

Online Appendix

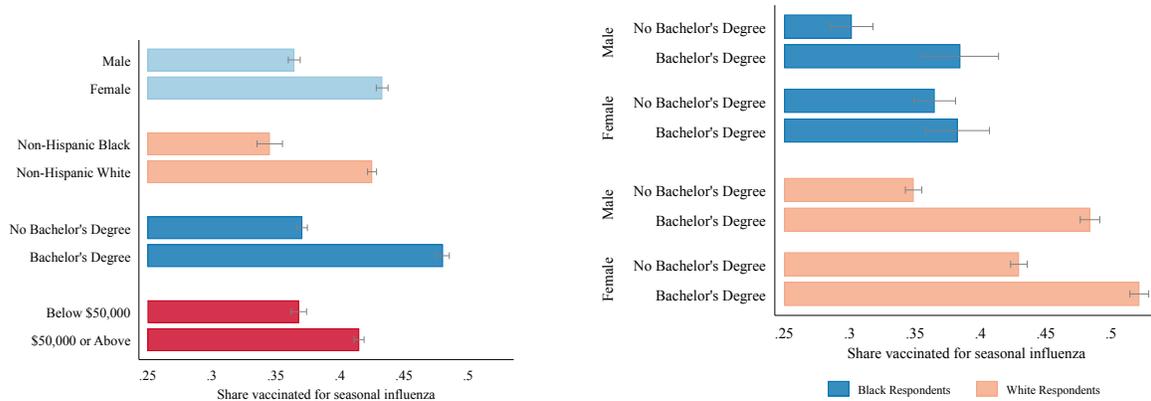
Experimental Evidence on the Effectiveness of Non-Experts for Improving Vaccine Demand

Marcella Alsan and Sarah Eichmeyer

Contents

A Appendix Figures	A.2
B Appendix Tables	A.13
C Baseline Survey Questionnaire	A.23
D Videos and Scripts	A.24
E Outcome Measures: Question Wording	A.26
F Appendix References	A.28

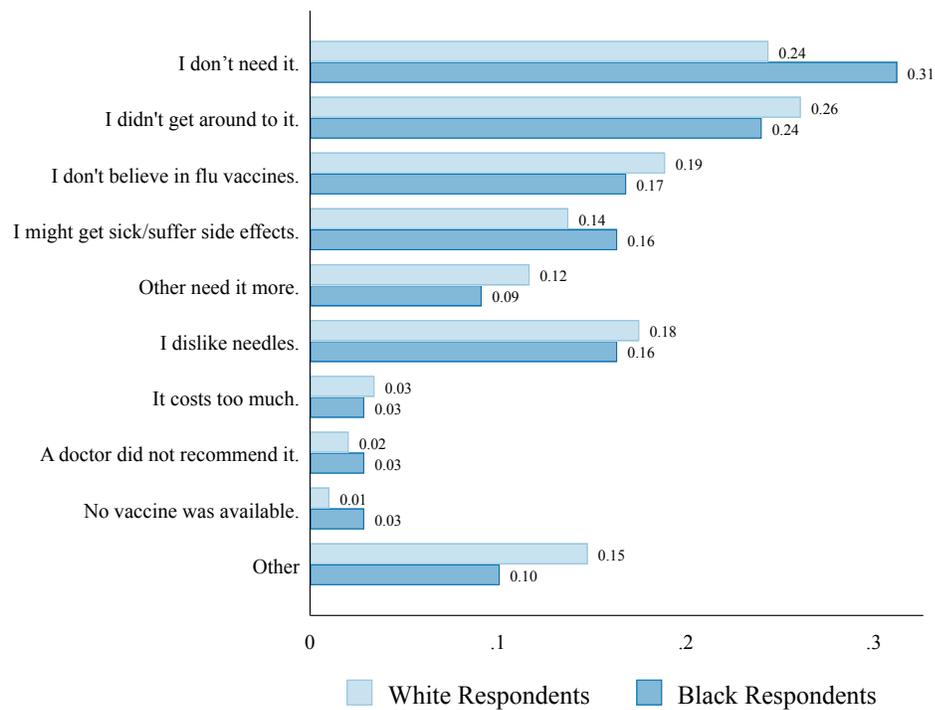
A Appendix Figures



Panel (A): By Sex, Race, Education and Household Income Panel (B): Intersectionality of Race, Sex and Education

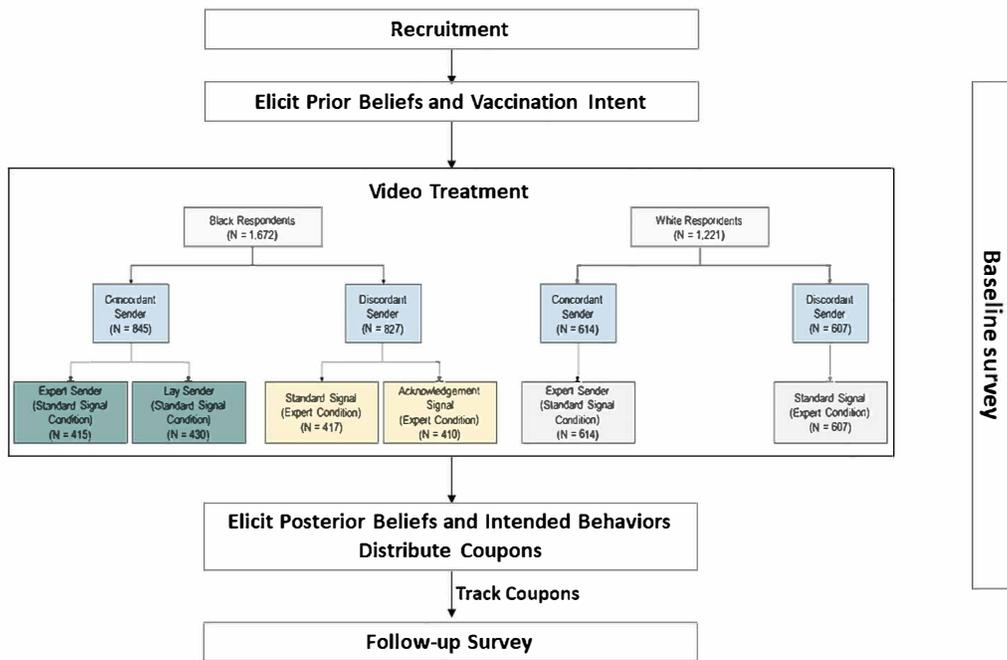
Notes: Figure is based on data from the 2017 Behavioral Risk Factor Surveillance System survey (Centers for Disease Control and Prevention 2018). Panel (A) reports means by sex, race, education level, and household income. Panel (B) reports the intersectionality of race, sex and education. Observations are weighted using survey sample weights. 95% confidence intervals are shown.

Appendix Figure 1: Seasonal Flu Vaccination Rates

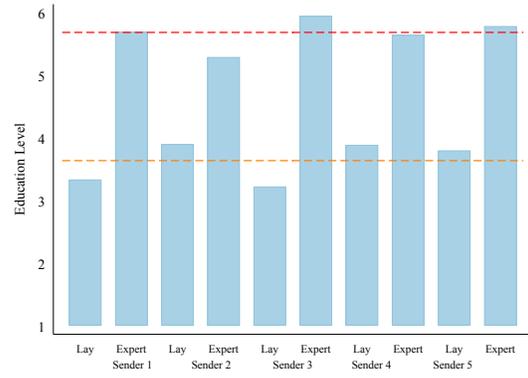
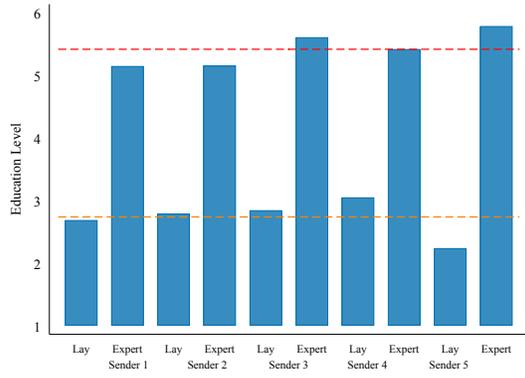


Notes: Figure is based on the follow-up survey sample, restricting to the respondents who indicated that they had not received a flu vaccine since the baseline survey (N=499). Respondents were asked the following question: “You said that you did not get the flu shot. Why is that? Please see list below and check all reasons that apply.” The question on and list of reasons for not wanting an influenza vaccination were adopted from a 2010 RAND survey (Harris, Maurer and Uscher-Pines 2010).

Appendix Figure 2: Reasons for Not Vaccinating



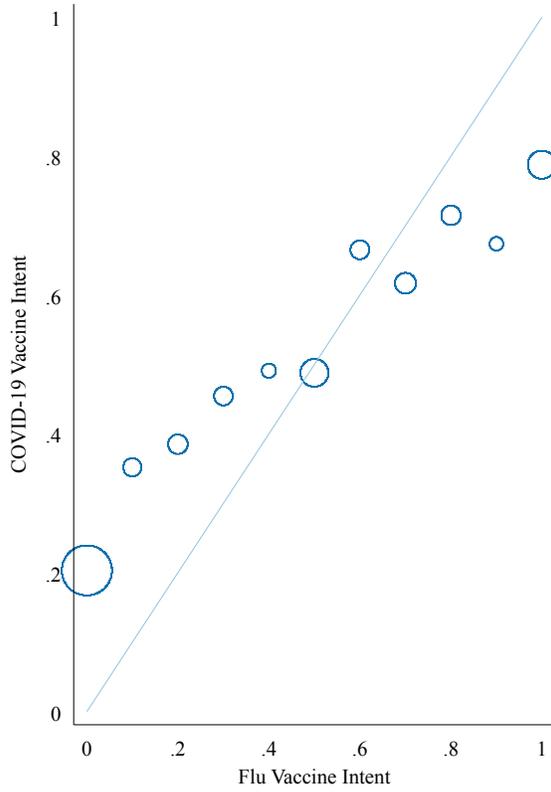
Appendix Figure 3: Study Design



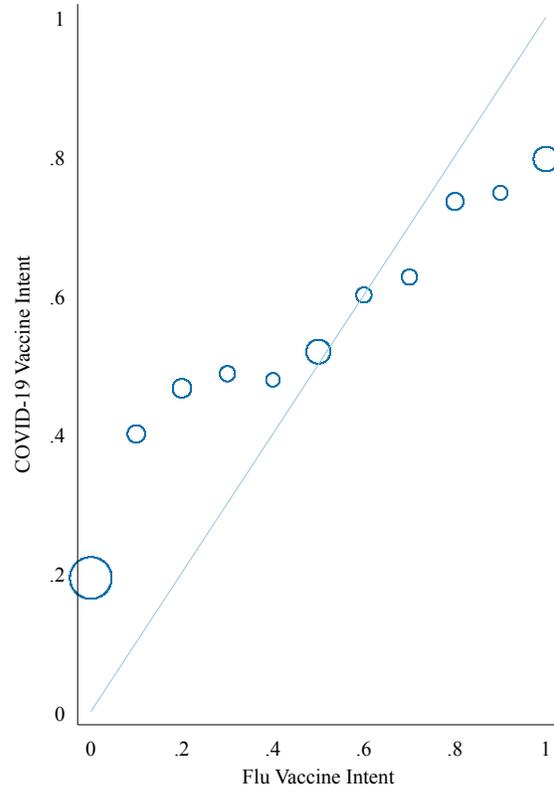
Panel (A): Black Senders Panel (B): White Senders

Notes: Figure displays the mean of MTurkers' ratings of sender education by race and role of senders based on a sample of 381 Mturkers. Each sender was rated on their level of education on a scale of 1 (lowest; less than high school education) to 6 (highest; a graduate degree), in both a layperson and expert role. The red lines represent the mean education rating in an expert role for all Black senders (Panel (A)) and White senders (Panel (B)). The orange lines represent the mean education rating in a layperson role for all Black senders (Panel (A)) and White senders (Panel (B)).

Appendix Figure 4: MTurkers' Ratings of Black and White Senders



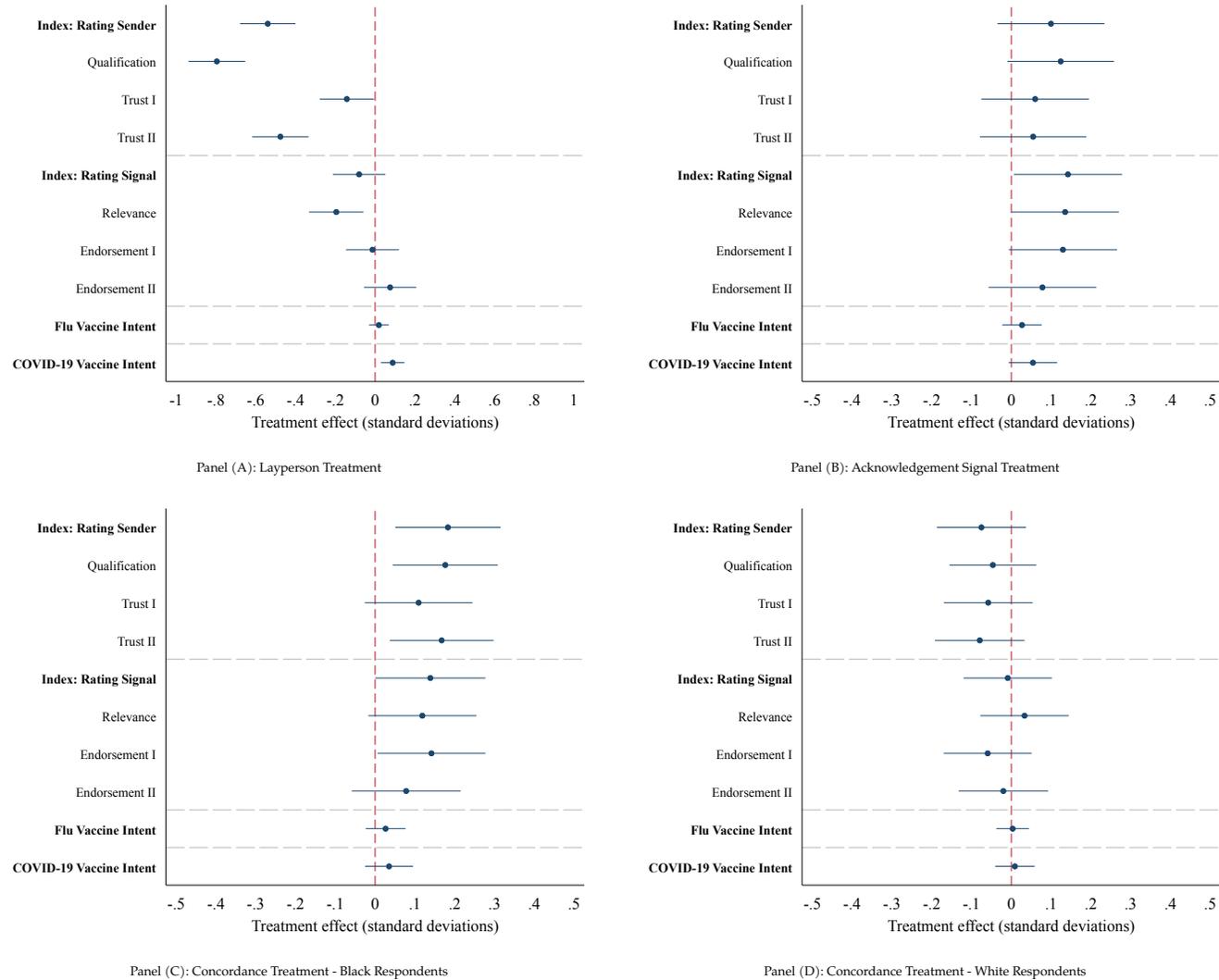
Panel (A): Black Respondents



Panel (B): White Respondents

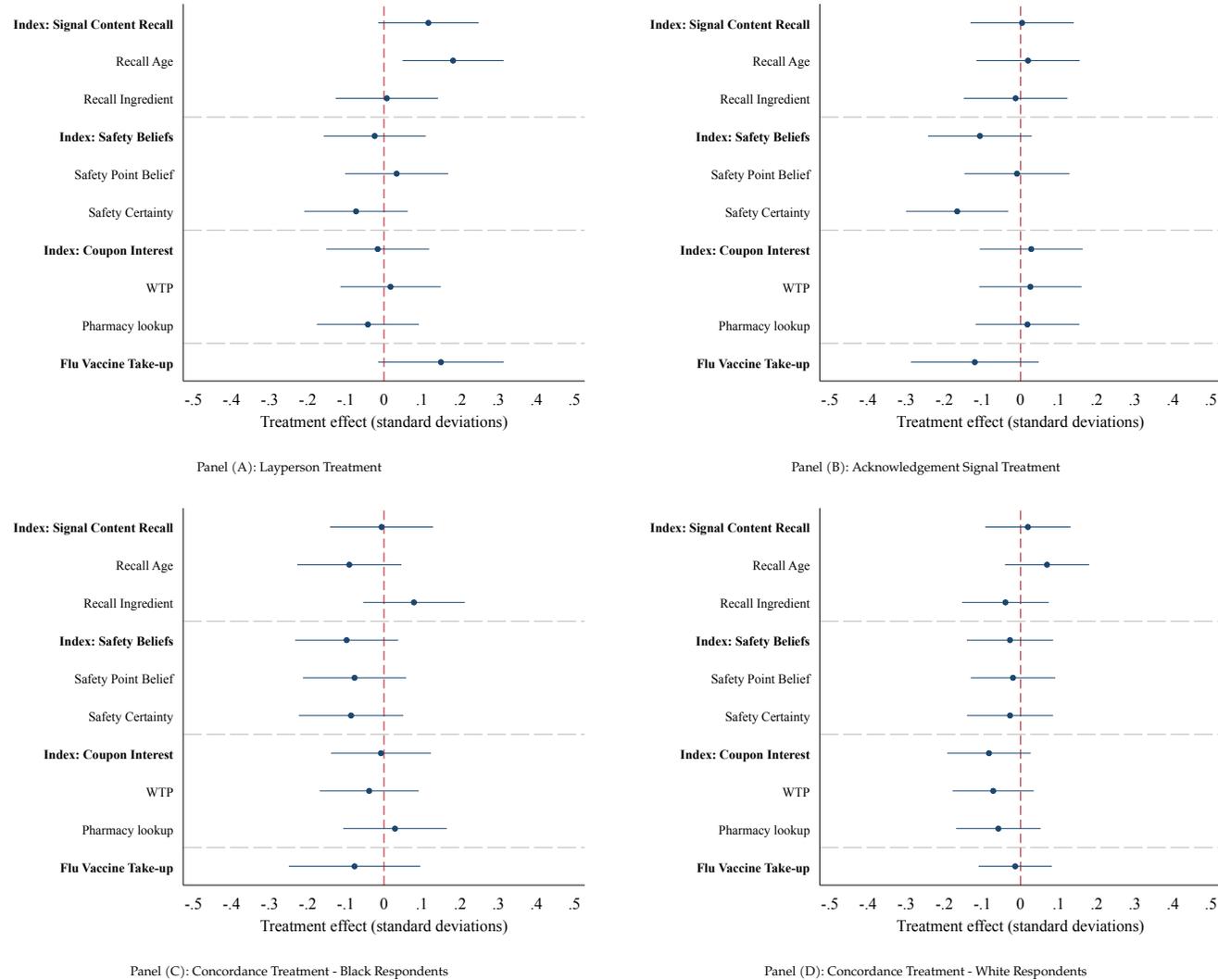
Notes: Figure shows the relationship between Flu Vaccine Intent (on a scale of 0 to 1) and COVID-19 Vaccine Intent (on a scale of 0 to 1). The size of dots represents the number of respondents in each bin of Flu Vaccine Intent. The figure is based on the sample of respondents from the 2020-2021 flu season, as the question about COVID-19 Vaccine Intent was not asked during the 2019-2020 flu season.

Appendix Figure 5: Relationship Between Flu Vaccine Intent and COVID-19 Vaccine Intent



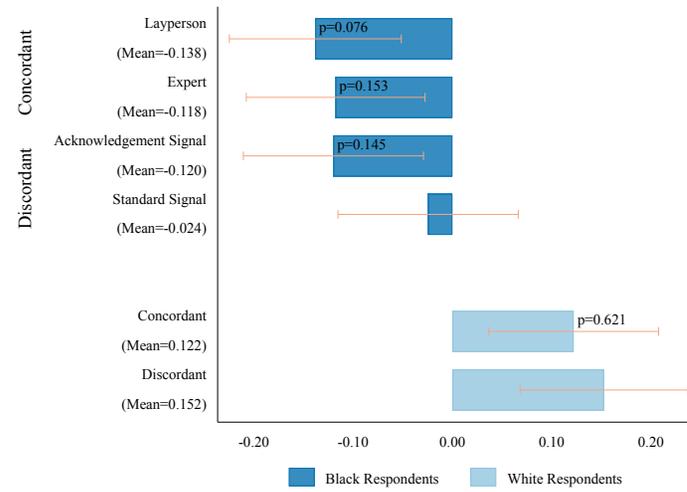
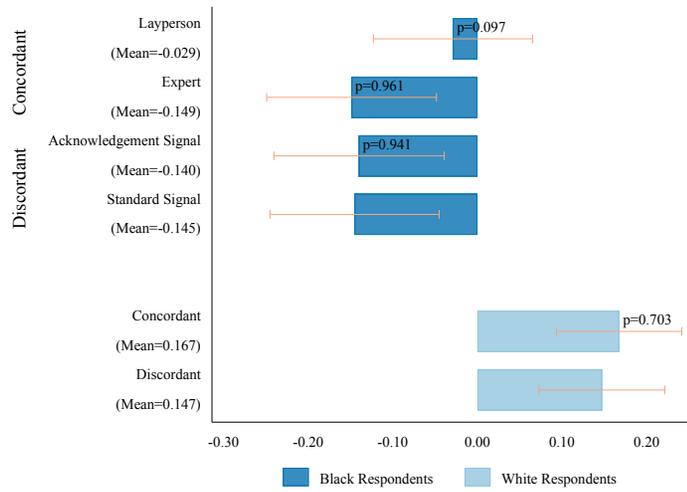
Notes: Figure shows treatment effects on each individual outcome that enters a primary outcome index, for each treatment comparison (A: layperson vs. expert sender; B: acknowledgement vs. standard message; C and D: concordant vs. discordant sender). Outcomes are described in Section II and in Appendix Section E. Outcomes are standardized, except flu vaccine and COVID-19 vaccination intent. Dots represent coefficient estimates obtained from OLS regressions of each outcome of interest on the treatment indicator variable. Stratifying variables (platform and season) are included as controls in the regression but not reported. 95% confidence intervals using robust standard errors are shown.

Appendix Figure 6: Treatment Effects For Each Component of the Primary Outcomes



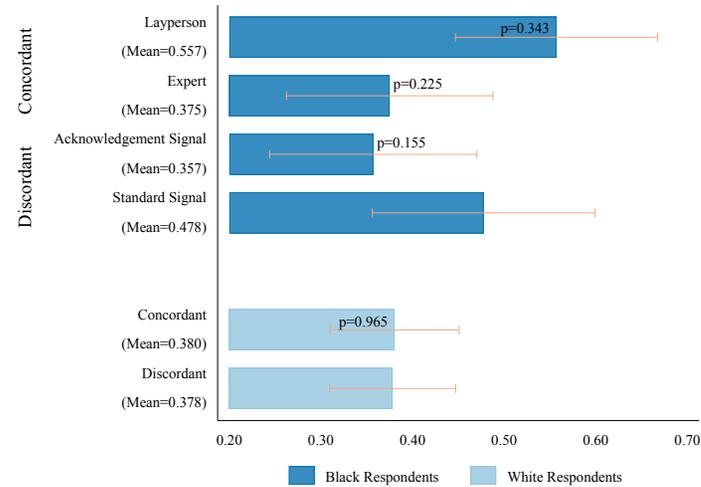
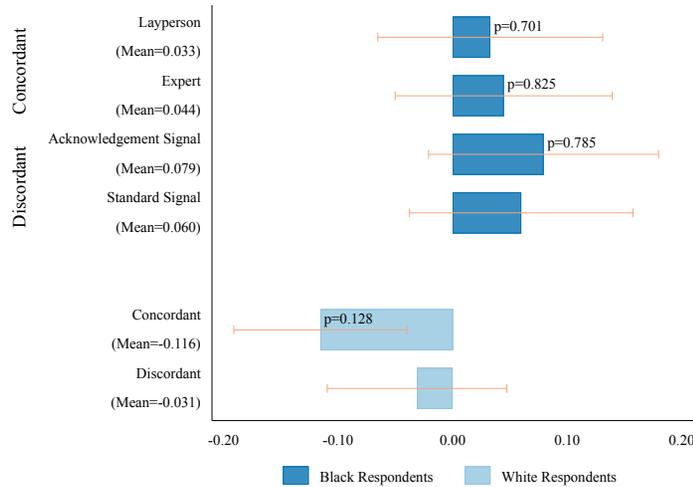
Notes: Figure shows treatment effects on each individual outcome that enters a secondary outcome index, for each treatment comparison (A: layperson vs. expert sender; B: acknowledgement vs. standard message; C and D: concordant vs. discordant sender). Outcomes are described in Section II and in Appendix Section E. Outcomes are standardized, except flu vaccine take-up. Dots represent coefficient estimates obtained from OLS regressions of each outcome of interest on the treatment indicator variable. Stratifying variables (platform and season) are included as controls in the regression but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is included in the regression of the take-up outcome. 95% confidence intervals using robust standard errors are shown.

Appendix Figure 7: Treatment Effects For Each Component of the Secondary Outcomes



Panel (A): Signal Content Recall

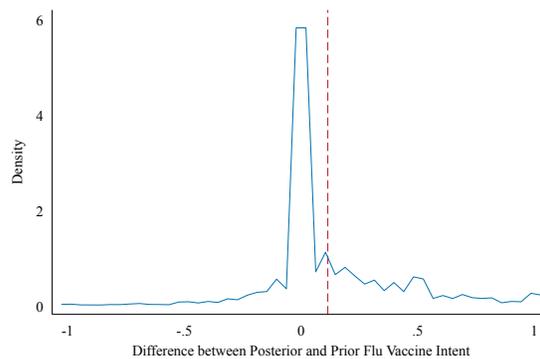
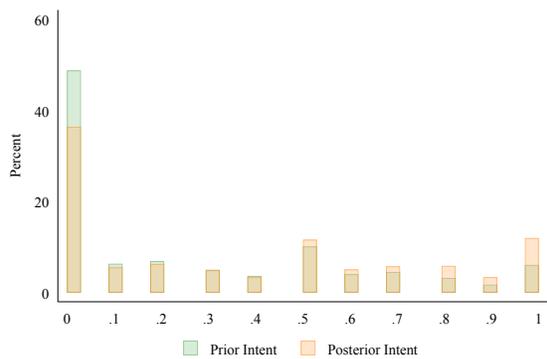
Panel (B): Safety Beliefs



Panel (C): Coupon Interest

Panel (D): Flu Vaccine Take-Up

Notes: Figure shows the mean of each secondary outcome by treatment condition among the sample of Black respondents (dark blue bars), as well as among the sample of White respondents (light blue bars). Signal content recall, safety beliefs and coupon interest are inverse-covariance-weighted indices as described in Anderson (2008), while flu vaccine take-up is binary. For dark blue bars, p -values test the null hypotheses that the concordant expert, concordant non-expert (standard signal condition), and discordant expert (acknowledgement condition) means each differ from the discordant expert (standard signal condition) among Black respondents. For light blue bars, p -values test the null hypothesis that the concordant expert (standard signal condition) mean differs from the discordant expert (standard signal condition) among White respondents. 95% confidence intervals using robust standard errors are shown.

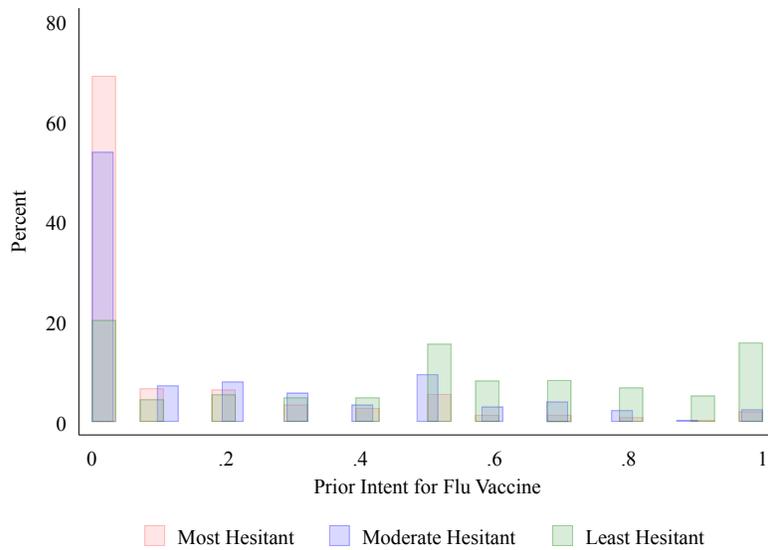


Panel (A): Histogram

Panel (B): Distribution of Difference

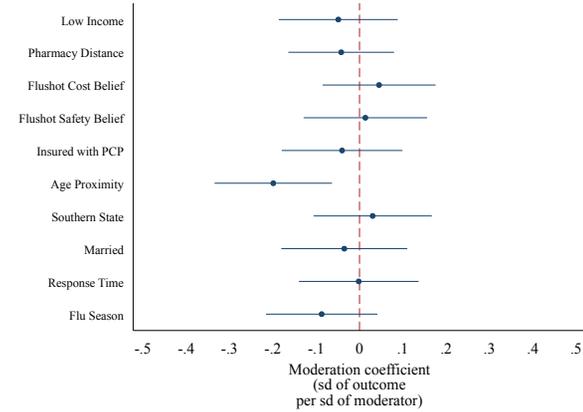
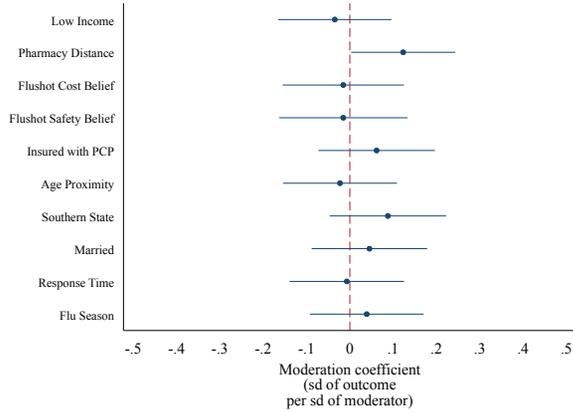
Notes: Panel (A) shows a histogram of prior and posterior flu vaccine intent. Panel (B) plots the histogram of the individual-level difference. See Appendix Section E for definitions.

Appendix Figure 9: Prior and Posterior Flu Vaccine Intent



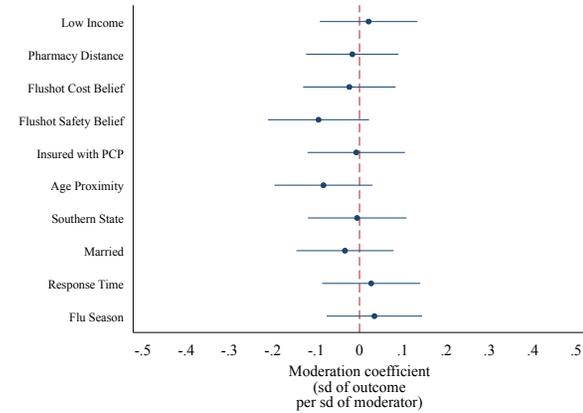
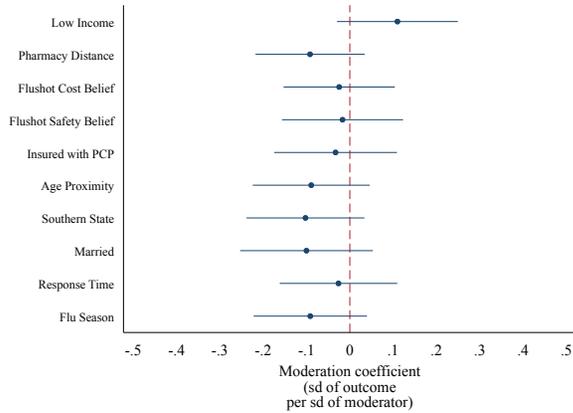
Notes: Figure shows the distribution of the variable *Prior Intent for Flu Vaccine* among the most hesitant, moderately hesitant, and least hesitant to take the flu vaccine. Most hesitant encompasses individuals who reported having never received the flu vaccine. The moderate hesitant category encompasses respondents who reported having received their last flu vaccination over two years ago. Least hesitant include respondents who reported having received their last flu vaccination within the past two years but not in the current influenza season.

Appendix Figure 10: Histogram of Prior Flu Vaccine Intent by Vaccination Experience



Panel (A): Layperson Treatment Heterogeneity

Panel (B): Acknowledgement Treatment Heterogeneity



Panel (C): Concordance Treatment Heterogeneity - Black Respondents Panel (D): Concordance Treatment Heterogeneity - White Respondents

Notes: Figure reports heterogeneity in treatment effects for each treatment comparison (A: layperson vs. expert sender; B: acknowledgement vs. standard message; C and D: concordant vs. discordant sender). Estimates are obtained from a regression of the variable *Flu Vaccine Intent* on the treatment indicator, moderator, and their interaction. Both the outcome and the moderator are standardized to a mean of 0 and standard deviation of 1. Dots represent coefficient estimates on the interaction coefficient. Stratifying variables (platform and season) are included as controls in the regression but not reported. Moderators (before standardization) are defined as: Low Income = 1 if the respondent's self-reported household income is less than or equal to the median income among Black respondents in the sample (= \$30k); Pharmacy Distance = distance to nearest pharmacy in miles; Flushot Cost Belief = belief about own out-of-pocket cost for the flu shot in USD; Flushot Safety Belief = prior belief of fraction of individuals who get the flu from the flu shot; Insured with PCP = dummy for having a primary care provider and health insurance; Age Proximity = dummy equal to one if sender and receiver age difference is no more than ten years; Southern State = dummy for residence in the U.S. South; Married = dummy for being married; Response Time = log of time in seconds that the respondent spent on the survey up to (but excluding) the video treatment screen; Flu Season = dummy that equals one for observations that fall into the flu season 2020-21 (as opposed to the flu season 2019-20). 95% confidence intervals using robust standard errors are shown.

Appendix Figure 11: Additional Results On Treatment Effect Heterogeneity

B Appendix Tables

Appendix Table 1: Sender Ratings by Study Arm

	Layperson vs. Expert - Black Rs			Concordant vs. Discordant - Black Rs			Concordant vs. Discordant - White Rs		
	(1) Age	(2) Education	(3) Attractiveness	(4) Age	(5) Education	(6) Attractiveness	(7) Age	(8) Education	(9) Attractiveness
Layperson Role	-0.300 (0.174) [0.088]	-1.743 (0.185) [0.000]	-0.584 (0.219) [0.009]						
Black Sender				0.019 (0.189) [0.918]	-0.153 (0.233) [0.512]	0.349 (0.162) [0.034]	-0.527 (0.202) [0.010]	-2.841 (1.045) [0.008]	-0.339 (0.218) [0.124]
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	102	102	102	103	103	103	89	89	89

Notes: Table reports OLS estimates based on the MTurk sample. Dependent variables are perceptions of age, education and attractiveness. The outcomes are described in Appendix Section E and standardized to a mean of 0 and a standard deviation of 1. Columns (1) to (6) include ratings from Black Mturk respondents only. Columns (1) to (3) include sender fixed effects, thus comparing MTurkers' ratings of the same sender, assuming a different identity (lay vs. expert). Columns (4) to (9) compare MTurkers' ratings of Black vs. White experts. Columns (7) to (9) include ratings from White Mturk respondents only. The mean of each dependent variable for the omitted group is shown. Robust standard errors are in parentheses, and p -values are in brackets.

Appendix Table 2: Treatment Effects on Flu Vaccine Take-up: Alternative Measures and Specification Checks

	Follow-up Sample		Full Sample		
	(1)	(2)	(3)	(4)	(5)
	Self Flu Vaccine Take-up	Flu Vaccine Take-up	Flu Vaccine Coupon Redemption	Self Flu Vaccine Take-up	Flu Vaccine Take-up
PANEL A: Layperson vs. Expert (Concordant, Standard Signal Condition) - Black Respondents					
Layperson Treat	0.082 (0.078) [0.296]	0.150 (0.083) [0.075]	0.002 (0.002) [0.318]	0.018 (0.016) [0.241]	0.037 (0.019) [0.051]
Mean in control	0.26	0.38	0.00	0.05	0.07
Observations	151	151	845	845	845
PANEL B: Standard vs. Acknowledgement Signal (Discordant, Expert Condition) - Black Respondents					
Acknowledgement Signal Treat	-0.092 (0.076) [0.225]	-0.120 (0.085) [0.159]	0.003 (0.006) [0.654]	-0.008 (0.014) [0.570]	-0.012 (0.018) [0.510]
Mean in control	0.30	0.48	0.00	0.05	0.08
Observations	137	137	827	827	827
p-value	0.102	0.021	0.983	0.210	0.060
PANEL C: Concordant vs. Discordant Expert Sender (with Standard Signal) - Black Respondents					
Concordance Treat	-0.049 (0.082) [0.548]	-0.077 (0.087) [0.378]	-0.005 (0.004) [0.157]	-0.002 (0.015) [0.884]	-0.010 (0.018) [0.580]
Mean in control	0.30	0.48	0.00	0.05	0.08
Observations	139	139	832	832	832
PANEL D: Concordant vs. Discordant Expert Sender (Standard Signal Condition) - White Respondents					
Concordance Treat	0.007 (0.043) [0.864]	-0.014 (0.049) [0.776]	-0.005 (0.006) [0.425]	-0.007 (0.015) [0.631]	-0.012 (0.018) [0.520]
Mean in control	0.23	0.38	0.01	0.08	0.13
Observations	377	377	1221	1221	1221
p-value	0.533	0.520	0.952	0.809	0.936

Notes: Table reports treatment effect estimates for various measures of flu vaccine take-up, estimated off two different samples. In columns (1) to (2), the sample is restricted to those who replied to the follow-up survey; columns (3)-(5) include the full sample. Columns (4) and (5) assume non-responders to the follow-up survey did not receive the vaccine (unless coupon was redeemed). The second column corresponds to our preferred specification as reported in the secondary outcome treatment effect estimates (Appendix Table 6). All outcome variables are binary and described in Section II and in Appendix Section E. The p -value in Panel (B) tests the null hypothesis that acknowledgement signal treatment and layperson treatment effects are the same. The p -value in Panel (D) tests the null hypothesis that the concordance treatment effects are the same across Black and White respondents. Stratifying variables (platform and season) and an indicator (=1) if the respondent is married are included as controls in the regression but not reported. Robust standard errors are in parentheses. p -values are in brackets.

Appendix Table 3: Attrition from Baseline and Between Baseline and Follow-up Surveys

	Attrition from BL		Attrition between BL and EL	
	(1) Black Respondents	(2) White Respondents	(3) Black Respondents	(4) White Respondents
Expert Discordant	-0.006 (0.022) [0.765]	0.023 (0.014) [0.088]	0.013 (0.026) [0.621]	-0.018 (0.026) [0.490]
Layperson Concordant	-0.000 (0.022) [0.990]		-0.010 (0.026) [0.698]	
Acknowledgement Signal Discordant	0.021 (0.022) [0.341]		0.003 (0.026) [0.916]	
p-value	0.627	0.088	0.849	0.490
Mean	0.13	0.05	0.83	0.70
Observations	1938	1307	1672	1221

Notes: Table reports OLS estimates obtained from a regression of an attrition dummy on treatment indicators, with the "Expert Concordant" treatment arm being the left-out category. The dependent variable in columns (1) and (3) is attrition from the baseline survey, which is an indicator variable equal to 1 if the respondent was randomized but did not complete the baseline survey and 0 otherwise. The dependent variable in columns (2) and (4) is attrition between baseline and follow-up survey, which is an indicator variable equal to 1 if the respondent completed the baseline survey but did not complete the follow-up survey and 0 otherwise. Columns (1) and (3) correspond to the sample of Black respondents. Columns (2) and (4) corresponds to the sample of White respondents. "Mean" refers to the mean of the attrition outcome in the left-out category. The reported p -value at the bottom of the table tests the null hypothesis that the effect of all four treatments on attrition, among Black respondents, is the same. Stratifying variables (platform and season) are included as controls in the regression but not reported. Robust standard errors are in parentheses. p -values are in brackets.

Appendix Table 4: Balance Table for Baseline Survey Sample

	Black Rs: Lay vs Expert			Black Rs: Acknow. vs Standard			Black Rs: Concor. vs Discor.			White Rs: Concor. vs Discor.			F-stat (13)
	Coeff. (1)	Mean (2)	N (3)	Coeff. (4)	Mean (5)	N (6)	Coeff. (7)	Mean (8)	N (9)	Coeff. (10)	Mean (11)	N (12)	
PANEL A: Demographic Characteristics													
Age	-0.381 (0.438) [0.385]	35.920	845	-0.276 (0.458) [0.547]	36.125	827	-0.258 (0.452) [0.568]	36.125	832	-0.008 (0.353) [0.982]	38.165	1221	0.766 [0.513]
Low Income	-0.028 (0.034) [0.411]	0.627	845	0.021 (0.034) [0.543]	0.580	827	0.046 (0.034) [0.179]	0.580	832	-0.015 (0.028) [0.597]	0.432	1221	0.639 [0.590]
Completed High School	0.019 (0.023) [0.416]	0.865	845	-0.031 (0.023) [0.167]	0.897	827	-0.032 (0.022) [0.157]	0.897	832	0.024 (0.018) [0.176]	0.878	1221	0.939 [0.421]
Married	0.029 (0.027) [0.280]	0.171	845	-0.026 (0.028) [0.344]	0.213	827	-0.043 (0.027) [0.120]	0.213	832	0.023 (0.027) [0.393]	0.306	1221	0.911 [0.435]
South	0.099 (0.034) [0.004]	0.522	843	0.031 (0.034) [0.369]	0.570	824	-0.049 (0.035) [0.156]	0.570	828	-0.019 (0.028) [0.499]	0.450	1212	3.166 [0.024]
PANEL B: Health Characteristics													
Insured	0.014 (0.035) [0.695]	0.591	812	0.003 (0.035) [0.939]	0.611	790	-0.020 (0.035) [0.566]	0.611	797	0.010 (0.027) [0.719]	0.653	1207	0.174 [0.914]
Subj. Health Status	0.225 (0.069) [0.001]	3.523	845	0.012 (0.072) [0.870]	3.643	827	-0.117 (0.070) [0.094]	3.643	832	-0.017 (0.057) [0.771]	3.237	1221	3.637 [0.012]
Subj. Flu Shot Cost	-1.133 (6.093) [0.853]	43.916	845	-4.227 (5.309) [0.426]	38.144	827	5.784 (5.936) [0.330]	38.144	832	0.360 (2.836) [0.899]	25.022	1221	1.355 [0.255]
Has PCP	-0.043 (0.034) [0.212]	0.455	845	-0.043 (0.034) [0.215]	0.460	827	-0.004 (0.035) [0.904]	0.460	832	-0.009 (0.029) [0.762]	0.532	1221	1.080 [0.356]
Most hesitant	-0.029 (0.030) [0.322]	0.263	845	0.033 (0.032) [0.305]	0.281	827	-0.019 (0.031) [0.528]	0.281	832	0.004 (0.026) [0.867]	0.275	1221	2.444 [0.062]
Moderate hesitant	0.026 (0.034) [0.455]	0.443	845	-0.045 (0.035) [0.196]	0.468	827	-0.024 (0.035) [0.486]	0.468	832	-0.003 (0.028) [0.902]	0.446	1221	0.816 [0.485]
Least hesitant	0.004 (0.031) [0.899]	0.294	845	0.012 (0.030) [0.690]	0.252	827	0.044 (0.031) [0.156]	0.252	832	-0.001 (0.026) [0.976]	0.278	1221	1.144 [0.330]
PANEL C: Prior Elicitation													
Flu Vaccine Intent (Prior)	0.213 (0.224) [0.342]	2.554	845	0.049 (0.223) [0.825]	2.446	827	0.118 (0.225) [0.600]	2.446	832	0.083 (0.181) [0.648]	2.529	1221	0.859 [0.462]
Likelihood of Contracting Flu	-0.279 (0.194) [0.150]	2.342	845	0.167 (0.197) [0.397]	2.144	827	0.202 (0.196) [0.303]	2.144	832	-0.146 (0.151) [0.334]	2.913	1221	0.949 [0.416]
Belief abt. Safety of Flu Vaccine	-1.704 (1.898) [0.370]	55.022	845	-2.228 (1.950) [0.254]	55.820	827	-0.896 (1.976) [0.650]	55.820	832	-1.882 (1.592) [0.237]	61.979	1221	0.802 [0.493]
PANEL D: Follow-up Survey													
Completed Follow-Up Survey	0.010 (0.026) [0.714]	0.173	845	0.010 (0.026) [0.701]	0.161	827	0.012 (0.026) [0.630]	0.161	832	-0.016 (0.026) [0.536]	0.318	1221	0.238 [0.870]

Notes: Table reports estimates obtained from OLS regressions of each respondent characteristic (rows) on treatment variables by study arm. Columns (1) to (3) test the effects of the concordant non-expert (vs. concordant expert) treatment with the standard signal, among the sample of Black respondents. Columns (4) to (6) test the effects of the acknowledgement (vs. standard) signal treatment with discordant, expert senders, among the sample of Black respondents. Columns (7) to (9) test the effects of the concordant (vs. discordant) expert treatment with the standard signal, among the sample of Black respondents. Columns (10) to (12) test the effects of concordant (vs. discordant) expert treatment with the standard signal, among the sample of White respondents. See table notes of Table 1 for the definitions of each respondent characteristic. Total respondents completing the follow-up survey by experimental condition are as follows: 72 for concordant-Black respondents; 67 for discordant-Black respondents; 184 for concordant-White respondents; 193 for discordant-White respondents; 70 for acknowledgement signal treatment; 67 for standard signal treatment; 79 for non-expert treatment; and 72 for expert treatment. Stratifying variables (platform and season) are included as controls in the regression but not reported. The reported *F*-statistics in Column (13) test the null hypothesis that the effects of all four treatments (i.e. concordant expert, discordant expert (standard signal), concordant non-expert, and discordant expert (acknowledgement signal) are the same, among the sample of Black respondents. Robust standard errors are in parentheses. *p*-values are shown in brackets.

Appendix Table 5: Balance Table for Follow-up Survey Sample

	Black Rs: Lay vs Expert			Black Rs: Acknow. vs Standard			Black Rs: Concor. vs Discor.			White Rs: Concor. vs Discor.			F-stat (13)
	Coeff. (1)	Mean (2)	N (3)	Coeff. (4)	Mean (5)	N (6)	Coeff. (7)	Mean (8)	N (9)	Coeff. (10)	Mean (11)	N (12)	
PANEL A: Demographic Characteristics													
Age	-0.313 (0.978) [0.749]	36.653	151	-1.460 (1.169) [0.214]	37.597	137	-0.926 (1.103) [0.403]	37.597	139	0.033 (0.634) [0.959]	39.518	377	0.627 [0.598]
Low Income	0.000 (0.082) [0.995]	0.583	151	0.020 (0.086) [0.819]	0.493	137	0.095 (0.085) [0.267]	0.493	139	-0.003 (0.052) [0.960]	0.472	377	0.625 [0.599]
Completed High School	0.022 (0.050) [0.653]	0.889	151	0.019 (0.054) [0.720]	0.881	137	0.009 (0.056) [0.869]	0.881	139	0.009 (0.032) [0.772]	0.891	377	0.147 [0.932]
Married	0.189 (0.067) [0.006]	0.139	151	-0.064 (0.077) [0.404]	0.313	137	-0.172 (0.070) [0.015]	0.313	139	0.079 (0.048) [0.100]	0.269	377	3.468 [0.017]
South	-0.088 (0.082) [0.287]	0.606	150	0.127 (0.085) [0.141]	0.463	137	0.136 (0.085) [0.110]	0.463	138	-0.005 (0.051) [0.927]	0.398	375	1.186 [0.315]
PANEL B: Health Characteristics													
Insured	0.136 (0.075) [0.073]	0.625	151	0.025 (0.078) [0.746]	0.723	132	-0.100 (0.081) [0.221]	0.723	137	-0.004 (0.048) [0.927]	0.689	373	1.216 [0.304]
Subj. Health Status	0.119 (0.157) [0.449]	3.569	151	-0.108 (0.188) [0.567]	3.582	137	-0.003 (0.179) [0.985]	3.582	139	0.002 (0.105) [0.982]	3.119	377	0.562 [0.641]
Subj. Flu Shot Cost	-15.222 (12.250) [0.216]	41.903	151	-3.721 (12.213) [0.761]	35.179	137	6.812 (13.295) [0.609]	35.179	139	0.582 (5.226) [0.911]	21.870	377	0.553 [0.647]
Has PCP	0.260 (0.079) [0.001]	0.375	151	0.123 (0.083) [0.143]	0.448	137	-0.071 (0.084) [0.399]	0.448	139	-0.065 (0.051) [0.206]	0.575	377	4.356 [0.005]
Most hesitant	-0.079 (0.073) [0.279]	0.306	151	0.066 (0.077) [0.391]	0.239	137	0.069 (0.075) [0.363]	0.239	139	0.016 (0.046) [0.735]	0.269	377	0.666 [0.574]
Moderate hesitant	-0.001 (0.080) [0.986]	0.417	151	-0.144 (0.083) [0.087]	0.463	137	-0.043 (0.085) [0.615]	0.463	139	0.042 (0.051) [0.416]	0.435	377	0.972 [0.406]
Least hesitant	0.081 (0.074) [0.280]	0.278	151	0.078 (0.080) [0.335]	0.299	137	-0.026 (0.078) [0.737]	0.299	139	-0.057 (0.045) [0.207]	0.295	377	0.655 [0.580]
PANEL C: Prior Elicitation													
Flu Vaccine Intent (Prior)	1.109 (0.560) [0.050]	2.861	151	0.420 (0.597) [0.483]	3.269	137	-0.407 (0.612) [0.507]	3.269	139	0.128 (0.347) [0.713]	2.912	377	1.487 [0.218]
Likelihood of Contracting Flu	0.698 (0.513) [0.176]	2.667	151	0.001 (0.476) [0.998]	2.552	137	0.121 (0.495) [0.807]	2.552	139	-0.426 (0.271) [0.116]	3.249	377	1.178 [0.318]
Belief abt. Safety of Flu Vaccine	-3.260 (4.600) [0.480]	52.986	151	1.570 (4.802) [0.744]	55.761	137	-2.863 (4.751) [0.548]	55.761	139	-3.503 (2.851) [0.220]	65.995	377	1.096 [0.351]

Notes: Table reports estimates obtained from OLS regressions of each respondent characteristic (rows) on treatment variables by hypothesis based on the follow-up survey sample. Columns (1) to (3) test the effects of the concordant non-expert (vs. concordant expert) treatment with the standard signal, among the sample of Black respondents. Columns (4) to (6) test the effects of the acknowledgement (vs. standard) signal treatment with discordant, expert senders, among the sample of Black respondents. Columns (7) to (9) test the effects of the concordant (vs. discordant) expert treatment with the standard signal, among the sample of Black respondents. Columns (10) to (12) test the effects of concordant (vs. discordant) expert treatment with the standard signal, among the sample of White respondents. See table notes of Table 1 for the definitions of each respondent characteristic. Stratifying variables (platform and season) are included as controls in the regression but not reported. The reported *F*-statistics in Column (13) test the null hypothesis that the effects of all four treatments (i.e. concordant expert, discordant expert (standard signal), concordant non-expert, and discordant expert (acknowledgement signal)) are the same, among the sample of Black respondents. Robust standard errors are in parentheses. *p*-values are shown in brackets.

Appendix Table 6: Treatment Effect Estimates for Secondary Outcomes

	(1) Signal Content Recall	(2) Safety Beliefs	(3) Coupon Interest	(4) Flu Vaccine Take-Up
PANEL A: Layperson vs. Expert - Black Respondents				
Layperson Treat	0.117 (0.067) [0.082]	-0.024 (0.068) [0.722]	-0.016 (0.069) [0.813]	0.150 (0.083) [0.075]
Mean in control	0.00	0.00	0.00	0.38
Observations	845	845	845	151
PANEL B: Standard vs. Acknowledgement Signal - Black Respondents				
Acknowledgement Signal Treat	0.004 (0.069) [0.952]	-0.107 (0.069) [0.124]	0.028 (0.069) [0.683]	-0.120 (0.085) [0.159]
Mean in control	0.00	0.00	0.00	0.48
Observations	827	827	825	137
p-value	0.241	0.396	0.647	0.021
PANEL C: Concordant vs. Discordant Expert Sender - Black Respondents				
Concordance Treat	-0.006 (0.069) [0.928]	-0.098 (0.069) [0.155]	-0.008 (0.067) [0.907]	-0.077 (0.087) [0.378]
Mean in control	0.00	0.00	0.00	0.48
Observations	832	832	831	139
PANEL D: Concordant vs. Discordant Expert Sender - White Respondents				
Concordance Treat	0.019 (0.057) [0.734]	-0.028 (0.058) [0.631]	-0.083 (0.056) [0.139]	-0.014 (0.049) [0.776]
Mean in control	0.00	0.00	0.00	0.38
Observations	1221	1221	1221	377
p-value	0.774	0.437	0.388	0.520

Notes: Table reports OLS estimates. Each dependent variable in columns (1) to (3) is an inverse-covariance-weighted index as described in Anderson (2008) and standardized to a mean of 0 and standard deviation of 1. Dependent variable in column (4) is binary. Outcome variables are described in Section II and in Appendix Section E. The p -value in Panel (B) tests the null hypothesis that the acknowledgement signal treatment and layperson treatment effects are equal. The p -value in Panel (D) tests the null hypothesis that the concordance treatment effects are the same across Black and White respondents. Stratifying variables (platform and season) are included as controls in the regression but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is included in the regression of the take-up outcome which measures vaccination of self and/or others in household. Robust standard errors are in parentheses. p -values are in brackets.

Appendix Table 7: Test for Differential Sender Effects - Black Respondents

	Effects of Video on							
	Primary Outcomes				Secondary Outcomes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rating Sender	Rating Signal	Flu Vaccine Intent	COVID-19 Vaccine Intent	Signal Content Recall	Safety Beliefs	Coupon Interest	Flu Vaccine Take-up
Sender 2 (B)	0.272 (0.161) [0.091]	0.126 (0.163) [0.437]	0.006 (0.055) [0.915]	-0.000 (0.065) [0.996]	-0.010 (0.157) [0.951]	0.057 (0.145) [0.692]	0.025 (0.143) [0.859]	-0.391 (0.181) [0.033]
Sender 3 (W)	-0.071 (0.160) [0.656]	-0.138 (0.153) [0.367]	0.014 (0.055) [0.803]	-0.097 (0.067) [0.150]	0.116 (0.138) [0.402]	0.333 (0.150) [0.027]	-0.028 (0.149) [0.849]	-0.214 (0.212) [0.314]
Sender 4 (W)	-0.263 (0.155) [0.091]	-0.197 (0.156) [0.206]	-0.061 (0.055) [0.271]	-0.067 (0.068) [0.327]	0.159 (0.150) [0.290]	0.275 (0.164) [0.093]	-0.085 (0.152) [0.577]	-0.256 (0.172) [0.140]
Sender 5 (B)	0.238 (0.157) [0.132]	0.202 (0.164) [0.217]	0.004 (0.057) [0.950]	0.047 (0.072) [0.513]	0.041 (0.157) [0.795]	-0.046 (0.145) [0.748]	-0.034 (0.151) [0.821]	-0.340 (0.182) [0.064]
Sender 6 (W)	0.418 (0.161) [0.010]	0.196 (0.159) [0.218]	0.030 (0.054) [0.585]	0.008 (0.071) [0.912]	0.131 (0.152) [0.387]	0.133 (0.153) [0.385]	-0.075 (0.147) [0.612]	-0.297 (0.200) [0.140]
Sender 7 (W)	0.184 (0.160) [0.250]	0.075 (0.159) [0.638]	-0.045 (0.056) [0.420]	-0.061 (0.067) [0.367]	0.230 (0.149) [0.123]	0.223 (0.154) [0.147]	-0.070 (0.149) [0.637]	-0.317 (0.195) [0.106]
Sender 8 (B)	0.205 (0.155) [0.187]	0.034 (0.155) [0.828]	0.009 (0.054) [0.874]	-0.012 (0.068) [0.864]	0.035 (0.144) [0.806]	-0.008 (0.153) [0.956]	0.003 (0.147) [0.984]	-0.203 (0.181) [0.263]
Sender 9 (B)	0.302 (0.149) [0.043]	0.156 (0.155) [0.315]	0.054 (0.058) [0.350]	0.066 (0.070) [0.347]	0.226 (0.143) [0.115]	0.185 (0.161) [0.252]	-0.035 (0.154) [0.819]	-0.106 (0.177) [0.549]
Sender 10 (B)	0.201 (0.147) [0.172]	0.125 (0.157) [0.425]	-0.001 (0.056) [0.987]	-0.121 (0.063) [0.057]	0.281 (0.140) [0.045]	0.251 (0.161) [0.119]	-0.230 (0.142) [0.106]	-0.439 (0.174) [0.013]
p-value: White Senders	0.001	0.108	0.432	0.489	0.641	0.213	0.977	0.431
p-value: Black Senders	0.955	0.891	0.893	0.035	0.160	0.277	0.407	0.306
Mean	0.00	0.00	0.36	0.44	0.00	0.00	0.00	0.69
Observations	832	832	832	587	832	832	831	139

Notes: Table reports OLS estimates among the sample of Black respondents, from a regression of each primary outcome on sender fixed effects. Each dependent variable in columns (1)-(2) and (5)-(7) is an inverse-covariance-weighted index as described in Anderson (2008) and standardized to the mean of 0 and standard deviation of 1. Dependent variables in columns (3) and (4) are on a scale of 0 to 1. Dependent variable in column (8) is binary. COVID-19 vaccine intent was asked during the 2020-2021 flu season only. Outcome variables are described in Section II and in Appendix Section E. "(B)" indicates Black senders, while "(W)" indicates White senders. The *p*-value labeled "White Senders" tests the null hypothesis that the effect of all White senders is the same. The *p*-value labeled "Black Senders" tests the null hypothesis that the effect of all Black senders is the same. The omitted category is Sender 1 (W). Stratifying variables (platform and season) are included as controls in the regression but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is included in the regression of the take-up outcome. Robust standard errors are in parentheses. *p*-values are shown in brackets.

Appendix Table 8: Test for Differential Sender Effects By Expertise - Black Respondents

	Effects of Video on							
	Primary Outcomes				Secondary Outcomes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rating Sender	Rating Signal	Flu Vaccine Intent	COVID-19 Vaccine Intent	Signal Content Recall	Safety Beliefs	Coupon Interest	Flu Vaccine Take-up
Layperson Treat X Sender 5	0.283 (0.214) [0.186]	0.052 (0.228) [0.820]	-0.024 (0.080) [0.763]	-0.040 (0.095) [0.671]	-0.100 (0.220) [0.651]	0.137 (0.210) [0.514]	0.213 (0.236) [0.365]	-0.411 (0.266) [0.125]
Layperson Treat X Sender 8	0.197 (0.211) [0.350]	0.093 (0.219) [0.671]	-0.015 (0.077) [0.848]	0.033 (0.094) [0.728]	0.064 (0.215) [0.767]	0.064 (0.226) [0.777]	0.176 (0.231) [0.448]	-0.443 (0.259) [0.090]
Layperson Treat X Sender 9	-0.107 (0.207) [0.606]	0.044 (0.214) [0.836]	-0.027 (0.080) [0.734]	-0.057 (0.094) [0.546]	-0.011 (0.206) [0.957]	-0.018 (0.247) [0.943]	0.138 (0.233) [0.555]	-0.457 (0.258) [0.079]
Layperson Treat X Sender 10	0.247 (0.200) [0.218]	0.109 (0.214) [0.610]	-0.044 (0.078) [0.576]	0.079 (0.090) [0.381]	-0.285 (0.210) [0.174]	-0.195 (0.230) [0.398]	0.615 (0.226) [0.007]	-0.126 (0.248) [0.612]
p-value	0.249	0.988	0.987	0.600	0.462	0.670	0.091	0.255
Mean	0.00	0.00	0.38	0.48	0.00	0.00	0.00	0.52
Observations	845	845	845	592	845	845	845	151

Notes: Table reports OLS estimates among the sample of Black respondents who were assigned to either a layperson or expert Black sender, from a regression of each primary outcome on sender fixed effects, a layperson treatment indicator, and their interaction. Each dependent variable in columns (1) and (2) and (5) to (7) is an inverse-covariance-weighted index as described in Anderson (2008) and standardized to the mean of 0 and standard deviation of 1. Dependent variables in columns (3) and (4) are on a scale of 0 to 1. Dependent variable in column (8) is binary. COVID-19 vaccine intent was asked during the 2020-2021 flu season only. Outcome variables are described in Section II and in Appendix Section E. The *p*-value tests the null hypothesis that all interaction terms are the same. The omitted sender is Sender 2. Stratifying variables (platform and season) are included as controls in the regression but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is included in the regression of the take-up outcome. Robust standard errors are in parentheses. *p*-values are shown in brackets.

Appendix Table 9: Treatment Effect Estimates with PDS LASSO-Selected Controls

	Effects of Video on							
	Primary Outcomes				Secondary Outcomes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rating Sender	Rating Signal	Flu Vaccine Intent	COVID-19 Vaccine Intent	Signal Content Recall	Safety Beliefs	Coupon Interest	Flu Vaccine Take-up
PANEL A: Layperson vs. Expert (Concordant, Standard Signal Condition) - Black Respondents								
Layperson Treat	-0.555 (0.067) [0.000]	-0.105 (0.055) [0.059]	0.007 (0.019) [0.695]	0.082 (0.026) [0.002]	0.140 (0.062) [0.024]	-0.000 (0.067) [0.999]	-0.035 (0.065) [0.597]	0.152 (0.079) [0.055]
Mean in control	0.00	0.00	0.37	0.43	0.00	0.00	0.00	0.38
Observations	845	845	845	592	845	845	845	151
PANEL B: Standard vs. Acknowledgement Signal (Discordant, Expert Condition) - Black Respondents								
Acknowledgement Signal Treat	0.083 (0.065) [0.198]	0.127 (0.060) [0.034]	0.024 (0.019) [0.214]	0.053 (0.027) [0.045]	0.024 (0.065) [0.708]	-0.106 (0.068) [0.115]	0.026 (0.066) [0.690]	-0.120 (0.083) [0.147]
Mean in control	0.00	0.00	0.34	0.40	0.00	0.00	0.00	0.48
Observations	827	827	827	581	827	827	825	137
p-value	0.000	0.004	0.545	0.443	0.197	0.262	0.512	0.018
PANEL C: Concordant vs. Discordant Expert Sender (Standard Signal Condition) - Black Respondents								
Concordance Treat	0.162 (0.063) [0.010]	0.098 (0.059) [0.093]	0.009 (0.019) [0.650]	0.020 (0.027) [0.451]	0.005 (0.064) [0.933]	-0.094 (0.067) [0.161]	-0.026 (0.063) [0.680]	-0.088 (0.087) [0.311]
Mean in control	0.00	0.00	0.34	0.40	0.00	0.00	0.00	0.48
Observations	832	832	832	587	832	832	831	139
PANEL D: Concordant vs. Discordant Expert Sender (Standard Signal Condition) - White Respondents								
Concordance Treat	-0.085 (0.052) [0.103]	-0.023 (0.046) [0.614]	-0.002 (0.015) [0.877]	0.000 (0.022) [0.989]	0.002 (0.053) [0.976]	-0.033 (0.057) [0.561]	-0.090 (0.053) [0.086]	0.004 (0.047) [0.936]
Mean in control	0.00	0.00	0.37	0.45	0.00	0.00	0.00	0.38
Observations	1221	1221	1221	866	1221	1221	1221	377
p-value	0.003	0.098	0.651	0.565	0.963	0.490	0.437	0.351

Notes: Table reports OLS estimates including PDS LASSO selected controls. Each dependent variable in columns (1) and (2) and (5) to (7) is an inverse-covariance-weighted index as described in Anderson (2008) and standardized to the mean of 0 and standard deviation of 1. Dependent variables in columns (3) and (4) are on a scale of 0 to 1. Dependent variable in column (8) is binary. COVID-19 vaccine intent was asked during the 2020-2021 flu season only. Outcome variables are described in Section II and in Appendix Section E. The p -value in Panel (B) tests the null hypothesis that discordant expert (acknowledgement signal) treatment and concordant non-expert (standard signal) treatment effects are equal. The p -value in Panel (D) tests the null hypothesis that concordance treatment effects are the same across Black and White respondents. Stratifying variables (platform and season) are forced to be included in the LASSO selection but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is forced to be included in the LASSO selection for the take-up outcome. Robust standard errors are in parentheses. p -values are in brackets.

Appendix Table 10: Heterogeneity by Vaccine Hesitancy

	Effects of Video on							
	Primary Outcomes				Secondary Outcomes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rating Sender	Rating Signal	Flu Vaccine Intent	COVID-19 Vaccine Intent	Signal Content Recall	Safety Beliefs	Coupon Interest	Flu Vaccine Take-up
PANEL A: Layperson vs. Expert (Concordant, Standard Signal Condition) - Black Respondents								
Layperson Treat × Most Hesitant	-0.618 (0.141) [0.000]	0.234 (0.141) [0.097]	0.080 (0.042) [0.054]	0.148 (0.058) [0.011]	0.068 (0.137) [0.621]	-0.051 (0.139) [0.716]	-0.096 (0.135) [0.479]	0.155 (0.146) [0.290]
Layperson Treat × Moderate Hesitant	-0.628 (0.107) [0.000]	-0.226 (0.109) [0.039]	0.002 (0.035) [0.963]	0.070 (0.046) [0.126]	0.092 (0.095) [0.334]	-0.029 (0.116) [0.802]	-0.064 (0.111) [0.561]	0.084 (0.127) [0.510]
Layperson Treat × Least Hesitant	-0.385 (0.127) [0.002]	-0.199 (0.118) [0.092]	-0.022 (0.043) [0.613]	0.061 (0.047) [0.192]	0.179 (0.119) [0.134]	-0.022 (0.130) [0.864]	0.093 (0.140) [0.506]	0.156 (0.139) [0.264]
p-value: Most Hesitant=Least Hesitant	0.217	0.019	0.089	0.247	0.541	0.881	0.332	0.994
Mean in control	0.00	0.00	0.17	0.30	0.00	0.00	0.00	0.18
Observations	845	845	845	592	845	845	845	151
PANEL B: Standard vs. Acknowledgement Signal (Discordant, Expert Condition) - Black Respondents								
Acknowledgement Signal Treat × Most Hesitant	0.155 (0.122) [0.202]	0.015 (0.120) [0.900]	-0.013 (0.041) [0.744]	0.006 (0.053) [0.915]	0.029 (0.128) [0.821]	-0.097 (0.133) [0.467]	0.015 (0.128) [0.907]	-0.039 (0.155) [0.801]
Acknowledgement Signal Treat × Moderate Hesitant	0.013 (0.098) [0.895]	0.204 (0.103) [0.049]	0.011 (0.037) [0.756]	0.055 (0.046) [0.235]	-0.025 (0.098) [0.796]	-0.063 (0.104) [0.546]	-0.034 (0.114) [0.767]	-0.323 (0.120) [0.008]
Acknowledgement Signal Treat × Least Hesitant	0.193 (0.126) [0.127]	0.200 (0.126) [0.113]	0.101 (0.048) [0.034]	0.154 (0.057) [0.007]	0.078 (0.128) [0.540]	-0.173 (0.125) [0.168]	0.172 (0.153) [0.259]	0.010 (0.151) [0.948]
p-value: Most Hesitant=Least Hesitant	0.830	0.287	0.069	0.057	0.786	0.681	0.432	0.822
Mean in control	0.00	0.00	0.23	0.29	0.00	0.00	0.00	0.25
Observations	827	827	827	581	827	827	825	137
PANEL C: Concordant vs. Discordant Expert Sender (Standard Signal Condition) - Black Respondents								
Concordance Treat × Most Hesitant	0.283 (0.126) [0.025]	-0.148 (0.129) [0.251]	-0.063 (0.041) [0.120]	0.005 (0.056) [0.925]	0.189 (0.131) [0.149]	-0.164 (0.127) [0.196]	0.001 (0.130) [0.992]	-0.031 (0.149) [0.834]
Concordance Treat × Moderate Hesitant	0.132 (0.094) [0.160]	0.148 (0.101) [0.145]	0.017 (0.036) [0.636]	-0.016 (0.046) [0.721]	-0.135 (0.098) [0.170]	-0.030 (0.102) [0.766]	-0.065 (0.112) [0.561]	-0.125 (0.131) [0.344]
Concordance Treat × Least Hesitant	0.101 (0.122) [0.408]	0.294 (0.118) [0.013]	0.086 (0.047) [0.070]	0.111 (0.053) [0.038]	0.026 (0.124) [0.835]	-0.131 (0.134) [0.327]	0.017 (0.140) [0.903]	0.004 (0.160) [0.981]
p-value: Most Hesitant=Least Hesitant	0.297	0.012	0.017	0.174	0.365	0.861	0.934	0.873
Mean in control	0.00	0.00	0.23	0.29	0.00	0.00	0.00	0.25
Observations	832	832	832	587	832	832	831	139
PANEL D: Concordant vs. Discordant Expert Sender (Standard Signal Condition) - White Respondents								
Concordance Treat × Most Hesitant	-0.012 (0.108) [0.912]	0.155 (0.111) [0.163]	-0.016 (0.033) [0.623]	0.009 (0.047) [0.855]	-0.109 (0.114) [0.341]	-0.065 (0.107) [0.548]	-0.044 (0.107) [0.683]	-0.036 (0.084) [0.672]
Concordance Treat × Moderate Hesitant	-0.159 (0.088) [0.070]	-0.088 (0.085) [0.300]	-0.012 (0.029) [0.690]	0.025 (0.037) [0.495]	0.106 (0.083) [0.201]	-0.067 (0.091) [0.464]	0.006 (0.095) [0.949]	0.047 (0.070) [0.505]
Concordance Treat × Least Hesitant	-0.006 (0.107) [0.953]	-0.038 (0.092) [0.677]	0.050 (0.037) [0.176]	-0.000 (0.044) [1.000]	0.010 (0.113) [0.932]	0.072 (0.106) [0.496]	-0.305 (0.127) [0.016]	-0.031 (0.101) [0.757]
p-value: Most Hesitant=Least Hesitant	0.970	0.181	0.182	0.893	0.459	0.366	0.115	0.972
Mean in control	0.00	0.00	0.22	0.36	0.00	0.00	0.00	0.27
Observations	1221	1221	1221	866	1221	1221	1221	377

Notes: Based on OLS regression of each outcome (listed in the columns) of following form $y_i = \alpha + \beta_1 T_i \times Most_i + \beta_2 T_i \times Moderate_i + \beta_3 T_i \times Least_i + \gamma_1 Moderate_i + \gamma_2 Least_i + \mu X_i + \epsilon_i$. Interaction coefficients are shown. Each dependent variable in columns (1)-(2) and (5)-(7) is an inverse-covariance-weighted index as described in Anderson (2008) and standardized to a mean of 0 and standard deviation of 1. Dependent variables in columns (3)-(4) are on a scale of 0 to 1. Dependent variable in column (8) is binary. COVID-19 vaccine intent was asked during the 2020-2021 flu season only. Outcome variables are described in Section II and in Appendix Section E. *Most Hesitant* is a binary variable equal to 1 if the respondent has never received the flu shot. *Moderate Hesitant* is a binary variable equal to 1 if the respondent received the flu shot more than 2 years ago. *Least Hesitant* is a binary variable equal to 1 if the respondent received the flu shot within the past 2 years, not including the current season. The *p-value: Most Hesitant=Least Hesitant* tests the null hypothesis that $[treatment] \times Most Hesitant = [treatment] \times Least Hesitant$. Stratifying variables (platform and season) are included as controls in the regression but not reported; an additional stratifying variable (an indicator (=1) if the respondent is married) is included in the regression of the take-up outcome. Robust standard errors are in parentheses. *p*-values are in brackets.

C Baseline Survey Questionnaire

The baseline survey questionnaire is available at [this link](#).

D Videos and Scripts

Appendix Table 11: Treatment Videos

Role of Sender	Type of Signal	Race of Sender	Video URL
Expert	Standard	White	https://youtu.be/CxxWBT0ew-U
Expert	Acknowledgement	White	https://youtu.be/TlruIaBOK3o
Expert	Standard	Black	https://youtu.be/esU_77AjaX8
Layperson	Standard	Black	https://youtu.be/bASxTEbfNMA
Expert	Standard	White	https://youtu.be/Bt9kSpQf0so
Expert	Acknowledgement	White	https://youtu.be/140L1_V9A9g
Expert	Standard	White	https://youtu.be/PcDCkUPTBWA
Expert	Acknowledgement	White	https://youtu.be/kwbvYwW5S98
Expert	Standard	Black	https://youtu.be/CILOGMctouE
Layperson	Standard	Black	https://youtu.be/202Xj9dWEFI
Expert	Standard	White	https://youtu.be/RaPLcepWRUo
Expert	Acknowledgement	White	https://youtu.be/V1j7E8aKAgA
Expert	Standard	White	https://youtu.be/JWTPr7UCcg4
Expert	Acknowledgement	White	https://youtu.be/du7J6tRZ75g
Expert	Standard	Black	https://youtu.be/2-yEncK0qtI
Layperson	Standard	Black	https://youtu.be/Vo3223_B_Es
Expert	Standard	Black	https://youtu.be/Ft-57zTr8Vg
Layperson	Standard	Black	https://youtu.be/UTKojGTRSu4
Expert	Standard	Black	https://youtu.be/YUNCUYWVXIQ
Layperson	Standard	Black	https://youtu.be/JTShSxUOFek

Appendix Table 12: Scripts

Standard Signal Script	Acknowledgement Signal Script
<p>The Centers for Disease Control and Prevention, or CDC, recommends everyone 6 months and older get the flu shot.</p> <p>The shot protects you from getting sick by cutting your chance of catching the flu in half. It's also very safe: less than 1 in 100 vaccinated people experiences a side effect such as fever or chills. The flu shot does not contain an active flu virus, so you cannot get the flu virus from the shot. I get the flu shot every year to protect myself, my family, and my community. I recommend you look into getting vaccinated as soon as possible.</p>	<p>The Centers for Disease Control and Prevention, or CDC, recommends everyone 6 months and older get the flu shot.</p> <p>I know some people are nervous to follow medical advice about vaccines. In the past, there may have been times when the medical community broke your trust. But I hope that sharing some information with you can help you understand how important the flu shot is.</p> <p>The shot protects you from getting sick by cutting your chance of catching the flu in half. It's also very safe: less than 1 in 100 vaccinated people experiences a side effect such as fever or chills. The flu shot does not contain an active flu virus, so you cannot get the flu virus from the shot. I get the flu shot every year to protect myself, my family, and my community. I recommend you look into getting vaccinated as soon as possible.</p>

E Outcome Measures: Question Wording

Outcome Name	Components	Question Text	Response Options
Primary Outcomes			
Rating Sender	Trust I	<ul style="list-style-type: none"> If a person like the one in the video was located near you, would you want to ask him about other health issues? 	[1: Yes, 0: No]
	Trust II	<ul style="list-style-type: none"> How much do you agree or disagree with the following statements? I trust the person in the video to give me medical advice. 	[1: Disagree strongly, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Agree strongly]
	Qualification	<ul style="list-style-type: none"> How much do you agree or disagree with the following statements? The person in the video is qualified to give me medical advice. 	[1: Disagree strongly, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Agree strongly]
Rating Signal	Endorsement I	<ul style="list-style-type: none"> How likely are you to recommend this video to your friends or family? 	[On a scale of 0 (Not at all likely) to 10 (Extremely likely)]
	Endorsement II	<ul style="list-style-type: none"> How likely are you to recommend the flu shot to a family member or friend? 	[On a scale of 0 (Not at all likely) to 10 (Extremely likely)]
	Relevance	<ul style="list-style-type: none"> How much do you agree or disagree with the following statements? The information provided in the video applies to people like me. 	[1: Disagree strongly, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Agree strongly]
Flu Vaccination Intent	Flu Vaccination Intent	<ul style="list-style-type: none"> How likely are you to get a flu shot between now and February 2020? (2019-20 wave) How likely are you to get a flu shot between now and February 2021? (2020-21 wave) 	[On a scale of 0 (Not at all likely) to 10 (Extremely likely)]
COVID-19 Vaccination Intent	COVID-19 Vaccination Intent	<ul style="list-style-type: none"> Suppose a vaccine against COVID-19 becomes available to everyone, at no cost. Would you or would you not get vaccinated against COVID-19? 	[On a scale of 0 (Definitely not get vaccinated) to 10 (Definitely get vaccinated)]
Secondary Outcomes			
Signal Content Recall	Recall Ingredient	<ul style="list-style-type: none"> What did the person in the video say about what the flu shot contains? 	[1: the respondent chose the option, "Contains no active flu virus", 0: the respondent chose either "Contains active flu virus" or "Don't know"]
	Recall Age	<ul style="list-style-type: none"> What did the person in the video say about who should get the flu shot? 	[1: the respondent chose the option, "Everyone 6 months and older", 0: the respondent chose either "Everyone 5 years and older", "Everyone 18 years and older", or "Don't know"]
Safety Beliefs	Safety Point Belief	<ul style="list-style-type: none"> Safety Point Belief = $\frac{(100 - \text{Posterior Belief}) - (100 - \text{Prior Belief})}{100}$ - Prior and posterior of a respondent's estimate of the question: Take 100 adult men from your community, selected at random. Let's say all of the 100 adult men selected at random from your community receive a flu shot at the start of the flu season. How many of them, do you believe, get the flu from the flu shot? 	[On a scale of -1 to 1]
	Safety Certainty	<ul style="list-style-type: none"> Safety Certainty = $\frac{\text{Posterior Number of Balls} - \text{Prior Number of Balls}}{10}$ - Prior and posterior of the number of balls placed in the "0-9" bin as a response to the question: Consider the group of 100 adult men selected at random from your community, and suppose all of them get the flu shot. You have 10 balls that you can put in 10 different bins, reflecting what you believe are the chances out of 10 that the number of men who get the flu from the flu shot falls in each bin. The more likely you think it is that the number of men who get the flu from the flu shot falls in a given bin, the more balls you should place in that bin. For example, if you put all the balls in one bin, it means you are certain the number of men that will get the flu from the flu shot is somewhere in that range. 	[On a scale of -1 to 1]

Outcome Name	Components	Question Text	Response Options
Secondary Outcomes (cont.)			
Coupon Interest	Willingness to pay (WTP)	<ul style="list-style-type: none"> Based on Becker-DeGroot-Marschak elicitation method, with the following wording: After completion of this survey, you will receive an email with a flu shot coupon that you can use at major pharmacies near you (including Walgreens, Rite-Aid, CVS, Walmart, Kroger, Costco and Albertsons). The coupon covers the full cost of the flu shot. In order to redeem the coupon, you just need to present it at the pharmacy, for example on your smart phone or printed out. You may be offered to trade in your flu shot coupon for an electronic cash gift card redeemable at Amazon.com and other online retailers. The gift card would be sent to you by email, within 5 business days of completing the survey. For each of the amounts listed below, please select whether, if you are offered that amount, you would prefer to keep your flu shot coupon, or receive the electronic cash reward instead. The computer will then randomly select a participant, and will randomly draw one price offer for the selected participant. If you are the randomly selected participant, we will implement the choice you made at the randomly selected price. 	<p>[Option 1: ... keep the flu shot coupon and receive no cash gift card.; Option 2: ... give up the flu shot coupon and receive an electronic cash gift card in the amount of \$X.]</p> <p>[1: Yes, 0: No]</p>
	Pharmacy Lookup	<p>If the computer randomly selects me, and randomly selects a gift card in the amount of \$X: I prefer to ... [This question is asked four times, once for each price amount $X \in \{1, 2, 5, 10\}$]. Outcome is coded as the largest amount X at which the participant prefers the coupon over the cash amount. If the participant always prefers the cash amount, the outcome is coded as zero.]</p> <ul style="list-style-type: none"> Would you like to receive information about where you can redeem your flu shot coupon? We can provide you with a link to look up participating pharmacies that accept the flu shot coupon and that are closest to you. The link would pop up on the final screen of the survey. 	
Flu Vaccine Take-up		<ul style="list-style-type: none"> A binary variable equal to 1 if the respondent redeemed a flu vaccine coupon or the respondent answered "yes" to one of the questions in the follow-up survey: (1) "Did you get the flu shot since you completed our first survey?"; (2) "Did your spouse or partner get a flu shot this season?"; or (3) "Did your children get a flu shot this season?" 	[1: Yes, 0: No]
Additional Outcomes			
Self Flu Vaccine Take-up		<ul style="list-style-type: none"> A binary variable equal to 1 if the respondent redeemed a flu vaccine coupon or answered "yes" to the question in the follow-up survey: "Did you get the flu shot since you completed our first survey?" 	[1: Yes, 0: No]
Flu Vaccine Coupon Redemption		<ul style="list-style-type: none"> A binary variable equal to 1 if the respondent redeemed a flu vaccine coupon, and 0 otherwise. 	[1: Yes, 0: No]
Ratings on Education		<ul style="list-style-type: none"> This outcome is measured based on a separate MTurk survey sample. Each respondent was randomly shown one of ten portraits of senders and was asked to respond to the question: "What is the highest degree or level of schooling that you think the person completed?" 	[1: Less than a high school diploma, 2: High school diploma or equivalent (for example: GED), 3: Some college but no degree, 4: Associate's degree, 5: Bachelor's degree, 6: Graduate degree (for example: MA, MBA, JD, PhD)]
Ratings on Attractiveness		<ul style="list-style-type: none"> This outcome is measured based on a separate MTurk survey sample. Each respondent was randomly shown one of ten portraits of senders and was asked to respond to the question: "How attractive is this person?" 	[1: Not at all attractive, 2: Somewhat unattractive, 3: Neither attractive nor unattractive, 4: Somewhat attractive, 5: Extremely attractive]

F Appendix References

Anderson, Michael L. 2008. "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of the American Statistical Association*, 103(484): 1481–1495.

Centers for Disease Control and Prevention. 2018. "Behavioral Risk Factor Surveillance System Survey Data." Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. https://www.cdc.gov/brfss/annual_data/annual_2017.html (accessed March 8, 2023).

Harris, Katherine M., Jürgen Maurer, and Lori Uscher-Pines. 2010. "Seasonal Influenza Vaccine Use by Adults in the U.S: A Snapshot from the End of the 2009-2010 Vaccination Season." *RAND Corporation*, 1–3. Document OP-311-GSK.