Monitoring the socio-economic impacts of COVID-19 on refugee households in Djibouti

Results from 4ᵗʰ wave of survey – refugee sample

(Data collected from November 11 to December 28, 2021)

January 2023

Executive Summary

A year and a half after the onset of COVID-19 pandemic, the fourth round of survey on monitoring the impacts of the pandemic on refugee households (the second one with the refugee sample) in Djibouti was carried out. Although the first and second refugee surveys (respectively, 3rd and 4th waves – refugee sample) are not directly comparable because of potential differences in the distribution of non-sampling errors largely driven by improved quality control mechanisms, the second survey, which was carried out between November and December 2021, aims to provide a snapshot of the situation for refugees in Djibouti as the economic recovery from the pandemic began. The sample consists of 436 respondents, 286 of whom are based in refugee villages, and 150 refugees living in urban areas. There was no contemporaneous host sample in this round, as for the 4th wave, the national sample was fielded at a different time than the refugee sample.

The results suggest that about half of refugee breadwinners (49 percent) worked the week before the survey; however, this number masks important heterogeneity among different groups of refugees. For instance, village-based refugees are significantly less likely to have worked compared to those based in urban areas. Similarly, far fewer female breadwinners declare having worked compared to male counterparts. Most of the breadwinners who declared having worked are in the informal sector (around 86 percent).

Assistance from international organizations is the most commonly reported source of household income (88 percent), followed by labor income (56 percent). Food assistance and food stamps are the most common form of assistance for refugees. Despite women being less likely to work, female headed households are not significantly more likely to receive any of the other declared income sources, including assistance from INGOs. That is a contributing factor to the finding that male-headed households are more than twice as likely to report having enough resources for the next 30 days than female-headed households.

The vast majority of refugees report having access to basic foods like vegetables, rice and cooking oil; however, female headed households are significantly less likely to have access to nonfood items like basic medicines and hand soap. Village-based refugees report worse acess to basic goods compared to urban refguee households, and they are more likely to report increases in prices across the various basic goods than their urban counterparts. In a positive contrast to the observed gender disparities in access to medicines, health services seems to be accessible to all those who need them, particularly females. Similarly, nearly all those boys and girls of school ages now report being in school, with slightly better proportions among village-based refugees.

Perhaps most urgent are the results around food security of refugees. Nearly 20 percent of refugees in the sample still report eating less than three meals a day and going to bed hungry. The data also reflect that around 44 percent of refugee households have a poor food consumption score. Female headed households are slightly worse off than male headed ones in terms of food security.

When it comes to time use and decision making, refugee women in Djibouti tend to participate more than men in decisions related to everyday purchases and healthcare of household members, especially when household decisions are taken by a single household member. Where more than one household member is involved in making the decision, women participate in the decisions jointly with men in most major decisions. On time-use, there is evidence of within household specialization: women are more likely to spend time on grocery shopping, domestic work, and leisure activities; men are more likely to spend time on income-generating activities.

The results of this survey are important as they highlight areas of opportunities, challenges and urgency among the refugee population in Djibouti. As Djibouti looks to weather the ramifications of the Ukraine crisis, the lack of food accessibility, availability, and affordability could exacerbate the vulnerable situation of refugees in Djibouti presented here. The results also indicate that there are important gendered dimensions to refugee welfare, and that women may require more targeted attention in social protection programs.

INTRODUCTION

A year and a half since the onset of the COVID-19 pandemic, national public health indicators provide a glimpse of the situation in Djibouti. As of December 28th, 2021, at the end of the period of this data collection, 13,603 confirmed cases and 189 deaths of COVID-19 were registered in Djibouti (WHO). In 2021, the vaccination campaign started with 123,566 vaccine doses administered in January 2022 (WHO). Most of the restrictive measures had been relaxed by the end of May 2020 without subsequent measures of confinement reinstated. Nevertheless, negative socioeconomic effects of the pandemic may have persisted. Indeed, the first wave of the COVID monitoring survey of the refugee population carried out in December 2021 revealed welfare challenges facing refugee households, particularly in terms of breadwinners' employment and access to good and services. The survey highlighted the precarity of some households that were among the most vulnerable.

Almost one year after the implementation of the first round of the COVID-19 survey on the refugee population, the second wave was fielded between November and December 2021 to provide a snapshot of how this population has fared during COVID-19.[1] Seven themes are addressed during this wave to better understand the short to medium-term impacts of the COVID-19 crisis: economic activities, livelihoods, safety nets, access to basic goods, access to services, and food insecurity; gender and locality are cross-cutting themes throughout this brief.

THE PHONE SURVEY

The fourth wave of data collection on monitoring of socio-economic impacts of the COVID-19 pandemic on the refugee population (second one with the refugee sample) was implemented over phone by the National Institute of Statistics of Djibouti (INSTAD). This wave followed households from the refugee database with working phone numbers from the 2019 Refugees Survey or updated in the UNHCR proGres database. In contrast to the third wave (or first wave of refugee sample) which was fielded contemporaneously with an identical phone survey aimed at a nationally representative population of Djiboutians, this second wave was fielded only for refugees and asylum seekers as of the 2019 Refugees Survey in the country, as national sample was interviewed at a different time. Information on households and breadwinners is provided by a randomly chosen adult respondent, typically the household head or spouse, balanced by gender across households, thus both helping to mitigate gendered response bias in household-level items and allowing robust gender comparisons for individual-level items. The clustered sample also allows for disaggregation by area of residence (urban vs village-based households; see Box 1 for information about the sampling frame).

This second wave of refugee sample consists of 436 respondents. The response rate of the whole sample stands at 46.8 percent (Table 2.1), with variation by area of residence. Of the 53 percent of refugees who did not complete an interview, nearly all (90 percent) was because they could not be reached over the phone; only 1 case of refusal was recorded.

Inter-round comparability for the refugee samples is limited. It is important to stress that this note avoids drawing on intertemporal (either cross-sectional or panel) comparison between the first and second waves of the survey because protocols for monitoring data quality had changed between waves in a way that may significantly alter the distribution of both random and systematic non-sampling errors.

Table 2.1: Sample response rate to the survey

	All	**Village-based refugees**	**Urban refugees**
Complete	46.8	45.7	49.2
Refused	0.1	0.2	0.0
Unreachable	48.0	47.8	48.5
Partially complete	5.0	6.4	2.3
N	**931**	**626**	**305**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

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[1] Despite the fact that this survey is the second wave of the COVID-19 monitoring survey on the refugee population, its results may not be compared to those from the first wave because of increased quality control implemented during the course of this wave resulting in patterns observed in the data that are consistent with dissimilar distributions of non-sampling errors resulting in potential bias that *a priori* cannot be signed.

Around 51 percent of the respondents are female, 73 percent are the head of the household, and 42 percent are aged between 35 and 49 years old (Table 2.2). Around 94 percent of the households have a breadwinner who is a member of the household (not shown). Breadwinners who are household members tend to be mainly male and household heads (55 percent), and 41 percent of them average between 35 and 49 years of age (Table 2.3). These results are weighted to be as representative as possible. The sample of representative children about whom school-related questions were asked is roughly balanced by gender. Among the surveyed households, 47 percent have no school-aged children, while boys and girls account for 26 and 27 percent, respectively (Table 2.4). Yet, there is some imbalance among refugees living in urban areas.

Table 2.2: Characteristics of refugees interviewed in the 2019 baseline survey and of respondents to the COVID-19 monitoring phone survey (%)

	Refugees, ages 18+ with phone from the 2019 Refugee baseline survey				Respondents to the COVID-19 Monitoring Survey		
	All	Village-based	Urban		All	Village-based	Urban
Gender							
Male	49.9	44.5	63.9		48.5	42.6	67.7
Female	50.1	55.5	36.1		51.5	57.4	32.3
Age							
18-34	42.9	46.1	34.6		36.9	38.6	31.6
35-49	37.5	33.7	47.3		42.5	39.4	52.7
50-64	14.8	14.4	15.7		17.4	18.3	14.5
65+	3.4	3.9	2.1		3.2	3.8	1.2
Relation to household head							
Head of household	55.8	48.2	75.3		72.8	69.7	82.8
Spouse	25.0	28.3	16.3		27.2	30.3	17.2
Other	19.2	23.4	8.4		-	-	-
N	**1,186**	**854**	**332**		**436**	**286**	**150**

Source: Refugee baseline survey, 2019 and Djibouti COVID-19 phone survey (refugee), 2nd wave.

Table 2.3: Breadwinner characteristics (%)

	All	Village-based refugees	Urban refugees
Gender			
Male	55.2	47.1	81.3
Female	37.4	43.6	17.4
Not a household member	7.4	9.3	1.2
Age			
18-34	32.9	34.1	28.7
35-49	40.9	37.2	53.1
50-64	16.0	16.3	15.1
65+	2.8	3.1	1.8
Not a household member	7.4	9.3	1.2
Relation to household head			
Head of household	77.7	73.9	90.4
Spouse	10.1	12.0	4.0
Other	4.7	4.8	4.4
Not a household member	7.4	9.3	1.2
N	**436**	**286**	**150**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

Table 2.4: Characteristics of representative children (%)

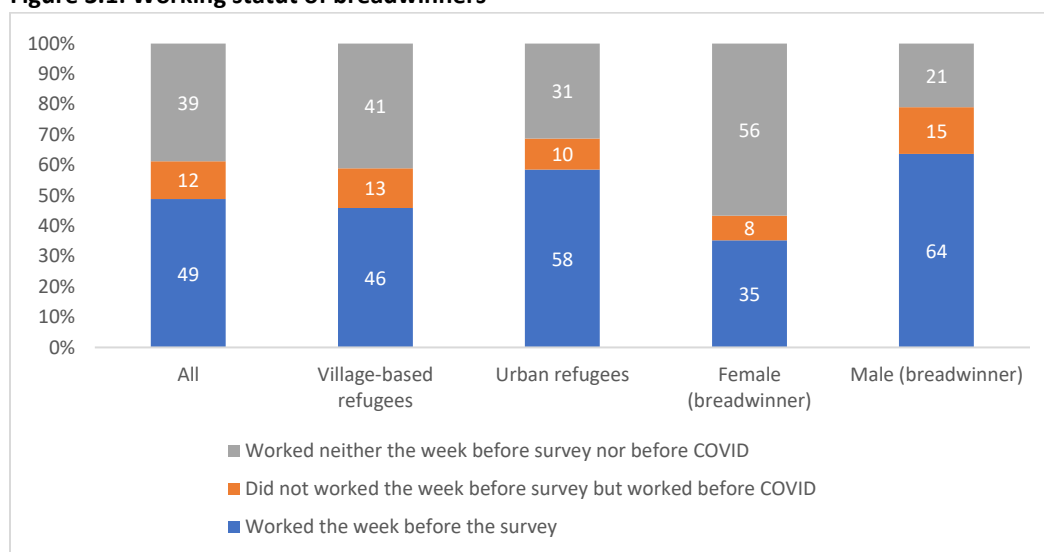|	All	Village-based refugees	Urban refugees
Gender			
Boy	25.9	31.1	16.0
Girl	26.8	28.3	24.0
No school aged child in household	47.2	40.6	60.0
N	**436**	**286**	**150**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

**ECONOMIC
ACTIVITIES**

Almost two years after the onset of COVID-19, nearly half of refugee breadwinners (49 percent) worked the week before the 2nd wave of the survey (Figure 3.1). Breadwinners from households in urban areas are more likely to work the week before the survey than those from village-based households (58 vs. 46 percent, respectively), but far fewer female breadwinners worked (35 percent) compared with their male counterparts (64 percent). Around 39 percent of breadwinners neither worked the week before the survey nor before the onset of COVID-19, while 12 percent of breadwinners worked before COVID-19 but did not work the week before the survey.
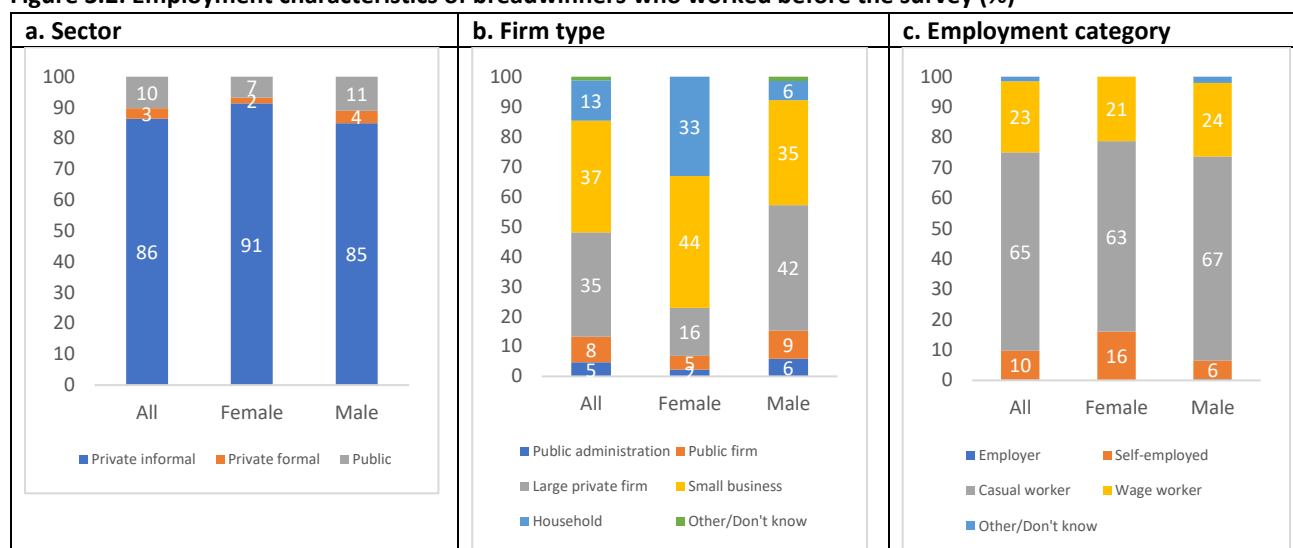
Figure 3.1: Working statut of breadwinners

Source: Authors' calculation based on Djibouti COVID-19 phone survey (refugee), 2nd wave.

A large majority (86 percent) of breadwinners work in the informal sector, and most of them work in small businesses or large private firms, as casual workers, or employees (Figure 3.2). Female breadwinners are far more likely to work in households than males (33 vs 6 percent), and males are much more likely to work in large firms than females (42 vs 16 percent).

Figure 3.2: Employment characteristics of breadwinners who worked before the survey (%)
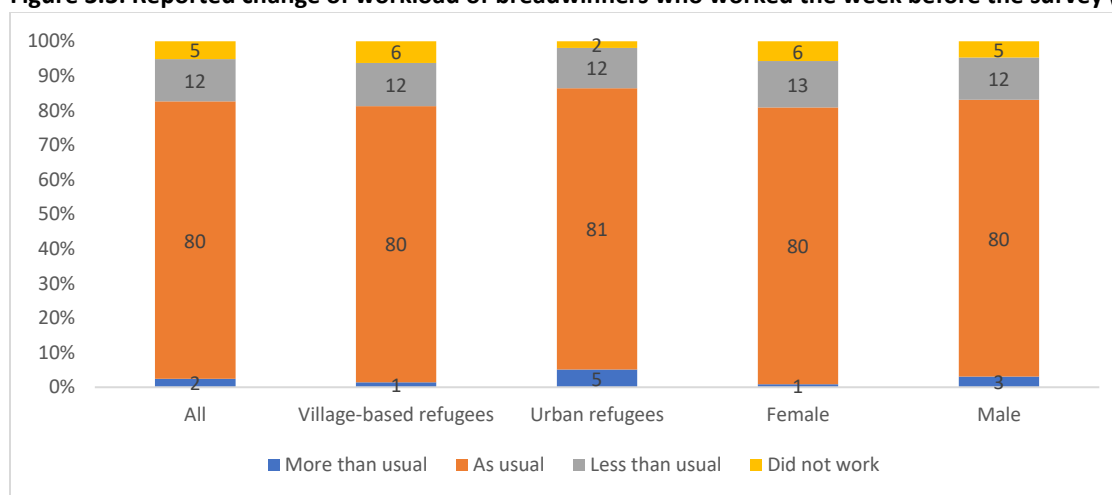

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: A small business is a sole proprietorship or cooperative; public firms are state owned enterprises. The category "female" refers to households with a female breadwinner while "male" refers to households with a male breadwinner.

When asked whether breadwinners experienced any change in their workload, most of those who worked the week before the survey reported working as usual (Figure 3.3). No difference is observed by gender of the breadwinner, and differences by location are insignificant.

Figure 3.3: Reported change of workload of breadwinners who worked the week before the survey (%)

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Note: The category "female" refers to households with a female breadwinner while "male" refers to households with a male breadwinner.
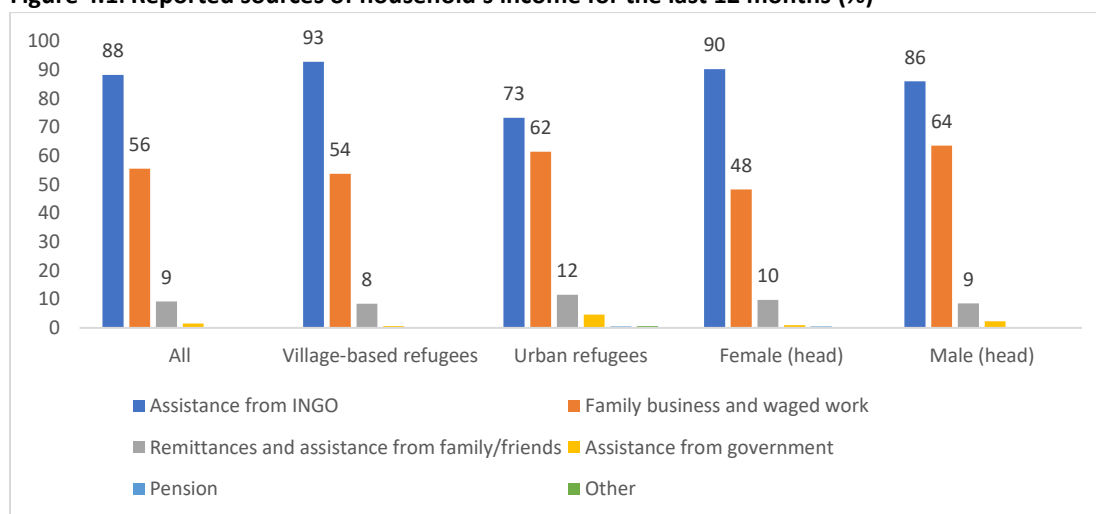
Around 90 percent of breadwinners who worked less or not at all the week before the survey received no or partial pay (not shown). Small sample sizes preclude further disaggregation by gender or location.

LIVELIHOODS

Assistance from international NGOs is the most commonly reported source of household income the month before the survey, followed by labor income from family business and waged work (Figure 4.1). Help from international NGOs was reported y 88 percent of refugee houehols. Income from family business or wage work helped 56 percent of refugee households. There are differences in income sources by location and gender of household head, but ordinal patterns of income sources remain the same across groups.

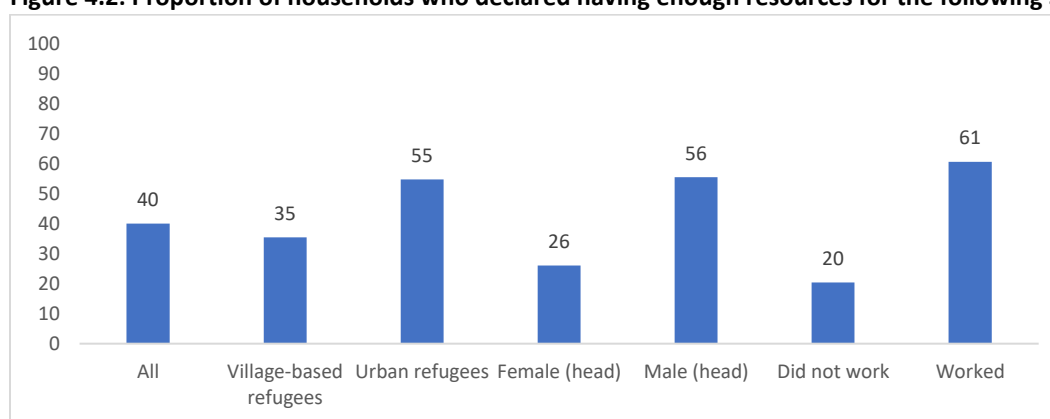**Figure 4.1: Reported sources of household's income for the last 12 months (%)**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Note: The categories "Female" and "Male" refer to gender of household head.

Around 40 percent of households report having enough resources for the next 30 days after the survey (Figure 4.2). This proportion varies by household location, the working status of breadwinners, and gender of household heads. Village-based refugees are less likely to declare having enough resources for the next month compared to urban refugees (35 vs 55 percent), and male-headed households are more than twice as likely as female-headed households to report having enough resources. Not surprisingly, households whose breadwinners were not working the week before the survey are much less likely than others to declare having enough resources for the next month (20 vs 61 percent).

Figure 4.2: Proportion of households who declared having enough resources for the following 30 days (%)

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
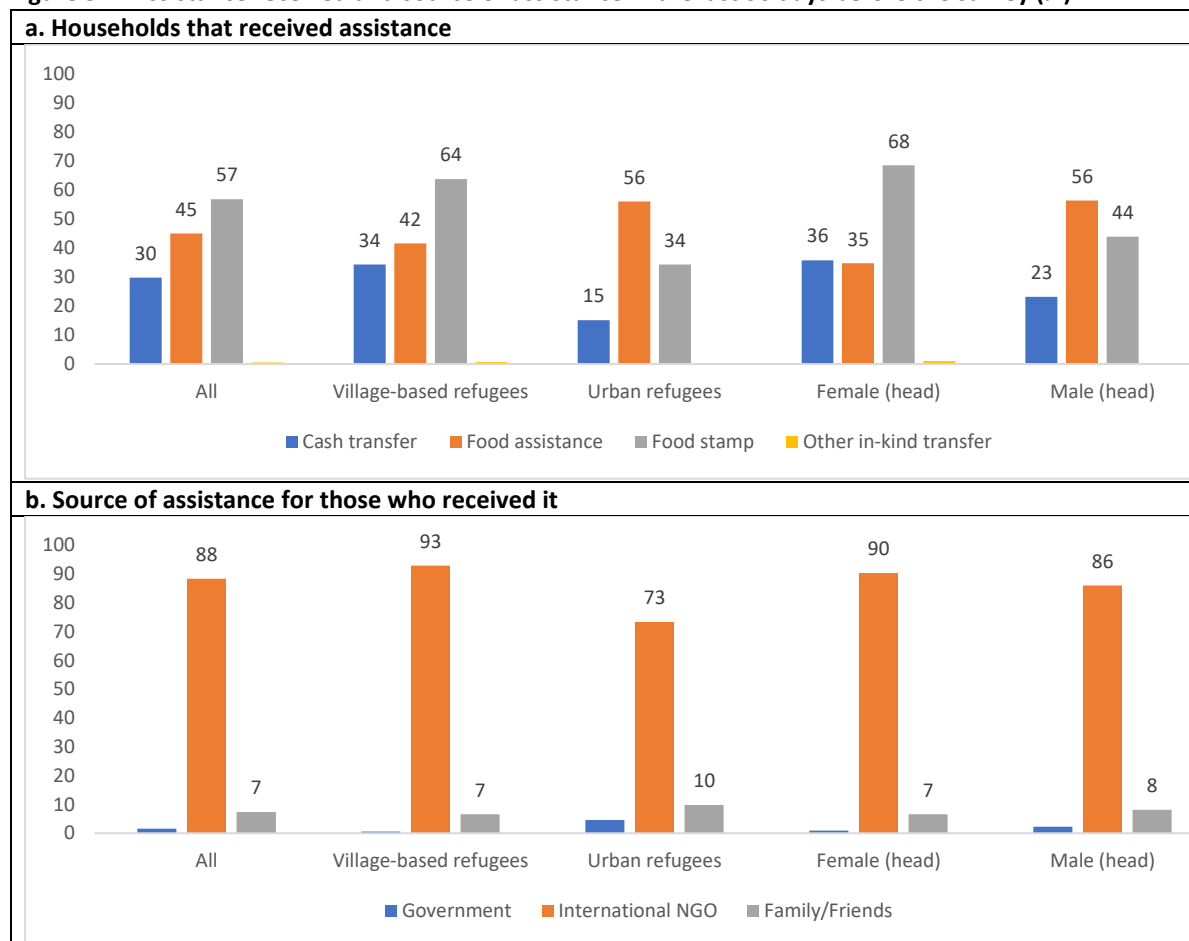Note: The categories "Female" and "Male" refers to gender of household head.

SAFETY NETS

Food stamps are the most common form of assistance received by households, with 57 percent of households reporting having received them. Respectively, 45 and 30 percent of households declare having received food assistance and cash transfers (Figure 5.1). This overall pattern differs markedly by location. Although food stamps are the most frequently reported form of assistance among village-based refugees, it is food assistance that is the most common form of assistance received by urban refugees. Village-based refugees are more likely to report receiving cash transfers than their counterparts in urban areas. Consistent with the results from income sources, international NGOs are the main source of the assistance received. Very few households reported receiving assistance from the government. That is perhaps unsurprising as the Government of Djibouti does not have dedicated assistance programming for refugees, but it is noteworthy that support from friends

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and family is a source of assistance for only 7 percent of refugee households overall and does not top 10 percent for any analyzed subgroup, whereas elsewhere in the world relying on personal networks is a dominant coping strategy.[2]

Figure 5.1: Assistance received and source of assistance in the last 30 days before the survey (%)

a. Households that received assistance

Legend: Cash transfer, Food assistance, Food stamp, Other in-kind transfer

b. Source of assistance for those who received it

Legend: Government, International NGO, Family/Friends

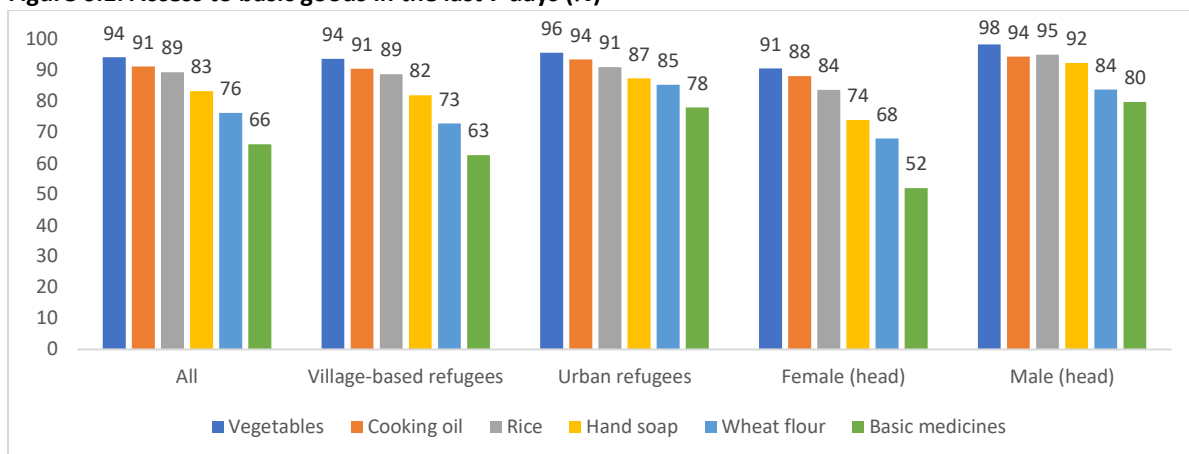Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

ACCESS TO BASIC GOODS

Most households reported having access to basic goods the week before the survey (Figure 6.1). Indeed, overall roughly 9 in 10 households reported having access to wheat flour, rice, and cooking oil, and some three in four had have access to vegetables. Access to basic medicines is notably lower than for other basic goods, particularly for village-based refugees (63 percent) and, troublingly, for female-headed households (52 percent).
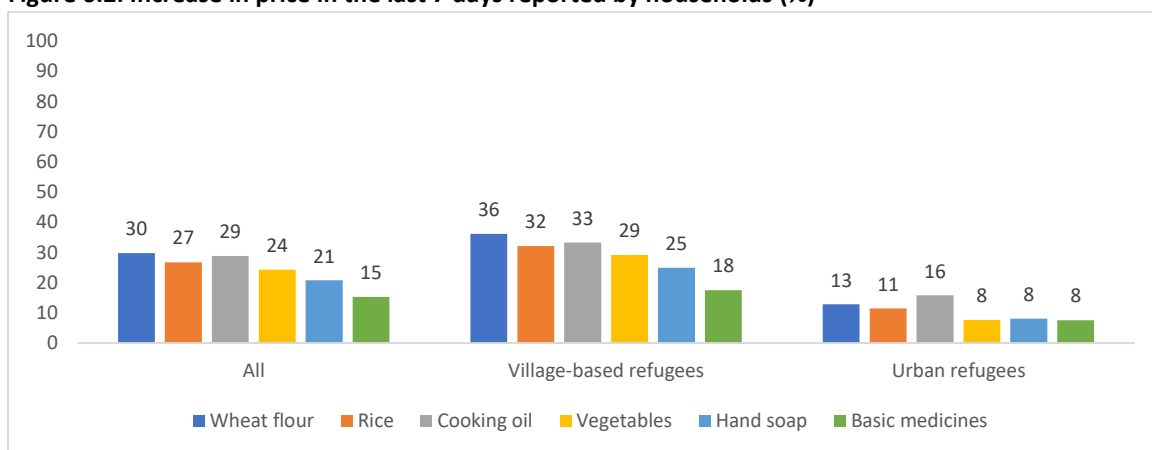
Figure 6.1: Access to basic goods in the last 7 days (%)

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

Depending on the goods, between 15 and 30 percent of households reported a price increase over the last seven days (Figure 6.2)**. Village-based refugees are two to three times more likely to report a price increase of each basic good compared to urban refugees.

Figure 6.2: Increase in price in the last 7 days reported by households (%)
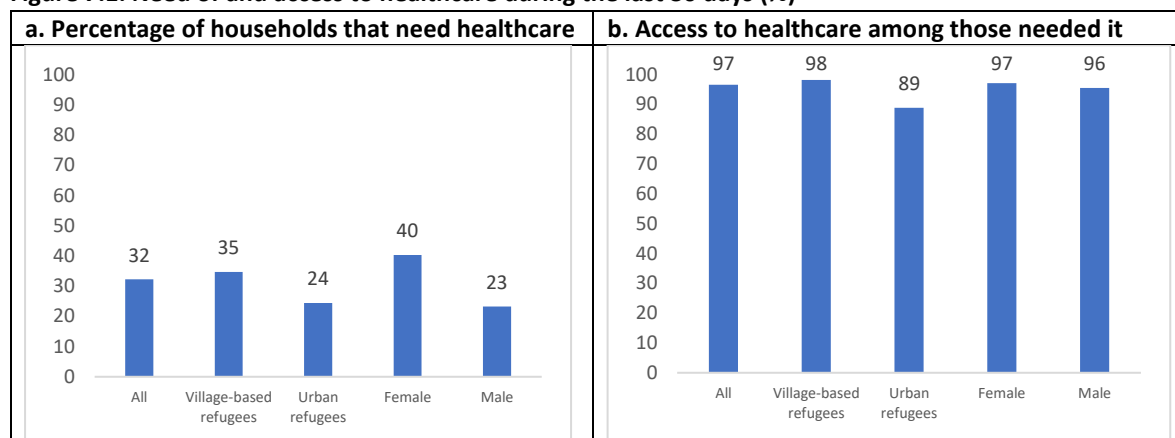

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

ACCESS TO SERVICES

Nearly one third of households (32 percent) reported needing healthcare (Figure 7.1), and nearly all of those who needed healthcare had access to it. There are important differences in the likelihood to need healthcare between refugee groups, though: Village-based refugees are nearly 50 percent more likely to need health care and females are nearly 40 percent more likely to need healthcare. Fully 97 percent of all refugee households have access to healthcare, but urban refugees are slightly less fortunate as 89 percent are able to access care when needed.
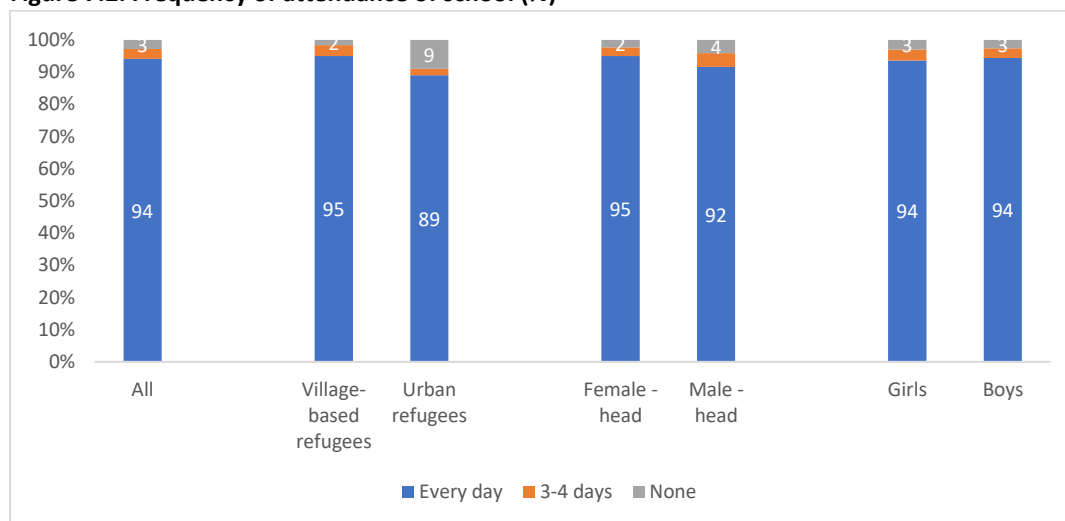
Figure 7.1: Need of and access to healthcare during the last 30 days (%)

a. Percentage of households that need healthcare	b. Access to healthcare among those needed it

Source: Djibouti COVID-19 phone survey (refugee), 2ⁿᵈ wave.

On education, very few households reported having an eligible child who does not attend school every day (4 percent) and there is no difference between boys and girls[3] (Figure 7.2). However, children from refugee villages or female-headed households are slightly more likely to attend school every day (95 percent) than children from urban or male-headed households (89 percent and 92 percent, respectively).

Figure 7.2: Frequency of attendance of school (%)

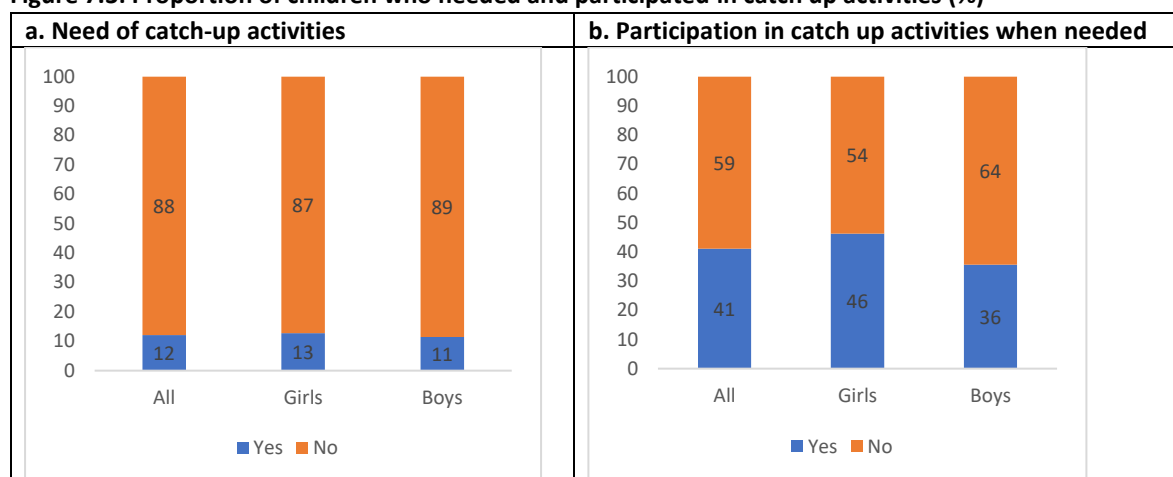Source: Djibouti COVID-19 phone survey (refugee), 2ⁿᵈ wave.
Notes: The category "female-head" refers to female-headed households while "male head" refers to male-headed households. The category "boy" refers to households with a randomly selected male child (age 6-15) to question about education while "girl" refers to households with a randomly selected female child.

Around 12 percent of households reported their child needing catch-up activities (Figure 7.3). Girls are equally likely as boys to need catch-up activities, and they are slightly more likely to participate in these activities when needed than boys (46 percent compared to 36 percent).[4]

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[3] This question was asked about a randomly chosen child, distributed equally between boys and girls across households. Among the 230 households who have at least one school-age child (between 6 and 15 years old), a boy was picked in 113 households and a girl was chosen in 117 households.
[4] These last results are based on a very small sample (35 observations).

Figure 7.3: Proportion of children who needed and participated in catch up activities (%)

a. Need of catch-up activities	b. Participation in catch up activities when needed

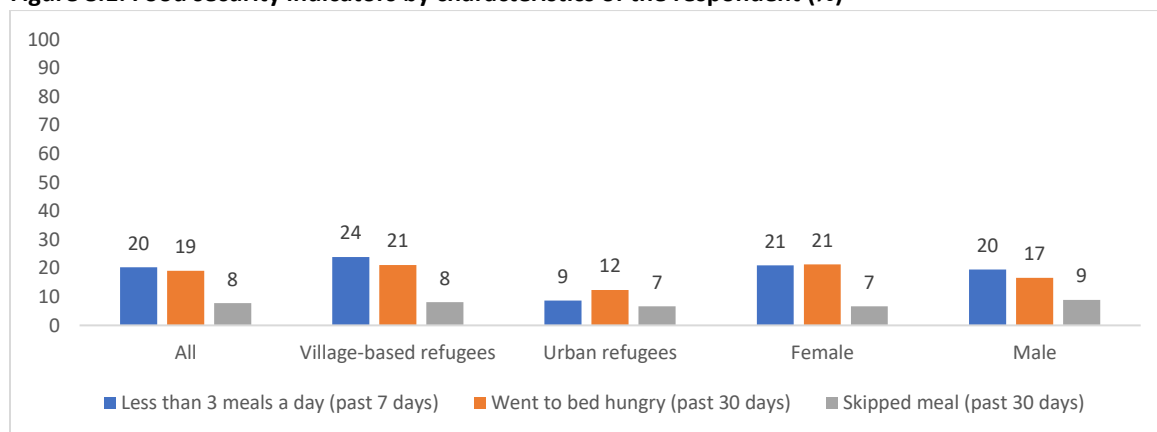Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Note: The category "boy" refers to households with a randomly selected male child to question about education while "girl" refers to households with a randomly selected female child.

FOOD INSECURITY

One fifth of respondents report experiencing severe forms of food insecurity (Figure 8.1). Indeed, 20 percent of the respondents reported eating less than 3 meals a day the week before the survey, and 19 percent went to bed hungry during the last month. Only 8 percent declared skipping a meal the last month. Female respondents are more likely to have eaten less than 3 meals per day and gone to bed hungry than male respondents. Village-based refugees are also more likely to experience food insecurity than those living in urban areas.

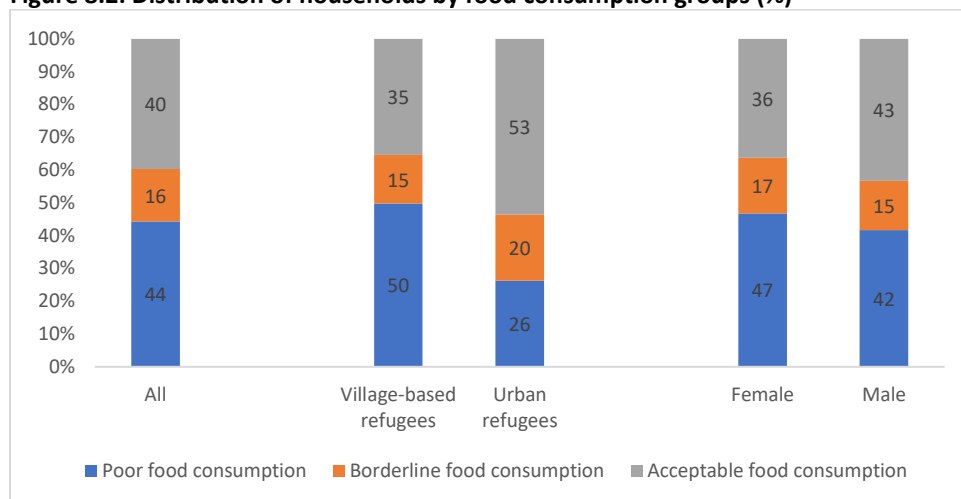**Figure 8.1: Food security indicators by characteristics of the respondent (%)**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: The category "female" refers to households with a female respondent while "male" refers to households with a male respondent.

Approximately 44 percent of refugee households have poor food consumption scores (Figure 8.2). The food consumption score is based on information about food frequency and dietary diversity. Only 40 percent of households have adequate food consumption. Village-based refugees are nearly twice as likely to experience poor food consumption compared with refugees in urban areas. Female-headed households have a slightly higher risk of having a poor food consumption score than male-headed households.

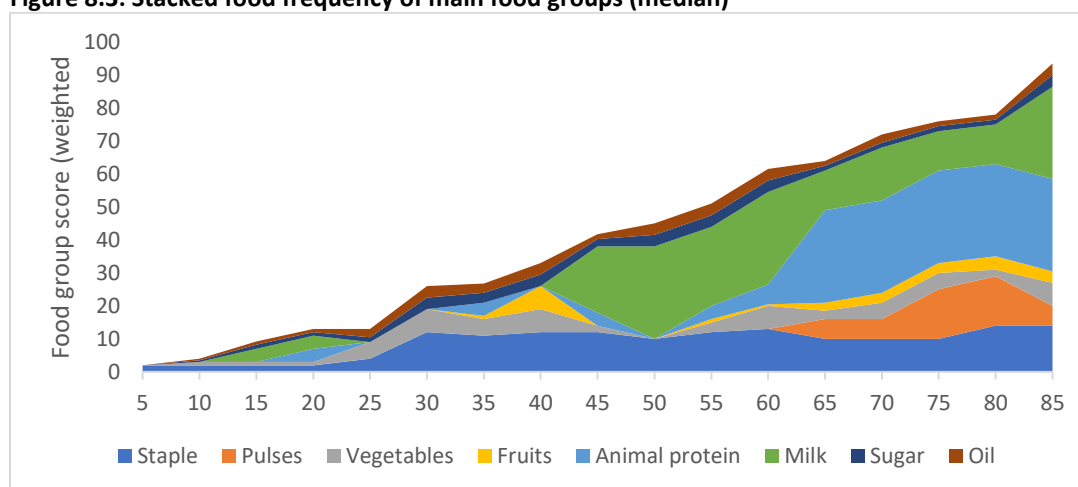**Figure 8.2: Distribution of households by food consumption groups (%)**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: The category "female-head" refers to female-headed households while "male head" refers to male-headed households.

Households that have a poor food consumption score are also characterized by an unbalanced diet composed mainly of staples (Figure 8.3). Households frequently have lower consumption scores because they have inadequate milk and proteins in their diet. Consumption of vegetables is present for all levels of food consumption score but is more frequent for households with an adequate food consumption score, while fruits are absent from the consumption of households with a poor consumption score. Even for households with high consumption scores, fruits and vegetables represent a very small part of the households' diet.

Figure 8.3: Stacked food frequency of main food groups (median)

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Note: One household averaging a food consumption score of 113, i.e., an outlier, is reassigned to the second highest class.
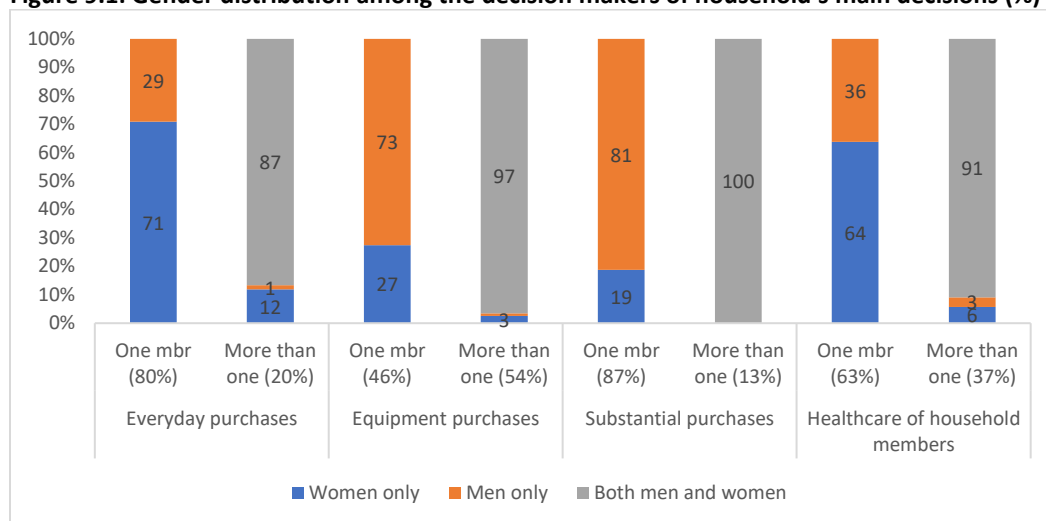
DECISION
MAKING AND
TIME USE

To complement the gender-balanced sample, a new module was added in this wave on intra-household decision making and time-use. Respondents were asked who makes decisions within the household on a variety of issues: everyday purchases, equipment purchases, substantial purchases, and healthcare of household members. Figure 9.1 reflects the distribution of decision makers by gender. The bar indicates gender participation in the decision-making process. The composition of household members who participate in the decision-making process varies by type of decisions. Decisions typically made by women include everyday purchases and healthcare of family members; these involve only one member in 80 and 63 percent of households, respectively, and that one member is a woman in 71 and 64 percent of refugee households. Men are typically the household decision maker for substantial purchases: those decisions are made by one member in 87 percent of households, and that single decider is a man in 81 percent of those households. Interestingly

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equipment purchase decisions are commonly made jointly by several household members (54 percent of households), where both men and women jointly participate in making purchasing decisions in nearly all of those cases.

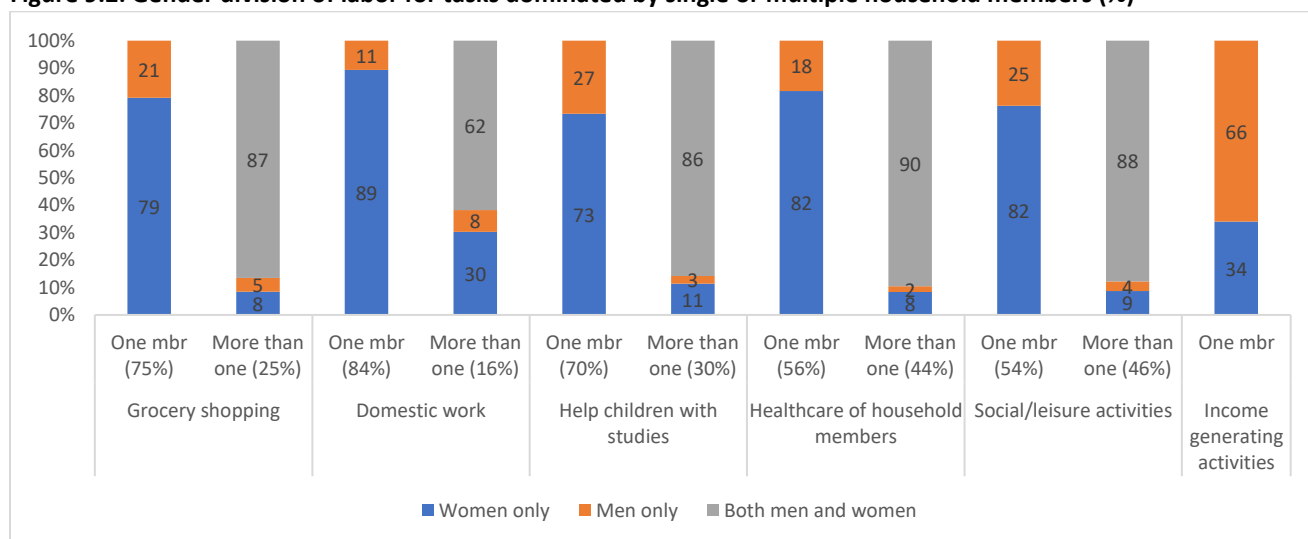**Figure 9.1: Gender distribution among the decision makers of household's main decisions (%)**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: Only households with both adult men and women are included. Percentages in parentheses represent the proportion of households who declared having one member making each type of decisions, and those who declared multiple members.

In most households, there is evidence of division of labor, whereby one household member focuses on a set of tasks (Figure 9.2). For example, in 75 and 84 percent of households, grocery shopping and domestic work is taken care of by a single family member. For all household activities except income generating ones, women devote the most time to the task (in more than 73 percent of the households in which there is only one member spending the most time). Income-generating activities are the single set of activities undertaken exclusively by just one member, and that member is most often male (66 percent of households). It turns out that this time use since the onset of COVID-19 is only slightly different from observed patterns of time use before COVID-19 (not shown).

Figure 9.2: Gender division of labor for tasks dominated by single or multiple household members (%)
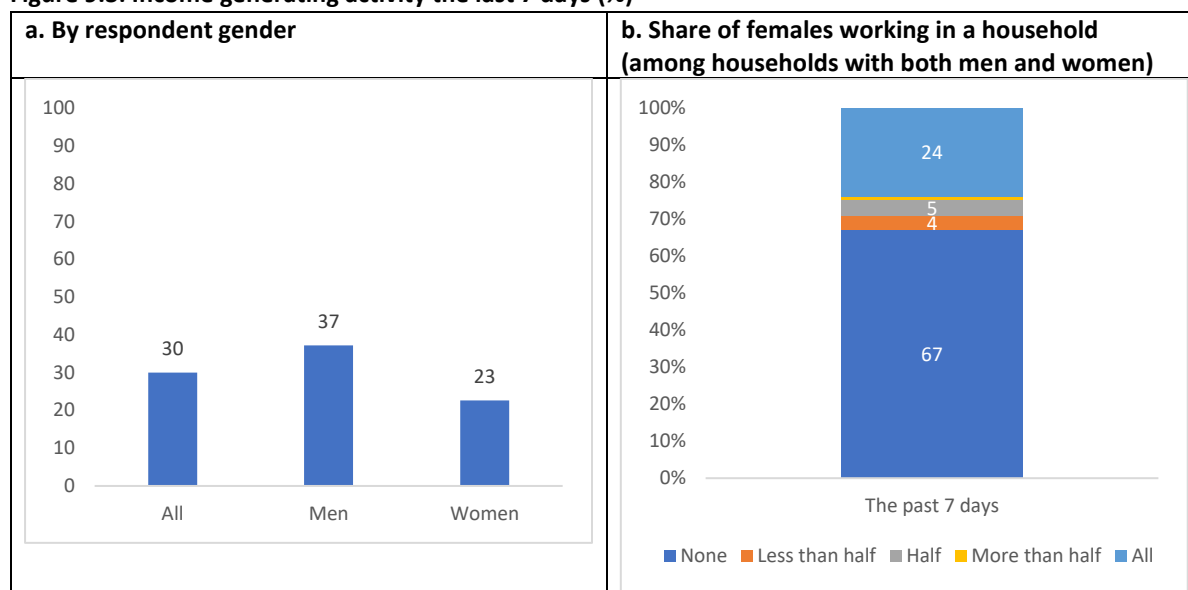

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: Only households with both adult men and women are included. Percentages in parentheses represent the proportion of households who declared having one member making each type of decisions, and those who declared multiple members.

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Female refugees are in general less likely to work than their male counterparts (Figure 9.3). Around 23 percent of all the female household members aged 15 to 64 years old engaged in an income generating activity the week before the survey, compared to 37 percent of male household members. Among households that have both men and women adults, two-thirds did not have any working-age women engaged in an income generating activity the week before the survey. In 24 percent of households, all adult women were working.

Figure 9.3: Income generating activity the last 7 days (%)

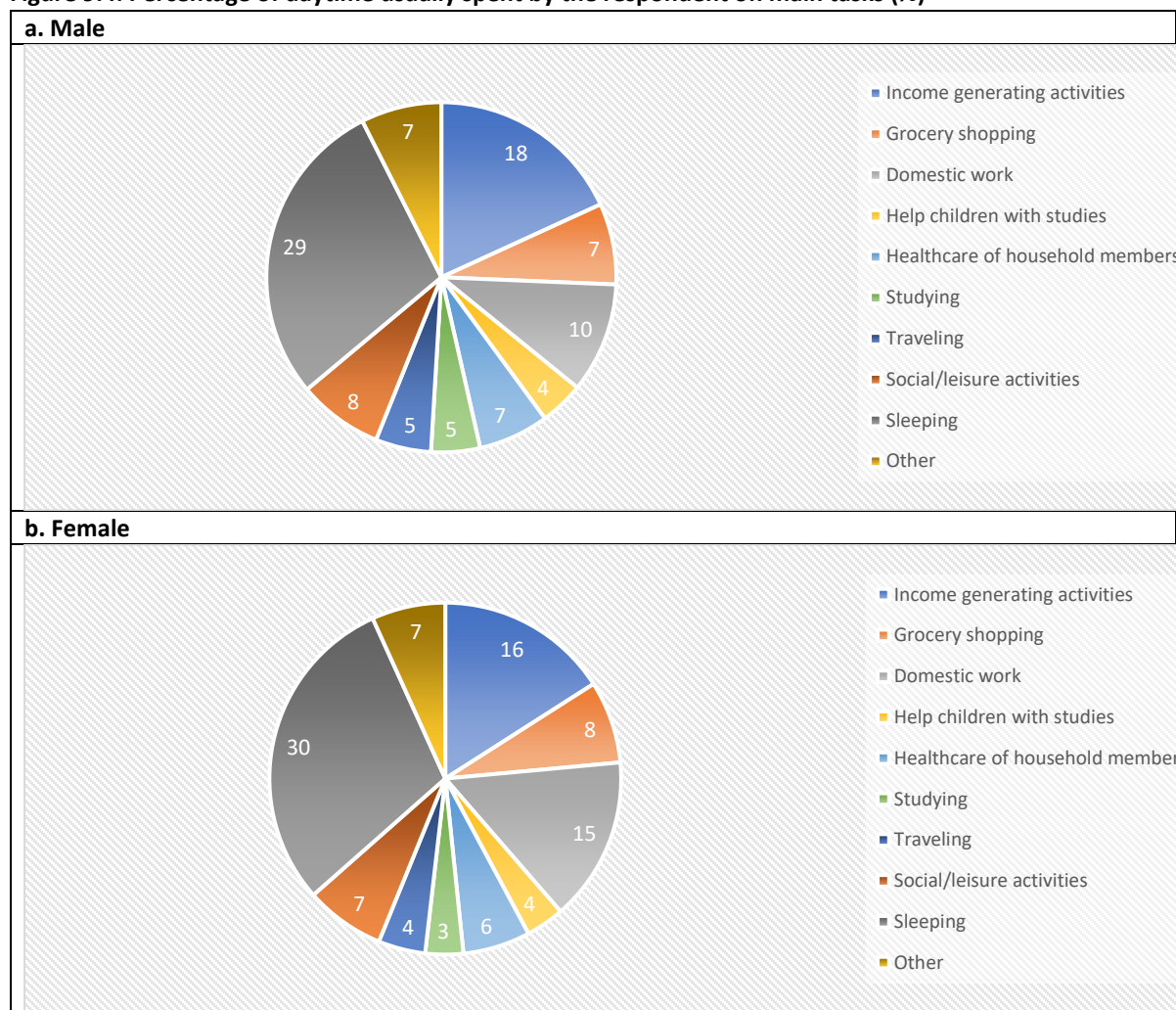Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Note: Only households with both adult men and women are included in the Figure 9.5.b.

The second wave of refugee survey also asked respondents[5] to estimate the amount of time devoted usually to main tasks (Figure 9.4). On average, male respondents spend slightly more time than female respondents on income generating activities (18 percent of daytime for men compared to 16 percent for women). In contrast, women are likely to dedicate more time than men to tasks such as grocery shopping and domestic work.

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[5] During this wave, the respondent was randomly chosen among the household head and the spouse to allow an even distribution between male and female respondents across households.

Figure 9.4: Percentage of daytime usually spent by the respondent on main tasks (%)

a. Male

b. Female

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.

VIEWS ON VACCINATION

Approximately, one-third of the sample (36 percent) reported that they have never tested for COVID-19 (Figure 10.1). Respondents from a household whose breadwinner did not work are less likely to have taken a COVID-19 test (53 vs. 74 percent). Unfortunately, the question was not framed to spot whether the propensity to take the COVID test was related to test availability.

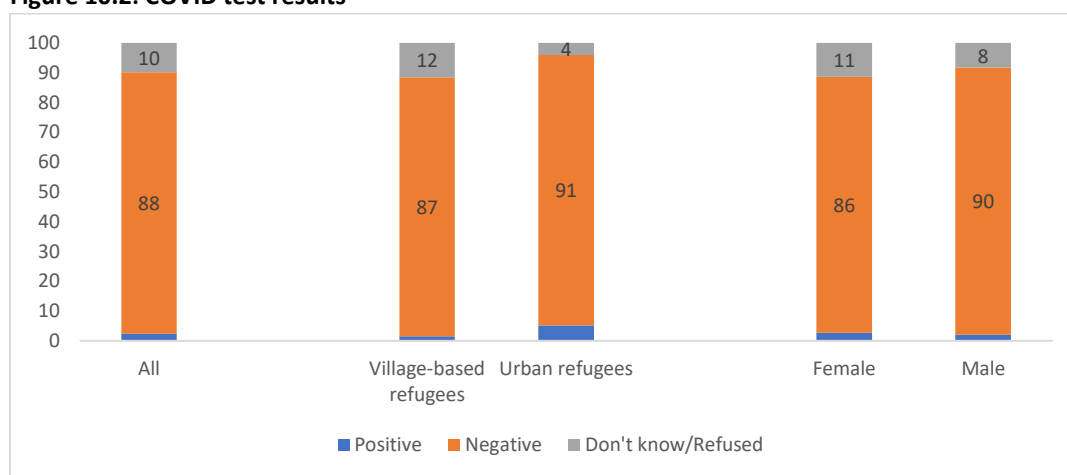**Figure 10.1: Proportion that took a COVID-19 test (%)**

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: The category "female" refers to households with a female respondent while "male" refers to households with a male respondent. The category "worked" refers to households whose breadwinner worked the week before the survey while "did not work" refers to households whose breadwinner did not work the week before the survey.

Only 2 percent of those who took the test reported a positive test result, but 10 percent of those who indicated taking the test refused to answer the question. The proportion that reported a negative test result varies by location and gender of the respondents.
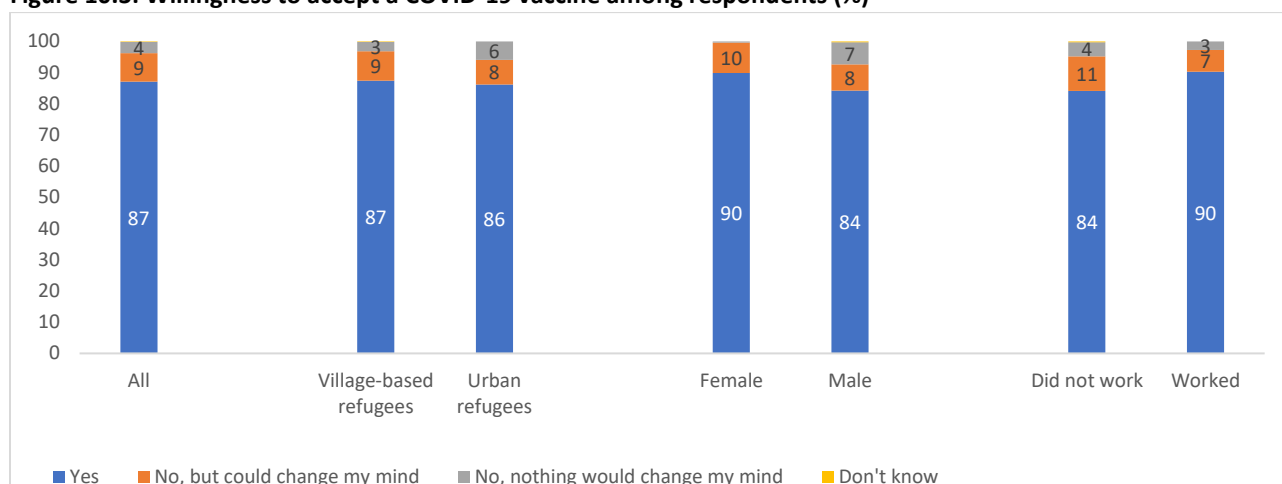
Figure 10.2: COVID test results

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: The category "female" refers to households with a female respondent while "male" refers to households with a male respondent.

The vast majority of respondents would be willing to take up a free COVID-19 vaccine (Figure 10.3). Overall, 87 percent of refugees would receive a free vaccine, with little variation across groups. The acceptance rate is slightly higher among female respondents and households with a working breadwinner (90 percent each), and lower for male respondents and those from households whose breadwinners were not working the week before the survey (84 percent each). Those unwilling to be vaccinated cited worries about undesirable side-effects (for 27 percent of the respondents who are reluctant to take it) and efficacy concerns (20 percent). Around 9 percent of the respondents would not accept to take the COVID-19 vaccine but would be more likely to take it if someone such as family, friends, or religious leaders were to recommend it. Among the respondents who would not accept to take a COVID-19 vaccine, respondents from a household with a non-working breadwinner are slightly more likely than those with a working breadwinner to change their mind.

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Figure 10.3: Willingness to accept a COVID-19 vaccine among respondents (%)

Source: Djibouti COVID-19 phone survey (refugee), 2nd wave.
Notes: The category "female" refers to households with a female respondent while "male" refers to households with a male respondent. The categories "did not work" and "worked" refer to households whose breadwinner is engaged (or not) in income generating activity the week before the survey.

CONCLUSION

Some 20 months after the onset of the COVID-19 pandemic, this fourth COVID-19 phone survey of the refugee population in Djibouti (the second one using a refugee sample), fielded between November and December 2021, aimed to provide further information on the continued well-being of refugees as the country transitions out of the socioeconomic shocks precipitated by the COVID-19 pandemic.

The labor market situation of refugees in Djibouti is still precarious. Less than half (49 percent) of breadwinners in refugee households worked the week before the survey. Although most of these working breadwinners (80 percent) reported no change in their workload compared to before COVID-19, the vulnerability of refugees is compounded by their high likelihood of engaging in activities in the informal sector (86 percent) – a segment of the labor market often typified as volatile.

Even so, refugees also seem to enjoy good access to most basic goods and key services, although rising commodity prices may disrupt access to basic goods. Most goods are accessible to the refugee population, as the lowest level of access to the basic goods included in the survey is 76 percent (wheat flour); however, access to basic medicines is notably lower (66 percent). Despite widespread access to basic goods, about a third of the refugees faced price increases of major staples – even over the short 1 week period preceeding the survey.

Access to healthcare and education is high. Virtually all the refugees report being able to access healthcare when needed (97 percent). Similarly, a vast majority of students aged 6-15 years attended school every day (94 percent). Small gender differences are observed among children who need supplementary school activities, or catch-up activities.

Food insecurity represents an important challenge to refugee welfare. Around 20 percent of the refugee households report extreme forms of food deprivation (eating fewer than 3 meals a day or going to be hungry). A relatively large proportion of refugees live on an unbalanced diet composed mainly of staples.

Safety nets play an important role in protecting the refugee population. Assistance from international NGOs is the most commonly reported source of non-labor income. Such assistance consists mainly of food assistance, food stamps, and cash transfers.

This wave also explores gender differences in decision making and time use. Women tend to participate more than men in decisions related to everyday purchases and healthcare of household members, especially when

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household decisions are taken by a single household member. Where more than one household member is involved in making the decision, women participate in the decisions jointly with men in most of the cases. On time use, there is evidence of within household specialization: activities that are more likely to have female engagement include grocery shopping, domestic work, and social/leisure activities. Income-generating activities are more likely to have male engagement. These trends are particularly pronounced when an activity is most commonly undertaken by only one household member.

Because COVID tests and vaccines are increasingly available in Djibouti, this survey solicited respondents' attitudes toward tests and vaccines. A relatively large fraction of respondents took a COVID test at least once (64 percent) and most respondents (87 percent) reported that they would accept an approved, free COVID-19 vaccine. Among the few who were opposed to being vaccinated, their main reasons were worries about undesirable effects (for 27 percent of the respondents who are reluctant) and cocnerns that the vaccine might not be effective (20 percent). Around 9 percent of the respondents would not accept a COVID-19 vaccine but would be more likely to take it if someone they personally knew and respected such as family, friends, or religious leaders, were to recommend it. Vaccine hesitancy is more common among households whose breadwinner did not work the week before the survey; however, althoug they report a lower propensity to accept the vaccine, they were aslo slightly more likely to change their mind if someone recommended it.

Box 1: Description of the refugee sample

Sampling frame:

The refugee sample comes from a joint project of MASS, World Food Program (WFP) and UNHCR that organized the Refugee Survey "Enquête de profilage dans les villages de réfugiés 2019" collected by the national statistical office, INSTAD. The aim of the survey was to understand the socio-economic profile of refugee and asylum-seeker households in Djibouti. The sampling was done by a random drawing at one degree among refugee and asylum-seeker households living in four independent strata (Table A1.1): Djibouti-City, and the refugee villages of Ali Addeh, Holl Holl and Markazi. The sampling frame is the UNHCR registry, "proGres," which includes the list of each individual refugee and asylum seeker living in Djibouti regardless of country of origin, nationality and reason for arrival. Among the Refugee Survey sample, the refugee sample of the Covid survey was a random sample of those with a phone number on file.

Table A1.1: Distribution of households by location in the sampling frame

	Ali Addeh	Holl Holl	Markazi	Djibouti City	Total
Number of households	2,576	954	178	1,145	4,853
Percentage of households	53.1	19.7	3.7	23.6	100

Source: Enquête de profilage des réfugiés et demandeurs d'asile, 2019

Sampling weights:

The sampling weights for the refugee sample are designed to adjust for differences in design and non-response. The refugees are distributed across four broad locations: Djibouti city and Balbala, Holl-Holl, Ali-Addeh, and Markazi. The population estimates of refugees and asylum seekers in these locations were 2936, 1707, 4408, 1398 households, respectively. Further, the weights are adjusted for non-response within the refugee sample, based on the inverse predicted probability of responding to the survey, conditional on observable characteristics (location, household size, gender, age, education of the household head, and year of arrival to Djibouti).

Phone survey sample November-December 2021:

The interviewed refugees come mostly from Somalia (46.6 percent), followed by Yemen (34.1 percent) and Ethiopia (15.7 percent). The main type of housing of refugees is tent (60 percent), followed by non-residential housing (27.9 percent). Only 9.4 percent of them are living in a residential housing. Most of the interviewed refugees arrived in Djibouti less than five years before the 2019 survey (87.4 percent).

Table A1.2: Country of origin and housing of refugee households (percentage)

Country of origin		Housing type	
Somalia	46.6	Residential housing	9.4
Yemen	34.1	Non-residential housing	27.9
Ethiopia	15.7	Tent/Toukoul/Kaolo	60
Eritrea	3.4	Non-permanent structure	1.3
Other	0.2	Spontaneous housing	1.4
N	436	**N**	436

Source: Source: Djibouti COVID-19 phone survey, 2nd wave.

Box 2: Output of a principal-components analysis on food consumption score

A principal-components analysis is used to validate consistency in the data based on eight food groups recommended by the WFP (excluding condiments). It indicates that food consumption can be regrouped along two main dimensions explaining approximately 65 percent of the variance in consumption frequency. Staple, vegetables, sugar, and oil represent the main dimension of food consumption (explained variance = 38 percent), while pulses, fruits, and animal proteins define the second component of food consumption (explained variance = 27 percent). Examination of these two components suggests no redundant grouping of food items, as most food groups have high unique contribution to the explained variance.

Number of obs = 436

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.04	0.85	0.38	0.38
Factor2	2.19	1.21	0.27	0.65
Factor3	0.97	0.29	0.12	0.78
Factor4	0.69	0.21	0.09	0.86
Factor5	0.47	0.16	0.06	0.92
Factor6	0.32	0.10	0.04	0.96
Factor7	0.22	0.11	0.03	0.99
Factor8	0.11	-	0.01	1.00

Factor	Variance	Difference	Proportion	Cumulative
Factor1	3.04	0.85	0.38	0.38
Factor2	2.19	-	0.27	0.65

LR test: independent vs. saturated: chi2(28) = 1802.27 Prob>chi2 = 0.0000

Pattern matrix and unique variances

Variable	Factor1	Factor2	Uniqueness
Staple	0.65	0.43	0.40
Pulses	-0.12	0.86	0.25
Vegetables	0.86	-0.05	0.25
Fruits	0.27	0.60	0.57
Animal protein	-0.20	0.86	0.22
Milk	0.21	0.38	0.81
Sugar	0.92	-0.11	0.13
Oil	0.92	-0.12	0.14

Source: Djibouti COVID-19 phone survey, 2nd wave.