"If we move, it moves with us:"

Physical Distancing in Africa during COVID-19

Supplementary Information

December 3, 2020

Contents

1 Sample

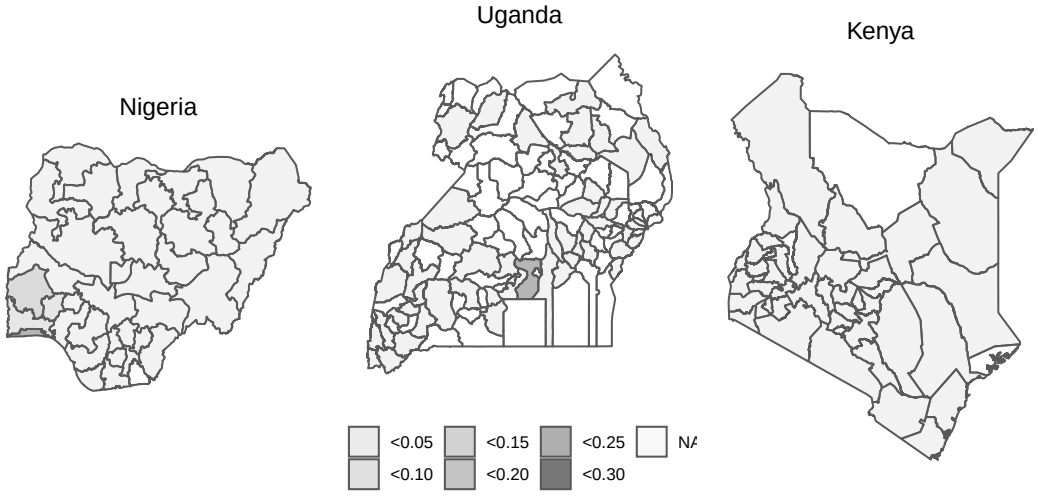

Figure 1: Share of Respondents in Survey by Administrative Unit (State - Nigeria, District - Uganda, County - Kenya)

1.1 Comparing respondents who did and did not know that maintaining physical distance reduces the spread of COVID-19

The following two tables compare demographics (Table 1) and outcome measures (Table 2) for respondents who did and did not know that maintaining physical distance is a way to help reduce the spread of COVID-19. A total of 15% of respondents (282 out of 2601) did not know physical distancing could help prevent spread COVID-19. Unsurprisingly, these respondents have fewer years of schooling and more likely to be manual laborers. Similarly, those who do not know distancing helps prevent the spread of virus are less favorable towards mandatory lockdown policies and are less likely to say they wore a mask the last time they left their house.

Table 1: Demographics of respondents who did not and did know maintaining physical distance helps reduce the spread of COVID-19

Variable	NOT know distancing helps	Know distancing helps	pval
Copartisan	0.467	0.424	0.762
Age	26.981	26.890	0.791
Schooling Level	7.755	8.135	0.000
Religiosity	2.636	2.792	0.018
Female	0.253	0.270	0.472
Urban	0.768	0.785	0.474
Occupation-Manual	0.092	0.051	0.010
Occupation-Mid-level	0.084	0.106	0.164
Occupation-Never employed	0.087	0.087	0.997
Occupation-student	0.283	0.349	0.010
Occupation-upper level	0.090	0.103	0.420
Religion:Catholic	0.226	0.228	0.902
Religion:Evangelical	0.304	0.319	0.580
Religion:Muslim	0.245	0.158	0.000
Religion:Other	0.063	0.076	0.345
Religion:protestant	0.160	0.219	0.006
Voted for incumbent Pres.	0.329	0.334	0.855

Table 2: Attitudes and behaviors of respondents who did not and did know maintaining physical distance helps reduce the spread of COVID-19

Variable	NOT know distancing helps	Know distancing helps	pval
Support lockdown	0.519	0.598	0.005
Guess others support lockdown	4.973	4.781	0.230
Wrote message	0.516	0.544	0.319
Wore a mask when last left house	0.204	0.448	0.000
Vignette response	3.253	3.543	0.000

2 Factual Knowledge

2.1 Responses to True/False Questions

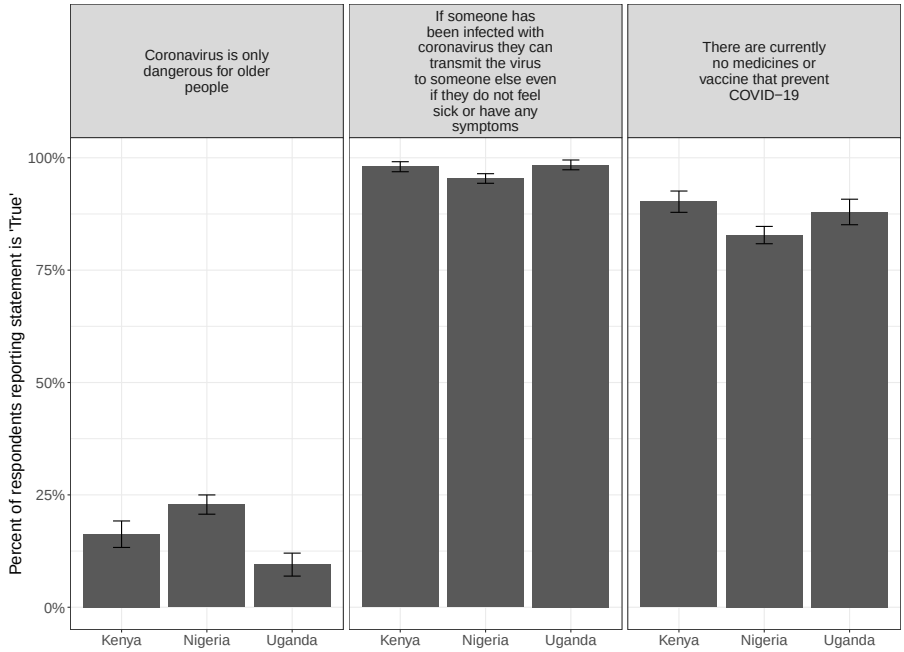

Figure 2: Responses to Factual Questions about SARS CoV-2 and COVID-19

2.2 Knowledge of Number of Registered COVID-19 Cases

We asked respondents to report, to the best of their knowledge, the number of registered cases in their country. A large share of respondents in each country reported a number of cases close to official data, suggesting they were aware of statistics related to the pandemic in real time. Specifically, 38.5 percent report a number within the exact range of cases registered at the start and end of survey (this is the pooled average of the shares of the distributions within the two vertical dashed lines in each country in Figure 3. A total of 82 percent of respondents reported a number of cases that was within 10 percent of the official cases at the start and end of the survey.

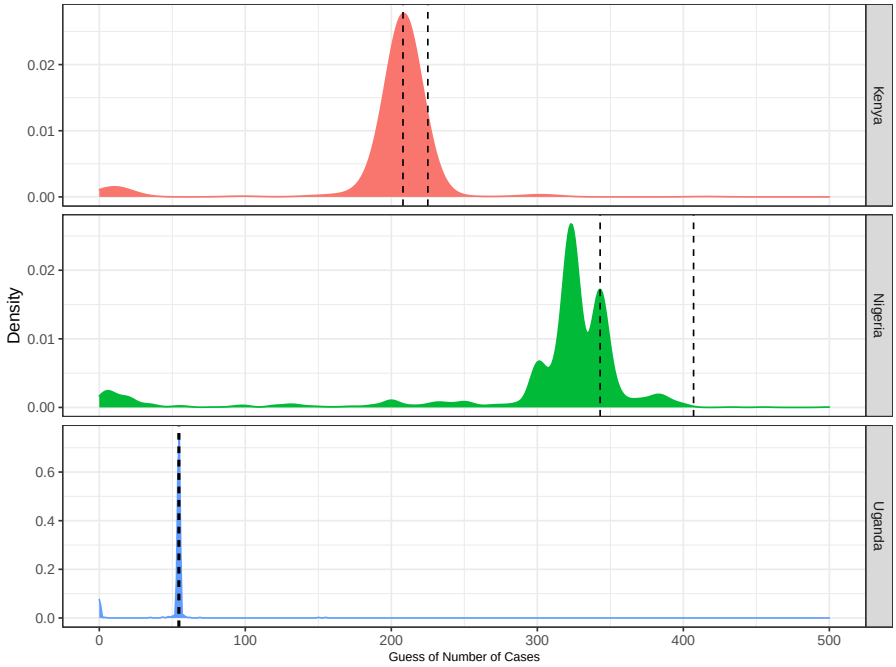

Figure 3: Reported Guess of Number of Cases Nationally. Dashed vertical lines represent the official number of cases reported at the start and end of survey in each study site.

2.3 Source of Information

Figure 4 plots the percentage of respondents, by country, who report that each of the following is their *main* way they get information about COVID-19.

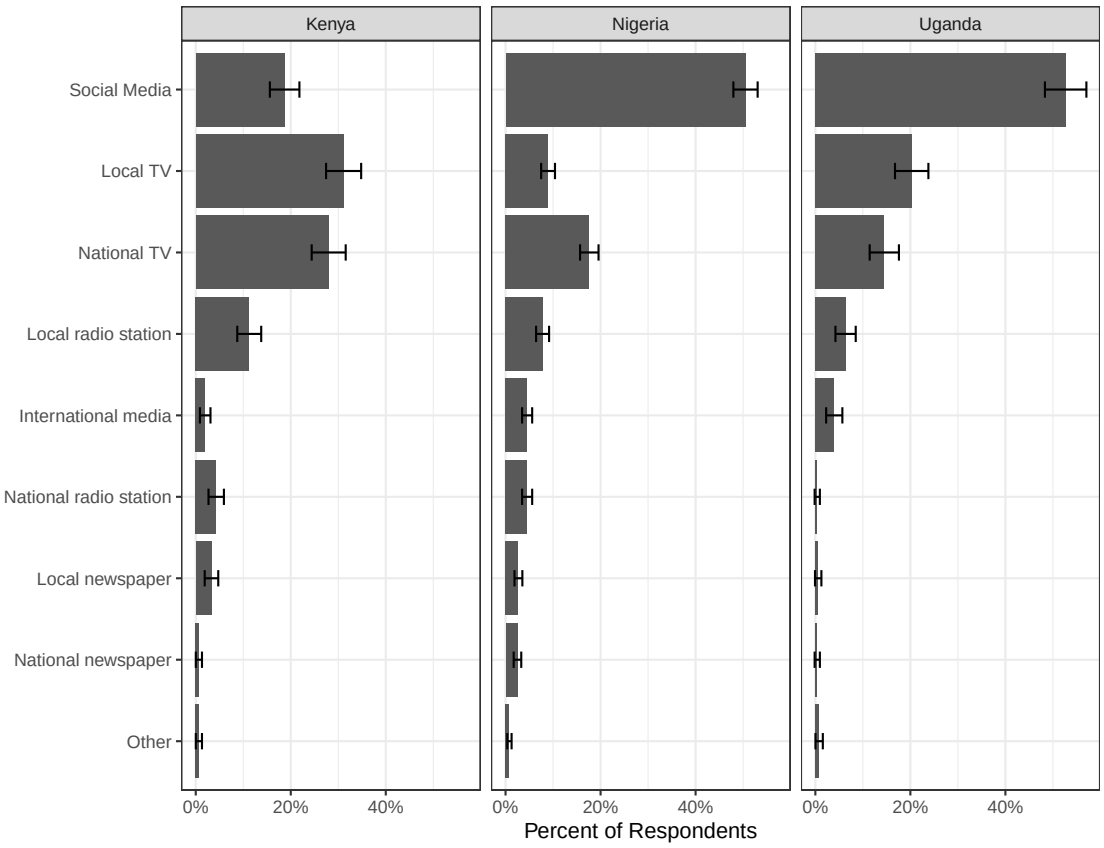

Figure 4: Main sources of information about COVID-19

3 Balance of List Experiment

We observe balance along demographic covariates between treatment and control conditions in our list experiment, across all country samples. Figure 5 shows the 95% confidence intervals of the difference in means between treatment and control conditions. Tables 3-5 show the raw estimates of the control mean, difference between treatment and control, and the p-value corresponding to the hypothesis test of no difference between treatment and control averages.

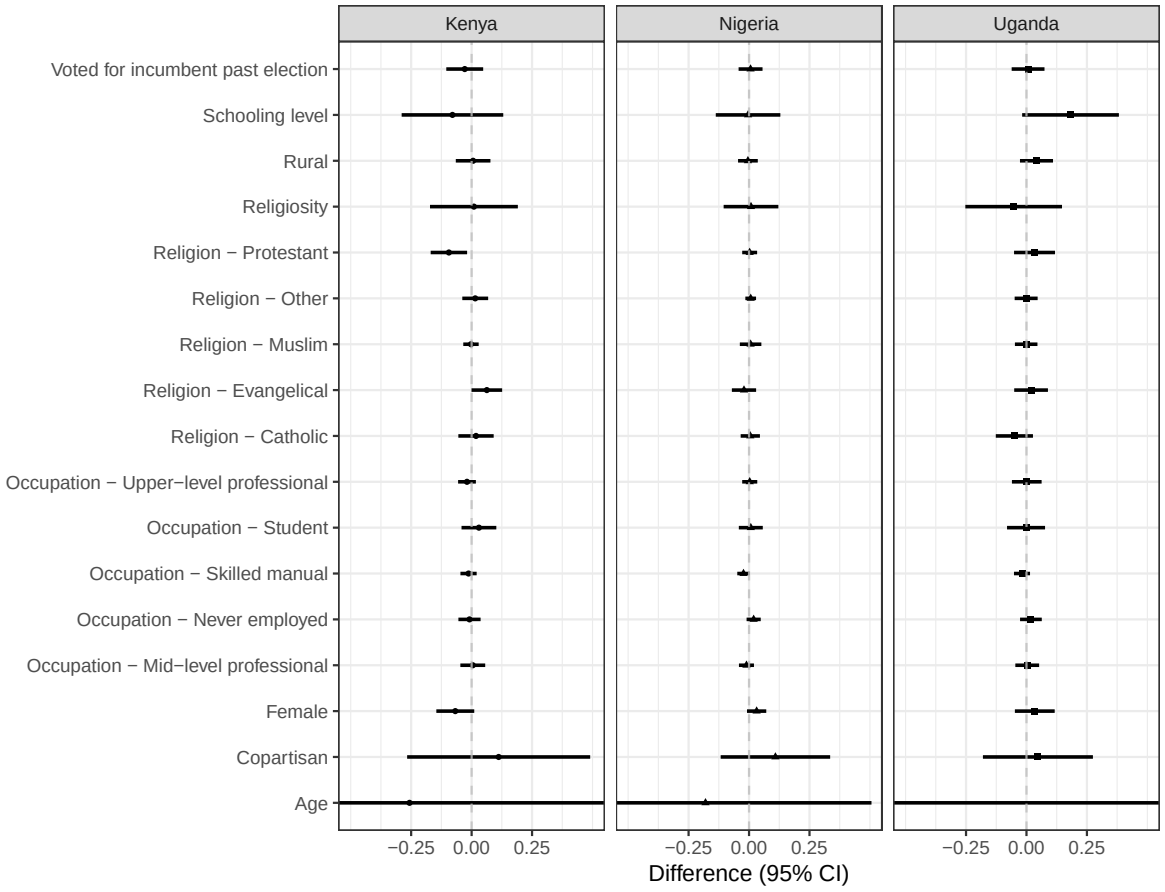

Figure 5: Estimated difference in covariate means between treatment and control conditions in the list experiment. Note: The interval of "Age" does not appear in full in order to display the confidence intervals of other covariates in more detail.

Table 3: Balance of Pre-Treatment Covariates in List Experiment (Kenya)

	N	Mean Control	SE Control	Diff	SE Diff	p-value
Female	604	0.44	0.03	-0.07	0.04	0.09
Age	604	26.99	0.38	-0.26	0.51	0.61
Schooling level	604	7.81	0.07	-0.08	0.11	0.46
Rural	604	0.72	0.03	0.01	0.04	0.86
Voted for incumbent past election	604	0.37	0.03	-0.03	0.04	0.47
Copartisan	24	0.62	0.13	0.11	0.19	0.57
Religiosity	604	2.47	0.06	0.01	0.09	0.92
Religion - Catholic	603	0.29	0.03	0.02	0.04	0.63
Religion - Protestant	603	0.38	0.03	-0.09	0.04	0.01
Religion - Evangelical	603	0.16	0.02	0.06	0.03	0.05
Religion - Muslim	603	0.04	0.01	-0.00	0.02	0.87
Religion - Other	604	0.12	0.02	0.01	0.03	0.58
Occupation - Student	604	0.27	0.03	0.03	0.04	0.41
Occupation - Mid-level professional	604	0.12	0.02	0.00	0.03	0.85
Occupation - Upper-level professional	604	0.07	0.01	-0.02	0.02	0.31
Occupation - Never employed	604	0.10	0.02	-0.01	0.02	0.71
Occupation - Skilled manual	604	0.05	0.01	-0.01	0.02	0.46

Table 4: Balance of Pre-Treatment Covariates in List Experiment (Nigeria)

	N	Mean Control	SE Control	Diff	SE Diff	p-value
Female	1477	0.17	0.01	0.03	0.02	0.12
Age	1477	27.06	0.25	-0.18	0.35	0.61
Schooling level	1476	8.15	0.05	-0.00	0.07	0.95
Rural	1476	0.80	0.01	-0.00	0.02	0.82
Voted for incumbent past election	1471	0.37	0.02	0.01	0.03	0.80
Copartisan	66	0.27	0.07	0.11	0.12	0.35
Religiosity	1475	2.95	0.04	0.01	0.06	0.89
Religion - Catholic	1475	0.18	0.01	0.01	0.02	0.80
Religion - Protestant	1475	0.10	0.01	0.00	0.02	0.87
Religion - Evangelical	1475	0.42	0.02	-0.02	0.03	0.41
Religion - Muslim	1475	0.25	0.02	0.01	0.02	0.78
Religion - Other	1477	0.05	0.01	0.01	0.01	0.54
Occupation - Student	1477	0.38	0.02	0.01	0.03	0.77
Occupation - Mid-level professional	1477	0.11	0.01	-0.01	0.02	0.50
Occupation - Upper-level professional	1477	0.10	0.01	0.00	0.02	0.86
Occupation - Never employed	1477	0.08	0.01	0.02	0.01	0.20
Occupation - Skilled manual	1477	0.08	0.01	-0.02	0.01	0.08

Table 5: Balance of Pre-Treatment Covariates in List Experiment (Uganda)

	N	Mean Control	SE Control	Diff	SE Diff	p-value
Female	506	0.32	0.03	0.03	0.04	0.41
Age	506	26.47	0.38	0.56	0.59	0.34
Schooling level	506	8.17	0.07	0.18	0.10	0.07
Rural	506	0.79	0.03	0.04	0.03	0.24
Voted for incumbent past election	505	0.18	0.02	0.01	0.03	0.85
Copartisan	76	0.42	0.09	0.05	0.12	0.68
Religiosity	506	2.60	0.07	-0.05	0.10	0.60
Religion - Catholic	505	0.29	0.03	-0.05	0.04	0.20
Religion - Protestant	505	0.36	0.03	0.03	0.04	0.44
Religion - Evangelical	505	0.19	0.02	0.02	0.04	0.59
Religion - Muslim	505	0.08	0.02	-0.00	0.02	0.96
Religion - Other	506	0.08	0.02	-0.00	0.02	0.95
Occupation - Student	505	0.28	0.03	-0.00	0.04	0.96
Occupation - Mid-level professional	505	0.09	0.02	0.00	0.03	0.90
Occupation - Upper-level professional	505	0.14	0.02	0.00	0.03	0.97
Occupation - Never employed	505	0.06	0.02	0.02	0.02	0.42
Occupation - Skilled manual	505	0.05	0.01	-0.02	0.02	0.28

4 Main Results of Vignette Experiment

4.1 Difference in Means Estimates

Below, we test our pre-specified hypotheses regarding the two hypothetical vignette treatments: social pressure (T1) and material cost (T2), compared to the control condition. We use difference-in-means estimators (Tables 6 and 7) and also present regression estimates using Lin (2013) estimators (Table 8). Tables include the main Average Treatment Effect (ATE) estimates for the pooled sample and for each country (rows). The columns of the tables indicate the three prespecified outcomes of interest: (Y1) Expected Behavior (how likely it is the hypothetical man is to eat at his cousin's house: 1-extremely unlikely, 5-extremely likely), (Y2) Message writing: a binary indicator whether the respondent chose to write a message encouraging their peers to social distance or not, and (Y3) Externality Content: a binary variable indicating whether the content of the message written appealed to collective action (including words such as 'collaboration', 'together', etc.) or not. In the tables, each cell represents a distinct test or model, with the estimate and standard error in parentheses.

Overall, with the pooled sample, we find no effect of either the social pressure condition (T1) nor the material cost vignette (T2) on respondents' belief about how the man in the vignette will behave when faced with the choice of dining out with someone outside their household. Interestingly, in Kenya we do see effects for the social pressure treatment, compared to control. Specifically, the social pressure condition makes respondents less likely to think the man will break social distancing norms. However, this treatment also makes Kenyan respondents less likely to write a message to their peers and, among those who do choose to write a message, the message is less likely to contain references to the necessity for collective action. Future research could explore these findings in Kenya.

Table 6: Difference in Means Estimates for T1 (Social Pressure)

	Outcome		
Sample	Y1: Expected Behavior	Y2: Message Writing	Y3: Externality Content
	(1)	(2)	(3)
Pooled	-0.098	-0.005	0.013
	(0.074)	(0.026)	(0.03)
Kenya	-0.308*	-0.308*	-0.562**
	(0.127)	(0.127)	(0.174)
Nigeria	-0.019	-0.015	0.132
	(0.084)	(0.084)	(0.122)
Uganda	0.032	0.035	-0.07
	(0.161)	(0.161)	(0.204)

Note: We display difference-in-means estimates between social pressure (T1) and the control condition in the vignette experiment. Country rows refer to average treatment effects of country samples. The pooled results report a difference in means with weights adjusted such that countries are weighted equally (rather than individuals being weighted equally). This avoids that results are driven primarily by Nigerian respondents, which comprise a majority (56 percent) of our sample. Column (1) outcome refers to the scaled answer to the vignette experiment for respondent beliefs about how likely the hypothetical individual is to accept a dinner invitation from a friend (1-very unlikely, 5 - very likely). Column (2) outcome is whether the respondent wrote a message encouraging others to practice physical distancing. Column (3) outcome refers to whether the content of the message written appealed to coordinated collective effort (e.g., included terms such as 'collaboration', 'together', 'union'). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 7: Difference in Means Estimates for T2 (Material Cost)

	Outcome		
Sample	Y1: Expected Behavior	Y2: Message Writing	Y3: Externality Content
	(1)	(2)	(3)
Pooled	0.027	-0.009	0.015
	(0.073)	(0.026)	(0.03)
Kenya	-0.146	-0.14	-0.302
	(0.126)	(0.127)	(0.179)
Nigeria	-0.025	-0.031	0.161
	(0.086)	(0.087)	(0.121)
Uganda	0.251	0.261	0.183
	(0.157)	(0.157)	(0.202)

Note: We display difference-in-means estimates between material cost (T2) and the control condition in the vignette experiment. Country rows refer to average treatment effects of country samples. The pooled results report a difference in means with weights adjusted such that countries are weighted equally (rather than individuals being weighted equally). This avoids that results are driven primarily by Nigerian respondents, which comprise a majority (56 percent) of our sample. Column (1) outcome refers to the scaled answer to the vignette experiment for respondent beliefs about how likely the hypothetical individual is to accept a dinner invitation from a friend (1-very unlikely, 5 - very likely). Column (2) outcome is whether the respondent wrote a message encouraging others to practice physical distancing. Column (3) outcome refers to whether the content of the message written appealed to coordinated collective effort (e.g., included terms such as 'collaboration', 'together', 'union'). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

4.2 Lin Estimates

Table 8: Covariate Adjusted Lin Estimates

Sample	Condition	Outcome Y1: Expected Behavior	Y2: Message Writing	Y3: Externality Content
		(1)	(2)	(3)
Pooled	T1	-0.071	-0.012	0.001
		(0.048)	(0.024)	(0.026)
	T2	0	0.002	0.013
		(0.048)	(0.024)	(0.027)
	R^2	0.03	0.046	0.048
	Adj. R^2	0.014	0.03	0.017
	N	2588	2580	1389
Kenya	T1	-0.216*	-0.011	0.056
		(0.096)	(0.05)	(0.053)
	T2	-0.122	-0.021	0.102
		(0.098)	(0.049)	(0.059)
	R^2	0.09	0.11	0.104
	Adj. R^2	0.034	0.056	-0.005
	N	605	604	324
Nigeria	T1	-0.022	-0.031	-0.032
		(0.063)	(0.032)	(0.034)
	T2	-0.032	0.018	-0.016
		(0.066)	(0.032)	(0.033)
	R^2	0.041	0.04	0.051
	Adj. R^2	0.016	0.015	0
	N	1472	1466	743
Uganda	T1	-0.039	0.058	0.044
		(0.109)	(0.05)	(0.065)
	T2	0.199	0.005	-0.004
		(0.106)	(0.05)	(0.063)
	R^2	0.112	0.143	0.127
	Adj. R^2	0.046	0.08	0.02
	N	511	510	322

Note: We display coefficients from linear models interacting centered covariates with treatment conditions (see Lin (2013) for details on estimation method). Coefficients therefore refer to the adjusted average treatment effect of each of the two treatment conditions: social pressure (T1) and material cost (T2). Covariates include age, gender, education level, religiosity, occupation, self-reported urban/rural location, a dummy for whether the respondent voted for the incumbent in previous election or is copartisan with incumbent's party, a dummy for whether respondent under lockdown policy. Country rows refer to regression coefficients from country samples. The pooled regression includes country fixed effects and observations are reweighted such that countries are weighted equally (rather than individuals being weighted equally). This avoids that results are driven primarily by Nigerian respondents, which comprise a majority (56 percent) of our sample. Column (1) outcome refers to the scaled answer to the vignette experiment for respondent beliefs about how likely the hypothetical individual is to accept a dinner invitation from a friend (1-very unlikely, 5 - very likely). Column (2) outcome is whether the respondent wrote a message encouraging others to practice physical distancing. Column (3) outcome refers to whether the content of the message written appealed to coordinated collective effort (e.g., included terms such as 'collaboration', 'together', 'union'). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

5 Attitudes Toward Lockdown

5.1 Own preferences versus expectations of others' preferences toward a lockdown policy

Table 9 shows the mean for respondents own favorability towards lockdown and their guess as to what proportion of their peers favor a mandatory lockdown policy. The p-value for the difference in means in each country — and across lockdown and non-lockdown areas in Nigeria — as well as the full sample are provided and all are statistically significant.

Table 9: Percent of respondents who favor lockdown and guess at to what percent of others fo, by Country

Country	Own Mean	Guess Mean	p-value
Kenya	0.498	0.439	0.009
Nigeria - no lockdown	0.531	0.471	0.005
Nigeria - lockdown	0.577	0.473	0.000
Uganda	0.766	0.557	0.000
Full Sample	0.584	0.481	0.000

Interestingly, Nigerian respondent's own attitudes differ somewhat among those who were living in a state experiencing a lockdown policy at the time (58% favored lockdown) compared to places that were not experiencing lockdown (53% favored such a policy). The difference between these means has an associated p-value of .075. There is no difference in respondents' guess as to what proportion of their peers favor a lockdown.

Table 10: Percent of respondents who favor lockdown themselves and their guess of what percent of others favor it, by country and urban residency

Country	Urban/Rural	Obs.	Own Mean	Guess Mean	Difference	p-value
Kenya	Rural	169	0.479	0.423	-0.056	0.204
Kenya	Urban	434	0.509	0.441	-0.068	0.012
Nigeria - no lockdown	Rural	139	0.432	0.434	0.002	0.965
Nigeria - no lockdown	Urban	572	0.554	0.481	-0.073	0.002
Nigeria - lockdown	Rural	155	0.555	0.446	-0.108	0.017
Nigeria - lockdown	Urban	607	0.590	0.482	-0.108	0.000
Uganda	Rural	96	0.740	0.524	-0.216	0.000
Uganda	Urban	410	0.783	0.563	-0.220	0.000

Table 10 shows the same information about own attitudes toward lockdown policy and guesses about others' preferences for our respondents separated by whether they said they live in a predominantly urban or rural setting. Overall, we see that rural respondents are *less* supportive of lockdown policies than urban respondents. 53% of rural respondents report favoring

a mandatory lockdown policy, compared to 60% of urban respondents, overall. This difference in means is statistically significant with an associated p-value of .005. Rural respondents are likely less favorable towards a lockdown policy as they may have to travel farther distances between their home and their farm or other work, and given the lower density in rural areas feel that such a policy would not achieve much added reduction of disease spread while hurting the economy in their area.

One concern could be that perhaps the gap in own attitudes versus guesses about others' attitudes toward lockdown is due to the fact that respondents had a rural respondent in mind, when providing a guess about others. This could be the case. Even so, given that we see the presence of a consistent gap in own versus guess in Table 10 across rural and urban subgroups in every case except one (rural respondents in Nigeria living in non-lockdown states), we do not think the gap is being driven by this.

5.2 Social Desirability Bias

There is a potential concern that the gap we observe between own support and beliefs about others' support is due to social desirability bias. We do not expect these concerns to be particularly strong in the context of an online anonymous survey. This question is also not as sensitive as asking about actual behavior, failing to comply with may in theory result in some kind of punishment, for which we would be more concerned about social desirability bias, and is the reason why we conducted a list experiment for this particular outcome.

We observe no significant difference between support for lockdown across areas where lockdown was implemented and areas where it wasn't in Nigeria (see Table 11, Column 1). We would expect that if social desirability were at play, people under lockdown might be more likely to report more favorable attitudes.

In addition, respondents also always had the option to skip/refuse to answer particular questions, and could have done so with this question if they did not feel comfortable answering it. In fact, only 15 respondents (about 0.006 percent of the sample) refused to report their support for lockdown measures. We took one additional step to examine this possibility, however, conducting an analysis where we identified those who refused to answer another potentially sensitive question: who they voted for in the last presidential election. We conjecture that those who refused to answer the voting question may be particularly susceptible to social desirability bias regarding support for a government policy, perhaps because they fear repercussions of not

Table 11: Difference in support for lockdown attitudes among those who under lockdown, and those who refused to answer vote choice question

	Own Support for Lockdown	
	(1)	(2)
(Intercept)	0.35***	
	(0.05)	
Lockdown	0.09	
	(0.07)	
Refused to Report Vote Choice		0.95
		(0.51)
R^2	0.00	0.04
Adj. R^2	0.00	0.04
Observations	1476	2586
RMSE	1.36	1.37

Note: 'Lockdown' coefficient in column 1 indicates the difference in support for lockdown among Nigerians under lockdown and those not under lockdown. Coefficient in column 2 shows difference in support for lockdown between those who refused to answer the survey question about their vote choice in the previous election, with fixed effects at the country level. Both specifications include robust standard errors. $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

supporting it. As we show in Table 11, Column 2, the difference in support for lockdown among those who are least inclined to report their vote choice is not significant at conventional levels.

Finally, we note that the gap we observe between own support and perceived support of others has been well documented in other studies, as we note in the main paper.

For all of these reasons, while we cannot fully rule out the possibility of social desirability bias contributing to the gap we observe, we do not believe it fully explains the gap.

5.3 Predicting attitudes toward lockdown

Table 12 presents simple comparisons of respondents' support for lockdown across rural and urban areas, and across states under lockdown and not under lockdown in Nigeria. We find that while rural respondents not in lockdown states seem to report significantly lower support for lockdown in Nigeria, we do not find significant differences between urban and rural groups in Kenya and Uganda, nor among rural and urban respondents under lockdown areas in Nigeria.

Table 13 presents correlates of respondents' own attitudes towards lockdown policies. The outcome variables of individual's attitudes toward lockdown were measured by a question that asked "Please indicate how strongly you personally disagree or agree with the following statement: *I support a mandatory lockdown policy by government*" Responses were measured on a

Table 12: Percent of respondents who favor lockdown in rural and urban areas, by country

Country	Obs.	Rural support	Urban Support	Difference	p-value
Kenya	604	0.479	0.510	-0.031	0.494
Nigeria - no lockdown	711	0.432	0.554	-0.123	0.010
Nigeria - lockdown	764	0.558	0.589	-0.031	0.486
Uganda	506	0.740	0.783	-0.043	0.382

five-point scale from "strongly disagree" to "strongly agree." We restrict the sample to those respondents who were randomly asked to report their beliefs about other's attitudes toward the lockdown before their own. The question asking about expectations of others' attitudes toward lockdown asked, "Now we would like to ask you about how you think other people taking this survey in [Kenya, Nigeria, Uganda] feel. Out of 10 other people from [Kenya, Nigeria, Uganda] taking this survey, how many of them do you think support a mandatory lockdown policy? Please give us your best guess." Respondents selected a number between 0 and 10. This variable is labelled as "**Guess Lockdown Attitudes**" in Table 13 and is defined as the perceived share (out of 10) of other people respondents thought to support a lockdown policy (i.e., it ranges from 0 to 1).

Results suggest there is a significant correlation between belief about other's attitudes and respondent's own reported attitudes about lockdown. We find similar results when we include all respondents, regardless of the question randomization order (See Table 14). We also find that trust in the Ministry of Health to be willing and able to handle the COVID-19 outbreak and trust in the media are positively correlated with greater support for lockdown policies in the pooled sample, which is driven by Nigeria and Uganda.

Table 13: Predicting own lockdown attitudes among respondents first asked to guess about others' attitudes

	Attitude Toward Lockdown			
	Pooled	Kenya	Nigeria	Uganda
	(1)	(2)	(3)	(4)
Guess Lockdown Attitudes	0.206***	0.218***	0.212***	0.177***
	(0.013)	(0.034)	(0.017)	(0.036)
Trust in President		0.295**		0.213
		(0.137)		(0.163)
Trust in Ministry of Health	0.191***	−0.076	0.205***	0.100
	(0.043)	(0.164)	(0.054)	(0.169)
Trust in media	0.180***	0.173	0.188***	0.245**
	(0.045)	(0.143)	(0.058)	(0.113)
Voted incumbent	−0.043	−0.033	−0.018	−0.058
	(0.074)	(0.195)	(0.094)	(0.224)
Primary source - Social media	−0.051	−0.309	0.066	−0.028
	(0.071)	(0.236)	(0.090)	(0.167)
Under lockdown			0.035	
			(0.087)	
Believe cure exists	−0.076	−0.422	−0.082	0.118
	(0.093)	(0.309)	(0.113)	(0.233)
Urban	−0.051	−0.079	0.027	−0.145
	(0.082)	(0.202)	(0.109)	(0.210)
Female	0.077	0.049	0.182*	−0.063
	(0.075)	(0.185)	(0.109)	(0.176)
Age	0.004	−0.004	0.009	−0.004
	(0.005)	(0.015)	(0.007)	(0.017)
Schooling	0.063**	0.030	0.089**	0.069
	(0.026)	(0.072)	(0.036)	(0.075)
Religion - Catholic	−0.039	−0.439	0.405	0.254
	(0.191)	(0.384)	(0.327)	(0.389)
Religion - Protestant	0.068	−0.344	0.587*	0.248
	(0.191)	(0.373)	(0.343)	(0.386)
Religion - Evangelical	−0.078	−0.626	0.422	0.287
	(0.188)	(0.389)	(0.316)	(0.402)
Religion - Muslim	−0.186	−0.143	0.256	0.138
	(0.200)	(0.551)	(0.322)	(0.483)
Religion - Hindu	0.421	−0.505	2.392**	
	(0.624)	(0.854)	(1.214)	
Religion - Animist	0.038	−0.393	0.024	
	(0.485)	(0.707)	(0.875)	
Religion - Other	−0.138	−0.613	0.343	0.525
	(0.258)	(0.637)	(0.384)	(0.640)
Nigeria	0.341***			
	(0.095)			
Uganda	0.373***			
	(0.106)			
(Intercept)	−2.081***	−1.120	−2.744***	−2.095**
	(0.314)	(0.820)	(0.448)	(0.873)
Observations	1,296	226	728	212
R^2	0.263	0.216	0.295	0.230
Adjusted R^2	0.252	0.148	0.277	0.167

Note: "Guess Lockdown Attitudes" is measured as the proportion of n/10 people respondents thought support a lockdown policy. *p<0.1; **p<0.05; ***p<0.01

Table 14: Predicting own lockdown attitudes with guess and question order

	Attitude Toward Lockdown			
	Pooled	Kenya	Nigeria	Uganda
	(1)	(2)	(3)	(4)
Guess Lockdown Attitudes	0.210^{***}	0.234^{***}	0.216^{***}	0.052
	(0.013)	(0.034)	(0.017)	(0.040)
Guess first	0.108	0.343	0.121	-0.811^{**}
	(0.099)	(0.238)	(0.123)	(0.317)
Trust in President		0.225^{**}		0.230^{*}
		(0.097)		(0.129)
Trust in Ministry of Health	0.165^{***}	−0.072	0.188^{***}	0.039
	(0.031)	(0.115)	(0.038)	(0.125)
Trust in media	0.154^{***}	0.194^{*}	0.154^{***}	0.259^{***}
	(0.033)	(0.100)	(0.040)	(0.088)
Voted incumbent	0.035	0.014	0.076	0.037
	(0.053)	(0.132)	(0.066)	(0.160)
Primary info source - Social media	−0.011	−0.078	0.025	−0.019
	(0.051)	(0.173)	(0.062)	(0.122)
Under lockdown			0.058	
			(0.061)	
Believe cure exists	-0.146^{**}	−0.195	-0.176^{**}	−0.028
	(0.068)	(0.223)	(0.081)	(0.184)
Urban	-0.096^{*}	−0.090	−0.071	−0.148
	(0.059)	(0.137)	(0.077)	(0.157)
Female	0.159^{***}	0.285^{**}	0.133^{*}	0.162
	(0.055)	(0.130)	(0.078)	(0.128)
Age	0.001	0.005	−0.004	0.005
	(0.004)	(0.011)	(0.005)	(0.011)
Schooling	0.068^{***}	0.085^{*}	0.080^{***}	0.038
	(0.019)	(0.051)	(0.025)	(0.056)
Religion - Christian	0.033	-0.424^{***}	0.077	0.317^{*}
	(0.056)	(0.163)	(0.067)	(0.167)
Nigeria	0.315^{***}			
	(0.064)			
Uganda	0.524^{***}			
	(0.077)			
Guess Lockdown:Guess First	−0.006	−0.021	−0.006	0.128^{**}
	(0.018)	(0.047)	(0.023)	(0.053)
(Intercept)	-2.162^{***}	-2.269^{***}	-1.979^{***}	-1.318^{**}
	(0.196)	(0.548)	(0.236)	(0.623)
Observations	2,581	460	1,469	416
R^2	0.263	0.203	0.291	0.163
Adjusted R^2	0.259	0.178	0.284	0.134
Residual Std. Error	1.204 (df = 2565)	1.321 (df = 445)	1.150 (df = 1454)	1.220 (df = 401)
F Statistic	61.038^{***} (df = 15; 2565)	8.119^{***} (df = 14; 445)	42.589^{***} (df = 14; 1454)	5.576^{***} (df = 14; 401)
Note:				*p<0.1; **p<0.05; ***p<0.01

5.4 Correlates of guesses of others' support for a lockdown policy

The following three graphs examine the correlation between respondents' guess as to how many out of 10 other people taking the survey in their country support a mandatory lockdown policy and i) responses to the vignette about how likely the hypothetical man is to eat out with his cousin (e.g. not practice physical distancing), ii) writing a message to encourage peers to physically distance, and iii) the content of that message.

We would expect that respondents who believe *more* people support a mandatory lockdown policy then they would also think the hypothetical would be *less* likely to dine out. We find this expected pattern in the case of Uganda (See Figure 6), but we find little correlation between the measures in Kenya and Nigeria. In fact, Ugandan respondents who guess that fewer than 50% of their peers support lockdown are significantly more likely to expect the man in the vignette to dine out, compared to Ugandan respondents who guessed that at least 50% of their peers support a lockdown. The same difference in means tests for respondents in Kenya and Nigeria are not statistically distinguishable from zero. Figure 7 reveals a positive correlation between guess of others' support and writing a message, largest in Uganda.

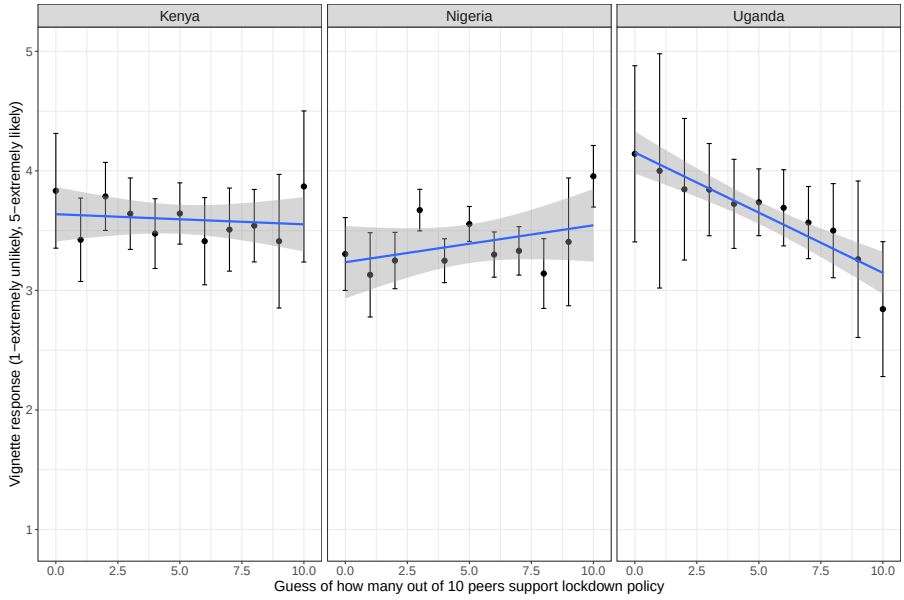

Figure 6: Correlation between guess of others' support for lockdown and vignette response

Figure 8 plots the prevalence of different types of message content across guesses of others' support for lockdown, with inconclusive results but some indication that perhaps as we might expect there is a negative relationship between guess of others' support and externality content. In other words, the fewer people you think support a mandatory lockdown policy the more

likely you are to use terms that appeal to the collective responsibility or sense of shared fate.

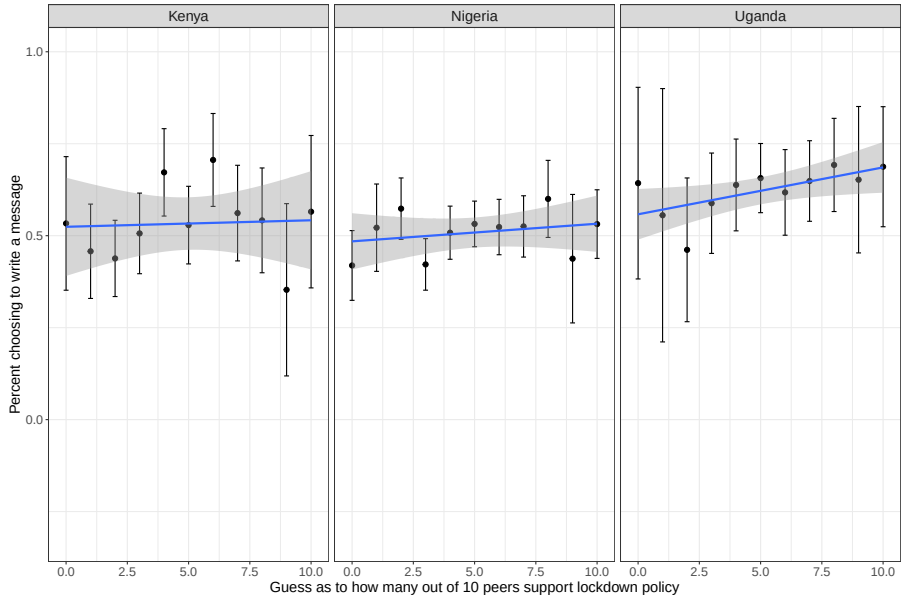

Figure 7: Correlation between guess of others' support for lockdown and message writing

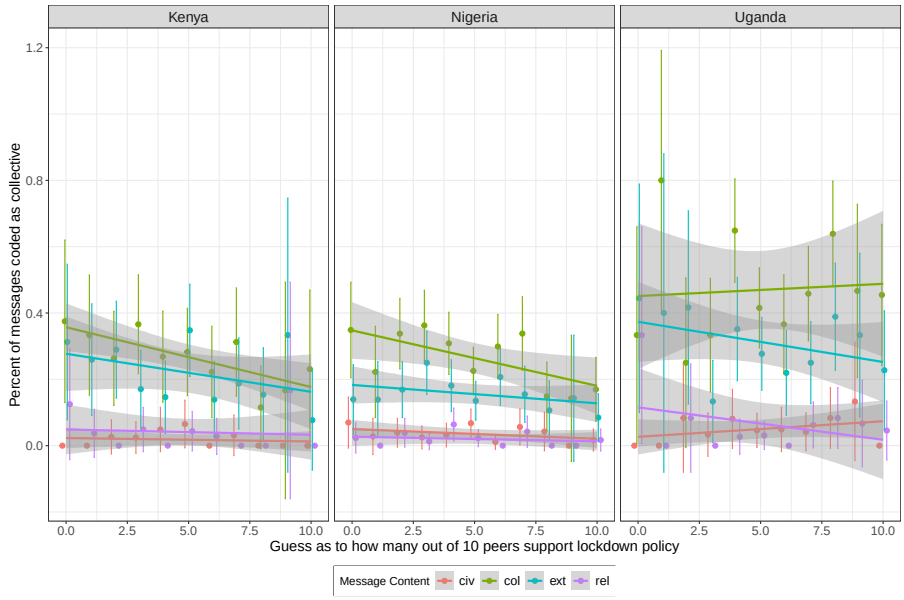

Figure 8: Correlation between guess of others' support for lockdown and message content
Note: Messages were coded as civic "civ", collective action "col", externality "ext" or religious "rel".

6 Behavior as Measured by the List Experiment

6.1 Physical Distancing

Table 15 shows the mean number of items respondents said they did in the list experiment. The control group had 4 items total while the treatment group included the sensitive item (coming within 2 meters of someone outside of the household) and included 5 items. The difference in mean items between treatment and control can be interpreted as the percentage of respondents who engaged in the sensitive item and did not maintain physical distance. The p-value column reports the statistical significance of this difference in means.

Table 15: Physical Distancing List Experiment, by Country

Country	lockdown	Control	Treatment	Diff	p-value
Kenya	0.000	1.971	2.431	0.459	0.000
Nigeria	0.000	2.205	2.662	0.457	0.000
Nigeria	1.000	2.384	2.676	0.292	0.000
Uganda	1.000	1.948	2.379	0.431	0.000

Note: Table shows mean number of items respondents said they did in the list experiment - for the Control group (4 items total) and Treatment group (5 items total, including the sensitive item). The difference can be interpreted as the percent of respondents who did the sensitive item – did not maintain physical distance. The corresponding p-value's for this difference in means is also provided by country and lockdown status.

Interestingly, there is no statistically significant difference in non-compliance rates, as estimated by the list experiment, between lockdown and non-lockdown areas in Nigeria (see Table 16).

Table 16: Regression of List Experiment Count on Interaction of Treatment Condition and Lockdown (Nigeria sample only)

	List Experiment Count
Under lockdown	0.178**
	(0.082)
List Experiment Condition	0.457***
	(0.084)
Under lockdown:Condition	−0.164
	(0.116)
Constant	2.205***
	(0.059)
Observations	1,520
R^2	0.029
Note:	*p<0.1; **p<0.05; ***p<0.01

6.1.1 Relationship with Attitudes and Beliefs

Our survey and experiments are not designed in a way that allow us to directly identify who engaged in physical distancing. However, we may use an implicit measure of behavior for a small selection of individuals to examine how physical distancing behavior might correlate with individual attitudes and beliefs. In particular, we examine those for whom the list experiment condition included the option "came within 2 meters of someone from outside my household" (treatment condition). In total, 57 individual reported engaging in none of the activities (for the purposes of this analysis we assume that they practiced physical distancing), and 90 reported engaging in all activities (we assume they therefore *did not* practice physical distancing).

To understand how second order beliefs, or beliefs about others' attitudes and behaviors influence one's own actions, we use this implicit measure of behavior and the question from the vignette experiment about the hypothetical man. We would expect that the more you think that others (this hypothetical man) will *not* physically distance, the more likely individuals may be to not maintain physical distance themselves. We compare the difference in reported outcomes in the vignette experiment ("Imagine a man who lives in a community like yours is invited for a meal at his cousin's house down the street. Both he and his cousin feel healthy. How unlikely or likely do you think it is that this man will go eat at his cousin's house?" 1 - Extremely Unlikely, 5 - Extremely likely) across our implicit measure of physical distancing described above. We observe a small positive correlation ($p = 0.17$) between this measure of belief that others will also not practice physical distancing and individuals own lack of physical distancing in the pooled sample (see Figure 9 and Table 17, column 1).

We present this correlation with caution. Not only was this analysis not pre-registered, but there are likely systematic differences between the groups who reported engaging in all activities in the list experiment and those who did not engage in any. The small sample size (n = 147 in the pooled sample) also limits our ability to explore correlations conditional on a set of covariates we would expect to moderate the effect of own physical distancing behavior on beliefs about others' likely behavior.

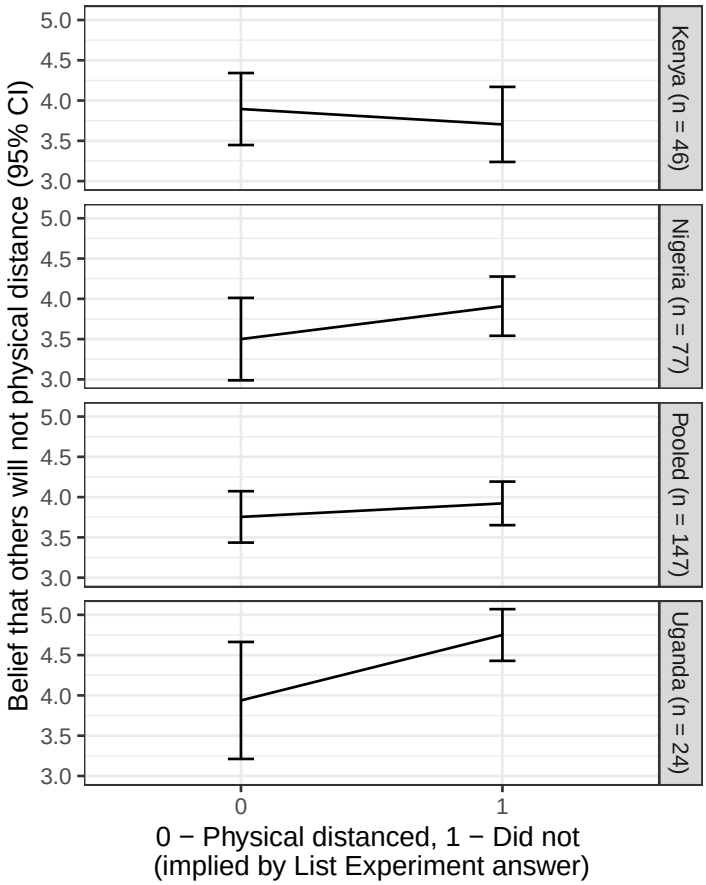

Figure 9: Mean and 95% confidence intervals for expected behavior of others' in the vignette experiment (higher values mean less likely to physical distance). Physical distancing is measured implicitly via list experiment counts under the treatment condition. If respondent reported having engaged in all activities (including "came within two meters of someone outside my household"), the variable is coded as 1, and 0 if respondent reported engaging in none of the activities listed.

Table 17: Correlation between likely 'non-distancers' and expected distancing behaviors of others, and own attitudes toward lockdown

	Expected Behavior						
	Pooled	Kenya	Nigeria	Uganda	Pooled	Kenya	Nigeria
Likely Non-Distancer	0.27	−0.19	0.41	0.81	0.25	0.19	0.33
	(0.21)	(0.33)	(0.32)	(0.41)	(0.27)	(0.48)	(0.37)
(Intercept)		3.89***	3.50***	3.94***		−0.16	0.36
		(0.23)	(0.26)	(0.37)		(0.37)	(0.31)
R^2	0.02	0.01	0.02	0.09	0.05	0.00	0.01
Adj. R^2	0.00	−0.02	0.01	0.05	0.03	−0.02	−0.00
Observations	147	46	77	24	147	46	77
RMSE	1.27	1.14	1.35	1.25	1.53	1.61	1.48

Coefficients report differences between 'likely non-distancers' and 'likely distancers'. Columns 1-4 outcome refers to the expected behavior o

6.2 Mask Wearing

In addition to the list experiment to gain an indirect measure of breaking physical distancing, we also asked respondents whether they wore a mask the last time they left their home. Overall, 59% of respondents said they did *not* wear a mask and 41% responded that they did. Since the benefits of masks was still somewhat debated at the time of the survey there appears to be less social desirability bias here, since more than half of respondents volunteered that they did not wear a mask. Figure 10 shows that there is a slight positive correlation between expectations of others' support for lockdown policy and own mask wearing behavior. The more respondents anticipate that their peers support physical distancing measures the more likely they are to have worn a mask themselves.

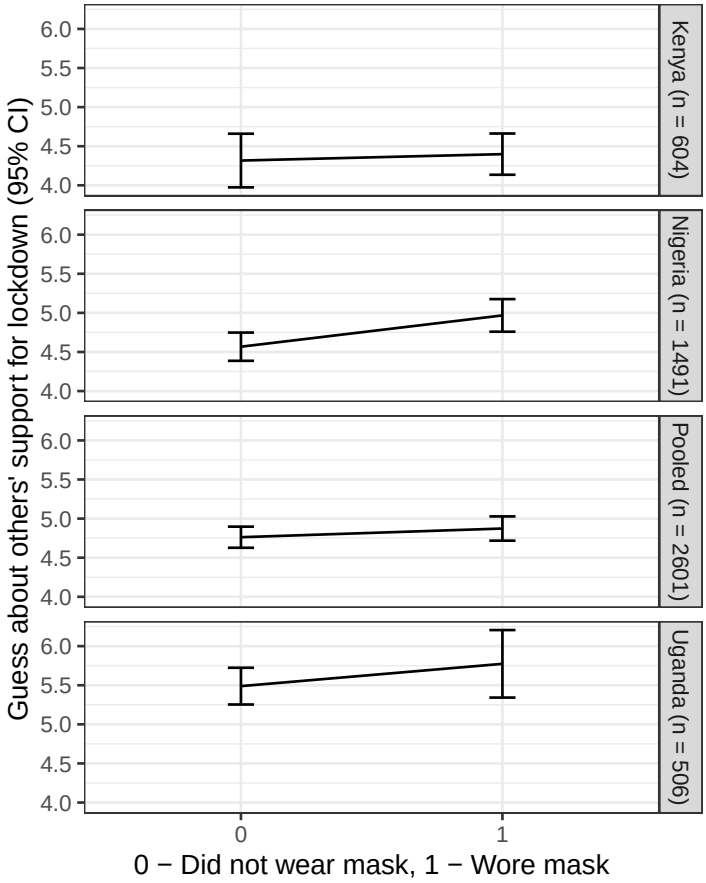

Figure 10: Mean and 95% confidence intervals for respondent's perception of others' support for lockdown measures (coded as share of other respondents who support measure, out of 10 respondents). Mask wearing variable is coded as whether or not respondent reported wearing a mask last time he or she left the house.

7 Power calculation

7.1 Design Declaration

Using R packge *DeclareDesign*, we simulate a parsimonious version of our design design with sample size N with binary draws of the potential outcomes. These binary draws are independent for each treatment condition, and are drawn from from a cumulative distribution function of with $\mu = 0 \; \forall \; Z \in C, T1, T2$ and standard deviations given by *latent_sds* plus an additional probability defined *outcome_means*. Importantly, we do not account for block- or country-level correlation in outcomes, and assume sample size for each study site is the same.

We then focus our power analysis on the ATE of T1. We vary *outcome_means* by simulating different values of treatment effect ranging from 2.5% to 20% in increments of 2.5%. We also consider different variances of our latent variable in *latent_sds* used to draw binary potential outcomes of under T1 between .5-2 standard deviations. And ultimately, we vary our sample size between 1200 and 2100. Assuming the simple data-generating process defined above, we are able to observe how well powered we are to detect a given effect under different variance levels for our treatment-level distribution of latent treatment outcomes and for different sample sizes. Below is a sample of the table showing a sample of the designs, along with bootstrap estimates of power of our estimate under each design.

N	outcome_means	latent_sds	estimand_label	estimator_label	mean_estimate	sd_estimate
1200	c(0, 0, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	-0.01	0.03
1500	c(0, 0, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	-0.01	0.00
1800	c(0, 0, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	0.02	0.00
2100	c(0, 0, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	0.02	0.00
1200	c(0, 0.025, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	0.06	0.02
1500	c(0, 0.025, 0)	c(1, 0.5, 1)	ate_Y_T1_C	DIM (Z_T1 - Z_C)	0.00	0.05

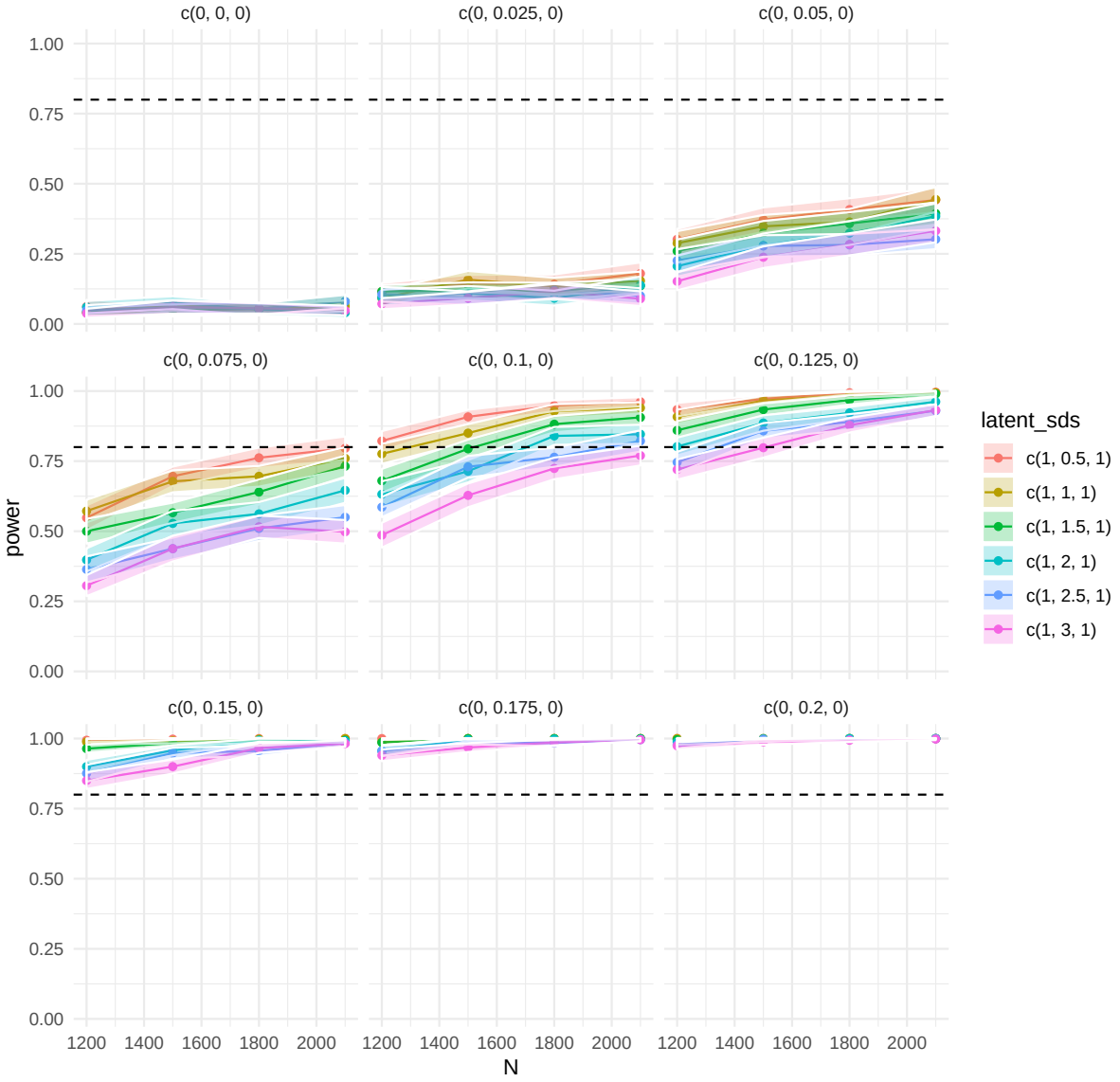

Figure 11: Power analysis under different assumptions about the average treatment effect of the social message (T1) and different variance around potential outcomes under that treatment condition. We observe we are well powered under most scenarios to observe an effect size of 10% or above with a sample size of 1800 or greater.

8 Survey Instrument

Q1 In which country do you currently live? - Selected Choice

Q2 In which zone/county/region do you currently live?

Q3 In which state/sub-county/district do you currently live?

Q4 In which parish do you live?

Q5 Do you live in a mostly urban or mostly rural area?

Q6 Which of the following is TRUE for you? (Select all that apply)

Q7 If you are worried you had/have COVID-19, which of the following is true for you? (select all that apply) - Selected Choice

Q8 Were you successful in being tested? - Selected Choice

Q9 True or False: Coronavirus is only dangerous for older people

Q10 True or False: There are currently no medicines or vaccine that prevent coronavirus

Q11 True or False: If someone has been infected with coronavirus they can transmit the virus to someone else even if they do not feel sick or have any symptoms

Q12 Which of the following behaviors help reduce the spread of coronavirus? (Select all that apply)

Q13 If someone thinks they have COVID-19, what should they do? (Select all that apply) - Selected Choice

Q14 As of today, how many COVID-19 cases do you think have been confirmed in [QID43-ChoiceGroup-SelectedChoices]?

Q15 What is the main way you get information about COVID-19? - Selected Choice

Q16 To the best of your knowledge, which of these is available in [QID43-ChoiceGroup-SelectedChoices]? (Select all that apply)

Q17 How much do you trust the President to be willing and able to handle the COVID-19 outbreak in [Field-country]?

Q18 How much do you trust the Ministry of Health to be willing and able to handle the COVID-19 outbreak in [Field-country]?

Q19 How much do you trust the Federal Ministry of Health to be willing and able to handle the COVID-19 outbreak in [Field-country]?

Q20 How much do you trust health workers to be willing and able to handle the COVID-19 outbreak in [Field-country]?

Q21 How much do you trust the media (radio, TV, newspapers) to be willing and able to report on a COVID-19 outbreak in [Field-country]?

Q22 How many of the following five activities did you do today? Called a friend/family member Listened to the radio Exercised for at least 30 minutes Came within 2 meters of someone outside of your household Sent someone mobile money

Q23 How many of the following four activities did you do today? Called a friend/family member Listened to the radio Exercised for at least 30 minutes Sent someone mobile money

Q24 What is the maximum number of weeks you could remain in lockdown without it severely affecting your ability to feed your household?

Q25 Please indicate how strongly you personally disagree or agree with the following statement. "I support a mandatory lockdown policy by government."

Q26 Now we would like to ask you about how you think other people taking this survey in [Field-country] feel. How many people taking this survey, out of 10, do you think support a mandatory lockdown policy? Please give us your best guess.

Q27 Please indicate how strongly you personally disagree or agree with the following statement. "My health will be badly affected if I get COVID-19."

Q28 Please indicate how strongly you personally disagree or agree with the following statement. "My economic livelihood will be badly affected by the spread of COVID-19 in [Field-country]."

Q29 Which one of the following issues are you most concerned about regarding COVID-19? - Selected Choice

Q30 If you are concerned about the impact of COVID-19 on politics in [Field-country], what is your main concern? - Selected Choice

Q31 Please indicate how strongly you personally disagree or agree with the following statement. "The health of my family and friends will be badly affected if they get COVID-19."

Q32 Please indicate how strongly you personally disagree or agree with the following statement. "The economic livelihood of my friends and family will be badly affected by the spread of COVID-19 in [Field-country]."

Q33 Which one of the following issues is your family and friends most concerned about regarding COVID-19? - Selected Choice

Q34 If your friends and family are concerned about the impact of COVID-19 on politics in [Field-country], what is their main concern? - Selected Choice

Q35 Which one of the following issues is your online social media contacts (Facebook, Twitter, Instagram, Whatsapp) most concerned about regarding COVID-19? - Selected Choice

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Q36 VIGNETTE: Block randomization by country into equal thirds

Q36.A Imagine a man who lives in a community like yours is invited for a meal at his cousin's house down the street. Both he and his cousin feel healthy.How unlikely or likely do you think it is that this man will go eat at his cousin's house?

Q36.B Imagine a man who lives in a community like yours is invited for a meal at his cousin's house down the street. Both he and his cousin feel healthy. He knows his friends and neighbors have been pressuring each other not to socialize outside of their household.How unlikely or likely do you think it is that this man will go eat at his cousin's house?

Q36.C Imagine a man who lives in a community like yours is invited for a meal at his cousin's house down the street. Both he and his cousin feel healthy. He knows the government has been fining people for leaving their house to socialize.How unlikely or likely do you think it is that this man will go eat at his cousin's house?

Q37 The research team is collecting messages to post on a publicly available website. Would you like to write an anonymous message to other citizens in [Field-country] to encourage physical distancing between members of different households?

Q38 Please write your message about physical distancing in the box below.

Q39 In the past two weeks, which of the following is true for you? (Select all that apply)

Q40 The last time you received money from abroad, how much did you receive?

Q41 The last time you sent money to someone within [Field-country], how much did you send?

Q42 The last time you received money from someone within [Field-country], how much did you receive?

Q43 Finally, we would like to ask you a few questions about yourself.What is your gender?

Q44 How old are you?

Q45 What is your highest level of education?

Q46 What is your main occupation? - Selected Choice

Q47 In the most recent presidential elections, which candidate did you vote for, if any?

Q48 Do you feel close to any particular political party?

Q49 Which party is that?

Q50 What is your religion, if any? - Selected Choice

Q51 Aside from weddings and funerals, how often do you generally attend religious services?

Q52 What is your ethnic community, cultural group, or tribe? - Selected Choice

Q53 Do you have any questions or comments for us about the survey?

Q54 Clicked on WHO link

Q55 Clicked on WHO phone number