Supplementary Information

A Model

In this section we develop the model that underlies the discussion in the text.

There is a set of n players indexed $1,\ldots,n$. Each player must choose a binary action $a_i \in \{v, \neg v\}$, where we interpret v as getting vaccinated and $\neg v$ as as not getting vaccinated. In the first stage 0, nature draws a Bernoulli random variable X that determines the *state of the world* ω. It takes value 0 with probability p, and 1 with probability $1-p$. We interpret the state being 0 as meaning that the vaccine is unsafe, while 1 means it is safe.

Each player, without observing the draw made by nature, receives a signal informative about the intended actions of others and hence (possibly) also about the state of the world (whether the vaccine is safe or not). We denote the signal received by person i by $s_i \in [0,1]$. When i's expectation about the proportion of the population getting vaccinated is strictly increasing in s_i (see Proposition 2 below) it is without loss to instead let each player directly receive a signal about the proportion of people being vaccinated (as we do in the main part of the paper).

Conditional on the state of the world being 0, and hence the vaccine being safe, each signal s_i is drawn independently from a distribution with Cumulative Distribution Function (CDF) F_i. Conditional on the vaccine being unsafe, each signal s_i is drawn independently from a different distribution with CDF G_i. The assumption of conditional independence is strong in this context, however we could allow for a public signal to also be observed, hence correlating the information that the players get, without our theoretical results being affected. These signals are private information and we assume that F_i and G_i have differentiable densities f_i and g_i, respectively, each defined on $[0,1]$, such that $f_i(s) > 0$ and $g_i(s) > 0$ for all $s \in [0,1]$ and for all i. By these assumptions, the ratio $g_i(s)/f_i(s)$ is well defined. This corresponds to expert i's odds ratio on the event that the vaccine is unsafe (i.e., $X = 1$) after observing a signal $S_i = s$. That is,

$$\frac{g_i(s)}{f_i(s)} = \frac{\Pr_i(X = 1|s_i = s)}{\Pr_i(X = 0|s_i = s)}.$$

Note that we can order the signals in the domain $[0,1]$ such that this odds ratio is a weakly increasing function of s for all i. With this reordering, higher signals indicate the vaccine is less likely to be safe. We assume something slightly stronger—that this odds ratio is a *strictly* increasing function of s for all i. This is known as the *monotone likelihood ratio assumption*.

Note that, via a change of variables, we may assume without loss of generality that $F_i(s) = s$ for all $s \in [0,1]$: that is, we may assume that S_i is uniformly distributed when the vaccine is safe ($\omega = 1$). This makes $f_i(s)$ the uniform density. It also makes $g_i(s)$ equal to the odds ratio. An immediate implication of this change of variable, due to the monotone likelihood ratio assumption, is that $g_i(s)$ is strictly increasing in s.

After observing the signal s_i player i updates her belief that the vaccine is safe according to Bayes' rule. By construction, this posterior belief that the vaccine is safe is strictly decreasing in s_i.

Each player's strategy (complete and contingent plan for what to do) is a mapping from the signals they might get into a probability distribution over the binary choice of whether to take the vaccine or not: a function $\sigma_i : [0,1] \to [0,1]$, with $\sigma_i(s)$ indicating the probability that the player gets vaccinated conditional on observing signal $s_i = s$. We also assume that no signal $s_i \in [0,1]$ is fully informative.

Letting $\sigma = (\sigma_i)_{i \in N}$ be the profile of strategies played by each player and θ_i be proportion of people i expected to get vaccinated given σ, player i's expected payoff conditional on their observed signal s_i is

$$U_i(\sigma|s_i) = -(1-\sigma_i)(\alpha d(\theta_i) + e(\theta_i)) - \sigma_i \mathbb{E}(1-\omega|s_i)c.$$

The function $d(\theta_i)$ can be understood as the expected probability that person i gets infected by the disease when i expects a proportion θ_i of the population to get vaccinated, α as the expected cost of getting infected, $e(\theta_i)$ as the cost of violating the social norm of getting vaccinated, and c is the cost of getting vaccinated when the vaccine is unsafe. Recall that we assume that $d(\theta_i)$ is strictly decreasing in θ_i (the risk of getting infected is higher when fewer people are vaccinated) and that $e(\theta_i)$ is increasing in θ_i (the cost of violating the social norm to get vaccinated is higher when more other people are getting vaccinated). Note that when $\sigma_i = 0$, such that person i gets vaccinated for sure, i's expected payoff U_i does not depend on $d(\theta_i)$ (the vaccine is perfectly effective) or $e(\theta_i)$ (the person conforms to the social norm of getting vaccinated). Similarly, if i surely does not get the vaccine, then the expected payoff does not depend on the cost of taking an unsafe vaccine c.

Person i's expectation about the proportion of others that will take the vaccine θ_i depends in principle on both their direct information related to others' intended choices s_i (which might be inferred from news sources, social media, conversations with friends, and so on), as well as how person i expects others to use the information they gain—how does the information collected by others translate into their vaccination decisions.

Lastly, we assume that if there is zero probability the vaccine is dangerous (i.e., $p = 0$), then all players want to get vaccinated.

A.1 The case without Free-riding or Social Norms

We first develop predictions under the assumptions that free-riding incentives do not vary with θ, and that incentives to follow Social Norms also do not vary with θ—i.e., the functions $d(\theta)$ and $e(\theta)$ are both constant functions.

We prove now that each player i plays a cut-off strategy—player i takes the vaccine for sure (i.e., $\sigma_i = 1$) if $s_i < s^*$ and does not take the vaccine for sure (i.e., $\sigma_i = 0$) if $s_i > s^*$.

Proposition 1. *There is an equilibrium in which all players play cutoff strategies with identical cutoffs—there exists a value $s^* \in [0,1]$ such that in equilibrium $\sigma_i = 1$ for all i if $s_i < s^*$ and $\sigma_i = 0$ if $s_i > s^*$.*

All proof appear in Section A.2 below.

Let $r(s)$ be the probability that a person places on the vaccine being safe after observing the signal s. Note that

$$r(s) := \Pr_i(\omega = 1 | S_i = s) = \frac{pg(s)}{pg(s) + (1-p)},$$

and $r(s)$ is strictly increasing in s.

In equilibrium, when all players are playing cut-off strategies with cut-off s^*, conditional on the vaccine being safe the probability another player selected at random is vaccinated is s^* (as signals are uniformly distributed when the vaccine is safe). This probability is $G(s^*)$ conditional on the vaccine being unsafe. Conditional on the vaccine being safe, let the probability that the proportion of people other than a given player taking the vaccine is $k/n-1$ be $\hat{\theta}_k$ and, denote by $\tilde{\theta}_k$ let the probability the proportion of people other than a given player taking the vaccine is $k/n-1$ conditional on the vaccine being unsafe. That is,

$$\hat{\theta}_k := \frac{\binom{k}{n-1} (s^*)^k (1-s^*)^{n-1-k}}{n-1} \tag{1}$$

$$\tilde{\theta}_k := \frac{\binom{k}{n-1} (G(s^*))^k (1-G(s^*))^{n-1-k}}{n-1} \tag{2}$$

Thus, conditional on observing a signal s, a player expects the proportion of people taking the vaccine to be

$$\phi(s) := r(s)\left[\sum_{i=1}^{n-1}\left(\frac{k}{n-1}\right)\tilde{\theta}_k\right] + (1-r(s))\left[\sum_{i=1}^{n-1}\left(\frac{k}{n-1}\right)\hat{\theta}_k\right].$$

Let s' be the unique value of s at which $g(s) = 1$. At this value of s, there is equal probability of the vaccine being safe and unsafe.[18] Note that $0 < s' < 1$.

[18] Uniqueness follows from $g(s)$ being strictly increasing.

Proposition 2.

(i) $\phi(s)$ *is increasing in* s.

(ii) *If* $s < s'$ *then* $\phi(s) > s$.

(iii) *If* $s > s'$ *then* $\phi(s) < s$.

By Proposition 2(i), $\phi(s)$ is strictly increasing in s. This implies that it is without loss to think about players receiving signals directly about the others' actions. This is what we do in the main body of the paper, setting $\theta = \phi(s)$.

The importance of Proposition 2 is the contrasting shape of the beliefs of individual i about others' choices ($\phi(s)$) in comparison to her own choice ($\sigma(s)$). Although both $\phi(s)$ and $\sigma(s)$ are weakly increasing in s, for cut-off $0 < s^* < 1$, player i chooses $\sigma(s) = 0$ for all $s < s^*$ while $\phi(s) > 0$ for all $s < s'$, and i chooses $\sigma(s) = 1$ for all $s > s^*$ while $\phi(s) < 1$ for all $s > s'$. This implies that the relationship between own actions and beliefs about others actions cannot lie along the 45 degree line. For low values of $s_i < \min(s', s^*)$ indicating that the vaccine is unlikely to be safe person i we will take the vaccine with probability $\sigma(s_i) < \phi(s_i)$. For high values of $s_i > \max(s', s^*)$ indicating that the vaccine is likely to be safe person i will take the vaccine with probability $\sigma(s_i) > \phi(s_i)$.

If the shape of own choices in comparison to beliefs does not satisfy this relationship we have grounds to reject the null hypothesis that neither Social Norms nor Free-riding affect shape how choices depend on s.

A.2 Proofs

A.2.1 Proof Proposition 1

Consider person i and fix any strategy profile $\sigma_{-i} \in [0,1]^{n-1}$ for the other people. Recall that for $s_i = s$,

$$r(s) = \Pr_i(\omega = 1 | S_i = s) = \frac{pg(s)}{pg(s) + (1-p)}.$$

and that $r(s)$ is strictly increasing in s.

Given that others are playing cut-off strategies with cut off s^*, conditional on the vaccine being safe the probability another player is vaccinated is s^* (as signals are uniformly distributed when the vaccine is safe) and $G(s^*)$ conditional on the vaccine being unsafe.

The expected utility to expert 1 of getting vaccinated with probability σ_i is then:

$$U_i(\sigma_i, \sigma_{-i} | s_i = s) = -(1-\sigma_i)\Phi - \sigma_i [r(s)c],$$

where $\Phi \in \mathbb{R}$ is a constant.

Thus i will get vaccinated for sure and choose $\sigma_i = 1$ if $\Phi > r(s)c$, and $\sigma_i = 0$ if the opposite inequality holds. Note that if $p = 0$ then $r(s) = 0$ for all $s \in [0,1]$. Hence, by assumption $\Phi > 0$. It therefore follows that for $r(s)$ sufficiently small, player i will get vaccinated for sure. On the other hand, if $cr(1) \leq \Phi$ then even for the strongest possible signal that the vaccine is unsafe, player i still gets vaccinated. Whether this holds or not, player i's best response is a cutoff. Either i never switches (and has the trivial cut off of 1) or above some critical value of s player i switches and does not get vaccinated for sure. Let s_{crit} denote this cut off. As the above analysis holds when $s^* = s_{\text{crit}}$, this completes the proof. ■

A.2.2 Proof of Proposition 2

Observe that if $r(s) = p$ then by the definition of $r(s)$, the odds ratio is $g(s) = 1$ and hence both states of the world are equally likely. Thus, if $r(s) = p$ we must have $s = s'$. Hence, if $r(s) > p$, then $s > s'$ and if $r(s) < p$, then $s < s'$.

As $g(s)$ is strictly increasing in s, for all $s^* < 1$, $G(s^*) < s^*$. Thus for all s^* the CDF associated with the probability mass function $(\tilde{\theta}_k)_{k=1}^{n-1}$ first order stochastically dominates the CDF associated with the probability mass function $(\hat{\theta}_k)_{k=1}^{n-1}$. So for all s^*,

$$\sum_{i=1}^{n-1} \left(\frac{k}{n-1}\right) \tilde{\theta}_k > \sum_{i=1}^{n-1} \left(\frac{k}{n-1}\right) \hat{\theta}_k.$$

Thus

$$0 < \sum_{i=1}^{n-1} \left(\frac{k}{n-1}\right) \hat{\theta}_k \leq \phi(s) \leq \sum_{i=1}^{n-1} \left(\frac{k}{n-1}\right) \tilde{\theta}_k < 1.$$

As $r(s)$ is increasing in s this establishes (i)-(iii). ■

B Additional Analysis

What Determines Own Determinants Uptake and Beliefs about Others? Reg.(1) in Table S.1 reports the results of a *probit* regressing of the indicator for taking vaccine on all personal characteristics of participants we elicited. In line with Figure 1 presented in the main body, we find that males, democrats, participants with higher income, and older participants are more likely to vaccinate. We find no significant effect of risk attitudes, but a positive and significant one for one of the dimensions of overconfidence (overprecision).

Reg.(2) in Table S.1 analyzes the determinants of beliefs about the uptake rate of other respondents. We find that males and democrats have higher beliefs about uptake rates, while subjects with high income (above 100k) have lower beliefs about uptake rates of others. There is no significant relation between these beliefs and education or age. Notably, risk attitudes and overconfidence are significantly related, with higher beliefs associated with higher willingness to take risks and higher degree of overplacement and overprecision.

Regression Analysis of Own Uptake and Beliefs about Behavior of Others. Table S.2 presents marginal effects after probit estimations of own uptake rate on beliefs about others, without any control (Reg. (1)), and controlling for all personal characteristics of participants we have elicited (Reg. (2)). Both regressions show that a 10% increase in beliefs about others' uptake rate has an average effect of 6.8% increase in own uptake rate.

Beliefs about Behavior of Others by Gender and Political Attitudes. Figure S.1 depicts Kernel distributions of beliefs about behavior of others separately for each of the four categories discussed in Panel (b) of Figure 2: male Democrats, male non-Democrats, female Democrats and female non-Democrats. The four distribution functions are very similar. Indeed, the average beliefs about others' uptake rate is 64.27% for male Democrats, and 62.01% for male non-Democrats, 62.02% for female Democrats, and 59.80% for female non-Democrats. The Wilcoxon Ranksum test of the equality of medians performed for any pair of groups cannot reject the hypothesis that the two groups have the same median belief using the standard 5% significance level ($p > 0.05$ for all pairwise comparisons). The one exception is the comparison between male Democrats and female non-Democrats, for which the median belief in the latter group is significantly lower than that in the former group ($p = 0.0061$). Despite statistical difference, the absolute difference is small (64.27% vs. 59.80%) and non-consequential from economic perspective.

Analyzing the Shape of Own Uptake as a Function of Beliefs about Others' Behavior. Table S.3 is the companion information to Panel (a) of Figure 2 in the main body. We

Table S.1: Determinants of Own Uptake Rates and Beliefs about Others

	Reg. (1)	Reg. (2)
Male$^{(o)}$	0.10** (0.03)	2.31** (1.05)
Education		
some college$^{(o)}$	-0.02 (0.04)	-1.06 (1.30)
college graduate or higher degree$^{(o)}$	0.006 (0.04)	-1.59 (1.59)
Income		
between 50K and 100K$^{(o)}$	0.09** (0.03)	-1.45 (1.30)
above 100K$^{(o)}$	0.13** (0.04)	-2.77* (1.59)
Political attitudes		
Democrat or Leaning Democrat$^{(o)}$	0.13** (0.03)	2.13** (0.98)
Age		
below 30$^{(o)}$	-0.14** (0.05)	-1.49 (1.84)
b/w 30 and 40$^{(o}$	-0.17** (0.05)	-0.49 (1.72)
b/w 40 and 50$^{(o)}$	-0.16** (0.05)	-0.20 (1.87)
b/w 50 and 60$^{(o)}$	-0.15** (0.06)	2.47 (2.06)
b/w 60 and 70$^{(o)}$	-0.11** (0.06)	0.24 (1.98)
Individual preferences		
Risk attitude	0.003 (0.005)	0.84*** (0.20)
Overconfidence measure 1	0.05** (0.01)	0.90* (0.52)
Overconfidence measure 2	-0.0001 (0.0004)	0.04*** (0.016)
# of obs	1500	1500
Log Likelihood	-986.23	
adjusted R^2		0.0325

Notes: The dependent variable is an indicator for taking vaccine in Reg. (1) and the reported belief about proportion of others who will take the vaccine in Reg. (2). Reg. (1) reports marginal effects after *probit* estimation, while Reg. (2) reports the linear regression. Risk attitude is measured on a scale from 0 to 10 with 0 indicating “not at all willing to take risks" and 10 indicating “very willing to take risks". Overconfidence 1 is the measure of overprecision, while Overconfidence 2 is measure of overplacement (see SI.C for the exact definition of these variable). $^{(o)}$ indicates the change in the propensity to vaccinate as a result of discrete change of dummy variable from 0 to 1 in Reg. (1). ***, **, and * indicate significance at 10%, 5%, and 1% level, respectively.

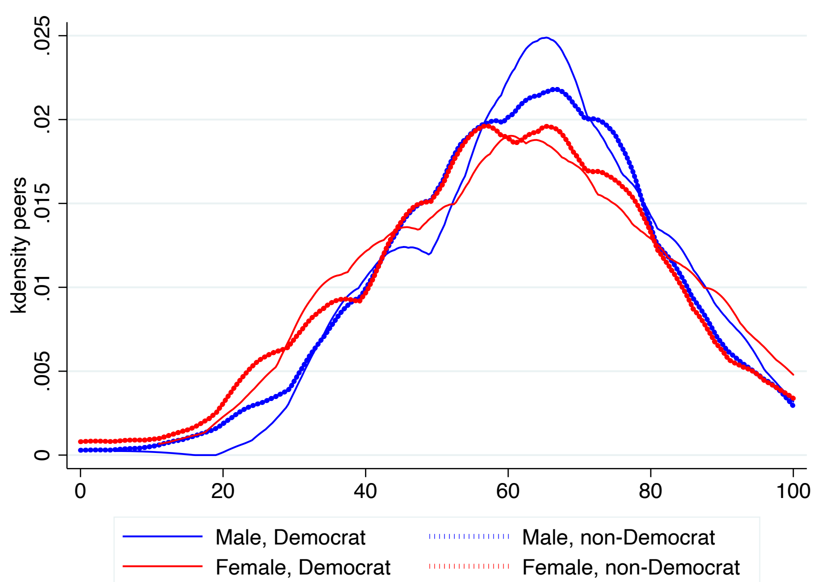
group subjects by their beliefs about others into five bins (0-20%, 20-40%, 40-60%, 60-80%, and 80-100%). In the second column, we report the average belief about others' propensity to vaccinate in each bin, the third column depicts own uptake rate, the fourth

Table S.2: Own Uptake and Beliefs about Others

	Reg. (1)	Reg. (2)
Beliefs about proportion of others who will vaccinate	0.0068*** (0.00071)	0.0068*** (0.00074)
Male*		0.097*** (0.028)
Democrat or Leaning Democrat*		0.12*** (0.027)
70 years old or older*		0.13*** (0.039)
Some college education*		0.0008 (0.033)
Income above 50K*		0.131*** (0.032)
Risk attitude		-0.003 (0.006)
Overconfidence 1		0.04** (0.014)
Overconfidence 2		-0.0004 (0.0005)
# of obs	$n = 1500$	$n = 1500$
Log Likelihood	-983.09	-944.08

Notes: Marginal effects after *probit* estimation is reported. The dependent variable is an indicator of self-declared tendency to vaccinate. The independent variables include the belief about the proportion of others who will vaccinate (an integer number between 0 and 100) and individual controls in the second regression. Risk attitude is measured on a scale from 0 to 10 with o indicating “not at all willing to take risks" and 10 indicating “very willing to take risks". Overconfidence 1 is the measure of overprecision, while overconfidence 2 is measure of overplacement. (*) indicates the change in the propensity to vaccinate as a result of discrete change of dummy variable from 0 to 1.

Figure S.1: Kernel Distributions of Beliefs about Behavior of Others, by Gender and Political Attitudes.



column states the number of observations in each bin, and the last column shows the *p*-value from the Test of Proportions in which we test the hypothesis that the own uptake rate is equal to the proportion of others that would take the vaccine separately for each bin. A *p*-value above 0.05 indicates that we cannot reject the hypothesis (at the standard 5% significance level) that own uptake rates are statistically different from others' uptake rate in the corresponding bin.

Table S.3: Shape of Peoples' Own Propensity to Vaccinate as a Function of Beliefs about the Vaccination Rates of Others.

Range of Beliefs about Others	Av. Belief about Others	Own Uptake	# of obs	Test of Proportions
0% - 19%	10.24%	19.05%	$n = 21$	$p = 0.1831$
20% - 39%	30.75%	25.56%	$n = 133$	$p = 0.1949$
40% - 59%	48.36%	48.07%	$n = 414$	$p = 0.9052$
60% - 79%	67.11%	63.01%	$n = 592$	$p = 0.0336$
80% - 100%	87.85%	69.52%	$n = 292$	$p < 0.0001$

Notes: We group subjects by their beliefs about others into five bins (0-20%, 20-40%, 40-60%, 60-80%, and 80-100%). The last column reports the *p*-value from the Test of Proportions, in which we test whether own uptake rate is equal to the uptake rate of others in the corresponding bin.

Table S.3 provides statistical support to what we see in Figure 2: the average vaccination rates coincide with what people believe others would do for all beliefs below 60% (using the standard significance level of 5%). For beliefs between 60% and 80%, own uptake rates are below those of others but the difference is quite small (63% own uptake rate vs. 67% others uptake rate). At the same time, for beliefs above 80%, participants' own uptake rates are significantly below others' uptake rate and this difference is large in magnitude (almost 20 percentage points).

Table S.4 presents the same type of data as Table S.3 broken down by gender and political attitudes. This is companion information for Panel (b) Figure 2 in the main body. Panel (b) Figure 2 and Table S.4 tell the same story: response function to beliefs about behavior of others is affected by both by gender and political preferences. Specifically, three out of four considered groups (male Democrats, male non-Democrats, and female Democrats) exhibit rates that pretty much track their beliefs about vaccination rates of other citizens.[19] At the same time, female non-Democrats vaccinate at much lower rate than what they believe others would do for any belief above 60%. In fact, for this group, own vaccination rates are significantly lower than those of other groups in the relevant belief region; essentially, these rates stays constant at around 50% for all beliefs above

[19]The only exceptions are a higher own uptake rate of 65% for male Democrats who believe the proportion of others that would vaccinate is between 40% and 60% and a lower uptake rate of 73% of female Democrats who believe more than 80% of others would vaccinate.

60%.

Table S.4: Response Function to Beliefs about Behavior of Others, by Gender and Political Attitudes.

Range of Beliefs about Others	Average Belief about Others	Own Uptake	# of obs	Test of Proportions
		Male, Democrat		
0% - 19%				
20% - 39%	34.41%	29.41%	$n = 17$	$p = 0.6644$
40% - 59%	47.83%	65.15%	$n = 66$	$p = 0.0048$
60% - 79%	66.70%	70.23%	$n = 131$	$p = 0.3914$
80% - 100%	88.22%	87.27%	$n = 5$	$p = 0.8275$
		Female, Democrat		
0% - 19%				
20% - 39%	31.51%	27.03%	$n = 37$	$p = 0.5572$
40% - 59%	47.66%	48.31%	$n = 89$	$p = 0.9016$
60% - 79%	66.31%	62.83%	$n = 113$	$p = 0.4341$
80% - 100%	88.21%	73.08%	$n = 78$	$p < 0.0001$
		Male, non Democrat		
0% - 19%	12.17%	0.00%	$n = 6$	$p = 0.3619$
20% - 39%	30.84%	25.81%	$n = 31$	$p = 0.5440$
40% - 59%	48.95%	44.53%	$n = 128$	$p = 0.3173$
60% - 79%	67.81%	68.36%	$n = 177$	$p = 0.8752$
80% - 100%	87.49%	74.67%	$n = 75$	$p = 0.0008$
		Female, non Democrat		
0% - 19%	8.55%	9.09%	$n = 11$	$p = 0.9488$
20% - 39%	28.81%	22.92%	$n = 48$	$p = 0.3673$
40% - 59%	48.50%	42.75%	$n = 131$	$p = 0.1877$
60% - 79%	67.22%	52.05%	$n = 171$	$p < 0.0001$
80% - 100%	87.60%	50.00%	$n = 84$	$p < 0.0001$

Notes: We group subjects by their beliefs about others into five bins (0-20%, 20-40%, 40-60%, 60-80%, 80-100%). The last column reports the p-value from the Test of Proportions, in which we test whether own reported uptake rates are equal to the uptake rate of others in the corresponding bin. We exclude categories in which we have less than 5 observations.

Table S.5 compares uptake rates of the groups discussed above conditional on the beliefs they hold on vaccination rates of other citizens. The key aspect highlighted by this table is that, for beliefs in the highest two (or three) bins vaccination rates of female non Democrats are significantly lower than those in other three groups. There is no such robust evidence for any other group, which confirms what we see in Panel (b) in Figure 2 and in Table S.4.

Table S.5: Comparison of Uptake Rates between Groups.

	beliefs about others				
	0-20%	20-40%	40-60%	60-80%	80-100%
Male Democrats vs Female Democrats		$p = 0.8558$	$p = 0.0370$	$p = 0.2211$	$p = 0.0480$
Male Democrats vs Male non Democrats		$p = 0.7881$	$p = 0.0065$	$p = 0.7257$	$p = 0.0759$
Male Democrats vs Female non Democrats		$p = 0.5932$	$p = 0.0030$	$p = 0.0014$	$p < 0.0001$
Male non Democrats vs Female Democrats	$p = 0.0233$	$p = 0.9095$	$p = 0.5824$	$p = 0.3316$	$p = 0.8238$
Male non Democrats vs Female non Democrats	$p = 0.4465$	$p = 0.7692$	$p = 0.7723$	$p = 0.0019$	$p = 0.0014$
Female Democrats vs Female non Democrats	$p = 0.0312$	$p = 0.6631$	$p = 0.4153$	$p = 0.0729$	$p = 0.0026$

Notes: We report the p-values of the Test of Proportions for own uptake rates of two specified groups conditional on the belief group members hold regarding vaccination rates of other citizens. We perform all pairwise comparison for the following four groups: male Democrats, female Democrats, male non Democrats, and female non Democrats.

Finally, we conduct statistical analysis to establish that uptake rates of respondents are monotonically increasing in the beliefs they hold about others taking the vaccine. We first conduct this analysis for the whole population, and then break it down into four groups, by gender and political attitudes (Table S.6).

Table S.6: Comparison of Uptake Rates between Groups.

	beliefs about others			
	0-20% vs 20-40%	20-40% vs 40-60%	40-60% vs 60-80%	60-80% vs 80-100%
Whole population	$p = 0.5198$	$p = 0.0000$	$p = 0.0000$	$p = 0.0559$
Male Democrats		$p = 0.0078$	$p = 0.4689$	$p = 0.0139$
Female Democrats	$p = 0.1496$	$p = 0.0275$	$p = 0.0388$	$p = 0.1388$
Male non Democrats	$p = 0.1599$	$p = 0.0571$	$p = 0.0000$	$p = 0.3169$
Female non Democrats	$p = 0.3042$	$p = 0.0151$	$p = 0.1089$	$p = 0.7586$

Notes: We report the p-values of the Test of Proportions for own uptake rates of the same group of respondents for two specified bins of beliefs.

Table S.6 shows that, for the whole population, and for three out of four groups (males of any political preferences and female Democrats), the propensity to vaccinate is in general increasing in the beliefs that respondents hold regarding tendency of others to do the same. The exceptions are the highest belief bins for male non Democrats and female Democrats, for whom the increase in the proportion of those that plan to vaccinate lags behind their belief about proportion of others that would do so. Female non Democrats, once again, show very different patterns of behavior: their vaccination rates are constant for three out of five belief bins (beliefs about 40%). Notice that these three bins of beliefs constitute 87% of all female non Democrats that we observe in our sample, making this result even more striking.

Response to Experts' Opinions. Recall that we ask our subject also their belief about what is the fraction of the subjects that would change their mind and decide to vaccinate if the observed experts do so. In Table S.7, we investigate what correlates with this answers. The main determinant is the original beliefs our participants hold about the fraction of people that would vaccinate before observing experts' information. This is true in both treatments. Among the remaining characteristics, risk and overconfidence place some role, but the effects are relatively modest in magnitude.

Figure S.2 illustrates the main force highlighted in Table S.7 by plotting the distributions of beliefs about how many other people will change their mind after observing information from experts, pooled together for Treatment 1 and Treatment 2 (since that they are essentially identical). Figure S.2 shows that people who originally held higher beliefs estimate that a higher proportion of others would change their mind.

Figure S.2: Kernel Distributions of Beliefs about How Many Respondents would Change Their Mind after Observing Experts' Behavior

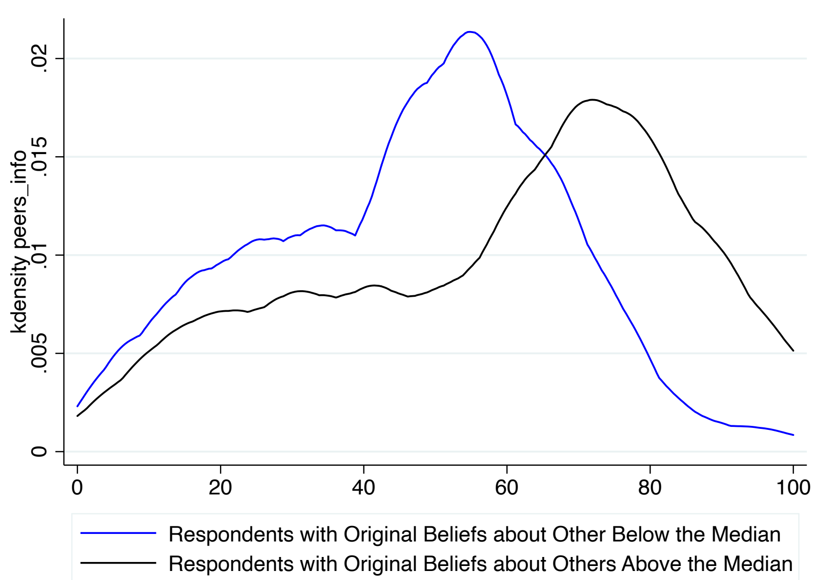


TABLE S.7: What correlates with Beliefs about Others' Changing their Minds in Response to Information

	Treatment 1 (Experts60)	Treatment 2 (Experts90)
Proportion that vaccinate before information	0.42*** (0.04)	0.42*** (0.04)
Male$^{(o)}$	0.58 (1.80)	-0.63 (1.81)
Education		
some college	-3.40 (2.30)	-0.60 (2.17)
college graduate or higher degree	-1/38 (2.83)	0.72 (2.80)
Income		
between 50K and 100K	-1.19 (2.37)	-5.63** (2.12)
above 100K	-1.39 (2.87)	-5.80** (2.63)
Political attitudes		
Democrat or Leaning Democrat	1.79 (1.73)	2.49 (1.65)
Age		
below 30	2.31 (3.49)	6.67** (3.10)
b/w 30 and 40	4.46 (3.31)	6.34** (2.85)
b/w 40 and 50	5.47 (3.55)	6.68** (3.05)
b/w 50 and 60	4.53 (3.36)	3.58 (3.67)
b/w 60 and 70	1.24 (3.77)	-2.22 (3.21)
Individual preferences		
Risk attitude	0.96** (0.35)	0.34 (0.34)
Overconfidence measure 1	2.02** (0.92)	2.13** (0.88)
Overconfidence measure 2	-0.06** (0.02)	-0.03 (0.03)
Constant	19.38*** (4.42)	22.87*** (3.81)
# of obs	750	750
adjusted R^2	0.1448	0.1507

Notes: Linear regression results are reported separately for each treatment. The dependent variable is the proportion of people who would change their mind after observing experts' behavior. All the independent variables are defined as in Table S.1. ***, **, and * indicate significance at 10%, 5%, and 1% level, respectively.

C Instructions

Below we reproduce the exact formulation of vaccination questions. (Each question appeared on a separate screen.) Following that, we present the remaining questions (demographics, risk, political attitudes, etc...) used in the current study to analyze participants' tendency to vaccinate and their beliefs about others.

VACCINE QUESTION 1

We are now going to ask you about a possible COVID-19 vaccine. Would you take such a vaccine now if it had passed all the regulatory tests and had just been made available?

○ Yes
○ No

VACCINE QUESTION 1, cont...

At the same time as you are answering our survey, we are also asking the same question to a representative sample of residents of the United States. How many of them do you think will say they would take the vaccine?

0 10 20 30 40 50 60 70 80 90 100

The fraction of responders that will say they would take the vaccine if it is available

If this question is selected for payment, then we will compare your response in the last question (slider above) with the actual fraction of responders that said they would take the vaccine if it is available. If your answer is within 10 percentage points of the actual fraction, you will receive additional $10.

DEMOGRAPHICS QUESTIONS. We elicit the common demographics and economic characteristics of participants in our survey. Here is the exact list of questions and their formulations:

1. Please indicate your gender
   Male / Female / Other
2. Which year you were born?

VACCINE QUESTION 2

At the same time as you are answering our survey, we are also asking the same question to a group of experts, Doctors (MD qualification) at prestigious medical schools engaged in research on infection diseases.

If it turns out that 60% or more of the experts we survey say that they would take the vaccine themselves, would you take the vaccine?

- Yes
- No

VACCINE QUESTION 2, cont...

We are also asking this question to a representative sample of US residents. If it turns out that 60% or more of the experts we survey say that they would take the vaccine themselves, what proportion of those that initially said they would not take the vaccine do you think will change their mind?

0 10 20 30 40 50 60 70 80 90 100

The proportion of responders that initially said they would not take the vaccine but would changed their mind given experts' responses

If 60% or more of the experts we survey say they would take the vaccine, then we may select this question for payment. If it is selected, then we will compare your response with the actual fraction of responders that said they would change their mind and will pay you $10 if your number is within 10 percentage points of the actual fraction.

3. What is the highest level of education you have completed?
   Less than high-school / Graduated from high-school / Some college or Associate degree / Graduated from college / Completed graduate school

4. What is the annual income in your household?

below 25,000 / 25,000 - 49,999 / 50,000 - 74,999 / 75,000 - 99,999 / 100,000 - 149,999 / 150,000 or above

5. What is your zipcode?

Risk Attitude We chose to measure risk attitudes using very simple qualitative measure. This is one of the few common ways used in the literature (following (38, 39, 41)). Specifically, we ask subjects to rate themselves, on a scale of 0–10, in terms of their willingness to take risks.

The exact formulation of the question is: "How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? Please choose your answer where the value 0 means *not at all willing to take risks* and the value 10 means *very willing to take risks*."

The qualitative measure provides a convenient way to elicit participants' risk attitudes. For the literature assessing the validity of common experimental techniques of eliciting risk attitudes and uncertainty see (40, 42).

Overconfidence Existing literature on overconfidence divides this measure into three related components: overestimation, overplacement, and overprecision (43). While related, these components pick up different forces that jointly determine participants' tendency for overconfidence. In particular, overestimation refers to a person's estimate of her own performance on a task versus her actual performance. Overplacement refers to participant's perceived performance relative to other participants versus her actual relative performance. Finally, overprecision refers to a belief that one's information is more precise than it actually is. Given the nature of our study, the most relevant dimensions of overconfidence are the overprecision and the overplacement, which is what we elicited in our surveys.

Following the literature (44, 45), we elicit overprecision by asking participants one factual question: the year the landline telephone was invented. After this, the participants are asked for a qualitative assessment of the accuracy of their answer. This residual from a regression of this measure on a fourth-order polynomial of the participant's accuracy gives overprecision. To measure overplacement, participants are also asked to give their perception about how accurate their answer is compared to a random group of 100 other participants that took the survey. This answer is the perceived percentile of their accuracy. The actual percentile of their accuracy is subtracted from this number to give our measure of overplacement.

The exact formulations of these questions are presented below:

1. Think about the wired telephone (landline). What year was the telephone invented? We are interested in your best guess, so please do not look this up if you do not know. Please type the year in which the wired telephone was invented

2. How confident are you of your answer to the previous question, in which we asked you to specify the year in which the wired telephone was invented?
   No confidence at all / Not very confident / Somewhat unconfident / Very confident / Certain

3. What do you think the probability is (from 0%, or no chance, to 100%, or certainty) that your answer to the question in what year the wired telephone was invented is within 25 years of the correct answer? Please type the number between 0 and 100 indicating the percentage chance that your answer is within 25 years of the correct answer

Political Attitudes We use standard questions to elicit participants' political attitudes (44, 45). The exact formulation is:

1. Please select one of the categories which best describes your ideological views
   Very Liberal / Liberal / Moderate / Conservative / Very Conservative / Not Sure

2. Please indicate your party affiliation
   Democratic Party / Republican Party / Independent / Other / Not Sure

3. (Participant chose Democratic Party in the question 2.) Would you call yourself a strong Democrat or a not very strong Democrat?
   a strong Democrat / not very strong Democrat

4. (Participant chose Republican Party in the question 2.) Would you call yourself a strong Republican or a not very strong Republican?
   a strong Republican / not very strong Republican

5. (Participant chose Independent or Other or Not Sure in the question 2.) Do you think of yourself as closer to the Democratic or the Republican Party?
   The Democratic Party / The Republican Party / Neither / Not Sure

We use these answers to construct variables indicating participants' political attitudes.

SI References

[38] Jonathan Chapman, Mark Dean, Pietro Ortoleva, Erik Snowberg, and Colin Camerer. Econographics. mimeo Princeton University, 2019.

[39] Thomas Dohmen, Armin Falk, David Huffman, Uwe Sunde, Jurgen Schupp, and Gert Wagner. Individual risk attitudes: Measurement, determinants, and behavioral consequences. *Journal of the European Economic Association*, 9:522–550, 2011.

[40] Daniel Friedman, Mark Issac, James Duncan, and Shyam Sunder. *Risky Curves: On the Empirical Failure of Expected Utility*. Routledge, 2014.

[41] Ben Gillen, Erik Snowberg, and Leeat Yariv. Experimenting with measurement error: Techniques and applications from the caltech cohort study. *Journal of Political Economy*, 127(4): 1826–1863, 2019.

[42] Charles Holt and Susan Laury. Assessment and estimation of risk preferences. *Handbook of Economics of Risk and Uncertainty edited by Machina and Kip*, 1:135–202, 2014.

[43] Don Moore and Paul J Healy. The trouble with overconfidence. *Psychological Review*, 115(2): 502–517, 2008.

[44] Pietro Ortoleva and Erik Snowberg. Are conservatives overconfident? *European Journal of Political Economy*, 40(B):334–344, 2015.

[45] Pietro Ortoleva and Erik Snowberg. Overconfidence in political behavior. *American Economic Review*, 105(2):504–535, 2015.