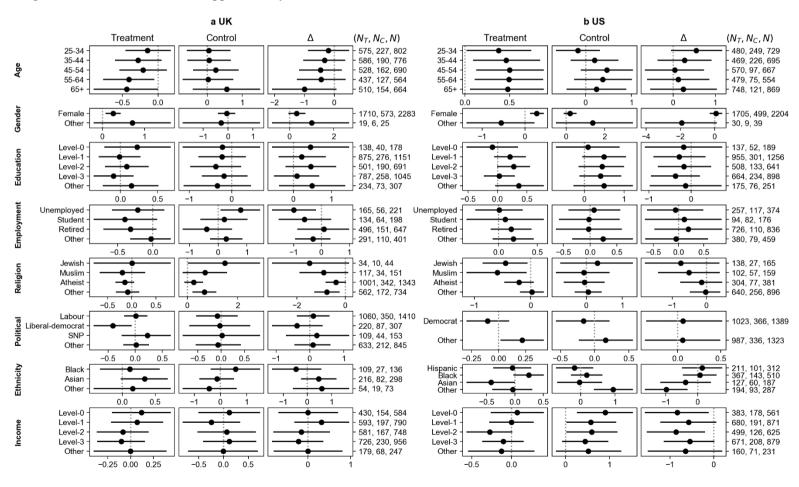
### **Supplementary information**

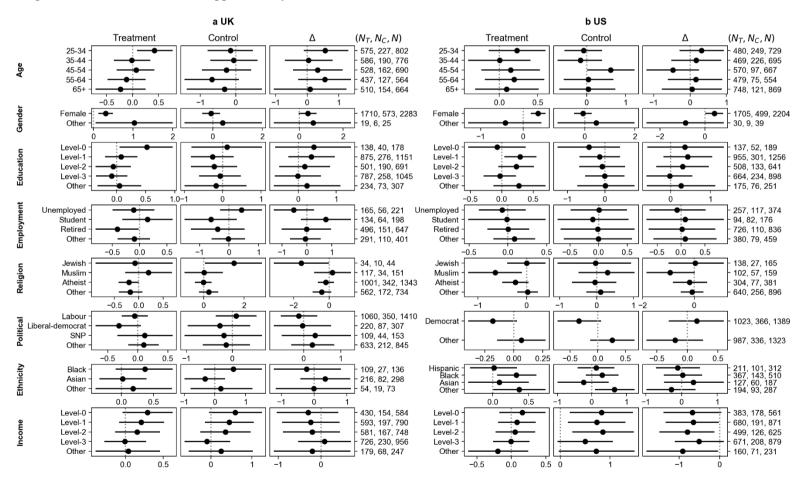
# Measuring the impact of COVID-19 vaccine misinformation on vaccination intent in the UK and USA

In the format provided by the authors and unedited

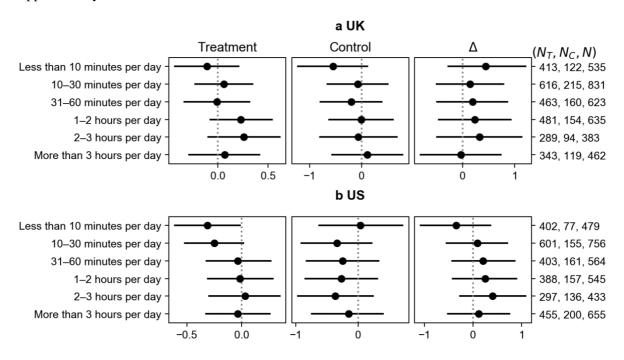
Supplementary Figure 1. Socio-demographic determinants of change in vaccination intent to protect oneself, within the treatment and control groups, and the impact of treatment relative to the control. Contribution of socio-demographic characteristics to changes in intent to accept a vaccine in the treatment (left columns), control (centre columns), and treatment relative to the control (right columns:  $\Delta$ ) for the UK (a) and US (b). The reference category is male, 18-24, highest education, employed, Christian, Conservative (UK) or Republican (US), White, and highest income. Values indicate log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than the reference group upon exposure to misinformation, relative to factual information. Bars indicate 95% percentile intervals. Numbers on the right indicate sample sizes of the corresponding demographic. Figure values can be found in Supplementary Table 3.



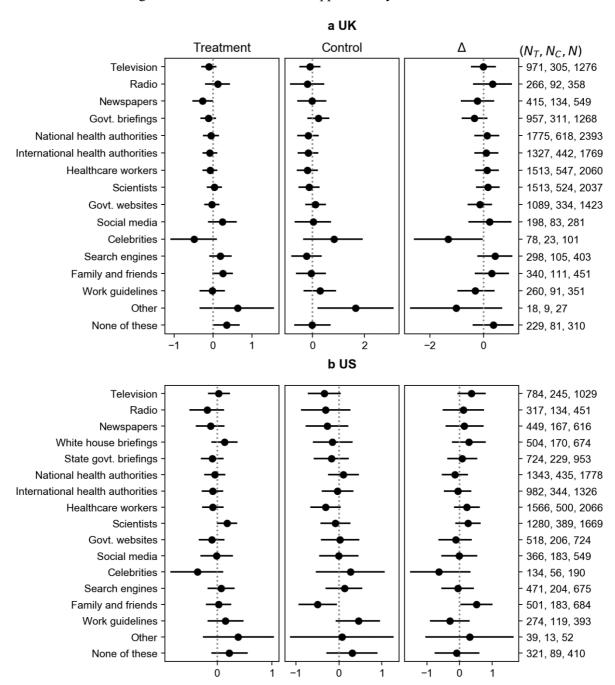
Supplementary Figure 2. Socio-demographic determinants of change in vaccination intent to protect others, within the treatment and control groups, and the impact of treatment relative to the control. Contribution of socio-demographic characteristics to changes in intent to accept a vaccine in the treatment (left columns), control (centre columns), and treatment relative to the control (right columns:  $\Delta$ ) for the UK (a) and US (b). The reference category is male, 18-24, highest education, employed, Christian, Conservative (UK) or Republican (US), White, and highest income. Values indicate log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than the reference group upon exposure to misinformation, relative to factual information. Bars indicate 95% percentile intervals. Numbers on the right indicate sample sizes of the corresponding demographic. Figure values can be found in Supplementary Table 4.



Supplementary Figure 3. Heterogeneous treatment effects of amount of social media usage on vaccination intent to protect oneself, post exposure to (mis)information about COVID-19 vaccines, after controlling for socio-demographics. Contribution of amount of daily social media use to changes in intent to accept a vaccine in the treatment (left column), control (centre column), and treatment relative to the control (right column:  $\Delta$ ) for the UK (a) and US (b). Values depict log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than those who do not use any social media upon exposure to misinformation, relative to factual information. Bars indicate 95% percentile intervals. Numbers on the right indicate sample sizes of the corresponding social-media-usage group. Figure values can be found in Supplementary Table 5.



Supplementary Figure 4. Heterogeneous treatment effects of sources of COVID-19 information that are trusted on vaccination intent to protect oneself, post exposure to (mis)information about COVID-19 vaccines, after controlling for socio-demographics. Contribution of trusting different sources of COVID-19 information to changes in intent to accept a vaccine in the treatment (left column), control (centre column), and treatment relative to the control (right column:  $\Delta$ ) for the UK (a) and US (b). Values depict log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates those who trust the source are more (less) likely to reject a COVID-19 vaccine than those who do not trust it upon exposure to misinformation, relative to factual information. Bars indicate 95% percentile intervals. Numbers on the right indicate sample sizes of those indicating trust in the corresponding information source. Figure values can be found in Supplementary Table 6.



Supplementary Table 1. Widely circulating misinformation and factual information on social media surrounding COVID-19 vaccines between June and August 2020, that was shown to respondents. For each of the UK and US, five images were selected (see Methods: Selection of images) to expose to respondents. "Treatment" image sets consisting of misinformation were shown to 3,000 and 3,001 respondents in the UK and US, respectively. A common "control" image set consisting of factual information was shown to 1,000 respondents in each country.

Image	nage Engagement <sup>1</sup> and Reach <sup>2</sup>		URL <sup>3</sup>	Textual Content <sup>4</sup>	Rationale for Content Classification					
UK Treatment Group (Misinformation)										
1	1.59k	1.5m	https://twitter. com/PrisonPl anet/status/12 62701005382 340610	Scientists have expressed doubts over the effectiveness of a coronavirus vaccine that has been rushed to human trials, after all the monkeys used in initial testing later contracted coronavirus.	The post shares partial information that is misleading. As per the trials data for the vaccine in question, viral load for vaccinated rhesus macaques challenged with the virus was much lower in the lungs and lower respiratory tract, and comparable to controls only in the nose. Also, the disease was significantly less severe than in controls, with no clear evidence if this infection could replicate and spread to others: see https://doi.org/10.1038/s41586-020-2608-y. Hence, although <i>prima facie</i> the information is correct, it is partial and is classified as misinformation.					
2	27	19.6k	https://twitter. com/Perimete rNews/status/ 12864395149 40960769	The new vaccine for Covid-19 will be the first of its kind EVER. It will be an mRNA vaccine which will literally alter your DNA. It will wrap itself into your system. You will essentially become a genetically modified human being.	There is broad scientific consensus that mRNA vaccines cannot alter human DNA. Citations of scientific evidence against such claims are summarized in fact checking cites, such as Poynter and AFP (https://www.poynter.org/tfcn/2020/fact-check-will-a-covid-19-vaccine-alter-your-dna/; https://factcheck.afp.com/vaccines-dont-change-your-dna). Hence, classified as misinformation.					
3	11	1.49k	https://twitter. com/Prometh eous2020/stat us/129765997 4622023681	"They said it was just to flatten the curve. Now it's a battle for human survival." The only must-see action thriller for 2020. Starring: Bill Gates, Anthony Fauci, Chris Witty, Matt Hancock. Guest mask appearances: Clintons, Boris Johnson, Nicola Sturgeon, Joe Biden & Tedros. [Graphic featuring Mr. Bill Gates with the following quote.] "If we do a really good job with vaccines, we can reduce population by up to 15%. But if we create a worldwide pandemic first, killing people and making many of the survivors sterile, then create the vaccine, we may achieve the Georgia Guidestones 1st commandment!"	The post re-iterates unfounded conspiracy theories around the COVID-19 pandemic, especially those implicating Mr. Bill Gates: see https://www.nytimes.com/2020/04/17/technology/bill-gates-virus-conspiracy-theories.html. The post also falsely implies a link between COVID-19 vaccines and infertility, which has been widely rejected by medical experts: see https://www.reuters.com/article/uk-factcheck-covid-vaccine-causing-infer-idUSKBN25H20G. Hence, classified as misinformation.					
4	N.A.	32.5k	https://twitter. com/Jimcorrs ays/status/129 67800713745 98144	Something is very fishy about all this indeed. "A VIRUS WITH A 99.6% SURVIVAL RATE FOR PEOPLE UNDER 70 BUT THE ENTIRE WORLD NEEDS TO TAKE A VACCINE? I'M NO	The post questions the necessity of a worldwide vaccination campaign against a disease with a high survival rate and states that the vaccination campaign is "fishy" (i.e., arousing feelings of suspicion). Quoting an under-70 survival rate of "99.6%" is misleading, since it ignores age-					

				SHERLOCK HOLMES BUT SOMETHING'S FISHY ABOUT ALL THAT"	variability, disease spread, and contextual comparison to other infectious diseases: see https://doi.org/10.1016/S1473-3099(20)30257-7; https://www.usatoday.com/story/news/factcheck/20 20/05/05/covid-19-fact-check-coronavirus-mortality-rate-misleading/3019503001/. This post also does not consider the importance of herd immunity in conferring population-wide protection against a disease (see https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/herd-immunity-and-coronavirus/art-20486808), using the word "fishy" to suggest undisclosed suspicious motives without evidence. Hence, classified as misinformation.
5	6.95k	336k	https://twitter. com/davidick e/status/1273 33030762686 4642	Big Pharma whistleblower: '97% of corona vaccine recipients will become infertile'	The post shares a factually incorrect statement about a "whistleblower" from a pharmaceutical company claiming that COVID-19 vaccines will "cause infertility". The content is factually incorrect and rejected by medical experts: see https://www.aap.com.au/covid-19-vaccine-whistleblower-information-sounds-a-lot-like-an-unrelated-study-from-1989/. Hence, classified as misinformation.
				US Treatment Group (Misinfor	mation)
1				Same as UK Treatment Gro	up: Image 2
2				Same as UK Treatment Gro	up: Image 3
3	25.1k	1.41k	https://twitter. com/uTobian/ status/129372 12177912176 65	I've been in Twitter jail for the last 12 hours for posting a link to a peer reviewed scientific study published in Vaccine showing that in military personnel prior receipt of the flu shot increased coronavirus risk by 36%. Censorship is vile & unAmerican.	The post shares information in a false context. It quotes research from January 2020 which studied the association of flu vaccination and likelihood to contract seasonal coronaviruses, but not SARS-CoV-2, which causes COVID-19. Also, as per the CDC, "this report was later found to be incorrect," and therefore "there is no evidence that getting a flu vaccine increases your risk of getting sick from a coronavirus, like the one that causes COVID-19", which suggests that the information shared was incorrect: see https://www.cdc.gov/flu/prevent/keyfacts.htm; https://doi.org/10.1093/cid/ciaa626. Hence, classified as misinformation.
4	N.A. <sup>5</sup>	N.A.	https://www.f acebook.com/ LarryCook33	So we know for a fact that the flu vaccine worsens COVID symptoms. So what are they mandating now? The flu vaccine, of course.	The post claims, without evidence, that "the flu vaccine worsens" COVID-19 symptoms, which researchers have found no evidence for: see https://www.medicalnewstoday.com/articles/flu-vaccinations-not-linked-to-increased-covid-19-risk; https://doi.org/10.1017/cts.2020.543. Hence, classified as misinformation.
5	28.2k	N.A.	https://www.i nstagram.com /p/CDsLREt HQog/	PREPARING THE PROPAGANDA BLITZ. Yale University and the U.S. government are running clinical trials to develop propaganda messaging to persuade Americans to take experimental, genetically engineered, unlicensed, "Warp Speed," zero liability, expedited	While a clinical trial was indeed conducted at Yale University, there is no evidence that the university worked with the US government to develop "propaganda messaging": see https://clinicaltrials.gov/ct2/show/NCT04460703. Also, the post incorrectly describes the process of clinical testing of vaccines, even though several mechanisms are in place in the UK and US to ensure their safety: see

			vaccines with limited short-duration safety testing. Researchers compared reactions in 12 focus groups using "guilt, embarrassment, bravery, anger, trust" and "fear" to overcome vaccines hesitancy.	https://www.nhs.uk/conditions/coronavirus-covid-19/coronavirus-vaccination/coronavirus-vaccine/; https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety.html. Hence, classified as misinformation.
		U	K and US Control Group (Factual l	Information)
1 N.A. <sup>5</sup>	N.A.	https://twitter. com/Vaccine SafetyN/statu s/1288798996 878819328	More than 140 teams of researchers are racing to develop a safe and effective #coronavirus vaccine. Currently there are 5 vaccines in phase 3: large-scale efficacy trials, to confirm its safety and effectiveness.	The post shares information from a "Covid vaccine tracker" maintained by The Guardian which sources the current state of vaccine trials from the WHO: see https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines. Hence, classified as factual.
2 N.A. <sup>6</sup>	51.5k	https://twitter. com/CEPIvac cines/status/1 29323506007 0645762	A safe and effective #COVID19 vaccine is the way out of this devastating pandemic. Our Director of Vaccine R&D, Melanie Saville, speaks to @bbcworldservice on the progress in vaccine development and the challenges to overcome.	The post's claim on the need for a "safe and effective" COVID-19 vaccine is widely accepted by scientists and health organisations: see https://doi.org/10.1136/bmj.m3258; https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines; https://www.unicef.org/coronavirus/what-you-need-to-know-covid-vaccine. The post also shares a BBC podcast which features an expert in virology: see https://dx.doi.org/10.2471/BLT.20.030920. Hence, classified as factual.
3 75k	630k	https://twitter. com/UniofOx ford/status/12 85210154984 710145	Oxford's Covid-19 vaccine produces a good immune response, reveals new study. Teams at @VaccineTrials and @OxfordVacGroup have found there were no safety concerns, and the vaccine stimulated strong immune responses.	This statement summarizes safety and efficacy evidence on Oxford's ChAdOx1 nCoV-19 vaccine which has appeared in peer-reviewed scientific research: see https://doi.org/10.1016/S0140-6736(20)31604-4. Hence, classified as factual.
4 1.28k	123k	https://twitter. com/gavi/stat us/129171320 7820836865	We are pleased to announce that we are collaborating with the @SerumInstIndia and the @GatesFoundation to accelerate manufacturing and delivery of up to 100 million doses of future #COVID19 vaccines for low- and middle-income countries in 2021.	News announcement of a collaboration between SII—world's largest vaccine manufacturer—Gavi, the Vaccine Alliance, and Bill & Melinda Gates Foundation to produce vaccines at scale for LMIC countries: see https://www.gavi.org/news/mediaroom/100-million-covid-19-vaccine-doses-available-low-and-middle-income-countries-2021. Hence, classified as factual.
5 81.8k	121m	https://twitter. com/BarackO bama/status/1 28672952295 6689410	Although we've seen some positive findings recently about the possibilities of developing a vaccine for COVID-19, this article gives a good summary of why it may take months before any effective vaccine can be widely distributed.	The post shares an article by The Atlantic—which cites multiple basic science and public health experts—on the challenges of distribution of COVID-19 vaccines: see https://www.theatlantic.com/health/archive/2020/07/covid-19-vaccine-reality-check/614566/. Hence, classified as factual.

## Supplementary Table 2. Exposure to COVID-19 vaccine misinformation induces a net downward movement in intent to accept a COVID-19 vaccine for all levels of pre-exposure intent. Values show the relative change in probabilities (denoted as percentage point changes to aid interpretation) in the number of people with prior intent W who change it to Y post-exposure to misinformation, relative to factual information (see Methods: Estimating treatment effects).

Pre-exposure	Post-exposure	UF	ζ	U	S
intent, $W$	intent, $Y$	Self	Others	Self	Others
	Yes, definitely	-9.6 (-12.5, -6.4)	-7.9 (-10.7, -5.0)	-8.2 (-12.0, -4.4)	-8.7 (-12.1, -5.3)
Yes, definitely	Unsure, lean yes	8.5 (5.5, 11.4)	7.2 (4.4, 9.9)	7.5 (4.0, 10.9)	7.9 (4.9, 11.0)
, <del>-</del> <del>-</del>	Unsure, lean no	0.9 (0.6, 1.2)	0.7 (0.4, 0.9)	0.6 (0.1, 1.1)	0.6 (0.1, 1.2)
	No, definitely	0.1 (0.1, 0.2)	0.1 (0.0, 0.1)	0.1 (-0.0, 0.2)	0.1 (-0.0, 0.3)
	Yes, definitely	-3.3 (-8.1, 1.1)	-2.8 (-7.8, 1.9)	-9.1 (-14.6, -3.9)	-7.1 (-12.9, -1.5)
Unsure, lean yes	Unsure, lean yes	-9.8 (-14.8, -4.5)	-7.9 (-13.4, -2.1)	2.9 (-2.7, 8.4)	1.6 (-4.4, 7.5)
onsuit, ican yes	Unsure, lean no	10.6 (7.1, 14.0)	9.1 (4.9, 13.0)	4.9 (1.2, 8.5)	4.1 (-0.7, 8.6)
	No, definitely	2.5 (1.4, 3.6)	1.6 (0.3, 2.8)	1.2 (-0.5, 2.8)	1.3 (-0.9, 3.3)
	Yes, definitely	0.1 (-0.9, 0.9)	0.4 (-0.4, 1.0)	-1.4 (-3.5, 0.3)	-0.7 (-2.4, 0.7)
Unsure, lean no	Unsure, lean yes	-13.5 (-22.9, -4.3)	-3.6 (-13.3, 5.1)	-4.9 (-12.1, 1.9)	-1.9 (-9.2, 5.3)
,	Unsure, lean no	-1.3 (-10.4, 7.7)	0.9 (-8.9, 10.5)	1.6 (-5.3, 8.5)	-0.1 (-7.9, 7.6)
	Unsure, lean no 10.6 (7.1, 14.0) 9.1 (4.9, 13.0) 4.9 (1.2, 8.5) 4.  No, definitely 2.5 (1.4, 3.6) 1.6 (0.3, 2.8) 1.2 (-0.5, 2.8) 1.  Yes, definitely 0.1 (-0.9, 0.9) 0.4 (-0.4, 1.0) -1.4 (-3.5, 0.3) -0.  Unsure, lean yes -13.5 (-22.9, -4.3) -3.6 (-13.3, 5.1) -4.9 (-12.1, 1.9) -1.  Unsure, lean no -1.3 (-10.4, 7.7) 0.9 (-8.9, 10.5) 1.6 (-5.3, 8.5) -0.  No, definitely 14.8 (5.9, 22.9) 2.2 (-8.3, 12.2) 4.7 (-2.8, 12.0) 2.7  Yes, definitely -0.0 (-0.2, 0.1) -0.0 (-0.2, 0.1) -0.1 (-0.4, 0.1) -0.2  Unsure, lean yes -3.7 (-7.8, -0.7) -2.2 (-6.5, 0.5) -1.0 (-3.2, 0.8) -2.1	2.7 (-6.6, 11.5)			
	Yes, definitely	-0.0 (-0.2, 0.1)	-0.0 (-0.2, 0.1)	-0.1 (-0.4, 0.1)	-0.2 (-0.5, -0.0)
No, definitely not	Unsure, lean yes	-3.7 (-7.8, -0.7)	-2.2 (-6.5, 0.5)	-1.0 (-3.2, 0.8)	-2.1 (-4.6, -0.0)
, , , , , , , , , , , , , , , , , , , ,	Unsure, lean no	-17.3 (-28.6, -6.9)	-8.8 (-21.8, 3.2)	-2.9 (-9.1, 2.8)	-7.8 (-14.5, -1.4)
	No, definitely	21.0 (8.1, 35.2)	11.1 (-3.4, 27.3)	4.0 (-3.2, 12.1)	10.0 (2.1, 18.7)

Supplementary Table 3. Socio-demographic determinants of change in vaccination intent to protect oneself, within the treatment and control groups, and the impact of treatment relative to the control. Contribution of socio-demographic characteristics to changes in intent to accept a vaccine in the "treatment", "control", and treatment relative to the control " $\Delta$ " for the UK and US. The reference category is male, 18-24, highest education, employed, Christian, Conservative (UK) or Republican (US), White, and highest income. Values indicate log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than the reference group upon exposure to misinformation, relative to factual information. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0. Sample sizes of the corresponding demographic can be found in Supplementary Table 9.

Socio-demographic Characteristic			UK			US	
9	•	Treatment	Control	Δ	Treatment	Control	Δ
	18-24			Refer	ence		
Age  Gender  Education  Employment  Religion  Political Affiliation  Ethnicity	25-34	-0.15 (-0.46, 0.18)	0.05 (-0.59, 0.67)	-0.19 (-0.88, 0.50)	0.38 (0.02, 0.75)	-0.17 (-0.65, 0.31)	0.54 (-0.05, 1.17)
	35-44	-0.28 (-0.60, 0.05)	0.05 (-0.58, 0.68)	-0.33 (-1.04, 0.37)	0.46 (0.09, 0.84)	0.19 (-0.33, 0.71)	0.27 (-0.37, 0.92)
	45-54	-0.21 (-0.54, 0.12)	0.25 (-0.41, 0.91)	-0.46 (-1.18, 0.26)	0.50 (0.13, 0.89)	0.46 (-0.11, 1.04)	0.04 (-0.67, 0.73)
	55-64	-0.41 (-0.77, -0.05)	0.03 (-0.71, 0.75)	-0.44 (-1.25, 0.38)	0.49 (0.11, 0.88)	0.37 (-0.25, 1.01)	0.12 (-0.62, 0.86)
	65+	-0.44 (-0.90, 0.00)	0.56 (-0.42, 1.51)	Control   Δ   Reference   Reference   Control   Reference   Co.59, 0.67   -0.19 (-0.88, 0.50)   0.38 (0.02, 0.75)   -0.17 (-0.65, 0.31)   0.54   (-0.58, 0.68)   -0.33 (-1.04, 0.37)   0.46 (0.09, 0.84)   0.19 (-0.33, 0.71)   0.27   (-0.41, 0.91)   -0.46 (-1.18, 0.26)   0.50 (0.13, 0.89)   0.46 (-0.11, 1.04)   0.04   (-0.41, 0.75)   -0.44 (-1.25, 0.38)   0.49 (0.11, 0.88)   0.37 (-0.25, 1.01)   0.12   (-0.42, 1.51)   -1.00 (-2.09, 0.08)   0.48 (0.06, 0.89)   0.24 (-0.42, 0.89)   0.24   (-0.42, 0.89)   0.49   (-0.65, 0.47)   0.27 (0.12, 0.44)   0.20 (-0.13, 0.53)   0.07   (-0.13, 0.53)   0.07   (-0.56, 0.21, 0.49)   0.49 (-0.06, 1.05)   0.28   (-0.14, 0.66)   0.45 (-0.56, 1.47)   -0.09 (-0.53, 0.35)   0.09 (-0.72, 0.89)   -0.17   (-0.79, 0.33)   0.21 (-0.39, 0.85)   0.21 (-0.05, 0.49)   0.49 (-0.06, 1.05)   -0.28   (-0.98, 0.22)   0.46 (-0.21, 1.13)   0.28 (-0.10, 0.55)   0.45 (-0.15, 1.01)   -0.17   (-0.71, 0.37)   0.10 (-0.52, 0.68)   0.03 (-0.23, 0.30)   0.41 (-0.13, 0.93)   -0.37   Reference   (-1.13, 0.45)   0.49 (-0.37, 1.37)   0.36 (-0.04, 0.79)   0.49 (-0.27, 1.23)   -0.13   (-0.63, 1.01)   -0.61 (-1.53, 0.35)   0.09 (-0.42, 0.59)   -0.02 (-0.58, 0.55)   0.11   0.(-0.53, 0.14)   0.61 (-1.53, 0.35)   0.09 (-0.42, 0.59)   -0.02 (-0.58, 0.55)   0.11   0.(-0.54, 0.48)   0.09 (-0.87, 1.00)   0.16 (-0.10, 0.43)   -0.03 (-0.64, 0.59)   0.19   0.05   0.0	0.24 (-0.54, 1.04)		
	Male			Refer	ence		
Gender	Female	0.26 (0.08, 0.44)	-0.06 (-0.41, 0.28)	0.32 (-0.06, 0.71)	0.27 (0.12, 0.44)	0.20 (-0.13, 0.53)	0.07 (-0.29, 0.44)
Age  Gender  Education  Employment  Religion  Political Affiliation  Ethnicity  Income	Other	0.71 (-0.21, 1.62)	-0.28 (-1.83, 1.28)	0.99 (-0.80, 2.70)	-0.56 (-1.36, 0.22)	1.37 (-0.55, 3.47)	-1.93 (-4.07, 0.13)
		0.09 (-0.72, 0.89)	-0.17 (-1.09, 0.74)				
Age  Gender  Education  Employment  Religion  Political Affiliation	Level-1	-0.02 (-0.30, 0.27)	-0.23 (-0.79, 0.33)	0.21 (-0.39, 0.85)	0.21 (-0.05, 0.49)	0.49 (-0.06, 1.05)	-0.28 (-0.90, 0.35)
	Level-2	0.08 (-0.21, 0.38)	-0.38 (-0.98, 0.22)	0.46 (-0.21, 1.13)	0.28 (-0.01, 0.55)	0.45 (-0.15, 1.01)	-0.17 (-0.79, 0.48)
Luncation	Level-3	-0.09 (-0.36, 0.18)	-0.19 (-0.71, 0.37)	0.10 (-0.52, 0.68)	0.03 (-0.23, 0.30)	0.41 (-0.13, 0.93)	-0.37 (-0.96, 0.21)
Age  Gender  Education  Employment  Religion  Political Affiliation  Ethnicity  Income	Level-4			Refer	rence		
	Other	0.15 (-0.24, 0.51)	-0.34 (-1.13, 0.45)	0.49 (-0.37, 1.37)	0.36 (-0.04, 0.79)	0.49 (-0.27, 1.23)	-0.13 (-0.98, 0.73)
	Employed			Refer	rence		
	Unemployed	-0.22 (-0.58, 0.16)	0.77 (0.08, 1.45)	-0.99 (-1.78, -0.19)	0.01 (-0.30, 0.31)	0.07 (-0.41, 0.56)	-0.06 (-0.62, 0.49)
	Student	-0.40 (-0.84, 0.06)	0.21 (-0.63, 1.01)	-0.61 (-1.53, 0.35)	0.09 (-0.42, 0.59)	-0.02 (-0.58, 0.55)	0.11 (-0.67, 0.86)
	Retired	-0.32 (-0.70, 0.05)	-0.40 (-1.24, 0.48)	0.09 (-0.87, 1.00)	0.16 (-0.10, 0.43)	-0.03 (-0.64, 0.59)	0.19 (-0.48, 0.86)
	Other	-0.03 (-0.32, 0.25)	0.28 (-0.29, 0.84)	-0.31 (-0.95, 0.33)	0.19 (-0.08, 0.46)	0.24 (-0.34, 0.80)	-0.05 (-0.66, 0.58)
	Christian	-0.32 (-0.70, 0.05) -0.40 (-1.24, 0.48) 0.09 (-0.87, 1.00) 0.16 (-0.10, 0.43) -0.03 (-0.64) -0.03 (-0.32, 0.25) 0.28 (-0.29, 0.84) -0.31 (-0.95, 0.33) 0.19 (-0.08, 0.46) 0.24 (-0.34)  Reference  0.00 (-0.79, 0.81) 1.49 (0.01, 2.89) -1.49 (-3.03, 0.16) -0.45 (-0.85, -0.06) 0.31 (-0.73) -0.20 (-0.67, 0.27) 0.69 (-0.19, 1.58) -0.89 (-1.89, 0.11) -0.59 (-1.14, -0.07) -0.07 (-0.85) -0.15 (-0.34, 0.05) 0.25 (-0.13, 0.62) -0.40 (-0.81, 0.03) -0.21 (-0.47, 0.05) -0.06 (-0.63)					
	Jewish	0.00 (-0.79, 0.81)	1.49 (0.01, 2.89)	-1.49 (-3.03, 0.16)	-0.45 (-0.85, -0.06)	0.31 (-0.73, 1.30)	-0.75 (-1.79, 0.38)
Religion	Muslim	-0.20 (-0.67, 0.27)	0.69 (-0.19, 1.58)	-0.89 (-1.89, 0.11)	-0.59 (-1.14, -0.07)	-0.07 (-0.85, 0.64)	-0.52 (-1.41, 0.38)
Religion -	Atheist	-0.15 (-0.34, 0.05)	0.25 (-0.13, 0.62)	-0.40 (-0.81, 0.03)	-0.21 (-0.47, 0.05)	-0.06 (-0.63, 0.51)	-0.15 (-0.77, 0.45)
	Other	-0.09 (-0.33, 0.15)	0.67 (0.20, 1.15)	-0.76 (-1.29, -0.23)	0.02 (-0.19, 0.23)	0.05 (-0.33, 0.43)	-0.03 (-0.48, 0.40)
	Conservative		Reference		-	-	-
Education  Employment  Religion  Political Affiliation  Ethnicity	Republican	-	-	-		Reference	
	Labour	0.01 (-0.20, 0.23)	-0.08 (-0.53, 0.35)	0.10 (-0.38, 0.58)	-	-	-
	Liberal Democrat	-0.41 (-0.77, -0.06)	-0.03 (-0.69, 0.63)	-0.38 (-1.12, 0.38)	-	-	-
	SNP	0.23 (-0.25, 0.66)	0.02 (-0.83, 0.84)	0.20 (-0.71, 1.16)	-	-	-
	Other	0.02 (-0.22, 0.26)	-0.07 (-0.55, 0.42)	0.09 (-0.45, 0.61)	0.22 (0.02, 0.42)	0.16 (-0.23, 0.56)	0.06 (-0.38, 0.50)
	Democrat	-	-	-	-0.10 (-0.30, 0.10)	-0.16 (-0.57, 0.22)	0.06 (-0.37, 0.52)
	White			Refer	ence		
	Black	0.11 (-0.34, 0.57)	0.58 (-0.37, 1.51)	-0.47 (-1.47, 0.59)	0.24 (-0.03, 0.51)	0.18 (-0.28, 0.64)	0.06 (-0.46, 0.59)
Political Affiliation	Asian	0.34 (-0.02, 0.69)	-0.13 (-0.80, 0.51)	0.47 (-0.27, 1.22)	-0.42 (-0.85, -0.00)	-0.03 (-0.68, 0.62)	-0.38 (-1.17, 0.41)
	Other	0.16 (-0.44, 0.74)	-0.43 (-1.44, 0.62)	0.59 (-0.60, 1.73)	-0.04 (-0.40, 0.31)	0.95 (0.39, 1.52)	-0.99 (-1.65, -0.31)
	Hispanic	-	-	-	-0.05 (-0.38, 0.29)	-0.18 (-0.72, 0.36)	0.13 (-0.49, 0.76)
	Level-0	0.12 (-0.21, 0.44)	0.11 (-0.50, 0.73)	0.01 (-0.69, 0.71)	0.07 (-0.26, 0.40)	4) 0.19 (-0.33, 0.71) 0.27 (-0.37, 0.92) 9) 0.46 (-0.11, 1.04) 0.04 (-0.67, 0.72) 8) 0.37 (-0.25, 1.01) 0.12 (-0.62, 0.86) 9) 0.24 (-0.42, 0.89) 0.24 (-0.54, 1.04) 4) 0.20 (-0.13, 0.53) 0.07 (-0.29, 0.44) 2) 1.37 (-0.55, 3.47) -1.93 (-4.07, 0.12) 5) 0.09 (-0.72, 0.89) -0.17 (-1.09, 0.74) 9) 0.49 (-0.06, 1.05) -0.28 (-0.90, 0.32) 5) 0.45 (-0.15, 1.01) -0.17 (-0.79, 0.44) 0) 0.41 (-0.13, 0.93) -0.37 (-0.96, 0.2) 9) 0.49 (-0.27, 1.23) -0.13 (-0.98, 0.72) 1) 0.07 (-0.41, 0.56) -0.06 (-0.62, 0.44) 9) -0.02 (-0.58, 0.55) 0.11 (-0.67, 0.86) 3) -0.03 (-0.64, 0.59) 0.19 (-0.48, 0.86) 6) 0.24 (-0.34, 0.80) -0.05 (-0.66, 0.52) 6) 0.31 (-0.73, 1.30) -0.75 (-1.79, 0.33) 7) -0.07 (-0.85, 0.64) -0.52 (-1.41, 0.33) 5) -0.06 (-0.63, 0.51) -0.15 (-0.77, 0.43) 3) 0.05 (-0.33, 0.43) -0.03 (-0.48, 0.46)	-0.83 (-1.57, -0.12)
	Level-1	0.07 (-0.22, 0.36)	-0.25 (-0.82, 0.34)	0.32 (-0.32, 0.97)	-0.00 (-0.28, 0.28)	0.57 (0.01, 1.16)	-0.57 (-1.22, 0.06)
Income	Level-2	-0.08 (-0.37, 0.20)	0.07 (-0.53, 0.65)	-0.15 (-0.81, 0.52)	-0.27 (-0.56, 0.01)	0.59 (0.01, 1.18)	-0.86 (-1.53, -0.20)
	Level-3	-0.10 (-0.37, 0.16)	0.12 (-0.41, 0.66)	-0.22 (-0.84, 0.36)	-0.11 (-0.37, 0.15)	0.44 (-0.08, 0.97)	-0.55 (-1.14, 0.02)
	Level-4			Refer	ence		
Age   3.   3.   3.   3.   3.   3.   3.   3	Other	-0.00 (-0.41, 0.40)	-0.00 (-0.72, 0.69)	0.00 (-0.80, 0.82)	-0.13 (-0.54, 0.29)	0.52 (-0.23, 1.27)	-0.64 (-1.51, 0.19)

Supplementary Table 4. Socio-demographic determinants of change in vaccination intent to protect others, within the treatment and control groups, and the impact of treatment relative to the control. Contribution of socio-demographic characteristics to changes in intent to accept a vaccine in the "treatment", "control", and treatment relative to the control " $\Delta$ " for the UK and US. The reference category is male, 18-24, highest education, employed, Christian, Conservative (UK) or Republican (US), White, and highest income. Values indicate log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than the reference group upon exposure to misinformation, relative to factual information. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0. Sample sizes of the corresponding demographic can be found in Supplementary Table 9.

Socio-demographic Characteristic			UK			US	
		Treatment	Control	Δ	Treatment	Control	Δ
	18-24			Refer	ence		
Age	25-34	0.42 (0.09, 0.77)	-0.15 (-0.80, 0.48)	0.57 (-0.11, 1.31)	0.23 (-0.14, 0.60)	-0.08 (-0.58, 0.39)	0.31 (-0.29, 0.93)
	35-44	-0.02 (-0.36, 0.34)	-0.06 (-0.72, 0.61)	0.05 (-0.71, 0.81)	0.00 (-0.40, 0.40)	-0.16 (-0.75, 0.40)	0.17 (-0.51, 0.86)
	45-54	0.07 (-0.31, 0.42)	-0.26 (-0.96, 0.43)	0.33 (-0.44, 1.13)	0.15 (-0.23, 0.53)	0.61 (0.01, 1.23)	-0.47 (-1.19, 0.24)
	55-64	-0.12 (-0.48, 0.25)	-0.68 (-1.45, 0.09)	0.56 (-0.29, 1.39)	0.19 (-0.19, 0.58)	0.04 (-0.59, 0.69)	0.16 (-0.61, 0.89)
	65+	-0.23 (-0.71, 0.25)	-0.32 (-1.39, 0.73)	0.09 (-1.06, 1.25)	Treatment Control Δ  Reference  1) 0.23 (-0.14, 0.60) -0.08 (-0.58, 0.39) 0.31 (-0.29, 0.7) (-0.51, 0.40) 0.17 (-0.51, 0.30) 0.15 (-0.23, 0.53) 0.61 (0.01, 1.23) -0.47 (-1.19, 0.9) 0.19 (-0.19, 0.58) 0.04 (-0.59, 0.69) 0.16 (-0.61, 0.5) 0.10 (-0.31, 0.51) 0.04 (-0.70, 0.74) 0.05 (-0.77, 0.66 (-0.61, 0.55) 0.10 (-0.31, 0.51) 0.04 (-0.70, 0.74) 0.05 (-0.77, 0.66 (-0.61, 0.55) 0.35 (0.18, 0.52) -0.07 (-0.43, 0.28) 0.42 (0.02, 0.66 (-0.61, 0.66) 0.29 (0.04, 0.55) -0.14 (-0.68, 0.40) 0.43 (-0.18, 1.40) 0.23 (-0.05, 0.51) -0.07 (-0.53, 0.38) -0.43 (-1.27, 0.41) 0.35 (-0.59, 1.66) 0.29 (0.04, 0.55) -0.14 (-0.68, 0.40) 0.43 (-0.18, 1.40) 0.23 (-0.05, 0.51) -0.07 (-0.52, 0.52) -0.02 (-0.61, 0.66) 0.29 (0.04, 0.55) -0.14 (-0.68, 0.40) 0.43 (-0.18, 1.40) 0.23 (-0.05, 0.51) -0.07 (-0.52, 0.52) -0.02 (-0.61, 0.66) 0.29 (-0.04, 0.55) 0.01 (-0.74, 0.80) 0.26 (-0.60, 1.66) 0.29 (-0.04, 0.55) 0.01 (-0.74, 0.80) 0.26 (-0.60, 1.66) 0.29 (-0.04, 0.55) 0.01 (-0.74, 0.80) 0.26 (-0.60, 1.66) 0.29 (-0.04, 0.35) 0.01 (-0.74, 0.80) 0.26 (-0.60, 1.66) 0.80 (-0.15, 0.35) 0.01 (-0.74, 0.80) 0.26 (-0.60, 1.66) 0.80 (-0.15, 0.35) 0.01 (-0.48, 0.50) 0.00 (-0.55, 0.52) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.01 (-0.48, 0.50) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.35) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.08 (-0.19, 0.34) 0.00 (-0.61, 0.59) 0.03 (-0.06, 0.61) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.00 (-0.61, 0.59) 0.09 (-0.58, 0.66) 0.00 (-0.61, 0.59) 0.00 (-0.61, 0.59) 0.00 (-0.61, 0.59) 0.00 (-0.61, 0.59) 0.00 (-0.61, 0.59) 0.00 (-0.61, 0.5	0.05 (-0.77, 0.88)	
	Male			Refer	ence		
Gender	Female	0.30 (0.12, 0.49)	-0.08 (-0.44, 0.29)	0.39 (-0.02, 0.79)	0.35 (0.18, 0.52)	-0.07 (-0.43, 0.28)	0.42 (0.02, 0.81)
Age  Gender  Education  Employment  Religion  Political Affiliation  Ethnicity  Income	Other	1.03 (0.05, 2.00)	0.40 (-1.15, 1.98)	0.63 (-1.17, 2.35)	-0.42 (-1.29, 0.43)	0.45 (-1.09, 1.99)	-0.87 (-2.60, 0.83)
	R-24	-0.43 (-1.27, 0.41)	0.35 (-0.59, 1.34)				
-	Level-1	0.08 (-0.20, 0.36)	-0.26 (-0.83, 0.29)	0.34 (-0.26, 0.96)	0.29 (0.04, 0.55)	-0.14 (-0.68, 0.40)	0.43 (-0.18, 1.04)
Education	Level-2	-0.06 (-0.36, 0.24)	-0.22 (-0.83, 0.38)	0.16 (-0.50, 0.84)	0.23 (-0.05, 0.51)	-0.07 (-0.69, 0.55)	0.30 (-0.37, 0.96)
Zunemon	Level-3	-0.09 (-0.36, 0.19)	-0.07 (-0.62, 0.47)	-0.02 (-0.62, 0.60)	-0.03 (-0.29, 0.23)	-0.00 (-0.52, 0.52)	-0.02 (-0.61, 0.54)
Age  Gender  Education  Employment  Religion  Political Affiliation  Ethnicity  Income	Level-4			Refer	ence		
	Other	0.05 (-0.33, 0.42)	-0.18 (-0.99, 0.62)	0.22 (-0.65, 1.12)	0.27 (-0.13, 0.70)	0.01 (-0.74, 0.80)	0.26 (-0.60, 1.13)
	Employed			Refer	ence		
	Unemployed	-0.11 (-0.50, 0.27)	0.43 (-0.30, 1.12)	-0.53 (-1.34, 0.29)	-0.07 (-0.37, 0.23)	0.01 (-0.48, 0.50)	-0.08 (-0.66, 0.51)
	Student	0.14 (-0.32, 0.60)	-0.61 (-1.51, 0.26)	0.75 (-0.24, 1.78)	-0.01 (-0.51, 0.48)	-0.10 (-0.72, 0.52)	0.09 (-0.72, 0.89)
	Retired	-0.41 (-0.81, -0.02)	-0.39 (-1.30, 0.53)	-0.02 (-1.02, 0.97)	0.01 (-0.26, 0.27)	-0.01 (-0.66, 0.63)	0.02 (-0.68, 0.72)
	Other	-0.10 (-0.40, 0.19)	-0.03 (-0.60, 0.54)	-0.07 (-0.68, 0.56)	0.08 (-0.19, 0.35)	-0.00 (-0.61, 0.59)	0.09 (-0.58, 0.74)
	Other         -0.10 (-0.40, 0.19)         -0.03 (-0.60, 0.54)         -0.07 (-0.68, 0.56)         0.08 (-0.19, 0.35)         -           Christian         Reference           Jewish         -0.08 (-0.89, 0.70)         1.50 (0.06, 2.88)         -1.58 (-3.14, -0.02)         0.00 (-0.40, 0.39)         -           Muslim         0.20 (-0.28, 0.68)         0.02 (-0.95, 0.95)         0.18 (-0.84, 1.23)         -0.65 (-1.20, -0.09)						
	Jewish	-0.08 (-0.89, 0.70)	1.50 (0.06, 2.88)	-1.58 (-3.14, -0.02)	0.00 (-0.40, 0.39)	-0.03 (-1.06, 0.93)	0.03 (-1.00, 1.15)
Religion	Muslim	0.20 (-0.28, 0.68)	0.02 (-0.95, 0.95)	0.18 (-0.84, 1.23)	-0.65 (-1.20, -0.09)	0.29 (-0.49, 1.03)	-0.94 (-1.85, 0.03)
Religion	Atheist	-0.20 (-0.41, -0.00)	-0.02 (-0.44, 0.39)	-0.18 (-0.64, 0.27)	-0.23 (-0.50, 0.04)	-0.05 (-0.67, 0.54)	-0.18 (-0.83, 0.50)
	Other	-0.18 (-0.41, 0.08)	0.25 (-0.23, 0.72)	-0.42 (-0.95, 0.13)	0.03 (-0.19, 0.24)	0.11 (-0.28, 0.50)	-0.08 (-0.53, 0.36)
	Conservative		Reference		-	-	-
Education  Employment  Religion  Political Affiliation	Republican	-	-	-		Reference	
	Labour	-0.05 (-0.27, 0.17)	0.08 (-0.36, 0.53)	-0.14 (-0.63, 0.36)	-	-	-
	Liberal Democrat	-0.31 (-0.70, 0.05)	-0.28 (-0.97, 0.39)	-0.04 (-0.81, 0.74)	-	-	-
	SNP	0.12 (-0.34, 0.58)	-0.19 (-1.04, 0.64)	0.30 (-0.60, 1.28)	-	-	-
	Other	0.10 (-0.16, 0.35)	-0.13 (-0.65, 0.38)	0.23 (-0.35, 0.82)	0.06 (-0.15, 0.27)	0.26 (-0.13, 0.67)	-0.20 (-0.67, 0.26)
	Democrat	-	-	-	-0.18 (-0.39, 0.03)	-0.34 (-0.73, 0.06)	0.16 (-0.31, 0.60)
	White			Refer	ence		
	Black	0.37 (-0.09, 0.80)	0.60 (-0.36, 1.52)	-0.23 (-1.24, 0.81)	0.33 (0.06, 0.61)	0.30 (-0.17, 0.78)	0.03 (-0.50, 0.57)
Affiliation	Asian	0.02 (-0.34, 0.39)	-0.32 (-0.98, 0.33)	0.34 (-0.42, 1.11)	0.09 (-0.34, 0.50)	-0.24 (-1.00, 0.49)	0.33 (-0.49, 1.18)
	Other	0.18 (-0.40, 0.79)	0.19 (-0.79, 1.22)	-0.01 (-1.17, 1.13)	0.37 (0.00, 0.73)	0.66 (0.09, 1.24)	-0.29 (-0.98, 0.39)
	Hispanic	-	-	-	0.02 (-0.32, 0.34)	0.13 (-0.41, 0.65)	-0.11 (-0.72, 0.51)
	Level-0	0.29 (-0.04, 0.63)	0.59 (-0.04, 1.24)	0.33 (-0.44, 1.13)	-0.67 (-1.38, 0.04)		
	Level-1	0.21 (-0.09, 0.51)	0.45 (-0.14, 1.04)	-0.24 (-0.91, 0.43)	0.08 (-0.20, 0.35)	0.73 (0.16, 1.31)	-0.65 (-1.33, -0.02)
Income	Level-2	0.15 (-0.14, 0.46)	0.36 (-0.26, 0.97)	-0.20 (-0.89, 0.44)	0.05 (-0.23, 0.34)	0.85 (0.24, 1.48)	-0.80 (-1.48, -0.13)
	Level-3	-0.01 (-0.28, 0.27)	-0.10 (-0.64, 0.47)	0.08 (-0.53, 0.70)	-0.01 (-0.27, 0.26)	0.50 (-0.06, 1.05)	-0.51 (-1.11, 0.10)
	Level-4			Refer	ence		
Employment  Religion  Political Affiliation  Ethnicity	Other	0.04 (-0.40, 0.46)	0.24 (-0.54, 1.02)	-0.21 (-1.10, 0.69)	-0.20 (-0.62, 0.24)	0.72 (-0.03, 1.49)	-0.91 (-1.80, -0.04)

Supplementary Table 5. Heterogeneous treatment effects of amount of social media usage on vaccination intent to protect oneself, post exposure to (mis)information about COVID-19 vaccines, after controlling for socio-demographics. Contribution of amount of daily social media use to changes in intent to accept a vaccine in the "treatment", "control", and treatment relative to the control " $\Delta$ " for the UK and US. Values depict log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates the group is more (less) likely to reject a COVID-19 vaccine than those who do not use any social media upon exposure to misinformation, relative to factual information. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0.

Social Media Use		UK		US				
(per day)	Treatment	Control	Δ	Treatment	Control	Δ		
None			Refe	rence				
Less than 10 minutes	-0.11 (-0.43, 0.21)	-0.55 (-1.24, 0.12)	0.44 (-0.30, 1.22)	-0.31 (-0.62, -0.01)	0.04 (-0.63, 0.73)	-0.35 (-1.10, 0.38)		
10-30 minutes	0.06 (-0.23, 0.35)	-0.08 (-0.67, 0.51)	0.14 (-0.51, 0.80)	-0.25 (-0.52, 0.02)	-0.34 (-0.93, 0.24)	0.09 (-0.56, 0.72)		
31–60 minutes	-0.01 (-0.34, 0.32)	-0.20 (-0.81, 0.40)	0.19 (-0.51, 0.87)	-0.04 (-0.33, 0.27)	-0.25 (-0.84, 0.34)	0.21 (-0.45, 0.88)		
1–2 hours	0.23 (-0.08, 0.54)	-0.01 (-0.64, 0.61)	0.23 (-0.48, 0.94)	-0.02 (-0.32, 0.29)	-0.27 (-0.86, 0.32)	0.25 (-0.44, 0.91)		
2–3 hours	0.26 (-0.10, 0.62)	-0.07 (-0.82, 0.69)	0.33 (-0.51, 1.15)	0.03 (-0.30, 0.35)	-0.37 (-0.98, 0.25)	0.40 (-0.29, 1.10)		
More than 3 hours	0.07 (-0.29, 0.42)	0.11 (-0.58, 0.80)	-0.04 (-0.82, 0.75)	-0.04 (-0.33, 0.26)	-0.15 (-0.76, 0.42)	0.12 (-0.53, 0.77)		

Supplementary Table 6. Heterogeneous treatment effects of sources of COVID-19 information that are trusted on vaccination intent to protect oneself, post exposure to (mis)information about COVID-19 vaccines, after controlling for socio-demographics. Contribution of trusting different sources of COVID-19 information to changes in intent to accept a vaccine in the "treatment", "control", and treatment relative to the control " $\Delta$ " for the UK and US. Values depict log odds ratios, such that if  $\Delta$  is above (below) 0 then it indicates those who trust the source are more (less) likely to reject a COVID-19 vaccine than those who do not trust it upon exposure to misinformation, relative to factual information. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0.

	UK			US				
Treatment	Control	Δ	Treatment	Control	Δ			
-0.10 (-0.30, 0.09)	-0.10 (-0.51, 0.31)	-0.01 (-0.46, 0.46)	0.03 (-0.17, 0.23)	-0.34 (-0.73, 0.04)	0.37 (-0.07, 0.80)			
0.13 (-0.20, 0.44)	-0.21 (-0.87, 0.46)	0.33 (-0.39, 1.06)	-0.19 (-0.51, 0.13)	-0.31 (-0.88, 0.26)	0.12 (-0.52, 0.76)			
-0.26 (-0.53, 0.01)	-0.03 (-0.60, 0.53)	-0.23 (-0.85, 0.40)	-0.13 (-0.40, 0.13)	-0.28 (-0.77, 0.22)	0.15 (-0.43, 0.74)			
-0.12 (-0.32, 0.08)	0.22 (-0.21, 0.64)	-0.34 (-0.81, 0.15)	-	-	-			
-0.05 (-0.25, 0.16)	-0.18 (-0.60, 0.24)	0.13 (-0.34, 0.59)	-0.05 (-0.24, 0.15)	0.10 (-0.25, 0.46)	-0.15 (-0.55, 0.26)			
-0.08 (-0.27, 0.11)	-0.18 (-0.58, 0.22)	0.10 (-0.34, 0.55)	-0.09 (-0.29, 0.11)	-0.04 (-0.40, 0.34)	-0.05 (-0.48, 0.37)			
-0.07 (-0.27, 0.11)	-0.20 (-0.60, 0.20)	0.13 (-0.32, 0.58)	-0.09 (-0.28, 0.11)	-0.31 (-0.66, 0.04)	0.22 (-0.17, 0.63)			
0.03 (-0.16, 0.23)	-0.13 (-0.55, 0.26)	0.17 (-0.27, 0.61)	0.18 (-0.01, 0.37)	-0.08 (-0.43, 0.27)	0.26 (-0.13, 0.65)			
-0.03 (-0.22, 0.17)	0.11 (-0.29, 0.51)	-0.14 (-0.59, 0.32)	-0.10 (-0.34, 0.13)	0.02 (-0.42, 0.48)	-0.12 (-0.64, 0.38)			
0.25 (-0.13, 0.61)	0.02 (-0.70, 0.70)	0.23 (-0.57, 1.04)	-0.01 (-0.31, 0.28)	-0.01 (-0.46, 0.46)	-0.01 (-0.56, 0.54)			
-0.49 (-1.10, 0.10)	0.82 (-0.36, 1.93)	-1.31 (-2.59, -0.03)	-0.37 (-0.87, 0.11)	0.27 (-0.54, 1.06)	-0.64 (-1.53, 0.33)			
0.19 (-0.10, 0.48)	-0.24 (-0.83, 0.35)	0.43 (-0.23, 1.07)	0.07 (-0.18, 0.32)	0.13 (-0.31, 0.55)	-0.06 (-0.55, 0.45)			
0.25 (-0.01, 0.52)	-0.06 (-0.65, 0.51)	0.31 (-0.32, 0.96)	0.02 (-0.21, 0.25)	-0.50 (-0.94, -0.05)	0.52 (0.03, 1.01)			
-0.01 (-0.34, 0.31)	0.29 (-0.35, 0.90)	-0.30 (-0.98, 0.41)	0.15 (-0.18, 0.47)	0.45 (-0.08, 0.95)	-0.30 (-0.91, 0.32)			
0.63 (-0.34, 1.57)	1.65 (0.19, 3.13)	-1.02 (-2.74, 0.70)	0.38 (-0.27, 1.04)	0.07 (-1.14, 1.28)	0.31 (-1.05, 1.66)			
0.35 (-0.01, 0.69)	-0.02 (-0.71, 0.70)	0.37 (-0.41, 1.12)	0.22 (-0.11, 0.56)	0.30 (-0.30, 0.90)	-0.09 (-0.77, 0.61)			
-	-	-	0.13 (-0.11, 0.37)	-0.15 (-0.61, 0.32)	0.28 (-0.24, 0.81)			
-	-	-	-0.10 (-0.30, 0.11)	-0.18 (-0.59, 0.23)	0.08 (-0.38, 0.54)			
	-0.10 (-0.30, 0.09) 0.13 (-0.20, 0.44) -0.26 (-0.53, 0.01) -0.12 (-0.32, 0.08) -0.05 (-0.25, 0.16) -0.08 (-0.27, 0.11) 0.03 (-0.16, 0.23) -0.03 (-0.22, 0.17) 0.25 (-0.13, 0.61) -0.49 (-1.10, 0.10) 0.19 (-0.10, 0.48) 0.25 (-0.01, 0.52) -0.01 (-0.34, 0.31) 0.63 (-0.34, 1.57)	Treatment         Control           -0.10 (-0.30, 0.09)         -0.10 (-0.51, 0.31)           0.13 (-0.20, 0.44)         -0.21 (-0.87, 0.46)           -0.26 (-0.53, 0.01)         -0.03 (-0.60, 0.53)           -0.12 (-0.32, 0.08)         0.22 (-0.21, 0.64)           -0.05 (-0.25, 0.16)         -0.18 (-0.60, 0.24)           -0.08 (-0.27, 0.11)         -0.18 (-0.58, 0.22)           -0.07 (-0.27, 0.11)         -0.20 (-0.60, 0.20)           0.03 (-0.16, 0.23)         -0.13 (-0.55, 0.26)           -0.03 (-0.22, 0.17)         0.11 (-0.29, 0.51)           0.25 (-0.13, 0.61)         0.02 (-0.70, 0.70)           -0.49 (-1.10, 0.10)         0.82 (-0.36, 1.93)           0.19 (-0.10, 0.48)         -0.24 (-0.83, 0.35)           0.25 (-0.01, 0.52)         -0.06 (-0.65, 0.51)           -0.01 (-0.34, 0.31)         0.29 (-0.35, 0.90)           0.63 (-0.34, 1.57)         1.65 (0.19, 3.13)	Treatment         Control         Δ           -0.10 (-0.30, 0.09)         -0.10 (-0.51, 0.31)         -0.01 (-0.46, 0.46)           0.13 (-0.20, 0.44)         -0.21 (-0.87, 0.46)         0.33 (-0.39, 1.06)           -0.26 (-0.53, 0.01)         -0.03 (-0.60, 0.53)         -0.23 (-0.85, 0.40)           -0.12 (-0.32, 0.08)         0.22 (-0.21, 0.64)         -0.34 (-0.81, 0.15)           -0.05 (-0.25, 0.16)         -0.18 (-0.60, 0.24)         0.13 (-0.34, 0.59)           -0.08 (-0.27, 0.11)         -0.18 (-0.58, 0.22)         0.10 (-0.34, 0.55)           -0.07 (-0.27, 0.11)         -0.20 (-0.60, 0.20)         0.13 (-0.32, 0.58)           0.03 (-0.16, 0.23)         -0.13 (-0.55, 0.26)         0.17 (-0.27, 0.61)           -0.03 (-0.22, 0.17)         0.11 (-0.29, 0.51)         -0.14 (-0.59, 0.32)           0.25 (-0.13, 0.61)         0.02 (-0.70, 0.70)         0.23 (-0.57, 1.04)           -0.49 (-1.10, 0.10)         0.82 (-0.36, 1.93)         -1.31 (-2.59, -0.03)           0.19 (-0.10, 0.48)         -0.24 (-0.83, 0.35)         0.43 (-0.23, 1.07)           0.25 (-0.01, 0.52)         -0.06 (-0.65, 0.51)         0.31 (-0.32, 0.96)           -0.01 (-0.34, 0.31)         0.29 (-0.35, 0.90)         -0.30 (-0.98, 0.41)           0.63 (-0.34, 1.57)         1.65 (0.19, 3.13)         -1.02 (-2.74, 0.70)           0.	Treatment         Control         A         Treatment           -0.10 (-0.30, 0.09)         -0.10 (-0.51, 0.31)         -0.01 (-0.46, 0.46)         0.03 (-0.17, 0.23)           0.13 (-0.20, 0.44)         -0.21 (-0.87, 0.46)         0.33 (-0.39, 1.06)         -0.19 (-0.51, 0.13)           -0.26 (-0.53, 0.01)         -0.03 (-0.60, 0.53)         -0.23 (-0.85, 0.40)         -0.13 (-0.40, 0.13)           -0.12 (-0.32, 0.08)         0.22 (-0.21, 0.64)         -0.34 (-0.81, 0.15)         -           -0.05 (-0.25, 0.16)         -0.18 (-0.60, 0.24)         0.13 (-0.34, 0.59)         -0.05 (-0.24, 0.15)           -0.08 (-0.27, 0.11)         -0.18 (-0.58, 0.22)         0.10 (-0.34, 0.55)         -0.09 (-0.29, 0.11)           -0.07 (-0.27, 0.11)         -0.20 (-0.60, 0.20)         0.13 (-0.32, 0.58)         -0.09 (-0.28, 0.11)           0.03 (-0.16, 0.23)         -0.13 (-0.55, 0.26)         0.17 (-0.27, 0.61)         0.18 (-0.01, 0.37)           -0.03 (-0.22, 0.17)         0.11 (-0.29, 0.51)         -0.14 (-0.59, 0.32)         -0.10 (-0.34, 0.13)           0.25 (-0.13, 0.61)         0.02 (-0.70, 0.70)         0.23 (-0.57, 1.04)         -0.01 (-0.31, 0.28)           -0.49 (-1.10, 0.10)         0.82 (-0.36, 1.93)         -1.31 (-2.59, -0.03)         -0.37 (-0.87, 0.11)           0.19 (-0.10, 0.48)         -0.24 (-0.83, 0.35)         0.43 (-0.23, 1.07)	Treatment         Control         Δ         Treatment         Control           -0.10 (-0.30, 0.09)         -0.10 (-0.51, 0.31)         -0.01 (-0.46, 0.46)         0.03 (-0.17, 0.23)         -0.34 (-0.73, 0.04)           0.13 (-0.20, 0.44)         -0.21 (-0.87, 0.46)         0.33 (-0.39, 1.06)         -0.19 (-0.51, 0.13)         -0.31 (-0.88, 0.26)           -0.26 (-0.53, 0.01)         -0.03 (-0.60, 0.53)         -0.23 (-0.85, 0.40)         -0.13 (-0.40, 0.13)         -0.28 (-0.77, 0.22)           -0.12 (-0.32, 0.08)         0.22 (-0.21, 0.64)         -0.34 (-0.81, 0.15)         -         -           -0.05 (-0.25, 0.16)         -0.18 (-0.60, 0.24)         0.13 (-0.34, 0.59)         -0.05 (-0.24, 0.15)         0.10 (-0.25, 0.46)           -0.08 (-0.27, 0.11)         -0.18 (-0.58, 0.22)         0.10 (-0.34, 0.55)         -0.09 (-0.29, 0.11)         -0.04 (-0.40, 0.34)           -0.07 (-0.27, 0.11)         -0.20 (-0.60, 0.20)         0.13 (-0.32, 0.58)         -0.09 (-0.28, 0.11)         -0.31 (-0.66, 0.04)           0.03 (-0.16, 0.23)         -0.13 (-0.55, 0.26)         0.17 (-0.27, 0.61)         0.18 (-0.01, 0.37)         -0.08 (-0.43, 0.27)           -0.03 (-0.22, 0.17)         0.11 (-0.29, 0.51)         -0.14 (-0.59, 0.32)         -0.10 (-0.34, 0.13)         0.02 (-0.42, 0.48)           0.25 (-0.13, 0.61)         0.02 (-0.70, 0.70)         0.23 (-0.57, 1.04) </td			

Supplementary Table 7. Assessment of contribution of images and image characteristics to drop in vaccination intent through predictive analysis of post-exposure intent. (Top) Image characteristics that determine their impact on the intent to vaccinate to protect oneself. Values depict log odds ratios for the contribution of self-reported image characteristics to the drop in intent to vaccinate post-exposure in the given group. A value above (below) 0 indicates that the more a respondent agreed with that image characteristic when self-reporting, the more it caused a drop in their measured vaccination intent. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0. (Bottom) Weights of images in their contribution to effects of exposure. Since exactly 5 images were shown to each respondent, weights above (below) 0.2 indicate images that contributed more (less) than what would be expected at random. Values in parentheses indicate 95% percentile intervals (PI) with values in bold indicating PIs that do not include 0.2. Note that treatment image sets differed for the UK and US, but control images are identical.

Image / Image Characteristic	Treat	ment	Control								
	UK US		UK	US							
Slopes for Image Characteristics											
Makes less inclined to vaccinate	0.70 (0.59, 0.82)	0.45 (0.36, 0.55)	0.27 (0.03, 0.51)	0.19 (0.00, 0.38)							
Agree with	0.05 (-0.14, 0.25)	0.01 (-0.16, 0.18)	-0.53 (-0.96, -0.08)	-0.78 (-1.13, -0.44)							
Found trustworthy	-0.00 (-0.19, 0.18)	-0.10 (-0.27, 0.08)	-0.47 (-0.88, -0.06)	-0.37 (-0.69, -0.06)							
Likely to fact-check	-0.04 (-0.11, 0.04)	-0.06 (-0.14, 0.01)	-0.02 (-0.19, 0.15)	-0.16 (-0.32, 0.01)							
Likely to share	0.15 (0.04, 0.26)	-0.00 (-0.10, 0.09)	0.12 (-0.03, 0.29)	0.06 (-0.10, 0.22)							
	Ima	age Weights									
Image 1	0.42 (0.28, 0.56)	0.41 (0.25, 0.58)	0.41 (0.19, 0.64)	0.22 (0.05, 0.39)							
Image 2	0.28 (0.14, 0.42)	0.27 (0.09, 0.44)	0.19 (0.01, 0.42)	0.41 (0.24, 0.59)							
Image 3	0.04 (0.00, 0.11)	0.11 (0.00, 0.29)	0.18 (0.02, 0.39)	0.10 (0.01, 0.23)							
Image 4	0.11 (0.01, 0.24)	0.09 (0.00, 0.23)	0.11 (0.00, 0.29)	0.18 (0.03, 0.33)							
Image 5	0.16 (0.02, 0.30)	0.13 (0.01, 0.29)	0.11 (0.01, 0.29)	0.09 (0.00, 0.22)							

**Supplementary Table 8. Socio-demographics and recoding.** To reduce the number of socio-demographic categories, and make them comparable across the UK and US, some of the respondent characteristics have been recoded.

Variable	Value	Recode
Age	Numeric from 18 to 120	18-24, 25-34, 35-44, 45-54, 55-64, 65+
	Male, Female	
Gender	<ol> <li>Other</li> <li>Prefer not to answer</li> </ol>	Other
	No academic or professional qualifications	Level-0
	1. 0-4 GCSE, O-level or equivalents	Level-1
	2. 5+ GCSE, O-level, 1 A level, or equivalents	
Education	2+ A levels, or equivalents	Level-2
(UK only)	Undergraduate degree	Level-3
(erromy)	Postgraduate degree or other professional degrees	Level-4
	1. Apprenticeship	Other
	<ol> <li>Other (e.g. vocational, foreign qualifications)</li> <li>Prefer not to answer</li> </ol>	
	1. No academic or professional qualifications	Level-0
	2. Nursery or preschool through grade 12	
	High school diploma or GED	Level-1
<b>Education</b>	2-year college degree	Level-2
(US only)	4-year college degree	Level-3
	Postgraduate degree or other professional degrees	Level-4
	1. Other	Other
	2. Prefer not to answer	
	1. Working full-time (include self-employed)	Employed
	2. Working part-time (include self-employed)	
Employment	Unemployed, Student, Retired	
r	1. Looking after family or home	Other
	2. Long-term sick or disabled	
	3. Prefer not to answer  1. Roman Catholic	Christian
	2. Protestant	Christian
	3. Other Christian	
	Jewish, Muslim	
Religion	Atheist or agnostic	Atheist
Rengion	1. Hindu	Other
	2. Buddhist	Other
	3. Other	
	4. Prefer not to answer	
D-19491	Conservative, Labour, Liberal Democrat, SNI	P
Political Affiliation	1. Other	Other
(UK only)	2. Don't know	
	3. Prefer not to answer	
Political	Republican, Democrat	
Affiliation	1. Independent	Other
(US only)	2. Don't know	
	3. Prefer not to answer	33.71
	1. White: English/Welsh/Scottish/Northern Irish/British	White
Ethnicity	<ul><li>2. White: Irish</li><li>3. White: Other white background</li></ul>	
(UK only)	White: Other white background     Black, African, Caribbean, or Black British	Black
	2. White and Black Caribbean, or White and Black African	Diack
	,	

	1. Asian or Asian British: Indian	Asian
	2. Asian or Asian British: Pakistani	Tistan
	3. Asian or Asian British: Bangladeshi	
	4. Asian or Asian British: Chinese	
	5. Asian or Asian British: Other	
	6. White and Asian	
	1. Other	Other
	2. Prefer not to answer	
	Non-Hispanic White	White
	Hispanic, Asian	
Ethnicity	Black or African American	Black
	1. American Indian or Alaska Native	Other
(02 01113)	2. Native Hawaiian or Pacific Islander	
	3. Other	
	4. Prefer not to answer	
	Under £15,000	Level-0
	£15,000 - £24,999	Level-1
	£25,000 - £34,999	Level-2
	1. £35,000 - £44,999	Level-3
Income	2. £45,000 - £54,999	
	1. £55,000 - £64,999	Level-4
(CIR only)	2. £65,000 - £74,999	
	3. £75,000 - £84,999	
	4. £85,000 - £94,999	
	5. £95,000 or over	
Ethnicity (US only)  Income (UK only)	Prefer not to answer	Other
	Under \$15,000	Level-0
	1. \$15,000 - \$24,999	Level-1
	2. \$25,000 - \$34,999	
	1. \$35,000 - \$44,999	Level-2
T	2. \$45,000 - \$54,999	
	1. \$55,000 - \$64,999	Level-3
(US only)	2. \$65,000 - \$74,999	
	3. \$75,000 - \$84,999	
	4. \$85,000 - \$94,999	
	\$95,000 or over	Level-4
	Prefer not to answer	Other

**Supplementary Table 9. Breakdown of socio-demographic characteristics of respondents.** The reference category used in the statistical modelling (see Methods) is underlined: male, 18-24, highest education, employed, Christian, Conservative (UK) or Republican (US), White, and highest income. Some socio-demographics have been recoded. See Supplementary Table 8 for details on recoding, and Supplementary Materials for the questionnaire.

C 1			Treat				Control			
Socio-demog	raphic Characteristic	UI		US		UI			US	
		N	%	N	%	N	%	N	%	
	<u>18-24</u>	364	12.1	255	8.5	140	14	232	23.2	
	25-34	575	19.2	480	16	227	22.7	249	24.9	
Age	35-44	586	19.5	469	15.6	190	19	226	22.0	
	45-54	528	17.6	570	19	162	16.2	97	9.	
	55-64	437	14.6	479	16	127	12.7	75	7.:	
	65+	510	17	748	24.9	154	15.4	121	12.	
Condon	<u>Male</u>	1271	42.4	1266	42.2	421	42.1	492	49.	
Gender	Female	1710	57	1705	56.8	573	57.3	499	49.	
	Other	19	0.6	30	1	6	0.6	9	0.	
	Level-0 (lowest)	138	4.6	137	4.6	40	4	52	5.	
	Level-1	875	29.2	955	31.8	276	27.6	301	30.	
Education	Level-2	501	16.7	508	16.9	190	19	133	13.	
	Level-3	787	26.2	664	22.1	258	25.8	234	23.	
	Level-4 (highest)	465	15.5	562	18.7	163	16.3	204	20.	
	Other	234	7.8	175	5.8	73	7.3	76	7.	
T. 1.	<u>Employed</u>	1914	63.8	1544	51.4	619	61.9	612	61.	
	Unemployed	165	5.5	257	8.6	56	5.6	117	11.	
Employment	Student	134	4.5	94	3.1	64	6.4	82	8.	
	Retired	496	16.5	726	24.2	151	15.1	110	1	
	Other	291	9.7	380	12.7	110	11	79	7.	
	Christian	1286	42.9	1817	60.5	442	44.2	583	58.	
	Jewish	34	1.1	138	4.6	10	1	27	2.	
Religion	Muslim	117	3.9	102	3.4	34	3.4	57	5.	
Religion	Atheist	1001	33.4	304	10.1	342	34.2	77	7.	
	Other	562	18.7	640	21.3	172	17.2	256	25.	
	Conservative (UK)	978	32.6	-	-	307	30.7	-		
	Republican (US)	_	_	991	33	_	_	298	29.	
Political	Labour (UK)	1060	35.3	_	_	350	35	-		
Gender  Education  Employment	Democrat (US)	_	_	1023	34.1	_	_	366	36.	
	Lib-Dem (UK)	220	7.3	-	-	87	8.7	-		
	SNP (UK)	109	3.6	_	_	44	4.4	_		
	Other	633	21.1	987	32.9	212	21.2	336	33.	
	White	2621	87.4	2102	70	872	87.2	603	60	
	Hispanic (US)	-		211	7	-		101	10	
Ethnicity	Black	109	3.6	367	12.2	27	2.7	143	14	
	Asian	216	7.2	127	4.2	82	8.2	60		
	Other	54	1.8	194	6.5	19	1.9	93	9.	
	Level-0 (lowest)	430	14.3	383	12.8	154	15.4	178	17.	
	Level-1	593	19.8	680	22.7	197	19.7	191	19.	
In	Level-2	581	19.4	499	16.6	167	16.7	126	12	
income	Level-3	726	24.2	671	22.4	230	23	208	20	
	Level-4 (highest)	491	16.4	608	20.3	184	18.4	226	22	
	Lever-T (mgnest)	マクエ	10.7	000	20.5	107	10.7	440	44.	
	Other	179	6	160	5.3	68	6.8	71	7.	

**Supplementary Table 10. Diagnostics for all Bayesian models run in the study.** The Effective Sample Size (ESS) and Rhat statistics are reported as tuples of minimum and maximum values—all models were run while ensuring minimum ESS>500, and Rhat<=1.02.

Model	Diagnostic	UK	US
Model 1.1: Causal Impact (Self)	ESS	2397, 7538	3457, 9461
Woder 1.1. Causar impact (Seri)	Rhat	1.00, 1.00	1.00, 1.00
Model 1.2: Causal Impact (Others)	ESS	1829, 6585	2935, 9981
Woder 1.2. Causar Impact (Others)	Rhat	1.00, 1.00	1.00, 1.00
Model 2.1: Socio-demographic Determinants (Self)	ESS	727, 5687	833, 5039
Woder 2.1. Socio-demographic Determinants (Sen)	Rhat	1.00, 1.01	1.00, 1.01
Model 2.2: Socio-demographic Determinants (Others)	ESS	642, 5816	621, 6509
Woder 2.2. Socio-demographic Determinants (Others)	Rhat	1.00, 1.01	1.00, 1.01
Model 3: Social media usage (Self)	ESS	617, 5903	585, 5341
Wodel 3. Social media usage (Sen)	Rhat	1.00, 1.02	1.00, 1.01
Model 4: Sources of trusted info (Self)	ESS	3101, 6152	1648, 6912
Woder 4. Sources of trusted fino (Seri)	Rhat	1.00, 1.00	1.00, 1.00
Model 5.1: Treatment Image Impact (Self)	ESS	2511, 5802	2380, 5159
woder 3.1. Treatment image impact (Sen)	Rhat	1.00, 1.00	1.00, 1.00
Model 5.2: Control Image Image (Self)	ESS	737, 4722	3187, 5117
Model 5.2: Control Image Impact (Self)	Rhat	1.00, 1.00	1.00, 1.00

#### **Supplementary Materials**

#### Questionnaire

#### Section 1: COVID-19 Knowledge Baseline

- [QINF] Do you personally know anyone who has tested positive for COVID-19? If yes, was that a family member, a work colleague, a friend or someone else? (Please choose all that apply.)

  - b. Yes, myself
  - Yes, family member in my household c.
  - d. Yes, family member outside my household
  - Yes, a close friend
  - f. Yes, a work colleague or someone else
- 2. **[QSHD]** Have you been shielding because you are in a vulnerable group for coronavirus (COVID-19)?
  - a. Yesb. No
- 3. **[QKNL]** How strongly do you agree or disagree with the following statements?

Rotate Statements	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Do not know
a) Washing hands with soap or sanitiser can help prevent the spread of coronavirus (COVID-19)	1	2	3	4	5
b) Staying indoors and reducing contact with others can help protect you against catching coronavirus (COVID-19)	1	2	3	4	5
c) Staying indoors and reducing contact with <u>others</u> can help protect others from catching coronavirus (COVID-19)	1	2	3	4	5
d) If you catch coronavirus (COVID- 19), you can infect somebody else before you have developed symptoms	1	2	3	4	5
e) On average, before lockdown, someone with coronavirus (COVID- 19) would have infected 2-3 other people	1	2	3	4	5
f) Treatments already exist to prevent you catching coronavirus (COVID-19)	1	2	3	4	5
g) Wearing a facemask in public can help prevent the spread of coronavirus (COVID-19)	1	2	3	4	5

4. **[QCOVVCI]** How strongly do you agree or disagree with each of the following statements?

Rotate Statements	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Do not know
a) A coronavirus (COVID-19) vaccine would only be made available to the public if it was safe	1	2	3	4	5
b) A coronavirus (COVID-19) vaccine would only be made available to the public if it was effective	1	2	3	4	5
c) A coronavirus (COVID-19) vaccine is important	1	2	3	4	5
d) A coronavirus (COVID-19) vaccine will not be compatible with my religious or personal beliefs	1	2	3	4	5
e) I am worried that I may contract coronavirus (COVID-19) from a COVID-19 vaccine	1	2	3	4	5
f) The benefits of accepting a COVID- 19 vaccine will outweigh the risks	1	2	3	4	5

5. **[QVCI]** We will now ask you some questions about vaccines in general. How strongly do you agree or disagree with each of the following statements?

Rotate Statements	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Do not know
a) Overall, I think vaccines are important for children to have	1	2	3	4	5
b) Overall, I think vaccines are safe	1	2	3	4	5
c) Overall, I think vaccines are effective	1	2	3	4	5
d) Overall, vaccines are compatible with my religious beliefs	1	2	3	4	5

#### Section 2: COVID-19 Main

- 6. **[QSRCUK: UK only]** What sources of information do you trust regarding COVID-19? (Please choose all that apply.)
  - a. Television news
  - b. Radio, podcasts and other broadcasts
  - c. Newspapers and other journalism
  - d. Daily government briefings
  - e. National health authorities (e.g. PHE, NHS)
  - f. International health authorities (e.g. WHO)
  - g. Healthcare workers (e.g. doctors, nurses)
  - h. Scientific experts
  - i. Government websites
  - j. Social media platforms (e.g. Facebook, Twitter, YouTube)
  - k. Celebrities
  - 1. Online search engines or other websites (e.g. Google)
  - m. Family and friends
  - n. Work/school/college guidelines
  - o. Other (specify)
  - p. None of the above
- 7. **[QSRCUS: US only]** What sources of information do you trust regarding COVID-19? (Please choose all that apply.)
  - a. Television news
  - b. Radio, podcasts and other broadcasts
  - c. Newspapers and other journalism
  - d. White House Press briefings
  - e. State government briefings
  - f. National health authorities (e.g. CDC)
  - g. International health authorities (e.g. WHO)
  - h. Healthcare workers (e.g. doctors, nurses)
  - i. Scientific experts
  - j. Government websites
  - k. Social media platforms (e.g. Facebook, Twitter, YouTube)
  - 1. Celebrities
  - m. Online search engines or other websites (e.g. Google)
  - n. Family and friends
  - o. Work/school/college guidelines
  - p. Other (specify)
  - q. None of the above
- 8. **[QCOVSELF]** If a new coronavirus (COVID-19) vaccine became available, would you accept the vaccine for yourself?
  - a. Yes, definitely
  - b. Unsure, but leaning towards yes
  - c. Unsure, but leaning towards no
  - d. No, definitely not
- 9. [QCOVSELFWHY: if QCOVSELF!=a] Why are you unsure about accepting a vaccine against coronavirus (COVID-19)? (Please choose all that apply.)
  - a. I do not yet know enough about how safe it would be
  - b. I do not yet know about how effective it would be
  - c. I do not feel I am at risk of catching the virus
  - d. I would want to wait until other people had been vaccinated first
  - e. I do not feel I would be seriously ill if I caught the virus
  - f. I am confident there will be other effective treatments soon
  - g. I am confident that I have already acquired immunity (protection) through previous infection with the virus
  - h. Approval/Development for the vaccine may be rushed and it may not be thoroughly tested
  - i. Other, please state \_\_\_\_\_
  - j. Do not know
- 10. **[QCOVOTH]** If a new coronavirus (COVID-19) vaccine became available, would you accept the vaccine if it meant protecting friends, family, or at-risk groups?
  - a. Yes, definitely

- b. Unsure, but leaning towards yes
- c. Unsure, but leaning towards nod. No, definitely not
- 11. [QCOVWHEN] When do you think the vaccine against coronavirus (COVID-19) will be publicly available for anybody to take?
  - a. Less than 1 month
  - b. 1 to 3 months
  - c. 4 to 6 months
  - d. 7 to 12 months
  - e. 13 to 24 months
  - f. More than 24 months
  - g. I do not think a COVID-19 vaccine will ever be available
  - h. Do not know

#### **Section 3: Social Media**

We will now ask you some questions about your use of social media

- 12. [OSOCUSE] In the past month, on average, how much time per day have you spent actively using social media?
  - a. None
  - b. Less than 10 minutes per day
  - c. 10–30 minutes per day
  - d. 31–60 minutes per day
  - e. 1–2 hours per day
  - f. 2–3 hours per day
  - g. More than 3 hours per day
- 13. [QSOCTYP] What social media platforms do you use? (Please choose all that apply.)
  - a. Facebook
  - b. Twitter
  - c. YouTube
  - d. WhatsApp
  - e. Instagram
  - f. Pinterest
  - g. LinkedIN
  - h. Other (please state)
  - None of the above
- 14. [OSOCINF] Which of these social media platforms do you receive information regarding COVID-19 from? (Please choose all that apply.)

(Subset options from QSOCTYP)

- 15. [QSOCSHR] With whom do you share information regarding COVID-19? (Please choose all that apply.)
  - a. Family
  - b. Close friends
  - c. Friends or followers on social media
  - d. None of the above
- 16. [QCIRSHR: if QSOCSHR!=d] Which of these social media platforms do you share information regarding COVID-19 on?

(Subset options from **QSOCTYP**)

#### **Section 4: Exposure**

We will now show you 5 images, followed by a set of questions. While answering these questions, imagine these images were shared by your friends, followers or people you follow on any social media platform that you

(On separate pages show images for UK treatments/ US treatments/ controls of both countries.)

- 17. [QPOSTCOVSELF] If a new coronavirus (COVID-19) vaccine became available, would you accept the vaccine for yourself?
  - a. Yes, definitely
  - b. Unsure, but leaning towards yes
  - c. Unsure, but leaning towards no
  - d. No, definitely not

- 18. **[QPOSTCOVSELFWHY: if QPOSTCOVSELF!=a]** Why are you unsure about accepting a vaccine against Coronavirus (COVID-19)? (Please choose all that apply.)
  - a. I do not yet know enough about how safe it would be
  - b. I do not yet know about how effective it would be
  - c. I do not feel I am at risk of catching the virus
  - d. I would want to wait until other people had been vaccinated first
  - e. I do not feel I would be seriously ill if I caught the virus
  - f. I am confident there will be other effective treatments soon
  - g. I am confident that I have already acquired immunity (protection) through previous infection with the virus
  - h. Approval/Development for the vaccine may be rushed and it may not be thoroughly tested
  - i. Other, please state
  - i. Do not know
- 19. **[QPOSTCOVOTH]** If a new coronavirus (COVID-19) vaccine became available, would you accept the vaccine if it meant protecting friends, family, or at-risk groups?
  - a. Yes, definitely
  - b. Unsure, but leaning towards yes
  - c. Unsure, but leaning towards no
  - d. No, definitely not

We will now ask you questions about each image that you were shown.

(Loop over every image  $X = \{1, 2, 3, 4, 5\}$  re-shown followed by this set of questions.)

- 20. [QPOSTVACX] Overall, the information provided in this image makes me
  - a. Much less inclined to be vaccinated
  - b. A little less inclined to be vaccinated
  - c. No less or more inclined to be vaccinated
  - d. A little more inclined to be vaccinated
  - e. Much more inclined to be vaccinated
  - f. Do not know
- 21. [QPOSTBELIEFX] Overall, how much do you agree with the information in this image?
  - a. Strongly agree
  - b. Somewhat agree
  - c. Neither agree nor disagree
  - d. Somewhat disagree
  - e. Strongly disagree
  - f. Do not know
- 22. [QPOSTTRUSTX] Overall, how much do you think this information is trustworthy?
  - a. Very trustworthy
  - b. Somewhat trustworthy
  - c. Neither trustworthy nor untrustworthy
  - d. Somewhat untrustworthy
  - e. Very untrustworthy
  - f. Do not know
- 23. **[QPOSTCHECKX]** Overall, how likely are you to fact-check the information in this image via other sources?
  - a. Very likely
  - b. Somewhat likely
  - c. Neither likely nor unlikely
  - d. Somewhat unlikely
  - e. Very unlikely
  - f. Do not know
- 24. **[QPOSTSHARE]** Overall, how likely are you to share this image with your friends or followers?
  - a. Very likely
  - b. Somewhat likely
  - c. Neither likely nor unlikely
  - d. Somewhat unlikely
  - e. Very unlikely
  - f. Do not know

(End loop.)

#### **Section 5: Information sharing**

Taking into account the five images we showed you, please answer the following questions

- 25. [QPOSTSIM] Have you seen similar content online in the last month on social media?
  - a. Yes
  - b. No
  - c. Do not know
- 26. **[QPOSTFRQ: if QPOSTSIM=a]** How often have you seen similar content being shared on social media in the last one month?
  - a. Multiple times a day
  - b. Once or twice a day
  - c. A few times a week
  - d. A few times a month
  - e. Never
  - f. Do not know
- 27. [Q31b: if QPOSTSIM=a] Have you shared, liked, or commented on similar content in the last month?
  - a. Yes
  - b. No
  - c. Do not know

#### **Section 6: Impact of COVID-19**

28. [QCOVAFF] How strongly do you agree or disagree with each of the following statements?

Rotate Statements	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Do not know
a) COVID-19 has negatively impacted my mental health and wellbeing in the last 6 months	1	2	3	4	5
b) COVID-19 has negatively impacted my financial stability over the last 6 months	1	2	3	4	5
c) COVID-19 has severely disturbed my daily life over the last 6 months	1	2	3	4	5
d) COVID-19 has hampered my ability to socialize with family and close friends over the last 6 months	1	2	3	4	5

#### **Section 7: Demographics**

We will now ask you some questions about yourself

- 29. **[DGEOUK: UK only]** Please select your region and local authority (*Display drill-down menu for UK regions and local authorities.*)
- 30. **[DGEOUS: US only]** Please select your state and county (Display drill-down menu for US states and counties.)
- 31. **[DAGE]** What is your age? (Numeric values from 18 to 120.)
- 32. **[DGEN]** What is your gender?
  - a. Male
  - b. Female

	c.	Other
	d.	Prefer not to answer
33.		<b>UK: UK only</b> ] What is the highest level of education you have completed? If currently
	enrolled	, mark the highest qualification received.
	a.	No academic or professional qualifications
	b.	, 1
	c.	, , , , , , , , , , , , , , , , , , , ,
		Apprenticeship
		2+ A levels, or equivalents
		Undergraduate degree
		Postgraduate degree or other professional degrees
		Other (e.g. vocational, foreign qualifications):
24		Prefer not to answer
34.		US: US only] What is the highest level of education you have completed? If currently enrolled, e previous grade or highest qualification received.
	a.	No academic or professional qualifications
	a. b.	Nursery or preschool through grade 12
		High school diploma or GED
		2-year college degree
		4-year college degree
		Postgraduate degree or other professional degrees
		Other:
	_	Prefer not to answer
35.		Which of the following best describes your working status 6 months ago?
		Working full-time (include self-employed)
		Working part-time (include self-employed)
	c.	Unemployed
	d.	Student
		Looking after family or home
		Retired
	g.	Long-term sick or disabled
		Prefer not to answer
36.		How would you describe your religious affiliation?
		Roman Catholic
		Protestant
		Other Christian:
		Jewish
	e. f.	Hindu Muslim
		Muslim Buddhist
	g. h	Other:
	i.	Atheist or agnostic
		Prefer not to answer
37.		UK: UK only Generally speaking, do you consider yourself as
	a.	Conservative
		Labour
	c.	Liberal Democrat
	d.	SNP
	e.	Other:
	f.	Don't know
	g.	Prefer not to answer
38.	[DPOL	US: US only] Generally speaking, how would you describe your political affiliation?
	a.	Republican
		Democrat
		Independent
		Don't know
2.0		Prefer not to answer
39.		USIND: US only, if DPOLUS=c or DPOLUS=d] As of today, do you politically lean more
	towards	
	a.	Republican Party

	d.	Prefer not to answer
40.	[DETH	UK: UK only Which best describes your ethnicity? (Please choose one response that best
	applies.)	
	a.	White: English/Welsh/Scottish/Northern Irish/British
	b.	White: Irish
	c.	White: Other white background
		White and Black Caribbean, or White and Black African
		White and Asian
		Asian or Asian British: Indian
		Asian or Asian British: Pakistani
	_	Asian or Asian British: Bangladeshi
		Asian of Asian British: Chinese
		Asian or Asian British: Other
		Black, African, Caribbean, or Black British
		Other:
		Prefer not to answer
11		US: US only Which best describes your ethnicity? (Please choose one response that best
<del>1</del> 1.	-	
	applies.	
		Non-Hispanic White
		Hispanic Black or African American
		American Indian or Alaska Native
		Asian
		Native Hawaiian or Pacific Islander
		Other:
40		Prefer not to answer
42.		UK: UK only] What is your main language?
		English
		Polish
		Punjabi
		Urdu
		Bengali
		Other:
12		Prefer not to answer
43.		US: US only] What is your main language?
		English
		Spanish
		Chinese
		French
	e.	Other:
	f.	Prefer not to answer
44.	_	JK: UK only] What is your total annual household income in GBP $(\mathfrak{t})$ from all sources before
	tax?	TI 1 015 000
	a.	Under £15,000
	b.	£15,000 - £24,999
	c.	£25,000 - £34,999
	d.	£35,000 - £44,999
	e.	£45,000 - £54,999
	f.	£55,000 - £64,999
	g.	£65,000 - £74,999
	h.	£75,000 - £84,999
	i.	£85,000 - £94,999
	j.	£95,000 or over

b. Democratic Partyc. Don't know

k. Prefer not to answer

a. Under \$15,000b. \$15,000 - \$24,999

tax?

45. [DINCUS: US only] What is your total annual household income in USD (\$) from all sources before

- c. \$25,000 \$34,999
- d. \$35,000 \$44,999
- e. \$45,000 \$54,999
- f. \$55,000 \$64,999
- g. \$65,000 \$74,999
- h. \$75,000 \$84,999
- i. \$85,000 \$94,999
- j. \$95,000 or over
- k. Prefer not to answer

#### **Section 8: Debrief**

The aim of this study was to monitor your perceptions towards a COVID-19 vaccine and to assess whether the images we showed you changed your perceptions towards vaccinating. The images we showed you are all examples of online information that contains either misleading or incorrect information about a COVID-19 vaccine.

#### [UK only]

For up-to-date information surrounding the COVID-19 pandemic, please consult the NHS's coronavirus webpage https://www.nhs.uk/conditions/coronavirus-covid-19

#### [US only]

For up-to-date information surrounding the COVID-19 pandemic, please consult the coronavirus webpage at the US Centers for Disease Control https://www.cdc.gov/coronavirus/2019-ncov/index.html