POPULATED PRE-ANALYSIS PLAN
for
Accelerating Changes in Norms about Social Distancing to Combat COVID-19*

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1 Introduction

On August 25, 2020, prior to baseline data collection, we uploaded our pre-analysis plan (PAP) "Accelerating Changes in Norms about Social Distancing to Combat COVID-19" to the American Economic Association's RCT Registry, registration ID number AEARCTR-0005862: https://doi.org/10.1257/rct.5862-3.0. We follow Duflo et al. (2020), assembling the full set of pre-specified analyses in a Populated PAP document. This full Populated PAP can be accessed on our research website:
https://fordschool.umich.edu/mozambique-research/combating-covid-19.

Note that we adhere to the nomenclature used in the main text of Allen IV et al. (2021) "Correcting Perceived Social Distancing Norms to Combat COVID-19" to refer to the treatment conditions as "T1: Misperceptions Correction" and "T2: Leader Endorsement", rather than what the PAP referred to as "SD1: Community Support for Social Distancing" and "SD2: Community leader support for social distancing", respectively.

2 Primary Analyses

In our PAP, we specify the following regression for our primary analysis:

$$Y_{ijd} = \beta_0 + \beta_1 T1_{ijd} + \beta_2 T2_{ijd} + \eta B_{ijd} + \delta_{ijd}^{others} + \delta_{ijd}^{leaders} + \gamma_{jd} + \varepsilon_{ijd} \tag{2.1}$$

where Y_{ijd} is the social distancing indicator for household i in community j and district d; $T1_{ijd}$ and $T2_{ijd}$ are indicator variables for the misperceptions correction and leader endorsement treatment groups, respectively; B_{ijd} is the baseline value of the dependent variable; γ_{jd} are community fixed effects; and ε_{ijd} is a mean-zero error term. We report robust standard errors. The regression also controls for the number of other survey respondents and community leaders who report knowing the survey respondent at baseline (in Round 2). Specifically, δ_i^{others} is a vector of dummy variables for the distinct number of other surveyed study respondents who report knowing the household (0, 1, 2..., 7, 8 or more; where 8 is the first integer where over 90% of the sample is represented by previous non-negative integers), and $\delta_i^{leaders}$ is a vector of dummy variables for the distinct number of community leaders who report knowing the household (0, 1, 2, 3, 4; where 4 is maximum number of leaders found within one of the 76 sample communities). Including this control variable helps reduce residual variance in the dependent variable, because respondents who are known by more others in the community will also have more reports of social interactions with others.

These results are presented in Table 1 Column (1). Given that both coefficients are far from statistically significance at conventional levels, we forgo multiple hypothesis test corrections.

Table 1: **Additional Pre-specified Analyses**

VARIABLES	(1) Primary SD Indicator	(2) Others' Report of SD	(3) Self-Report of SD	(4) Primary SD Indicator
T1: Misperceptions Correction	0.0042	0.0010	0.0134	
	(0.0140)	(0.0181)	(0.0238)	
T2: Leader Endorsement	-0.0054	0.0145	-0.0189	
	(0.0137)	(0.0183)	(0.0234)	
Pooled SD Treatments				-0.0006
				(0.0116)
Observations	2,117	2,117	2,117	2,117
R-squared	0.158	0.333	0.211	0.158
Control Mean DV	0.0857	0.2113	0.4061	0.0857
Control SD DV	0.2801	0.4084	0.4914	0.2801

Notes: Dependent variables — Columns 1 & 4: indicator equal to one if respondent is social distancing (SD) according to others' and self reports, and zero otherwise. Column 2: indicator for SD according to others if all other respondents and community leaders reported not knowing the respondent household, not seeing the respondent household in the past 14 days, or—if seen—that the respondent household 1) did NOT come closer than 1.5 meters to others outside their household; 2) did NOT shake hands, try to shake hands, or touch others outside their household; and 3) appeared to be observing the government's recommendations on SD, and zero otherwise. Column 3: indicator for SD according to self if respondent answered "yes" to observing the government's recommendations on SD in the last 14 days (Row 5) and report doing more than the sample median number of SD behaviors (Row 6), and zero otherwise. Social Distancing Treatments — "T1: Misperceptions Correction" is an indicator equal to one if respondent was randomly assigned to the misperceptions correction treatment, and zero otherwise. "T2: Leader Endorsement" is an indicator equal to one if respondent was randomly assigned to the leader endorsement treatment, and zero otherwise. "Pooled SD Treatments" is an indicator equal to one if respondent was randomly assigned to the misperceptions correction treatment or leader endorsement treatment, and zero otherwise. All regressions control for a baseline measure of the dependent variable, a vector of indicators for number of community leaders knowing the respondent at baseline (0 through 4), and a vector of indicators for number of other respondents knowing the respondent at baseline (0 through 8) and include community fixed effects. Robust standard errors in parentheses. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

3 Secondary Analyses

Additionally, we pre-specified the following secondary analyses. First, we analyze impacts of the social distancing treatments on the separate components of the social distancing index—the others' and self-report. These results are presented in Table 1 Columns (2) and (3), respectively. Treatment effects on these outcomes are very similar to those in Column (1) in that they are small in magnitude and statistically insignificant. Second, we also pool SD1 and SD2 together to examine the effect of some endorsement of social distancing (whether by other community members or by community leaders) on the primary social distancing outcome. The coefficient in Table 1 Column (4) is also small in magnitude and not statistically significantly different from zero at conventional levels.

We also randomly assigned a family of treatments to improve COVID-19 knowledge in the same study population.[1] Randomization of the misperceptions correction and leader endorsement treatments were stratified within 76 communities and within the separate knowledge treatment conditions (i.e., the knowledge and social distancing treatments were cross-randomized). As pre-specified, we run a regression on the primary social distancing outcome with indicators for social distancing treatments, the cross-randomized knowledge treatments and their interaction terms. Results are presented in Table 2, and show no large or statistically significant interaction effects between the social distancing and knowledge treatments.

[1]The pre-analysis plan (PAP) for the knowledge study can be found here: https://fordschool.umich.edu/mozambique-research/combatting-COVID-19.

Table 2: **Interactions between Social Distancing and Knowledge Treatments**

VARIABLES	(1) Primary SD Indicator
T1: Misperceptions Correction	-0.0237
	(0.0214)
T2: Leader Endorsement	-0.0210
	(0.0222)
K1: Incentive	-0.0218
	(0.0241)
K2: Feedback	-0.0025
	(0.0251)
K3: Incentive & Feedback	-0.0144
	(0.0238)
T1 × K1	0.0545
	(0.0390)
T2 × K1	0.0249
	(0.0372)
T1 × K2	0.0467
	(0.0397)
T2 × K2	0.0139
	(0.0385)
T1 × K3	0.0404
	(0.0382)
T2 × K3	0.0374
	(0.0372)
Observations	2,117
R-squared	0.160
Control Mean DV	0.0857
Control SD DV	0.2801

Notes: Dependent variable and social distancing treatments are defined in Table 1. "K1 Incentive", "K2 Feedback", and "K3 Incentive & Feedback" are indicators equal to one if respondent was randomly assigned to one of these knowledge treatments, and zero otherwise. Remaining regressors represent interactions between social distancing treatments and the knowledge treatments. Controls are as defined in Table 1 and includes community fixed effects. Robust standard errors in parentheses. Significance levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

References

Allen IV, J., A. Mahumane, J. Riddell IV, T. Rosenblat, D. Yang, and H. Yu (2021). Correcting Perceived Social Distancing Norms to Combat COVID-19. *NBER Working Paper* (28651).

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