Understanding Public Attitudes towards Health Policy

Florian H. Schneider (PI, University of Copenhagen and CEBI)¹

in collaboration with **Pol Campos-Mercade** (Lund University), **Armando Meier** (University of Basel), **Roberto Weber** (University of Zurich)

Application for EPRN Network, October 2024

Motivation

Much of the public and private burden of diseases is linked to modifiable individual behaviors, such as smoking, unhealthy eating, and not vaccinating (WHO 2023). To improve healthy behaviors, governments use various policies, including providing information, nudges and monetary incentives (Brewer et al. 2017). In our earlier work, we found that monetary incentives are particularly effective in promoting healthy behaviors (Campos-Mercade et al. *Science* 2021; Schneider et al. *Nature* 2023; see also Charness & Gneezy *Econometrica* 2009; Milkman et al. *Nature* 2021). However, such payments have been a source of controversy among academics and the public, and our previous results have sparked heated debates, with many arguing against the use of monetary incentives (e.g., Jecker *Science* 2021; Sutherland *Nature* 2023). The reason why incentives to promote healthy behaviors are unpopular in the general public, which can cause great harm to the achievement of public health goals (see discusion in section "Policy relevance"), are not well understood. More generally, little is known about what health policies the public accepts and what factors determine their support.

This project bridges this gap by examining the factors that shape public attitudes toward offering monetary incentives and other policies designed to promote healthy behaviors. We are particularly interested in how *effective* people perceive different policies to be, how people trade off the efficacy and *costs* of interventions, whether they have concerns about *unintended negative* consequences (such as the crowding out of prosocial and intrinsic motivations), and whether they view some policies as *inherently immoral*. While these factors are central to academic discussions around health policy (as discussed in the section "Contribution to the Academic Literature"), previous research has not yet addressed the question whether these concerns are shared by the public and how they shape policy attitudes.

¹ University of Copenhagen, Department of Economics, Øster Farimagsgade 5, København K; email: flsc@econ.ku.dk

Approach

To measure policy attitudes, we will use incentive-compatible methods from behavioral science and develop a field-experimental framework, which we label the *Policy Lab*. In the Policy Lab, some participants, the *policy planners*, are tasked with deciding whether to implement different health policies to a group of other participants, the *policy targets*. The choices of planners are then implemented, meaning that planners' decisions have actual consequences. For instance, policy planners will decide whether to offer a monetary payment for a specific healthy behavior; depending on their choice, the policy targets will either be incentivized or not. This project will focus on policies aimed at encouraging COVID-19 vaccination and organ donation registration—critical health behaviors where we can implement policy planners' choices.

To measure attitudes toward vaccination policies, the policy targets will be individuals in Sweden who have not yet completed their recommended COVID-19 vaccination schedule. For organ donation, the targets are those who have not registered as donors. Sweden provides an ideal setting, as we can collaborate with the Public Health Agency of Sweden to implement policy planners' choices, building on our successful prior collaborations (Campos-Mercade et al. 2021, 2023, 2024; Schneider et al. 2023). Note, however, that the Policy Lab can be adapted to any policy context, making it a valuable tool for science.

Within this framework, we will study attitudes toward two widely discussed policies that differ in cost and effectiveness: (1) a monetary incentive policy offering targets a small payment for vaccination and organ donation registration, respectively, and (2) a reminder policy that informs targets of their option to get vaccinated and to register for organ donation, respectively. Previous studies suggest that monetary incentives are substantially more effective, though also more costly. Within each policy type, we will not only compare the two health domains (vaccination versus organ donation registration), but also vary multiple other elements. First, we will vary the incentive size, and second, we will vary overhead costs, allowing us to provide causal evidence on the role of cost considerations.

After gathering attitudes toward these health interventions, we will measure beliefs about their impacts on vaccination uptake, prosocial motivation, vaccine safety perceptions, and feelings of pressure. Participants will be asked to estimate the treatment effects of each policy on these outcomes and will be incentivized for accuracy. Capturing these beliefs is essential to understanding the foundational drivers of policy attitudes (see "Contribution to the Literature" section).

To assess the generalizability of our findings, we will complement our data from Sweden with evidence from several other countries, including Denmark, France, Spain, the U.S., the

U.K., India, and Brazil. For this purpose, we will design a shorter version of the policy planner study.

As a final note, we are only requesting funding for the policy planner studies, not for the policy targets studies. The policy target studies will be implemented as part of a separate randomized controlled trial (RCT) aimed at encouraging vaccination uptake and organ donation registration, for which funding has already been secured. We will implement the choices of the planners by assigning some RCT participants (the policy targets) to interventions based on the preferences of the policy planners. This also demonstrates that our approach is portable and can be integrated with any RCT to assess not only the effectiveness but also the public acceptance of interventions.

Policy Relevance

In this project, we examine public attitudes toward different policies designed to encourage healthy behaviors. Specifically, we study attitudes in the contexts of vaccination and organ donation registration—two critical areas of public health. High vaccination rates are essential for protecting public health, yet achieving them often requires governmental intervention. Similarly, the demand for organ transplants far exceeds the available supply; for instance, in 2021, over 11,000 patients in the U.S. died or became too sick to undergo transplant while waiting for a donor organ (Sullivan, 2023). Monetary incentives have been identified as particularly effective for promoting both vaccination and organ donation (e.g., Roth 2007; Campos-Mercade et al., 2021). However, these incentives are often a source of public controversy. This project aims to understand the roots of public opposition to monetary incentives and other policies.

Hence, our project will contribute imporant insights into public attitudes toward health policies. Understanding these attitudes is essential for effective policymaking: First, public opposition can hinder the implementation of otherwise effective policies or reduce their efficacy once implemented (Oliver, 2006; Roth and Wang, 2020). To promote healthy behaviors like vaccination and organ donation, it is therefore crucial to understand the public's concerns and preferences. Second, policymakers may aim to design policies that reflect the population's preferences. Third, our focus on the importance of cost considerations is particularly relevant in light of rising global health costs. Aging populations place additional strain on public health budgets, underscoring the need for policies that can reduce health expenditures. Effective policy design requires a deeper understanding of how cost considerations influence policy attitudes.

Contribution to the Academic Literature

There has been a recent effort to better understand attitudes towards various policies, including environmental and redistributive policies (Kuziemko et al. *AER* 2015; Almås et al. *JPE* 2020; Stantcheva *QJE* 2021; Hvidberg et al., *ReStud* 2023). Attitudes in the area of health policy are less well understood. Work in economics mostly focused on prosocial health-related behaviors such as organ donations. Nobel-prize winner Al Roth famously pointed out that people seem to dislike offering payments for organ donations (Roth 2007), which was confirmed in surveys (Ambühl, Niederle & Roth *AER* 2015; Ambühl & Ockenfels *AER* 2017; Elías, Lacetera and Macis *AER* 2019). However, there are two key limitations to the existing work.

The first limitation is that all existing work measures policy attitudes through hypothetical choice scenarios. However, responses in hypothetical scenarios are often systematically biased ("hypothetical bias", see List & Gallet 2001; FeldmanHall et al. 2012; Vossler et al. 2012). We currently lack a method to reliably measure attitudes.

The second limitation is that the underlying foundations that drive opposition for different policies are not well understood. There is a large theoretical literature in economics, psychology and public health that argues against the use of some policies to promote health behaviors, including offering monetary incentives. Worries include that they may crowd out prosocial and intrinsic motivations and reduce perceived safety, thereby also reducing healthy behavior (e.g., Titmuss 1970; Deci 1971; Gneezy & Rustichini, 2000; Frey & Jegen 2001; Sandel 2012; Bowles & Polanía-Reyes 2012; Cryder et al. 2010; Schneider et al. 2023). Existing research does not address whether these concerns are shared by the public, to which policies they apply, and whether they influence policy attitudes. Moreover, health policies can substantially impact governmental spending. Yet, current research provides limited insight into whether individuals consider impacts on public resources when deciding to support or oppose specific health policies.

Our experimental design, the *Policy Lab*, overcomes these limitations. We employ a state-of-the art approach from behavior sciences that elicits characteristics through choices with real consequences, thereby avoiding "hypothetical bias". Moreover, our design enables us to precisely measure people's beliefs regarding the impacts of policies on different outcomes and cost considerations, thus allowing us to study the underlying factors driving policy attitudes.

Timeline and Expected Output

This project will run from February 2025 to January 2027. The following table outlines our planned timeline. Our goal is to publish a comprehensive and well-rounded paper in a peer-reviewed general interest or economics journal (e.g., *Nature*, *AER*, *JEEA*). To maximize

academic impact, we will seek feedback through international workshops (see budget). Given the relevance for policy design, we also plan to share our findings with policymakers in Denmark, Sweden, and more broadly across Europe.

All applicants have extensive experience with the topics of the proposed project. The Principal Investigator, Florian Schneider, will lead the project, drawing on his expertise in understanding moral values and the impact of monetary incentives on health behaviors. Pol Campos-Mercade (Lund University) specializes in designing field experiments using monetary incentives to influence behaviors. Armando Meier (University of Basel) is an expert in Health Economics. Florian, Pol, and Armando will conduct the studies, utilizing their expertise in largescale field experiments, data collection, and ensuring data security and participant anonymity. They have successfully conducted monetary incentives interventions for vaccination in Sweden, with findings published in high-impact journals such as Science and Nature (Campos-Mercade et al., 2021, 2024; Schneider et al., 2023). Roberto Weber (University of Zurich) is an expert on the role of moral preferences in decision-making and and has published extensively in leading journals on this subject, including the Quarterly Journal of Economics and the American Economic Review (e.g., Hamman, Loewenstein, and Weber 2010; Bartling, Weber and Yao, Bartling, Valeor, Weber and Yao, 2024). Moreover, we will use the research 2015; infrastructure, including world leading researchers in survey experiments (e.g., Stefanie Stantcheva) at the DNRF center of excellence "Center for Economic Behavior and Inequality".

Date	Item
February 2025 – June 2025	Designing the study
July - August 2025	Data collection policy planner study (Swedish sample and International sample)
September- October 2025	Data collection policy target study (as part of independent randomized controlled trials)
November 2025 – March 2026	Data analysis and write-up paper
April 2026 – Decemeber 2026	Presentation of paper at scientific workshops and conference; incorporating feedback
January 2027	First journal submission

Literature

- Almås, I., Cappelen, A. W., & Tungodden, B. (2020). Cutthroat capitalism versus cuddly socialism: Are Americans more meritocratic and efficiency-seeking than Scandinavians?. Journal of Political Economy, 128(5), 1753-1788.
- Ambühl, 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.
- Ambühl, S., & Ockenfels, A. (2017). The ethics of incentivizing the uninformed: A vignette study. American Economic Review, 107(5), 91-95.
- Bartling, B., Weber, R. A., & Yao, L. (2015). Do markets erode social responsibility?. The Quarterly Journal of Economics, 130(1), 219-266.
- Bartling, B., Valero, V., Weber, R. A., & Yao, L. (2024). Public discourse and socially responsible market behavior. American Economic Review, 114(10), 3041-3074.
- Bowles, S., & Polania-Reyes, S. (2012). Economic incentives and social preferences: substitutes or complements?. Journal of Economic Literature, 50(2), 368-425.
- 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.
- Campos-Mercade, P., Meier, A. N., Schneider, F. H., Meier, S., Pope, D., & Wengström, E. (2021). Monetary incentives increase COVID-19 vaccinations. Science, 374, 879-882.
- Campos-Mercade, P., Meier, A. N., Pope, D., & Schneider, F. H. (2023). Motivating vaccination with financial incentives. Trends in Cognitive Sciences, 27(12), 1099-1101.
- Campos-Mercade, P., Meier, A. N., Meier, S., Pope, D., Schneider, F. H., & Wengström, E. (2024). Incentives to Vaccinate. Working paper.
- Charness, G., & Gneezy, U. (2009). Incentives to exercise. Econometrica, 77(3), 909-931.
- Cryder, C. E., London, A. J., Volpp, K. G., & Loewenstein, G. (2010). Informative inducement: Study payment as a signal of risk. Social science & medicine, 70(3), 455-464.
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. Journal of personality and Social Psychology, 18(1), 105.
- Elías, J. J., Lacetera, N., & Macis, M. (2019). Paying for kidneys? A randomized survey and choice experiment. American Economic Review, 109(8), 2855-2888.
- FeldmanHall, O., Mobbs, D., Evans, D., Hiscox, L., Navrady, L., & Dalgleish, T. (2012). What we say and what we do: The relationship between real and hypothetical moral choices. Cognition, 123(3), 434-441.
- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory. Journal of economic surveys, 15(5), 589-611.
- Gneezy, U., & Rustichini, A. (2000). A fine is a price. The journal of legal studies, 29(1), 1-17.

- Hamman, J. R., Loewenstein, G., & Weber, R. A. (2010). Self-interest through delegation: An additional rationale for the principal-agent relationship. American Economic Review, 100(4), 1826-1846.
- Hvidberg, K. B., Kreiner, C. T., & Stantcheva, S. (2023). Social positions and fairness views on inequality. Review of Economic Studies, 90(6), 3083-3118.
- Kuziemko, I., Norton, M. I., Saez, E., & Stantcheva, S. (2015). How elastic are preferences for redistribution? Evidence from randomized survey experiments. American Economic Review, 105(4), 1478-1508.
- Jecker, N. (2021). Cash incentives, ethics, and COVID-19 vaccination. Science, 374, 819-820.
- List, J. A., & Gallet, C. (2001). "hat Experimental Protocol Influence Disparities Between Actual and Hypothetical Stated Values? Environmental and Resource Economics 20, 241–254.
- Milkman, K. L. et al. (2021). Megastudies improve the impact of applied behavioural science. Nature, 600(7889), 478-483.
- Oliver, T. R. (2006). The politics of public health policy. Annual Review of Public Health, 27(1), 195-233.
- Roth, A. E. & Wang, S. W. (2020). Popular repugnance contrasts with legal bans on controversial markets. PNAS, 117(33), 19792–19798.
- Roth, A. E. (2007). Repugnance as a Constraint on Markets. Journal of Economic perspectives, 21(3), 37-58.
- Sandel, M. J. (2012). What money can't buy: the moral limits of markets. Macmillan.
- 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, 613(7944), 526-533.
- Stantcheva, S. (2021). Understanding tax policy: How do people reason?. The Quarterly Journal of Economics, 136(4), 2309-2369.
- Sullivan, C. D. (2022). Eliciting preferences over life and death: Experimental evidence from organ transplantation. Working paper.
- Sutherland, M. E. (2023). Vaccine incentives do not backfire policymakers take note. Nature, 613, 215.
- Titmuss, R. M. (1970). The gift relationship. From human blood to social policy. The gift relationship. From human blood to social policy.
- Vossler, C. A., M. Doyon, and D. Rondeau (2012). Truth in consequentiality: Theory and field evidence on discrete choice experiments. American Economic Journal: Microeconomics 4 (4), 145–71.
- WHO (2023). The contribution of behavioural science to addressing the social and wider determinants of health; evidence review.