, coded on a 7-point scale.

Specific features of the different studies

In this section, we provide a brief discussion of the specific features of each study. We give detailed descriptions of each study in SI Section 1, and full questionnaires, translated into English, in SI Section 3.

Wave 1. In Wave 1, Part 1 included two additional policy choices to examine how the presence of alternative policies influences opposition to incentives. These results are discussed in the main text and in SI Section 2.6.1. To measure the strength of participants' preferences, we additionally measured participants' willingness to pay to introduce either the incentive policy or

494 the information policy vs. no policy (SI Section 1.1.1 provides details; Table SI.16 shows that
495 results are robust to this alternative measure). Finally, at the end of Part 1, we included an open-
496 ended question asking participants why they did or did not assign the incentive policy. These
497 responses are discussed in the main text and in SI Section 2.6.6.

498 In Part 2, we included additional impact perception questions, assessing participants' views
499 on the share of targets who are better- and worse-off due to the policies, as well as feelings of
500 regret regarding vaccination decisions. Figure SI.6 shows that planners do not anticipate negative
501 impacts on these measures and that perceptions do not differ between the incentive and information
502 policies; Table SI.17 shows that these perceptions do not explain incentive aversion.

503 In Part 3, we also asked policy planners to explain in an open-ended format why they
504 perceive the incentive policy as ethical or unethical. These results are reported in the main text and
505 SI Section 2.6.6. We then elicited participants' moral views using more structured survey questions
506 designed to capture key arguments presented by moral philosophers and others against the use of
507 incentives (SI Section 2.6.6 provides details and results).

508 **Wave 2.** Between Wave 1 and Wave 2, we substantially shortened the survey. This was
509 partly because Wave 2 was designed together with the study of Swedish politicians, requiring a
510 shorter survey to encourage participation among politicians. Wave 2 follows Parts 1–3 exactly as
511 described above. We did, however, add measures of the perceived popularity of the two policies
512 (SI Section 2.6.8 provides details and results) and survey items on attitudes toward incentives, in
513 which we varied both the type of incentive and the health domain (SI Section 2.6.4 provide the
514 design and results). We measured fewer sociodemographic variables than in Wave 1 (and Wave
515 3), both to save time and because data collection for politicians was restricted to preserve
516 anonymity.

Wave 3. The design of Wave 3 closely followed the design of Wave 2 with two differences: i) we incorporated four different versions that differ in the description of the incentive policy (Choice I) and the probability that a choice (either Choice I or II) of the planner is implemented, and ii) we collected a rich set of socio-demographics to explore potential differences in opposition to incentives across subgroups. In SI Section 2.6.2, we show that there are no substantial differences between the policy versions; in Table 1 and Figures 1–4 of the main paper, we pool data from all four versions, as pre-registered. Results of the pre-registered subgroup analyses are presented in Figure 4.

Politicians study. We designed this study to match Wave 2 and collected data simultaneously. The only differences occur at the end of the study: first, we collected even fewer sociodemographic variables than in Wave 2; second, we examined how politicians' opposition to incentives varies when their choices may be made public (SI Section 1.2 provides details). In SI Section 2.6.7, we show that this had no impact on opposition.

International study. Data collection for the international sample followed the structure of Waves 2 and 3, but using shorter and simplified policy descriptions and survey wording to improve cross-country comparability. Payments in the incentive policy were set to the PPP-equivalent of 200 SEK (~20 USD) in the local currency, rounded to locally natural values as reported in SI Section 1.4.1. The study fielded simultaneously across 13 countries in January 2026.

We collected data in a diverse set of five European countries (Spain, UK, Sweden, Poland, France) and a diverse set of eight countries outside of Europe (US, Mexico, Brazil, Bolivia, South Africa, Nigeria, India, Japan). This set of countries spans a wide range of geographic, institutional, cultural, and economic contexts (SI section 1.4.1 provides details). Participants were recruited from general population samples in each country.

To maintain consequentiality, we implemented a subset of choices. In one of the 13 countries, we implemented one randomly selected choice for 1 out of every 20 planners in that country. This implies that one choice per 260 participants (=1/20*1/13) was implemented, following roughly the same implementation frequency as in the other studies. Policy planners were informed about this procedure. They were told that they were to make decisions for potential targets in their own country (e.g., a US planner chose for potential targets in the US), without knowing whether their country was the one selected for implementation. The implementation country was predetermined, and participants knew this, but the precise country (Sweden) was not disclosed to participants. Hence, all participants knew that some choices would be implemented in one country but did not know whether it could potentially be their own choices in their own country. This procedure allows us to induce the possibility that participant's choices may be consequential without using deception: We were fully transparent about the procedure, including that the country was predetermined, while not disclosing which country it was. All planners were informed that if their decision was selected, the assigned policy would be implemented exactly as described, including implementation in their own country. We developed the design and instruction wording in consultation with the Human Subjects Committee of the Faculty of Economics, Business Administration and Information Technology of the University of Zurich.

We further assessed participants' perceptions of consequentiality of their decisions by eliciting their beliefs about whether their choices could have real-world consequences. These responses indicate that the procedure successfully induced perceived consequentiality: 91% of participants reported believing that their decisions could have consequences, and in every individual country this share exceeds 80%. Moreover, Figure SI.4 shows that our results are unchanged when restricting the analysis to participants whose responses indicate that their actions could have consequences.

564 At the end of the study, we elicited additional measures that could be relevant for capturing
565 international heterogeneity (see the discussion and results in SI Section 2.5.3).

566 **Procedure and sample.** We recruited N = 1,004 (Wave 1), N = 1,005 (Wave 2), and N =
567 1,520 (Wave 3) participants in Sweden via the Norstat panel, with samples balanced on age,
568 gender, and region to approximate national representativeness. Norstat actively recruits
569 participants to its panel and verifies their identities. A sample of N = 2,008 Swedish politicians
570 was recruited through postal invitations in collaboration with Statistics Sweden. For the
571 international study, we recruited N = 7,057 participants through Norstat (in collaboration with their
572 partner panel provider, Kantar). Tables SI.3 to SI.6 give descriptive statistics. In all studies, we
573 followed the pre-analysis plan in excluding only individuals who did not give consent or who
574 completed the survey under a prespecified amount of time.

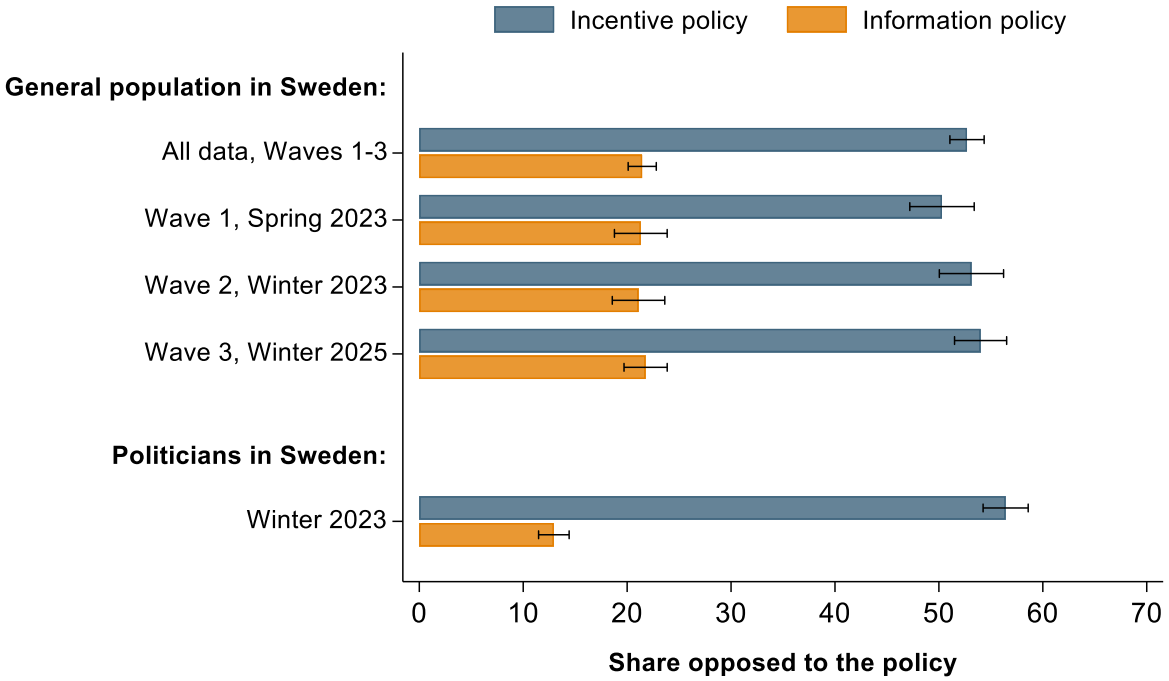
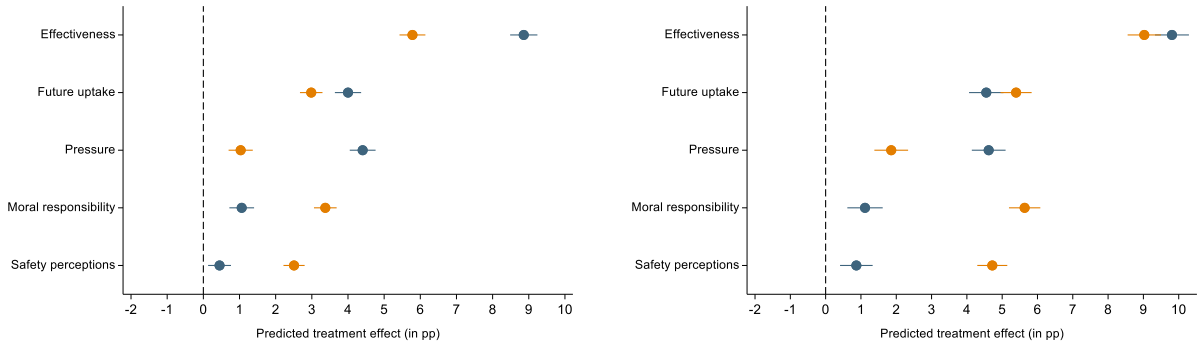
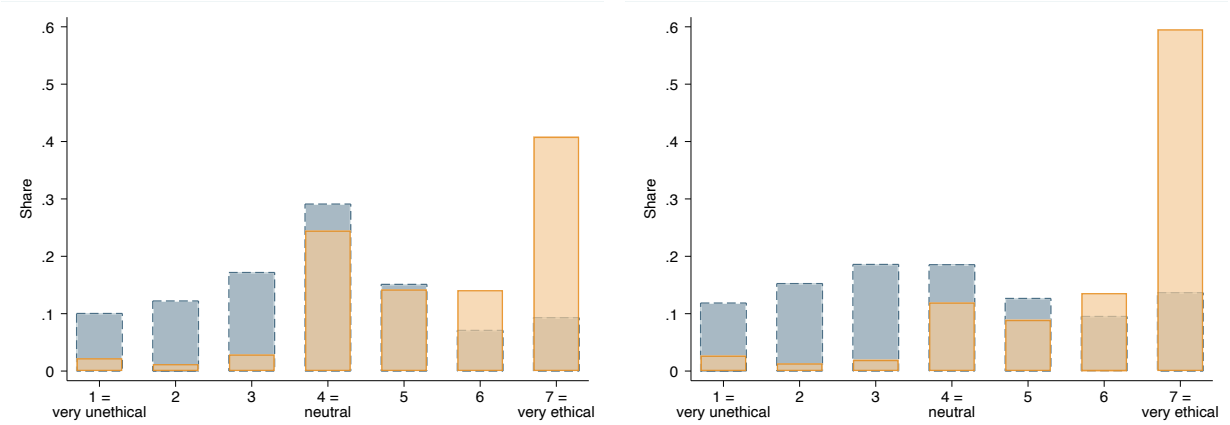


Fig. 1: Public opposition to the use of incentive and information policies to promote vaccination. The figure is based on data collected with the *Policy Lab* paradigm, in which participants decide whether to implement actual interventions to influence others' real-world behavior. The figure gives the share of participants that did not implement a SEK 200 incentive policy (blue) and an information policy (orange). General Population in Sweden includes three studies with representative samples of the Swedish population (Wave 1: N= 1,004, Wave 2: N= 1,005, Wave 3: N= 1,520) and Politicians in Sweden consists of a sample of Swedish politicians (N=2,008). Error bars represent normal-based 95% confidence intervals (CI: mean ± 1.96SE) from ordinary least squares regressions with heteroscedasticity robust standard errors.



(i) Sweden General Population (All data) *(ii) Sweden Politicians*

Fig. 2: Perceived impacts of the incentive and information policies. The figure gives the average of participants' predicted treatment effects of the SEK 200 incentive policy (blue) and the information policy (orange) on different outcomes. Outcomes: COVID-19 vaccination uptake after 30 days (Effectiveness), Intention to get future doses of the COVID-19 vaccine (Future uptake), Feelings of pressure to vaccinate (Pressure), Perceptions of moral responsibility to vaccinate (Moral responsibility), Vaccine safety perceptions (Safety perceptions). Panel (i) gives the results for the Swedish general population sample; we pool data from Waves 1 to 3 (N=3,529; SI Section 2.3.1 gives results for single waves). Panel (II) gives results for Swedish politicians (N=2,008). Error bars represent normal-based 95% confidence intervals (CI: mean ± 1.96SE) from ordinary least squares regressions with heteroscedasticity robust standard errors.



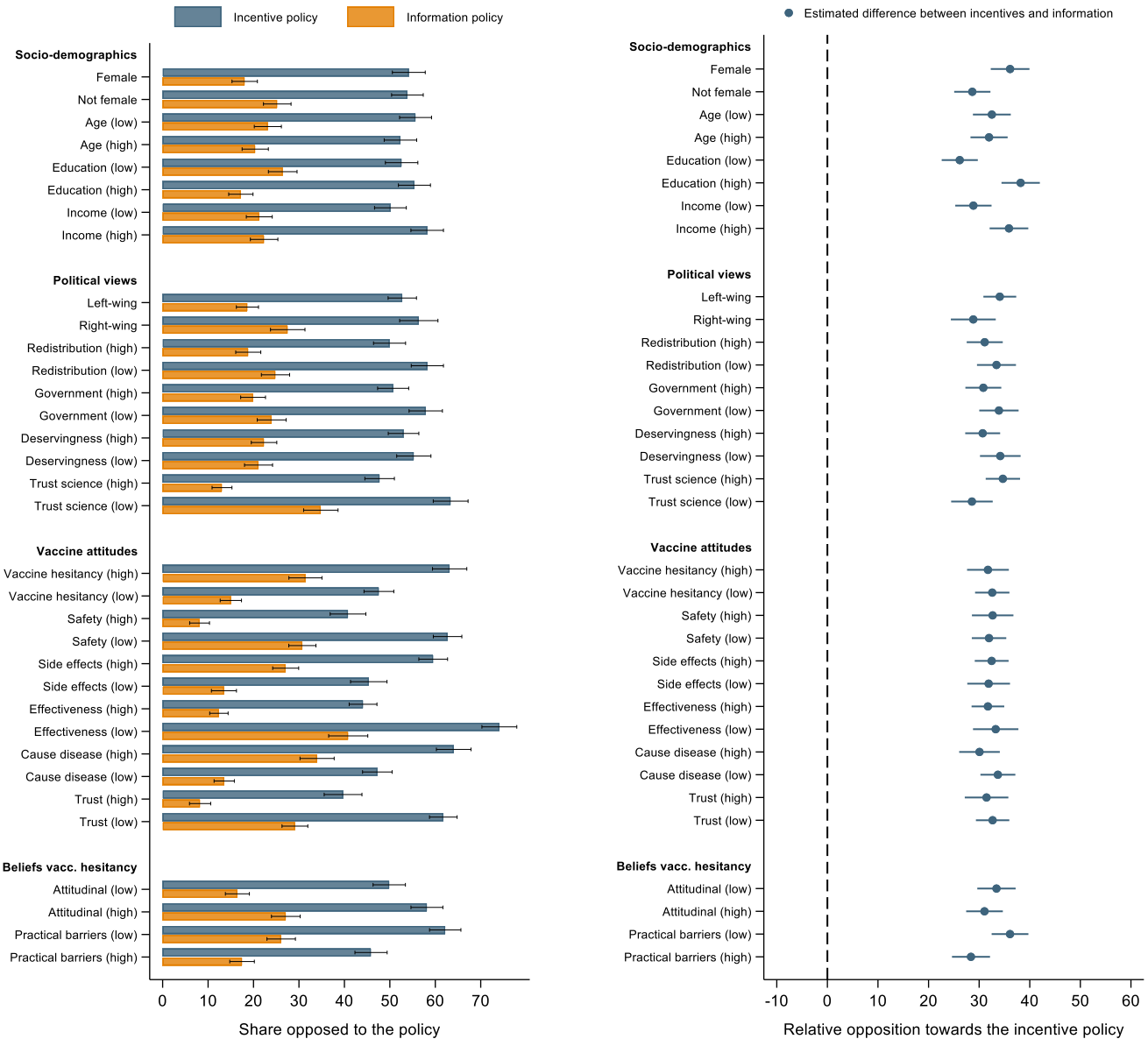
(i) Sweden General Population (All data) *(ii) Sweden Politicians*

Fig. 3: Ethical perceptions of the incentive and information policies. The figure shows participants' responses to the question, "In your opinion, how ethically acceptable is each of the policies?" for the SEK 200 incentive policy (blue) and the information policy (orange). Panel (i) gives the results for the Swedish general population sample; we pool data from waves 1 to 3 (N=3,529; SI Section 2.3.2 gives results for single waves). Panel (II) gives results for Swedish politicians (N=2,008).

Table 1. Explaining incentive aversion

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Incentive policy	31.26*** (35.26)	31.52*** (35.82)	10.71*** (10.75)	15.36*** (15.44)	43.48*** (36.38)	39.00*** (33.24)	14.94*** (10.43)	17.80*** (12.60)
Impact perceptions								
Effectiveness		-0.83*** (-14.19)		-0.61*** (-10.97)		-0.66*** (-9.47)		-0.39*** (-6.02)
Pressure		0.46*** (8.95)		0.17*** (3.44)		0.49*** (8.26)		0.22*** (4.29)
Future uptake		-0.48*** (-7.07)		-0.34*** (-5.25)		-0.47*** (-5.97)		-0.22*** (-3.15)
Moral responsibility		-0.21*** (-3.14)		0.041 (0.66)		-0.21*** (-2.58)		-0.06 (-0.83)
Safety perceptions		-0.37*** (-4.98)		-0.18*** (-2.62)		-0.60*** (-6.90)		-0.25*** (-3.24)
Ethical perceptions			-12.27*** (-38.32)	-10.32*** (-29.21)			-13.33*** (-36.90)	-11.19*** (-25.92)
Sample	General	General	General	General	Politicians	Politicians	Politicians	Politicians
R^2	0.105	0.207	0.270	0.306	0.209	0.333	0.436	0.459
N	7,058	7,058	7,058	7,058	4,016	4,016	4,016	4,016
P-value joint test		<0.0001		<0.0001		<0.0001		<0.0001

Notes: The table shows coefficient estimates from linear regressions of opposition to implementing a given policy on an indicator variable for the Incentive policy, perceived impacts of the policies and ethical perceptions of the policies (see SI Section 2.4.1 for details). Columns (1) to (4) give the results for the Swedish general population sample; we pool data from Waves 1 to 3 (SI Section 2.4.2 gives results for single waves). Columns (5) to (8) give results for Swedish politicians. The outcome variable is 100 if participants don't implement the policy and 0 if they implement the policy. Impact perceptions are estimated treatment effects in percentage points. Ethical perceptions range from 1 = very unethical to 7 = very ethical. When multiple impact and ethical perception measures are included, the row labeled "P-value joint test" reports the p-value from an F-test of the null hypothesis that all corresponding coefficients are jointly equal to zero. Standard errors are clustered at the individual level. t-statistics are in parentheses. * p<0.1, ** p<0.05, *** p<0.01.



(i) Opposition to incentive and information *(ii) Relative opposition towards incentives*

Fig. 4: Public opposition to the use of incentive and information policies to promote vaccination among subgroups. The figure is based on data collected with the *Policy Lab* paradigm, in which participants decide whether to implement actual interventions to influence others' real-world behavior. Panel (i) gives the share of participants that did not implement a SEK 200 incentives policy (blue) and an information policy (orange) among different subgroups, as defined in Table SI.50. Error bars represent normal-based 95% confidence intervals (CI: mean ± 1.96SE) from ordinary least squares regressions with heteroscedasticity robust standard errors. Panel (ii) gives incentive aversion, that is the difference in opposition between the incentives and information policies (see SI Section 2.5.2 for details). Error bars represent normal-based 95% confidence intervals (CI: mean ± 1.96SE) from ordinary least squares regressions with standard errors clustered at the individual level. Data is taken from the Swedish general population sample, Wave 3 (N= 1,520), which was designed to study subgroups. Similar results for Waves 1 and 2 and for Swedish politicians, are in SI Section 2.5.2.

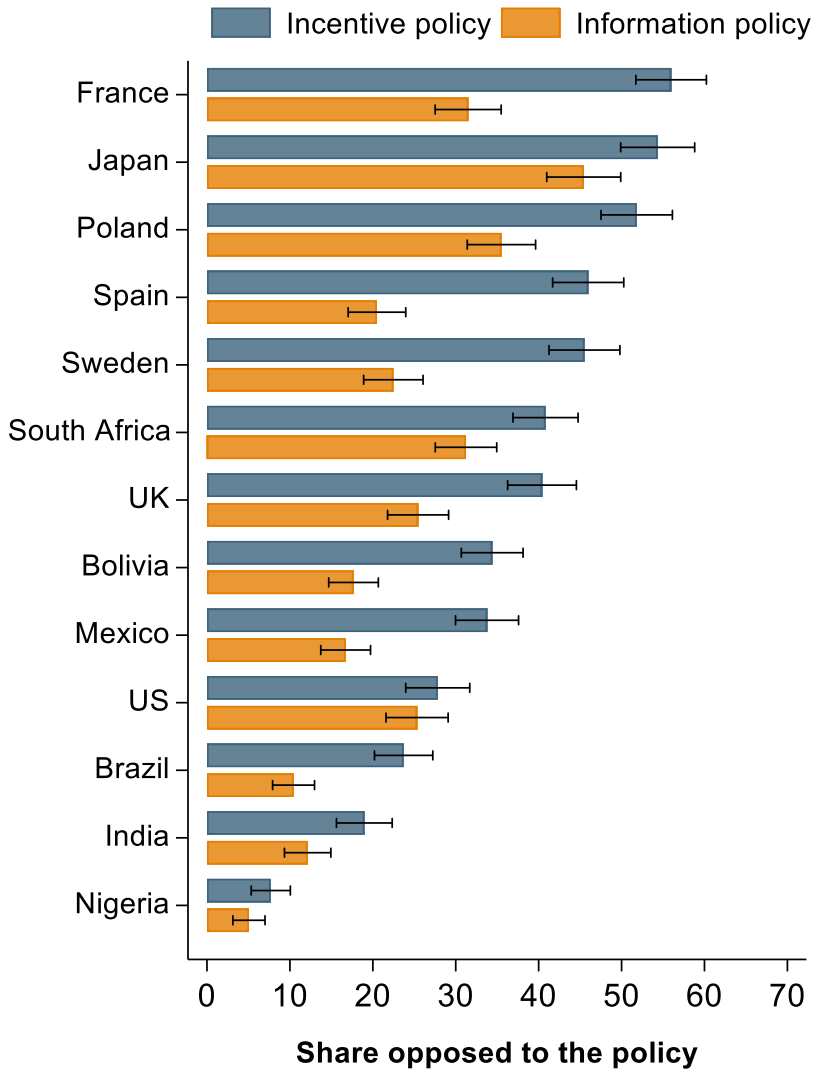


Fig. 5: International evidence on public opposition to the use of incentive and information policies to promote vaccination. The figure is based on data collected with the *Policy lab* paradigm, in which participants decide whether to implement actual interventions to influence others' real-world behavior. The figure gives the share of participants that did not implement an incentives policy (blue) and an information policy (orange) in different countries (N=7,057). Payments in the incentive policy were set to the PPP-equivalent of 200 SEK (~20 USD) in the local currency, rounded to locally natural values as reported in SI Section 1.4.1. Error bars represent normal-based 95% confidence intervals (CI: mean ± 1.96SE) from ordinary least squares regressions with heteroscedasticity robust standard errors.

References

1. McGinnis, J. M., Williams-Russo, P., & Knickman, J. R. (2002). The case for more active policy attention to health promotion. Health affairs, 21(2), 78-93.
2. WHO (2023). The contribution of behavioural science to addressing the social and wider determinants of health: evidence review.
3. Loewenstein, G., Brennan, T., & Volpp, K. G. (2007). Asymmetric paternalism to improve health behaviors. Jama, 298(20), 2415-2417.
4. Thaler, R. H. & Sunstein, C. R. (2009). Nudge: Improving Decisions About Health, Wealth, and Happiness. Yale University Press
5. Brewer, N. T., Chapman, G. B., Rothman, A. J., Leask, J., & Kempe, A. (2017). Increasing vaccination: putting psychological science into action. Psychological Science in the Public Interest, 18(3), 149-207.
6. Banerjee, A. V., Duflo, E., Glennerster, R., & Kothari, D. (2010). Improving immunisation coverage in rural India: clustered randomised controlled evaluation of immunisation campaigns with and without incentives. Bmj, 340.
7. Bronchetti, E. T., Huffman, D. B., & Magenheim, E. (2015). Attention, intentions, and follow-through in preventive health behavior: Field experimental evidence on flu vaccination. Journal of Economic Behavior & Organization, 116, 270-291.
8. Alsan, M., Garrick, O., & Graziani, G. (2019). Does diversity matter for health? Experimental evidence from Oakland. American Economic Review, 109(12), 4071-4111.
9. Campos-Mercade, P., Meier, A. N., Schneider, F. H., Meier, S., Pope, D., & Wengström, E. (2021). Monetary incentives increase COVID-19 vaccinations. Science, 374(6569), 879-882.

10. Schneider, F. H., Campos-Mercade, P., Meier, S., Pope, D., Wengström, E., & Meier, A. N. (2023). Financial incentives for vaccination do not have negative unintended consequences. Nature, 1-8.
11. Volpp, K. G., John, L. K., Troxel, A. B., Norton, L., Fassbender, J., & Loewenstein, G. (2008). Financial incentive–based approaches for weight loss: a randomized trial. Jama, 300(22), 2631-2637.
12. Charness, G., & Gneezy, U. (2009). Incentives to exercise. Econometrica, 77(3), 909-931.
13. Royer, H., Stehr, M., & Sydnor, J. (2015). Incentives, commitments, and habit formation in exercise: evidence from a field experiment with workers at a fortune-500 company. American Economic Journal: Applied Economics, 7(3), 51-84.
14. Milkman, K. L. et al. (2021). Megastudies improve the impact of applied behavioural science. Nature, 600(7889), 478-483.
15. Stone, E. G., et al. (2002). Interventions that increase use of adult immunization and cancer screening services: a meta-analysis. Annals of internal medicine, 136(9), 641-651.
16. Volpp, K. G. et al. (2009). A randomized, controlled trial of financial incentives for smoking cessation. New England Journal of Medicine, 360, 699-709.
17. Halpern, S. D., Chowdhury, M., Bayes, B., Cooney, E., Hitsman, B. L., Schnoll, R. A., ... & Stephens-Shields, A. J. (2021). Effectiveness and ethics of incentives for research participation: 2 randomized clinical trials. JAMA internal medicine, 181(11), 1479-1488.
18. Roth, A. E. & Wang, S. W. (2020). Popular repugnance contrasts with legal bans on controversial markets. PNAS, 117(33), 19792–19798.
19. Carattini, S., Dur, R., & List, J. (2024). Policy evaluation and the causal analysis of public support. Science, 386(6721), 490-492.

679 20. Campos-Mercade, P., Meier, A. N., Pope, D., & Schneider, F. H. (2023). Motivating
680 vaccination with financial incentives. Trends in Cognitive Sciences, 27(12), 1099-1101.
681 21. Titmuss, R. M. (1970). The Gift Relationship: From Human Blood to Social Policy. Policy
682 Press.
683 22. Sandel, M. J. (2012). What money can't buy: the moral limits of markets. Macmillan.
684 23. Bowles, S. (2008). Policies designed for self-interested citizens may undermine the “moral
685 sentiments”: Evidence from economic experiments. Science, 320(5883), 1605-1609.
686 24. Satz, D. (2010). Why some things should not be for sale: The moral limits of markets.
687 Oxford University Press.
688 25. Bowles, S., & Polania-Reyes, S. (2012). Economic incentives and social preferences:
689 substitutes or complements?. Journal of Economic Literature, 50(2), 368-425.
690 26. Frey, B. S., & Oberholzer-Gee, F. (1997). The cost of price incentives: An empirical analysis
691 of motivation crowding-out. The American economic review, 87(4), 746-755.
692 27. Bénabou, R., & Tirole, J. (2003). Intrinsic and extrinsic motivation. The Review of
693 Economic Studies, 70(3), 489-520.
694 28. Ellingsen, T., & Johannesson, M. (2008). Pride and prejudice: The human side of incentive
695 theory. American economic review, 98(3), 990-1008.
696 29. Cryder, C. E., London, A. J., Volpp, K. G., & Loewenstein, G. (2010). Informative
697 inducement: Study payment as a signal of risk. Social science & medicine, 70(3), 455-464.
698 30. Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. Journal of
699 personality and Social Psychology, 18(1), 105.
700 31. Gneezy, U., & Rustichini, A. (2000). Pay enough or don’t pay at all. The Quarterly journal of
701 economics, 115(3), 791-810.

32. Falk, A., & Kosfeld, M. (2006). The hidden costs of control. American Economic Review, 96(5), 1611-1630.
33. Jecker, N. S. (2021). Cash incentives, ethics, and COVID-19 vaccination. Science, 374(6569), 819-820.
34. Diepeveen, S., Ling, T., Suhrcke, M., Roland, M., & Marteau, T. M. (2013). Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis. BMC public health, 13(1), 1-11.
35. Ambuehl, S., Niederle, M., & Roth, A. E. (2015). More money, more problems? Can high pay be coercive and repugnant?. American Economic Review, 105(5), 357-360.
36. Elias, J. J., Lacetera, N., & Macis, M. (2019). Paying for kidneys? A randomized survey and choice experiment. American Economic Review, 109(8), 2855-2888.
37. Hoskins, K., Ulrich, C. M., Shinnick, J., & Buttenheim, A. M. (2019). Acceptability of financial incentives for health-related behavior change. Preventive Medicine, 126, 105762.
38. Ambuehl, S., Ockenfels, A., & Stewart, C. (2022). Who opts in? composition effects and disappointment from participation payments. Review of Economics and Statistics, 1-45.
39. List, J. A., & Gallet, C. A. (2001). What experimental protocol influence disparities between actual and hypothetical stated values?. Environmental and resource economics, 20, 241-254.
40. Vossler, C. A., Doyon, M., & Rondeau, D. (2012). Truth in consequentiality: theory and field evidence on discrete choice experiments. American Economic Journal: Microeconomics, 4(4), 145-171.
41. Bernheim, B. D., Björkegren, D., Naecker, J., & Pollmann, M. (2022). Causal inference from hypothetical evaluations (No. w29616). National Bureau of Economic Research.

42. Banerjee, A. V., Duflo, E., & Kremer, M. (2016). The influence of randomized controlled trials on development economics research and on development policy. The state of Economics, the state of the world, 482-488.
43. Haushofer, J., & Metcalf, C. J. E. (2020). Which interventions work best in a pandemic?. Science, 368(6495), 1063-1065.
44. Campos-Mercade, P., Meier, A. N., Meier, S., Pope, D., Schneider, F. H., & Wengström, E. (2024). Incentives to Vaccinate. Working paper.
45. Dai, H., Saccardo, S., Han, M. A., Roh, L., Raja, N., Vangala, S., ... & Croymans, D. M. (2021). Behavioural nudges increase COVID-19 vaccinations. Nature, 597(7876), 404-409.
46. Bartoš, V., Bauer, M., Cahlíková, J., & Chytilová, J. (2022). Communicating doctors' consensus persistently increases COVID-19 vaccinations. Nature, 606(7914), 542-549.
47. Meriggi, N. F., Voors, M., Levine, M., Ramakrishna, V., Kangbai, D. M., Rozelle, M., ... & Mobarak, A. M. (2024). Last-mile delivery increases vaccine uptake in Sierra Leone. Nature, 627(8004), 612-619.
48. Milkman, K. L., Ellis, S. F., Gromet, D. M., Jung, Y., Luscher, A. S., Mobarak, R. S., ... & Duckworth, A. L. (2024). Megastudy shows that reminders boost vaccination but adding free rides does not. Nature, 631(8019), 179-188.
49. Ruggeri, K., Stock, F., Haslam, S. A., Capraro, V., Boggio, P., Ellemers, N., ... & Willer, R. (2024). A synthesis of evidence for policy from behavioural science during COVID-19. Nature, 625(7993), 134-147.
50. Hagmann, D., Ho, E. H., & Loewenstein, G. (2019). Nudging out support for a carbon tax. Nature Climate Change, 9(6), 484-489.

51. Banerjee, A., Duflo, E., Finkelstein, A., Katz, L. F., Olken, B. A., & Sautmann, A. (2020). In praise of moderation: Suggestions for the scope and use of pre-analysis plans for rcts in economics (No. w26993). National Bureau of Economic Research.

Acknowledgments: We are grateful to Marcella Alsan, Sandro Ambühl, Douglas Bernheim, Jordi Brandts, Afonso Câmara Leme, Anna Dreber, Robert Dur, Jana Gallus, Nandita Gupta, Nicola Lacetera, John List, Stephan Meier, Katie Milkman, Devin Pope, Joanna Rachubik, Pedro Rey-Biel, Alvin Roth, Shusaku Sasaki, Robert Stüber, Jean-Robert Tyran, Vanessa Valero, Erik Wengström, and Daniel Wiesen. We also thank seminar and conference participants at CESifo, Chicago Booth, Erasmus University Rotterdam, ESA, Field Days Workshop, GATE Lyon Saint-Etienne, German Society of Health Economics Workshop, Hitotsubashi University, LMU Munich, Lund University, M-BEES, Middlebury College, NCBEE, Osaka University, Stanford, Stanford Institute for Theoretical Economics (SITE), UCLA Anderson, University of Bologna, University d'Aix-Marseille, University of Copenhagen, University of Oxford, University of Southern Denmark, University of Tokyo, University of Verona, University of Zurich, and WZB Berlin Social Science Center for helpful comments and suggestions. We acknowledge funding from the Jan Wallanders och Tom Hedelius stiftelse samt Tore Browaldhs stiftelse and the Knut and Alice Wallenberg Foundation (Campos-Mercade), the Swiss National Science Foundation Grant PZ00P1_201956 (Meier), the Danish National Research Foundation Grant DNRF134 (Schneider), the Economic Policy Research Network (EPRN) grant 126220 (Schneider) and the Swiss National Science Foundation Grant 100018_185176 (Weber).

Author contributions: Conceptualization: PCM, ANM, FHS, RAW; Methodology: PCM, ANM, FHS, RAW; Investigation: PCM, ANM, FHS, RAW; Visualization: PCM, ANM, FHS, RAW; Funding acquisition: PCM, ANM, FHS, RAW; Project administration: PCM, ANM, FHS, RAW; Supervision: PCM, ANM, FHS, RAW; Writing – original draft: PCM, ANM, FHS, RAW; Writing – review & editing: PCM, ANM, FHS, RAW.

Competing interests: The authors declare that they have no conflict of interests that relates to the research described in this study. Authors do not have any paid or unpaid position as officer, director, or board member of an organization whose policy positions, goals, or financial interests relate to the article. Neither does any partner or any close relative have such a position.