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MONITORING COVID-19 IMPACTS ON HOUSEHOLDS IN SOUTH SUDAN

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Results from a High-Frequency Phone Survey of Households

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INTRODUCTION

There is an urgent need for timely data to help monitor and mitigate the social and economic impacts of the COVID-19 pandemic and protect the welfare of the South Sudanese citizens. To respond to this need, the World Bank designed and conducted a rapid phone-based Household Monitoring Survey (HMS).

This brief summarizes the results of the first round of the HMS, implemented between June 9 and June 25, 2020. The brief is based on a sample of 1,213 households in both urban and rural areas in all ten former states of South Sudan.[1] Interviews were conducted by phone. Since in South Sudan, both cellphone ownership and coverage are far from universal, there are important implications for how representative the sample is. Broadly speaking, HMS respondents from rural areas are likely to be better-off than most rural households. Urban respondents come from households that are roughly off in important ways (further discussed in a Methodology Box at the end of this brief).

The analysis has been stratified at three levels: Central Equatoria (with 83% of respondents from Juba), urban areas excluding Central Equatoria, and rural. The questionnaire covers such topics as knowledge of COVID-19 and mitigation measures, access to educational activities during school closures, employment dynamics, household income and livelihood, income loss and coping strategies, and assistance received.

HIGHLIGHTS – ROUND 1

!	Only a third of children who were in school before the pandemic are engaging in any distance learning. Of those who are, the most common means is through educational radio programs.
!	Half of all households report a fall in income since the start of the pandemic, including one in eight who say they have lost all income from their main activity. Non-farm business activities were most impacted.
!	Business and self-employed activities have suffered primarily from closure of markets and establishments due to the pandemic, and a drop in consumer demand in a market where low aggregate already posed a severe obstacle.
!	Household food security remains disconcerting, with four in five households reporting skipping meals or running out of food. These results are consistent across urban and rural parts of South Sudan.

ACCESS TO NECESSITIES

There is still uncertainty around how COVID-19 and associated containment measures will impact the availability and prices of medicine and food staples. If individuals seek to stockpile in periods of scarcity and containment measures affect trade, there may be increases in the prices of commodities most in

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[1] Interviews were conducted by Forcier Consulting South Sudan.

demand. Escalating food prices combined with negative income shocks will lead to household welfare being eroded. HMS respondents were asked whether their household was able to buy enough medicine and enough of the most important food items during in the period since containment measures were put in place. In cases where households were not able to access enough medicine and food staples, they were asked for the main reasons why.

A fifth of HMS households (19 percent) reported being unable to access any market at some point in time since containment measures were put in place. This response could speak to market disruption while lock-down policies were in place in April and early May but might also be due to unrelated factors such as road inaccessibility or insecurity. Nearly one half of households (46 percent) reported that they had not been able to buy the main staple food at some point in time since containment measures were put in place. As shown in Table 2, the most common reason cited for their inability to buy their main staple food was because of a lack of money (44 percent), consistent with the high initial poverty level and further loss of income during the crisis. The second most prevalent reason for not being able to purchase staple food is an unaffordable increase in price (10 percent), with rather similar experiences across the country (Table 1).[2]

Table 1: Reasons why households were unable to buy main staple food

Could not buy main staple food because…	C.E.	Urban excl. C.E.	Rural	National
…shops out of stock	6%	8%	8%	7%
…local markets closed	3%	2%	2%	2%
…no transport	0%	0%	2%	1%
…restrictions to going outside	1%	2%	0%	1%
…increase in price	11%	10%	12%	11%
…lack of money	45%	43%	45%	44%

About one sixth of households with a member who sought medical care since the containment measures were unable to be treated. The main reasons provided were because of a lack of money (58 percent) to pay for treatment, and because medical personnel were not available (19 percent).[3]

SCHOOLS

In March 2020, South Sudan closed schools across the country, affecting almost two million learners. In addition to students losing valuable months of schooling, school closures may deprive the children of poor families of food, because they often rely on school feeding programs. Temporary school closures may also lead to permanent drop-out of children from vulnerable households, especially in rural areas where even in ordinary circumstances, early drop-out is more common. For children in poor families in particular, the long-term impacts of lost months of schooling and nutrition will jeopardize their development of human capital and their earning potential.

The HMS asked households how many children (boys and girls separately) were in school before the outbreak began and whether they are now engaged in any learning activities. Once schools reopen, future rounds will follow up to see how many children returned to school. About 82 percent of households have

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[2] This note discusses strata differences where they are notable; where no such differences are indicated, patterns can be presumed to be similar across strata.

[3] The results of this study are similar with comparable indicators, especially of the urban areas of Central Equatoria subsample, to the University of Juba's study titled, "Gender and Socio-Economic Impact Assessments of COVID – 19 Pandemic in Juba Municipality, South Sudan" where the survey was administered only in the areas of the Juba Municipality.

school-aged children. Of those, 95 percent have children who had attended school before the outbreak. As of survey time, less than one third of children (32 percent) who attended schools before they were closed were engaged in distance learning activities. The differences across the country are large. In rural areas, only 20 percent of households have children engaged in any form of learning activity, compared to 30 percent of households in urban areas outside C.E., and 48 percent in Central Equatoria (Figure 1).

For school-age children in South Sudan, the most common learning activity taking place during school shutdowns is listening to classes on the radio (Figure 2). There were once again large differences over the three strata of the survey for this variable – from 24 percent in Central Equatoria to 8 percent in rural areas.

Figure 1: Households with learners who previously attended school and are now engaged in distance learning activities
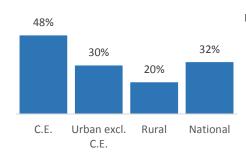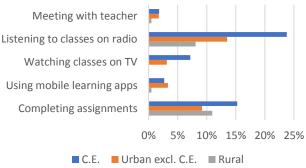
Figure 2: Educational activities students engage in during school closures (all age-eligible children)

HOUSEHOLD INCOME SOURCES

Reduced income is one of the channels through which households are negatively affected by the pandemic and its associated restrictions of movement and assembly. The HMS asked respondents about their income sources over the last 12 months and followed up by asking whether the income from a particular source has increased, remained the same, decreased or disappeared since the outbreak of the pandemic (Table 3). Urban households in the HMS report income-generating activities (prior to the outbreak) that align quite well with activities reported in recent in-person surveys, so that observed impacts are likely somewhat representative. However, changes reported by rural respondent households may be less typical, since only six in ten report that income from farming is most important to their household, compared to nearly nine in ten (88 percent) in a representative 2017 survey.[4]

Half of all respondent households (52 percent) have lost either some or all income from their main income source since the crisis began. This includes one in eight households (13 percent) that have lost all income from their main income source, and an additional two in five households (40 percent) whose income has decreased.

Nonfarm business income has been most affected by the outbreak of COVID-19 (Table 2). Two in three households that cited nonfarm business as a means of livelihood in the past 12 months reported either less income from that source (47 percent) or a total loss of that income (20 percent). Nonfarm business activities were arguably particularly vulnerable both to the closure of non-essential businesses in April and May, as well as to a decrease in consumer demand from eroding real incomes.

Income from farming was reduced for 38 percent of households and had stopped entirely for 11 percent of households. It is important to note, however, that the arrival of COVID-19 in South Sudan coincided with

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[4] High Frequency Survey, 2017; authors' calculation.

the onset of the lean season, which may account for some of the decline in income from agriculture. Households reporting wage employment as an income source were about evenly split in whether they saw a decline in wages since the outbreak of the pandemic. About three fifth of wage jobs in urban South Sudan are in NGOs and the public sector (with very few in the formal private sector).[5] These jobs are likely to be more insulated from the economic impact of COVID-19 than the remaining wage jobs in the informal sector or casual daily labor. Domestic remittances have also fallen since the outbreak of the pandemic, with 42 percent of remittance-receiving households reporting a reduction in remittance income, and 16 percent reporting a cessation of this income source.

Table 2: Change in income from four main household income sources since outbreak

	Change in income				Activity contributes…	
	Increased	Stayed the same	Reduced	Stopped	… some income	… most income
All sources	14%	48%	40%	13%		
Farming, livestock or fishing	18%	33%	38%	11%	57%	47%
Nonfarm business	13%	20%	47%	20%	26%	16%
Wage employment	9%	46%	34%	11%	32%	20%
Remittance from family in SSD	12%	30%	42%	16%	9%	4%

FAMILY BUSINESS

Family businesses is an important revenue source but has been greatly impacted by the COVID-19 pandemic. Four in ten HMS respondents (41 percent) reported that a household member operated a family business (in agriculture or other activities). Of those, 58 percent indicated that since the beginning of the outbreak, their income from the family business was less than usual or that there was no income at all (Table 3). This revenue loss was attributed to several different factors, but the most significant by far were a lack of customers (52 percent) and the usual place of business being closed due to public health restrictions imposed by the authorities (49 percent). The worsening of demand and market access is a significant concern, given that even prior to the crisis, households, market traders, and business alike perceived these as a key obstacle.[6] Inability to obtain required inputs was a cause of revenue loss for 13 percent of households, while restrictions on traveling or transporting goods affected a little more than one in ten households.

Table 3: Changes in non-farm family business revenue

Reported business revenue was…	C.E.	Urban excl. C.E.	Rural	National
…higher	13%	19%	23%	18%
…the same	29%	21%	23%	24%
…less	43%	44%	34%	42%
…no revenue	14%	15%	20%	16%

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[5] World Bank (2020), *Jobs outcomes in the towns of South Sudan*.
[6] World Bank (2020). *Jobs, Recovery, and Peacebuilding in Urban South Sudan.*

Table 4: Reasons for non-farm business revenue loss[7]

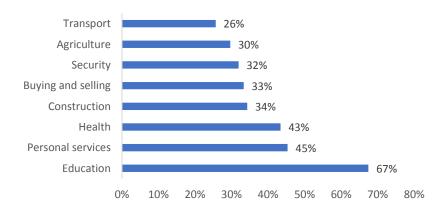| Revenue was lost because…	National
…no costumers or fewer customers	52%
…place of business closed due to COVID-19 restrictions	49%
…unable to get inputs	13%
…unable to travel or transport goods	11%
…ill or quarantined due to COVID-19	6%

EMPLOYMENT STATUS AND SECTOR

Loss of income went hand in hand with respondents who have stopped working temporarily or more permanently, in particular in higher-skilled activities like health, education, professional services, finance, and administration (which employ about one in eight urban workers[8]), as well as in personal services such as hairdressers or tailors. Two in three of those affected (65 percent) explained that they had lost their activity because of business closures due to restrictions put in place to control the pandemic. This suggests that, although the government eased lockdown measures from May 7th, their repercussions continued to be felt throughout the economy in June 2020, when the survey was taken (Table 5 and Figure 3).

Table 5: Reasons for job ending since the outbreak began[9]

Respondent stopped working because…	C.E.	Urban excl. C.E.	Rural	National
…business closed due to COVID-19 restrictions	69%	58%	73%	65%
…business closed for another reason	19%	14%	9%	14%
…they were laid off while business continues	7%	2%	1%	3%
…they were ill or quarantined	6%	8%	6%	7%
…they are a seasonal worker	3%	7%	7%	6%
…of restrictions on movement and travel	5%	2%	1%	3%

Figure 3: Sectors where respondents stopped working, percent

Transport 26%
Agriculture 30%
Security 32%
Buying and selling 33%
Construction 34%
Health 43%
Personal services 45%
Education 67%

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[7] Respondents were able to provide multiple reasons for why revenue from the family business had fallen, hence columns may add up to more than 100 percent.
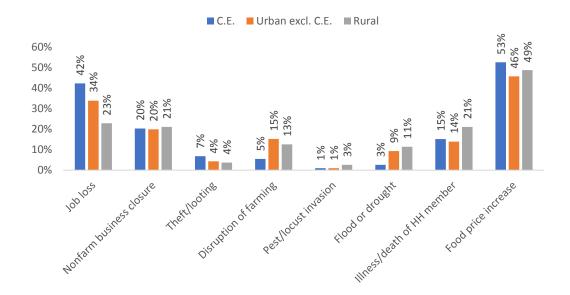
[8] High Frequency Survey, 2017; authors' calculation.

[9] Respondents could provide multiple reasons for why their work had ended since the beginning of the outbreak. This means that totals will not necessarily add to 100 percent.

COPING MECHANISMS

As outlined above, the majority of households experienced a reduction in revenue from their primary income sources. Households were also asked to report on a number of economic shocks that could negatively impact their livelihood. The most commonly reported shocks (Figure 4) were food price increases and stopped from working. Around half of households throughout the country reported that there had been sudden and steep increases in food prices. Respondents stopping work was more commonly reported in Central Equatoria (42 percent) than in other urban areas (34 percent) and rural areas (23 percent).

Figure 4: Shocks experienced by households since April 1, 2020

Households suffering from any such shock were then asked what, if any, coping strategies they had used to help mitigate the negative impact (Table 6). In response to any one shock, the most commonly employed coping strategy was to engage in additional income generating activities (22 percent). Respondents in Central Equatoria were particularly likely to have tried to find additional income sources (31 percent). Other commonly employed strategies were to sell household assets (18 percent nationally, but less common in Central Equatoria), or rely on assistance (17 percent) or borrow (12 percent) from friends and family. In many cases, the household did not enact any strategy to deal with a given shock (one quarter of households).

Table 6: Coping mechanisms employed to mitigate the impact of economic shocks

In response to a shock the household…	C.E.	Urban excl. C.E.	Rural	National
…sold assets	8%	23%	18%	18%
…engaged in additional income gen. activities	31%	20%	17%	22%
…received assistance from friends and family	16%	16%	19%	17%
…borrowed from friends and family	15%	11%	12%	12%
…reduced food consumption	12%	10%	13%	11%
…reduced non-food consumption	5%	3%	7%	4%
…relied on savings	5%	7%	7%	6%
…received assistance from NGO	0%	1%	4%	2%
…did nothing	21%	26%	24%	24%

FOOD SECURITY

The food security situation in South Sudan was alarming even before the onset of the pandemic. The UN Food and Agriculture Organization (FAO) noted that more than half the population was facing severe acute food insecurity in February 2020.[10] Although the HMS format did not allow for a complete food consumption module, several questions were asked to give a general indication of food security at the household level. The results are concerning. More than eight in ten survey respondents reported that in the last 30 days they themselves or some other adult in the household was worried about not having enough food to eat because of lack of money or other resources (Table 7). The proportion of households in which at least one person was forced to skip a meal during that period due to lack of money or resources was similarly high. Finally, almost three quarters of households reported someone going without food for an entire day.

In general, households that experienced their main source of income reduce or stop since the pandemic are most food insecure. Access to necessities are not primarily responsible for the food insecurity experience of the households (Table 8).

Given that the HMS was forced to exclude respondents without access to a telephone, it is reasonable to assume that such food insecurity indicators would be even more severe in a more broadly representative national sample. However, it is also important to note that a survey of urban households taken in June 2019 found similar shares of households that owned cellphones skipping meals (83 percent) or running out of food (81 percent) as reported in the HMS.[11] Thus, while the level of food insecurity is alarming, it is not entirely clear how much the crisis has contributed to it.

Table 7: Household food insecurity experience

During the past 30 days was there a time…	C.E.	Urban excl. C.E.	Rural	National
…when you worried about having enough food	85%	81%	82%	82%
…someone in your household skipped a meal	82%	81%	87%	83%
…your household ran out of food	77%	76%	85%	78%
…a household member did not eat for a whole day	71%	72%	76%	73%

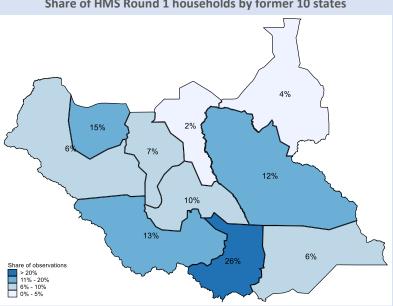**Table 8: Household food insecurity experience**

During the past 30 days was there a time…	Household been able to buy main staple since COVID-19		Household income since COVID-19 has?			
	Yes	No	Increased	Same	Reduced	Stopped
Worried not enough food to eat	81.6	82.8	72.2	78.1	86.5	89.7
Household member went without eating for a whole day	71.4	74.9	64.2	69.4	75.3	81.1
Household member had to skip a meal	82.7	83.0	76.5	79.2	84.7	90.5
Household ran out of food	77.3	80.7	65.8	75.6	82.2	85.7

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[10] http://www.fao.org/emergencies/fao-in-action/stories/stories-detail/en/c/1263021/
[11] Youth Jobs Survey, 2019; authors' calculations.

The HMS survey of households monitors the economic and social impacts of and responses to the COVID-19 pandemic on households in terms of such topics as access to food staples, access to educational activities during school closures, employment dynamics, household incomes and livelihoods, income losses and coping strategies, and external assistance. The final dataset will cover a panel of about 1,200 households all of whom are part of the subsample of the population with access to a mobile phone.

Share of HMS Round 1 households by former 10 states

To the extent possible, the same households and respondents will be tracked for twelve months, with selected respondents completing phone-based interviews every six to eight weeks. This high-frequency follow-up allows for a better understanding of the effects of and responses to the COVID-19 pandemic on households in order to inform interventions and policy responses and monitor their effects. The respondent is typically the household head. In case that person cannot be reached despite numerous call-backs, another knowledgeable household member will be selected as the respondent.

The HMS sample is collected through a process of random digit dialing. The HMS achieved a sample size of 1,213 households in round 1, covering all the former 10 states (as in the figure above) with 26 percent in Central Equatoria, 15 percent in Northern Bahr el Ghazal, 13 percent in Western Equatoria, and 12 percent in Jonglei. The share in the remaining states was 10 percent or lower. Phone penetration rates in South Sudan are very low nationally, and extremely low in rural areas in particular.[12] This also means that we gather data from households that are systematically different from those that do not own a mobile phone. Phone owning households are better off in terms of total consumption, educational attainment, access to improved water and sanitation, access to assets, and access to electricity. The sample of the HMS can therefore at best only be representative of households who have access to phones and network coverage in South Sudan.

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[12] Mobile-cellular subscriptions per 100 inhabitants is 33.5 percent (Source: International Telecommunication Union (ITU) World Telecommunication/ICT Indicators Database, 2018 estimate).

To understand how results should be interpreted, it is useful to compare some household and respondent characteristics (pre-crisis) in the HMS to those observed in recent household surveys conducted in person. Such a comparison is most easily done for observation in urban areas, where there are recent points of reference.

Respondent profiles are meaningfully different from the overall population. HMS respondents are more likely to be men and to be head of their household (Table 11). They are more than twice as likely to be employed in a number of high-skill activities, and much less likely to be working in agriculture. They are twice as likely to have at least some secondary schooling, and half as likely to have no education. HMS results that speak to individual outcomes among respondents are therefore best interpreted as outcomes among a relatively better-of stratum of urban residents.

Table 11: HMS respondent characteristics

	Urban population (prior observations)[13]	Urban HMS respondents
Demographics		
Male	51%	67%
Percent household heads	24%	54%
Sector of main job activity		
Agriculture, forestry, fishing	37%	21%
Education, health, professional/financial services	7%	17%
Level of education		
No education	30%	14%
More than secondary	31%	60%

At the same time, the households urban HMS respondents live in are quite similar in important ways to other urban households. For instance, urban households in the HMS are of similar size as those recent in-person survey, and have similar income-generating activities. An important caveat is that urban households that own cellphones (such as those reached with the HMS), though in the majority, are quite substantially wealthier than those that do not. In the World Bank's 2019 Youth Jobs Survey, 83 percent of urban households owned a cellphone. Of those that did, 12 percent were in the lowest asset wealth quintile, compared to 45 percent of those that did not. Thus, household-level results in the urban HMS are best interpreted as reflecting outcomes for a large stratum of households, with some under-representation of the most marginal.

Data collection parameters, Round 1:

❖ Data collection period: June 9 to June 25, 2020
❖ Completed interviews: 1,213
❖ Average duration of interview: 35 minutes

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[13] Sources: Sex ratio – UN DESA; Household heads – Youth Jobs Survey, 2019; All others – High Frequency Survey, 2017.