KEY FINDINGS

- Respondents were well-informed about key COVID-19 symptoms and protective behaviours.
- Most respondents had access to water, soap, and masks to prevent contraction of COVID-19.
- Most households reported experiencing increased food prices, job loss, business closure, or increases in prices of business or farm inputs between March and July 2020. Respondents also reported difficulties in accessing food. During this same time, food prices were elevated and monthly food and cash rations had been decreased.
- Most respondents who needed to access health facilities were able to access them. However, some of the respondents noted challenges such lack of supplies in health facilities and lack of money to afford services or drugs.
- Most households reported being food insecure in July 2020. However, respondents who received USD 1000 unconditional cash transfer prior to the lockdown had marginally stronger food security than households who were randomly chosen to receive their transfers later and have not yet received them.
- Respondents who received USD 1000 unconditional cash transfer prior to the lockdown had higher psychological wellbeing compared to yet-to-receive households. However, most respondents expressed feelings of sadness and fear. These feelings were associated with a lack of resources to provide for their households and fear of contracting COVID-19.

CONTEXT

Uganda is one of the world's leading refugee-hosting countries. This study focuses on households registered in the Kiryandongo refugee settlement, located in Uganda's Western Region. This ~10,000-household settlement is situated on former ranch land, adjacent to Kiryandongo district’s commercial centre, Bweyale. Most households (99%) are from South Sudan; the majority arrived after 2014, which marked South Sudanese independence and the ensuing civil war. Currently, many of the households in the settlement make a living by traveling for casual labour, running small enterprises, and depending on remittances and food rations from organizations like the World Food Programme (WFP).

On 30 March 2020, Uganda entered a nationwide lockdown to prevent COVID-19 spread, restricting almost all movement and commerce within the country, as well as across international borders. In June, the Government of Uganda, United Nations High Commissioner for Refugees (UNHCR), and some NGOs also started issuing masks and sanitizers to people in the settlement. At the same time, donors and implementers have reduced goods and services previously delivered to refugee households, including a ~30% cut in WFP food and cash rations. In addition to the reduction in the size of each ration, WFP simultaneously put in place a double-ration system whereby monthly rations are given every two months instead of monthly, to reduce excess movement of people and support social distancing efforts.

At the beginning of July 2020 — the time of our first round of phone surveying — religious gatherings, school attendance, and refugees’ movement across settlements were still restricted. Additionally, an evening curfew was in place, and movement across borders were restricted in some districts, including Kiryandongo. Towards the end of July, authorities announced relaxed lockdown measures, reducing the curfew time to 9:00 pm to 5:30 am, opening markets, and allowing boda-boda drivers to carry passengers. In our July 2020 interviews, two-thirds of respondents noted that the government was currently advising them to stay at home, wash their hands with soap, practice social distancing, and wear masks when outside. Almost all (91%) respondents were satisfied with their local authorities’ response to the pandemic; about two-thirds (64%) found the response appropriately calibrated (not too extreme or too lax).
SITUATING THE STUDY

The goal of this Elrha-funded set of phone-based surveys is to understand the current state of health practices and welfare outcomes in the Kiryandongo refugee settlement and to explore the impact of having received a large cash transfer. We are conducting three rounds of 30-minute, structured quantitative phone surveys. Round 1 data collection lasted from 6 to 28 July 2020; we show the planned future rounds in Figure 1 below.

Our phone survey sample is randomly drawn from a larger, ongoing randomized control trial (RCT) with GiveDirectly. This larger study (n=1,264) is randomly sampled from the ~10,000 households registered in the settlement. GiveDirectly is in the process of rolling out $1000 unconditional cash transfers to all refugee households. Our treatment group consists of those who received their transfers beginning in February 2020; the control group is comprised of households who will receive transfers later in 2020 or 2021 (see Figure 1 below). The phone survey sample is drawn from the 1,060 households for whom we had phone numbers.

The ongoing impact evaluation also includes a longitudinal qualitative module. We draw on both the RCT baseline data (Sept – Nov 2019) and this qualitative data (ongoing since January 2020) to complement our phone survey data for this report. Further details on data collection can be found in Appendix 2.

Figure 1: Timeline of studies and COVID-19 related events

SAMPLE

Three-quarters of respondent households were female-headed. Households have spent an average of six years in the settlement and have an average of 6.8 members per household. Respondents represent the main ethnic groups living in the settlement: Acholi/Luo (26%), Dinka (24%), Bari (16%), or Nuer (13%). In Table 1, in Appendix 1, we show key characteristics of our phone survey sample.

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5 Evaluation methods and instruments used in the phone survey were reviewed and approved by the Mildmay Uganda research and Ethics Committee (MUREC).
6 Households who had people with specific needs (PSN) also received the cash transfers first but were excluded from the RCT and therefore our sample. We also included only households who provided phone numbers during the baseline survey of the RCT. Our sample frame is therefore representative of households without PSN members who have phones, and our final survey sample is representative of those who would answer the phone and consent to responding.
FINDINGS

In this section, we present brief findings for each of our areas of inquiry. For notes on the analysis, please see Appendix 2. For most findings, we report the sample average and then disaggregate by both respondent’s sex and the respondent’s ethnic group. We include these breakdowns because we hypothesize that these groups may have different experiences, including the ability to access information in their preferred language and to act on that information. We also provide information on differences in outcomes for our treatment and control groups.

COVID-19 AWARENESS

Respondents were generally well-informed about key COVID-19 symptoms and the ability to protect oneself.

Information sources

About half of respondents (48%) found radio to be the most trustworthy source of information, while about 19% most trust information from family, friends, and neighbours. The trustworthiness of radio as a source of information on COVID-19 was highest among the Acholi ethnic group, with 65% of the Acholi respondents reporting they trust radio most. However, the trustworthiness of friends, family, and neighbours was marginally higher by 2% than radio among the Dinka respondents. There were no notable differences in trusted information sources between the treatment and control groups or male- and female-headed households.

Awareness of symptoms and risks

While recognizing that COVID-19 symptoms are not always consistent across cases, we asked respondents to name common symptoms of COVID-19. Overall, most respondents named dry cough as a key symptom but inconsistently note other key symptoms: 87% named dry cough, 76% named fever, 39% named difficulty breathing, and 6% named loss of sense of taste or smell as key symptoms of COVID-19. There were no notable differences between ethnic groups or male- and female-headed households.

About one-third of respondents did not recognize the possibility of asymptomatic transmission. Overall, 46% of respondents said that people with COVID-19 sometimes have observable symptoms; 35% noted that people with COVID-19 always have observable symptoms. There were no significant differences by ethnicity, sex, or treatment group.

COVID-19 ATTITUDES

Respondents generally have a positive outlook towards protecting themselves from COVID-19. However, almost half of the respondents think that people will face stigma in the case of contraction.

Most respondents (81%) think it is possible to protect themselves from contracting COVID-19. At the same time, respondents have mixed opinions on their likelihood of contracting the virus: 55% felt it somewhat or highly likely that they would contract COVID-19, roughly 25% felt contraction to be a little bit likely, and 17% felt it was not at all likely. The perception of feeling safe from the virus was significantly higher among Acholi respondents, with 70% feeling a little or not at all likely to contract COVID-19, as compared to 42% in the rest of the sample. There were no notable differences by treatment and control groups or male- and female-headed households.

Of all the respondents who thought they were not likely to contract COVID-19 (n=108), the majority (63%) attributed their low risk to their protective health measures (handwashing and social distancing). However, 30% of those who thought it was not likely for them to contact COVID-19 attributed their protection from the virus to their belief in God.

Uncertainty around COVID-19 can lead to stigma of those suspected of having it. When asked how neighbours will likely respond to those suspected to have COVID-19, 51% noted that people would mostly be nice while 49% felt people would mostly speak badly about them. There were no notable differences by ethnicity, sex, or treatment status.
PUBLIC HEALTH BEHAVIOUR

Overall, most respondents have access to water, soap, and masks to prevent contraction of COVID-19.

Most respondents reported having access to sufficient water (82%) and soap (87%) for handwashing (about eight times) during the day. Typically, households in Kiryandongo fetch water from common water points managed by settlement authorities. Three-quarters (77%) of those respondents who did not have access to water to wash their hands (n=91) noted that their water supply had reduced. Additionally, while most ethnic groups had access to water, water access was lower (p=0.01) among the Lupit (67%), Nuer (74%), and Shilluk (75%) ethnic groups.

Almost all respondents reported wearing masks when going outside. Eighty-nine percent of respondents reported covering their mouth and nose when leaving their home. Although the Ugandan government started distributing free masks in June 2020, the majority (82%) of those who wore masks reported buying the masks.

Most respondents had left the house recently, but less than half interacted closely with people while away from home. Eighty-nine percent reported leaving their house in the last seven days; 47% of these maintained social distancing while outside. Respondents had mixed opinions on whether their neighbours took sensible precautions to protect themselves from COVID-19. About half (43%) perceived their neighbours to be implementing the right amount of precaution, while 31% and 26%, respectively, perceived their neighbours to be implementing too few or too many protective measures.

HOUSEHOLD SHOCKS

Almost all households experienced increased food prices during July 2020; more than half also experienced increased prices for business and farm inputs. At the same time, more than half of households also experienced job loss or business closure.⁷

In Table 1 below, we show different household shocks that respondents reported since March 2020. The mean number of shocks reported by respondents was 4.6.⁸ There were no significant differences in the number of shocks experienced by treatment group, ethnicity, or sex of household head.

<table>
<thead>
<tr>
<th>Household shock</th>
<th>Percentage who experienced shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in food prices</td>
<td>97%</td>
</tr>
<tr>
<td>Job loss</td>
<td>57%</td>
</tr>
<tr>
<td>Price increase in farm or business inputs</td>
<td>57%</td>
</tr>
<tr>
<td>Business closure</td>
<td>52%</td>
</tr>
<tr>
<td>Farm disruption</td>
<td>40%</td>
</tr>
<tr>
<td>Loss of income due to illness, injury or death</td>
<td>37%</td>
</tr>
<tr>
<td>Conflicts</td>
<td>37%</td>
</tr>
<tr>
<td>Theft</td>
<td>23%</td>
</tr>
<tr>
<td>Price fall in farm or business outputs</td>
<td>23%</td>
</tr>
<tr>
<td>Reduction in farm or business outputs</td>
<td>21%</td>
</tr>
<tr>
<td>Other shocks</td>
<td>18%</td>
</tr>
</tbody>
</table>

To cope with these shocks, many (61%) respondents reported receiving NGO assistance and nearly half noted reducing food consumption. Although slightly fewer households in the treatment group (40%) than in the control group (50%) reported reducing food consumption, this difference was just below conventional significance levels (p=0.11). Additionally, 28% of respondents reported to have prayed to deal with the difficulty of these shocks; 22% took items on credit, and another 7% took a loan from an institution or person who charges interest.

⁷ Qualitative findings on shocks experienced by households in the settlement can be found here.
⁸ Respondents selected different types of household shocks they had experienced since March 2020.
FOOD SECURITY

Overall, respondents reported difficulties accessing food and cited increases in food prices and decreases in food rations.

Most households reported being food insecure in July 2020. We report food security using a standardized weighted index which measures the number of days — of the last seven days — that households: skipped or cut meals, went entire days without food, went to bed hungry, and the difficulties they faced when trying to access food. Responses are appropriately scored so higher values represent better food security. The overall average food security score was 0.08 (the index is normalized to zero in the control group) indicating that most respondents were food insecure. The majority of respondents (88%) reported eating only a few kinds of food due to lack of money or other resources. There was no significant variation by ethnicity or sex of household head. In Figure 2, below, we compare food security scores between the treatment and control households. The average food security index score was marginally significant (by 0.15 standard deviations, p=0.08) in the treatment group.

Decreased food rations, increased food prices, and reduced household incomes all influenced food insecurity during this time. When asked about why they could not access sufficient food, two-thirds (66%) cited decreased WFP food and cash rations; 62% cited higher food prices, and 47% cited reduced household income. Again, our qualitative results aligned with and elaborated on the experience during this period, in which respondents expressed extreme worry about hunger and frustration about reduced food and cash aid during the difficulties imposed by the nationwide lockdown.

Figure 2: Average food security index scores for treatment and control groups

<table>
<thead>
<tr>
<th>Average food security score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
</tr>
<tr>
<td>0.10</td>
</tr>
<tr>
<td>0.20</td>
</tr>
<tr>
<td>0.30</td>
</tr>
</tbody>
</table>

Notes: The numbers above error bars represent the means of each group. Error bars represent the 95% confidence interval (CI) of the means. 

n=633

PSYCHOLOGICAL WELLBEING

Most respondents expressed feelings of sadness and fear, with only a few noting they were happy. These feelings were associated with the lack of resources to provide for their households and fear of contracting COVID-19.

Overall psychological wellbeing

About two-thirds of respondents expressed being unhappy. When asked directly about happiness, 58% reported they have not been very happy or have not been happy at all in the last seven days. When asked about their primary feeling over the last week, 32% expressed happiness as their primary feeling, while 29% expressed feeling sad and depressed, 14% expressed feeling fearful, 11% expressed feeling angry, and 8% expressed feeling fearful. Most respondents (68%) noted that lack of resources to provide for their households troubled their minds most.

Treatment respondents reported significantly higher psychological wellbeing than control respondents. In Figure 3, below, we compare the psychological wellbeing index scores for the treatment and control groups. The average score is significantly higher (by 0.22 standard deviations, p=0.006) in the treatment group than in the control group. This index is normalized to be equal to zero in the control group.

COVID-19 specific psychological wellbeing

Two-thirds of respondents reported feeling more anxious over the last seven days compared to how they normally feel. Three hundred and ninety-nine respondents (63% of the sample) reported increased anxiety. Almost half (45%) of these respondents stated they feared contracting COVID-19, while 37% noted they were worried about not having enough food. Concerns about COVID-19 and food security also came out strongly in our qualitative work. People spoke of worries about “hunger” and “survival” and were concerned about the future, noting increased pressure on households to generate income and to provide food for the family.

Figure 3: Average psychological wellbeing index scores for the treatment and control groups

We assess psychological wellbeing in three different ways. First, we ask directly about experiences of happiness in the past week, as well as the dominant feeling experienced in the past week. The second way we assess psychological wellbeing is by constructing an index using the Centre for Epidemiologic Studies Depression Scale (CES-D scale), which surveys the frequency of different types of feelings among respondents (total scores range from 0 to 21 and the overall average CESD scale score for respondents was 9.2), the World Value Survey's sections that focus on happiness and life satisfaction, and a custom worries questionnaire adapted from Haushofer and Shapiro (2016). Responses are coded in a way that positive values represent higher levels of wellbeing. On average, respondents scored 0.11 on this index.

Notes: The numbers above error bars represent the means of each group. Error bars represent the 95% confidence interval (CI) of the means.

n=632

10 We assess psychological wellbeing in three different ways. First, we ask directly about experiences of happiness in the past week, as well as the dominant feeling experienced in the past week. The second way we assess psychological wellbeing is by constructing an index using the Centre for Epidemiologic Studies Depression Scale (CES-D scale), which surveys the frequency of different types of feelings among respondents (total scores range from 0 to 21 and the overall average CESD scale score for respondents was 9.2), the World Value Survey's sections that focus on happiness and life satisfaction, and a custom worries questionnaire adapted from Haushofer and Shapiro (2016). Responses are coded in a way that positive values represent higher levels of wellbeing. On average, respondents scored 0.11 on this index.
HEALTH ACCESS

The majority of respondents who needed to access health facilities have been able to do so during July 2020. However, some noted challenges, such as a lack of facility supplies or insufficient money to afford services or drugs. One-third of respondents issued a prescription were unable to get the drugs prescribed due to unavailability and unaffordability of drugs.

Almost all pregnant women (96%, n=80) and children under one (98%, n=266) were able to access prenatal and vaccination services at health facilities.

Supply-side constraints disrupted health care for about a quarter of identified patients. A quarter (25%) of chronically ill patients (n=25) who had appointments and 20% of respondents who needed medical services (n=46) were not able to access health services, with the majority reporting lack of supplies, tests, or drugs at the health facilities. This finding echoes findings from our ongoing longitudinal qualitative study, including results from January and February 2020, suggesting that these challenges existed pre-COVID and especially in the public sector. In this parallel work, most respondents cited drug shortages as a common limitation to accessing health services. Furthermore, respondents experienced day-long waiting times to see a medical practitioner, even when severely ill. In our qualitative study, a male respondent explained that the private health facilities offers quicker services than public facilities as staff “hurry for you because they are working for money.”

Overall, most respondents sought care in at public facilities. However, more treatment than control respondents sought care at private facilities. Although the majority (83%) of respondents needing medical services in July 2020 (n=125) reported having visited public health facilities, significantly more respondents (22%) in the treatment group (households that received the cash transfer) reported visiting private health facilities compared to 9% in the control group (households who have not yet to received their transfers). Overall, most respondents noted they did not access private facilities because they could not afford them.

One-third of respondents issued a prescription were unable to access the drugs prescribed. Of the 142 respondents told they needed medication during their health facility visit in July 2020, only 90 were able to obtain the prescribed medication. Reasons preventing access included the unavailability of drugs at public health facilities (56%) and unaffordability of drugs from private facilities (41%). Respondents from our qualitative study asserted that services at private facilities seemed less affected by drug shortages.
## APPENDIX 1: HOUSEHOLD CHARACTERISTICS

Table 1: Key characteristics of our phone survey sample (n=633)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household size</td>
<td>6.77</td>
<td>(3.40)</td>
</tr>
<tr>
<td>Time in settlement (years)</td>
<td>6.2</td>
<td>(5.9)</td>
</tr>
<tr>
<td>Male head of households</td>
<td>26%</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Female head of households</td>
<td>74%</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Ethnicity-Acholi / Luo</td>
<td>26%</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Ethnicity-Dinka</td>
<td>24%</td>
<td>(0.43)</td>
</tr>
<tr>
<td>Ethnicity- Nuer</td>
<td>13%</td>
<td>(0.34)</td>
</tr>
<tr>
<td>Ethnicity- Bari</td>
<td>16%</td>
<td>(0.37)</td>
</tr>
<tr>
<td>Other ethnicities</td>
<td>21%</td>
<td>(0.41)</td>
</tr>
</tbody>
</table>
APPENDIX 2: METHODS NOTE

RESEARCH OVERVIEW

METHODOLOGY

In May 2020, IDinsight added a phone-based COVID-19 study component to an ongoing impact evaluation of GiveDirectly’s unconditional cash transfer program in Kiryandongo refugee settlement, Uganda. This COVID-19 component, funded by Elrha, explored the refugees’ current experiences, knowledge, attitudes, and behaviour. It further compared refugee households who have already received their GiveDirectly cash transfer with refugee households who will receive their cash transfer in the near future in order to understand how unconditional cash transfers impact a variety of relevant outcomes, such as health behaviour, health access, and food security.

For the main impact evaluation of GiveDirectly’s programming, around 10,000 refugee households in Kiryandongo were randomized into 24 cohorts using a public lottery. Each group has received (or will receive) cash transfers (worth around USD 1000 per household) via mobile money sometime over the next 24 months, beginning in March 2020. The treatment group comprises cohorts 1 and 2, and the control group comprises cohorts 17-20. This provides a baseline sample of 1,264 households (1,053 with phone numbers).

The phone-based component involves three rounds of structured rapid phone surveys with a random subset of the baseline sample; we conducted 633 phone interviews for round 1, based on a sample size calculation for an MDE 0.2 standard deviations and a p-value of p<0.1. In this round, we explored six main COVID-19 topics: 1) Knowledge of COVID-19 symptoms and interventions in the settlement, 2) Attitude, perceptions, stigma, and anxiety around COVID-19, 3) Public health behaviour around COVID-19, 4) COVID-19 household shocks and effects to health access, 5) COVID-19 effects on food security and, 6) COVID-19 effects on psychological wellbeing. By layering this work onto the ongoing impact evaluation, we can provide precise estimates of treatment effects in each of these areas.

DATA COLLECTION

IDinsight’s enumerator team included six experienced enumerators who worked with us during our baseline survey and predominantly reside in the settlement. These enumerators had previously attended our in-person training during baseline. Additionally, we conducted remote training using Google Meets and WhatsApp. Due to poor network connectivity in Kiryandongo, we also provided the enumerators with written and pre-recorded training materials. Finally, enumerators also completed quizzes and survey pilots, which were submitted to IDinsight for feedback. With all training and enumeration being conducted by phone, our data collection limited risk of COVID-19 transmission due to our work.

We reached 633 households, calling over 15 days, from 6 to 24 July 2020. We ensured informed consent was administered at the start of all surveys to ensure respondents understood their rights and risks. Respondents were able to refuse to answer any questions and end the survey at any time. Interviews lasted 30 minutes on average. Enumerators administered and captured the surveys using the SurveyCTO advanced case management Computer Assisted Telephone Interviewing (CATI) system.

We called 1060 potential respondents and achieved a 60% response rate overall. To improve our response rates, we implemented a callback protocol whereby 1) Respondents were called seven times on different days and at different times of the day, 2) Enumerators sent text messages to respondents whose phones were off or who did not pick phone calls during the first attempt to notify them about the survey and enquire when they could call back, 3) Respondents were able to schedule calls at a time that was convenient to their schedule, and 4) Enumerators recorded why households did not answer calls and set up appointments for callbacks. Additionally, we offered a small incentive to households to participate in the survey (approximately USD1 mobile money transfer). This incentive was to cover phone charging costs since electricity is not available to most households in the settlement data analysis.

We used strict data security protocols. All data were collected via SurveyCTO, encrypted, and uploaded to a secure central database. We stored back-ups on password-protected computers and folders to ensure the confidentiality of the data. The encrypted raw data was not accessible to anyone without the decryption key which was only available to the research management team.

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1 This is a common effect size to power for in a study such as this where there is little data to inform a possible effect size.
2 We suggest this p-value is appropriate for a rapid response study such as this one, in which we are trying to achieve rigour while accounting for the significant constraints the study faces.
AUTHORS
Daniel Stein: daniel.stein@IDinsight.org
Emma Kimani: emma.kimani@IDinsight.org
Heather Lanthorn: heather.lanthorn@IDinsight.org
Rico Bergemann: rico.bergemann@IDinsight.org

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The study would not have been possible without input and collaboration from the GiveDirectly team in Uganda, and contributions from many others, including the Uganda National Council for Science & Technology, the Office of the Prime Minister, Mildmay Uganda Research and Ethics Committee (MUREC), and Isaac Franco, Jimmy Okello, Mario Malualdeng, Patrick Gatkuoth, and Stephen Sokiri, and all enumerators from Kiryandongo in Uganda, who conducted the phone interviews. For preparing this report, special thanks to Michael Cooke of GiveDirectly, Cordelia Lonsdale of Elrha, and Siobhan McDonough and Maureen Stickel of IDinsight.

ABOUT IDINSIGHT
IDinsight uses data and evidence to help leaders combat poverty worldwide. Our collaborations deploy a large analytical toolkit to help clients design better policies, rigorously test what works, and use evidence to implement effectively at scale. We place special emphasis on using the right tool for the right question and tailor our rigorous methods to the real-world constraints of decision-makers.

IDinsight works with governments, foundations, NGOs, multi-laterals, and businesses across Africa and Asia. We work in all major sectors, including health, education, agriculture, governance, digital ID, financial access, and sanitation.

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