



**DTM**  
IOM DISPLACEMENT  
TRACKING MATRIX  
SOUTH SUDAN

URBAN MULTI-SECTOR  
NEEDS AND VULNERABILITIES  
SURVEY (FSNMS+)

YEI TOWN



*In collaboration with:*



*Generously supported by funding from:*



Funded by  
European Union  
Civil Protection and  
Humanitarian Aid



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## DTM SOUTH SUDAN

 [dtm.iom.int/south-sudan](https://dtm.iom.int/south-sudan)

 [SouthSudanDTM@iom.int](mailto:SouthSudanDTM@iom.int)

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**Photo (cover page):**

An enumerator speaking to people sitting in a community meeting.

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## Aims

Between September and November 2021, the International Organization for Migration's Displacement Tracking Matrix (IOM DTM) undertook its second household-level multi-sector assessment of selected urban areas and camps for internally displaced persons (IDPs) in South Sudan. The assessment aims to:

- Quantify the prevalence of vulnerabilities and humanitarian needs across sectors, with a focus on food security, economic vulnerability and nutrition as well as selected indicators on shelter and non-food items (SNFI), education, health, water, hygiene and sanitation (WASH), protection (including child protection and gender-based violence) and mental health and psycho-social support (MHPSS).
- Generate a better understanding of urban displacement and migration, including return and relocation after displacement in South Sudan or abroad.

This survey is part of the country-wide extended Food Security and Nutrition Monitoring System (FSNMS+) assessment in South Sudan, jointly conducted by IOM, the World Food Programme (WFP), the United Nations Children's Fund (UNICEF), the Food and Agriculture Organization (FAO), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), REACH and several humanitarian clusters. It was designed to be an independent, crisis-wide and coordinated inter-agency multi-sectoral needs assessment, mandated by the Humanitarian Country Team and endorsed by the Inter-Cluster Coordination Group. Together, the joint findings provide an evidence-base for the Integrated Food Security Phase Classification, the Humanitarian Needs Overview and the Humanitarian Response Plan.

**This report presents sectoral findings for the urban area of Yei.** Separate profiles have been published for the urban areas of [Juba](#), [Wau](#), [Bor](#), [Bentiu / Rubkona](#) and [Malakal](#). Further profiles will be published for Juba IDP Camps I and III, Naivasha IDP Camp, Bentiu IDP Camp and Malakal Protection of Civilians (PoC) Site.

## Humanitarian Context in South Sudan

Despite a relative lull in large-scale hostilities since the signature of the Revitalized Peace Agreement for the Resolution of the Conflict in South Sudan (R-ARCSS) in September 2018 and the formation of the Transitional Government of National Unity in February 2020, sub-national and localized conflicts have continued to affect communities and cause new displacement across the country ([IOM DTM Event Tracking<sup>1</sup>](#)). Between January and September 2021, 138,637 individuals were displaced due to conflict, and 84,861 individuals were displaced due to communal clashes ([IOM DTM Mobility Tracking Round 11](#)). Although the overall number of casualties has decreased compared to 2020 figures, escalations in violence in Western Equatoria – particularly in Tambura – and Jonglei and Greater Pibor Administrative Area were flagged as concerning ([HRD UNMISS](#)). After two years of severe seasonal flooding, 2021 witnessed another year of extreme flooding, affecting over 835,000 people ([OCHA](#)). Three consecutive years of high levels of flooding have depleted resources and severely increased needs in many communities while simultaneously limiting humanitarian access. In this climate, the economic and health impact of COVID-19, including restrictions cross-border movement ([IOM DTM Flow Monitoring](#)), has further compounded the humanitarian effects of protracted insecurity.

As of September 2021, South Sudan hosts over 2 million IDPs and 1.78 million returnees, with over 400,000 new IDP arrivals<sup>2</sup> and over 400,000 former IDPs and refugees returning to their areas of habitual residence prior to displacement in the first nine months of 2021 ([IOM DTM Mobility Tracking Round 11](#)). Often, returnees find themselves in conditions of need comparable to those of the displaced population ([IOM DTM Mobility Tracking Round 11 Multi-Sector Location Assessment](#)).

According to the Integrated Food Security Phase Classification (IPC) analysis for February to March 2022, 6.8 million people – more

1 Due to limitations in coverage and access, DTM Event Tracking does not provide a comprehensive picture of displacement events.

2 Including both new displacement incidents and individuals moving to a different location of displacement.

than half of South Sudan's population – are estimated to be facing severe acute food insecurity, with parts of Jonglei and Unity states of extreme concern for food insecurity. The [2022 Humanitarian Needs Overview](#) (HNO) estimates a total of 8.9 million people in need out of a projected population of 12.4 million. In the intersectoral severity of needs analysis, the HNO also classifies five counties – Duk, Fangak, Pibor, Cueilbet and Rumbek East – to be in catastrophic need and another 71 counties to be in extreme need.

After the successful conclusion of the [first round of the expanded FSNMS+ assessment in urban areas and IDP sites](#) (FSNMS+ 2020), the second round enlarged its coverage to include the urban areas of Bor and Yei. The assessment took place after the former PoC sites in Juba, Wau and Bentiu transitioned out of their special status under the protection of the United Nations Mission In South Sudan (UNMISS) in 2020 and early 2021. All five targeted camps continue to be affected by congestion and sub-standard living conditions that are only partly mitigated by access to humanitarian services.

## Methodology

### Sampling Frame Development

South Sudan lacks an updated sampling frame, with the most recent census dating back to 2008, prior to the country's independence and two waves of civil war resulting in mass population displacement. To enable the roll-out of representative household surveys in urban areas within a short timeframe, IOM DTM relied on a combination of remote sensing technology and field mapping by teams of trained enumerators to produce a workable sampling frame. The methodology sought to avoid the need for door-to-door listings, which would have significantly increased costs and could have been mistaken by the local population for a registration exercise, potentially attracting residents from surrounding neighborhoods.

In the initial step, building footprints for the targeted areas were extracted from recent high-resolution satellite imagery from Maxar using automated image-recognition technology. The urban extent of each city was then mapped based on lower-level post-independence

administrative boundaries (bomas) made available by South Sudan's National Bureau of Statistics, the local road and transport network and the extension of built-up areas. Within the urban extent, enumeration areas of approximately equal size were drawn following natural and man-made geographical boundaries, including roads, waterways and the former boma boundaries. Non-residential and destroyed areas were mapped by field teams using mobile GIS software, in consultation with key informants and direct observation for each enumeration area, to derive a layer of likely residential shelters.

In collaboration with South Sudan's National Bureau of Statistics (NBS), the boundaries of the enumeration areas in Yei were then re-adjusted to obtain 104 areas with an average of about 500 inhabited shelters.<sup>3</sup>

### Sampling Design

In Yei town, the study adopted a stratified two-stage clustered sampling strategy designed to be self-weighting. The sample was distributed between the enumeration areas proportional to the estimated number of inhabited shelters. In the first stage, enumeration areas served as the primary sampling units (PSUs). They were divided into seven strata based on shelter density as a proxy for the possible presence of slums, location near a local market, presence and size of informal settlements and presence and size of IDP settlements. Fifty enumeration areas were sampled with probability proportional to size, reflecting the approximate distribution across strata. The estimated number of residential shelters in each enumeration area was used as the measure of size given the lack of accurate, geographically disaggregated population estimates.

In the second stage, shelters – excluding mapped non-residential and destroyed areas – acted as the secondary sampling units (SSUs), proxying households. Thirteen shelters were drawn by simple random sampling from each targeted enumeration area. Enumerators were provided with georeferenced maps helping them locate the sampled shelters on hand-held devices and were instructed to interview the

<sup>3</sup> As the technical advisory member of the FSNMS+ Technical Working Group, IOM DTM contributed to the sampling frame development of the rural component based on updated enumeration areas. The 2022 assessment is the first round, in which the country-wide exercise relied on updated enumeration areas as primary sampling units.

household living in the pinpointed shelter or record it as empty<sup>4</sup>, non-residential or destroyed. Random reserve shelters were used as a replacement in case of non-response or other sampling failure.

For the purposes of the survey, a household was defined as a group of people who regularly eat out of the same pot (sharing food and other resources) and sleep in the same compound most nights of the week, even if living in different structures within the compound and regardless of family relationships. When multiple households lived in the same compound, enumerators used the kobo tool to randomly select one.

The targeted sample size of 650 households from 50 enumeration areas was calculated based on the standard formula for clustered sampling, with a margin of error of 5 per cent on a 95 per cent confidence interval, assuming a design factor of 1.5 and a non-response rate of 10 per cent.

### Data Collection

Data collection in Yei took place in September and October 2021, and

<sup>4</sup> Before recording a shelter as empty, enumerators had to visit it at least twice at different times of the day and attempt to set up an appointment through neighbors.



Enumerators taking measurements of a child in Yei town.

653 households were successfully interviewed. Challenges included higher than anticipated non-response, non-residential, empty and destroyed shelters in some areas and inaccessibility of one enumeration area due to insecurity<sup>5</sup>.

To prevent transmission of COVID-19 during the survey, enumerators were instructed to carry out the interviews with sufficient physical distancing outside the respondents' shelters and were provided with masks and hand sanitizer for use during data collection.

### Statistical Analysis

Confidence intervals – denoted in the summary text by a ( $\pm X.X$ ) – were calculated using R's survey package<sup>6</sup> to account for the survey's sampling design (stratified clustering). Descriptive statistics reflect unweighted means and standard errors since the sample was designed to be approximately self-weighting. While non-response and other sampling failure rates differed across enumeration areas, it was not possible to correct for these differences due to lack of reliable,

<sup>5</sup> The resampled enumeration area was randomly sampled from within the same stratum to minimize bias. The interviews recorded prior to inaccessibility in the enumeration area are included in the dataset, leading to overshooting the target of 650 interviews by 3.

<sup>6</sup> Lumey, T. (2020). "Survey: analysis of complex survey samples". R package version 4.0.



Enumerators walking through flooded areas to reach shelters.

geographically disaggregated population estimates and the likelihood of correlation between sampling failure rates and error in the estimated number of residential buildings used as a proxy for population. The following table shows the deviation between sampled households and estimated residential buildings in each stratum.

% SAMPLED HOUSEHOLDS, % ESTIMATED RESIDENTIAL BUILDINGS AND PERCENTAGE POINT DIFFERENCE BY STRATUM [N IN TABLE]

STRATUM	N SAMPLED	% SAMPLED	% EST. RESIDENTIAL	P.P. DIFFERENCE
High Density, Linked To Market	65	10	9.6	-0.4
High Density, With Local Market	65	10	10.7	0.7
IDP / Informal Settl., 1-29 buildings	26	4	2.9	-1.1
IDP / Informal Settl., 30+ buildings	13	2	2.1	0.1
Low Density, Linked To Market	313	47.9	47.6	-0.3
Low Density, No Market	26	4	4.6	0.6
Low Density, With Local Market	145	22.2	22.4	0.2

Using the estimates proportion of residential buildings in each stratum as weights results in some difference for vulnerability and need indicators. However, because it is not feasible to identify the cause for sampling failure in certain enumeration areas, weighting estimates may result in the introduction of another bias. All findings are therefore reported without correcting weights.

The impossibility of stratifying based on household attributes constrained the ability to carry out representative sub-group analysis and cross-tabulations of needs and vulnerabilities with sufficient statistical confidence. However, given the importance of this analysis for the humanitarian response, indicative findings have been included where relevant. The subset function from R's survey package was used to accurately compute confidence intervals for sub-group analysis<sup>7</sup>.

Confidence intervals are a measure of the statistical uncertainty regarding our estimate. The 95 per cent confidence interval will

<sup>7</sup> Ibid., p. 55. "Voluntary migrants" and "Refugees" were excluded from the sub-group analysis in this report due to their small sample sizes. "Returnees" and "Relocated persons" were grouped for sub-group analysis.

contain the true quantity of interest 95 per cent of the time over repeated samples. This means that if we were to repeat this survey one hundred times under identical conditions, on average ninety-five of the calculated intervals would contain the true value of our target quantity.

The confidence interval does not account for uncertainty due to systematic biases in the sample, such as that due to sampling bias (systematic under or over-representation of households with certain characteristics in the sample) or reporting bias (systematic under or over-reporting of certain indicators by respondents due to their sensitivity, surrounding stigma or perceived incentives). To the extent possible, these sources of bias were minimized through the survey's sampling design, training and monitoring of enumerators, and appropriate communication of the purposes of the study with respondents. A small number of data anomalies that may be due to reporting bias are flagged in the sectoral narratives.

## Urban Vulnerability Index Calculation

The Urban Vulnerability Index uses Principal Component Analysis (PCA) to assess the relative impact of a set of high priority indicators on needs and vulnerabilities of households in urban areas. The index summarizes the variation around the complex drivers of vulnerability, need and re-integration in urban settings, or how multiple categories of vulnerability (displacement, disability, poverty, age, gender, etc.), sectoral needs (SNFI, health, WASH, food security, protection, etc.), and broader distributional and societal factors interact and compound each other.

The index ranges from 0 to 100, with 100 signifying the highest level of needs and vulnerability.

**Vulnerability** is defined as the set of household characteristics that reduces their resilience to internal and external shocks, or capacity to rely on sustainable coping mechanisms, resulting in a higher level of humanitarian needs and likelihood of adverse outcomes unless the household can benefit from appropriate mitigation measures, such as access to humanitarian services.

**Index indicators:**

Population Group	Single-headed Households
Disability	Chronic Illness
Shelter Damage	Shelter Type
Crowding	School Dropout
Access To Sufficient Water	Safe and Timely Access to Water
Access to WASH NFI	Sanitary Facility
Distance to Health Facility	Access to Health Facilities
Security Incidents	Protection Service Availability
GBV Risk	Behavioral Changes in Children
Coping Strategies	Hunger Levels
Livelihoods	

For a detailed definition of the used indicators and importance of components, see the [Urban Vulnerability Index and Intersectoral Analysis section](#).

## Population Groups

Displacement and migration status are self-reported by households. Population group definitions are based on IOM DTM Mobility Tracking.

### IDPs

Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border<sup>8</sup>. There is no time limit on being an IDP. This status ends when the person is able and willing to return to their original home or makes a free choice to settle in a new location<sup>9</sup>.

### Returnees

Someone who was displaced from their habitual residence either

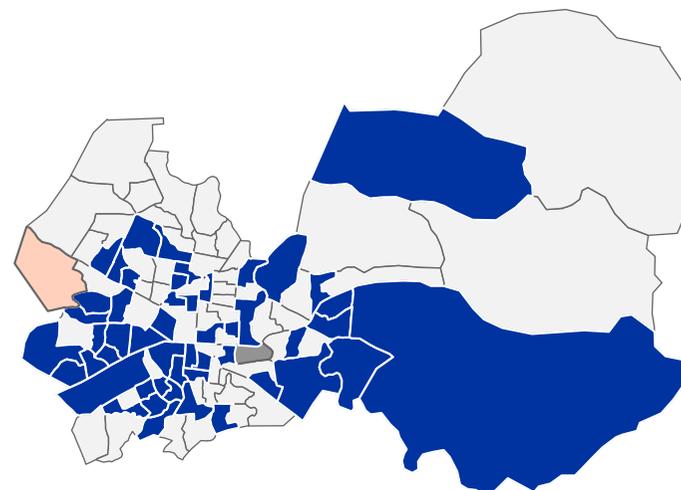
8 UN OCHA. (2004). [Guiding Principles on Internal Displacement](#). Article 2.  
 9 These conditions for ending IDP status are in line with the Inter-Agency Standing Committee's [Framework on Durable Solutions for Internally Displaced Persons](#) (April 2010).

within South Sudan or abroad, who has since returned to their habitual residence. Please note: the returnee category, for the purpose of DTM data collection, is restricted to individuals who returned to the exact location of their habitual residence, or an adjacent area based on a free decision. South Sudanese displaced persons having crossed the border into South Sudan from neighboring countries but who are unable to reach their former home are still displaced and as such not counted in the returnee category.

### Relocated Persons

A person who was displaced from their habitual residence either within South Sudan (former IDP) or abroad (former refugee), who has since relocated voluntarily (independently or with the help of other actors) to a location other than their former habitual residence, without an intention to return to their former habitual residence.

ENUMERATION AREAS IN YEI TOWN SAMPLED FOR ASSESSMENT



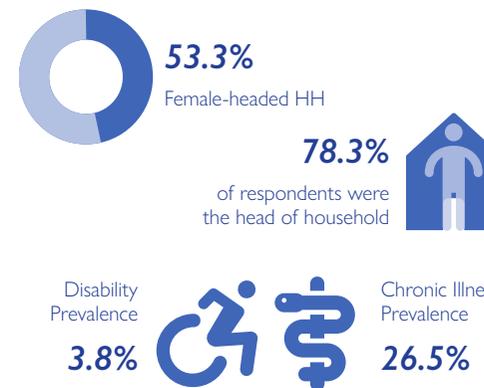
Areas in dark gray indicate enumeration areas that did not include any residential buildings and were thus excluded from the sampling frame. Areas in light orange were originally selected for sampling but could not be accessed due to insecurity.

## Demographics and Household Vulnerabilities

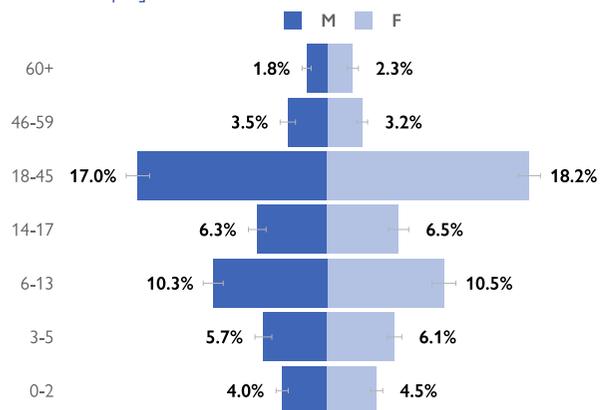
In this assessment, 78.3 (±5.8) per cent of responses are given by heads of household (HoH), while 21.7 (±5.8) per cent of households are represented by some other household member. These respondents tend to be younger members of the household (average age of 29 years compared to 38 years for heads of households responding).

The average household size is 6.4 (±0.4) persons, with a median of 6 persons. The average size of households hosting individuals is 8.3 (±0.7) persons whereas the size of households not hosting any individuals is 6.1 (±0.4) persons. Most households are headed by women (53.3% ±6.1%). Compared to their female counterparts, male heads of household are more likely to be older and have a secondary or university diploma. 20.3 (±1.4) per cent of household members are between the ages 0 and 5, and 33.5 (±1.8) per cent are between the ages of 6 and 17. Only 4.2 (±0.7) per cent are above the age of 60.

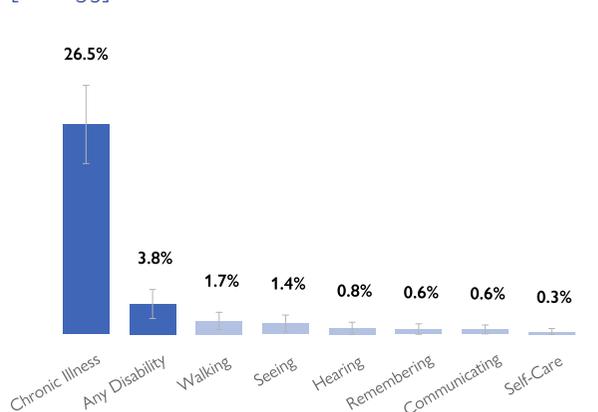
Among all households, 26.5 (±4.9) per cent of households have at least one member with a chronic illness, and 3.8 (±1.8) per cent report to have at least one member with a disability, as measured by the [Washington Group Short Set](#) questions. In comparison to figures from previous assessments and national estimates of the prevalence of persons with disabilities<sup>1</sup>, these figures should be treated as an estimation of the lower bound of the real prevalence.



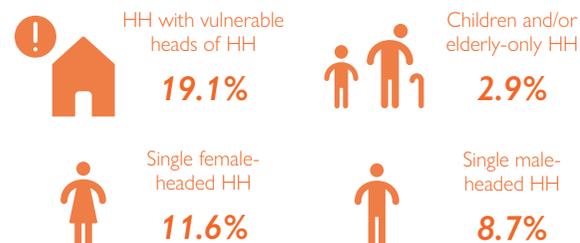
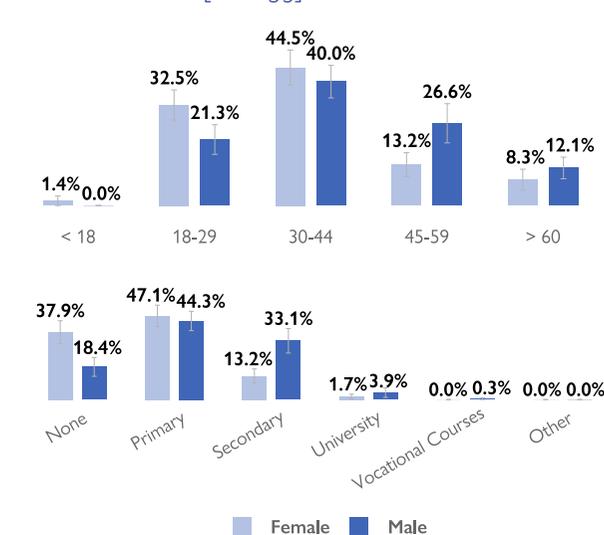
% INDIVIDUALS BY AGE GROUP AND GENDER [N IND. = 4,136; N HH = 642<sup>2</sup>]



% HH WITH A MEMBER WITH A DISABILITY OR CHRONIC ILLNESS [N = 653]



% MALE AND FEMALE-HEADED HH BY AGE AND EDUCATION LEVEL OF HH HEAD [N = 653]



% HH BY NATIONALITY [N = 653]

NATIONALITY	%	LL	UL
South Sudan	94.5%	91.7%	97.3%
Mixed Foreign	4.9%	2.3%	7.5%
Democratic Republic of the Congo	0.3%	0.0%	0.7%
Uganda	0.3%	0.0%	0.7%

1 The [2022 Humanitarian Needs Overview](#) applies a standard rate of 15 per cent for their sectoral and inter-sectoral analysis.  
 2 Eleven households were excluded from the breakdown due to household size anomalies.

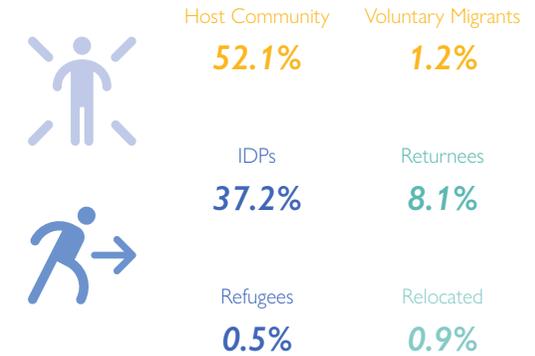
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

# Displacement and Migration

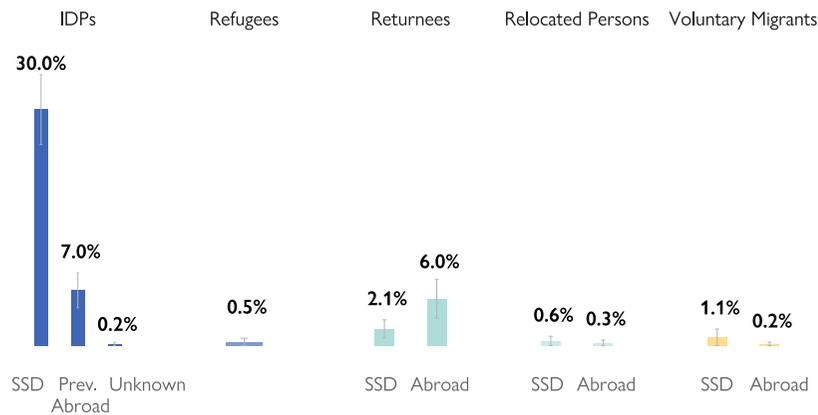
Displaced households come mostly from within Central Equatoria state (96.8% ±2.4% of IDP HH), with Yeï being the most prominent county. Some IDP households also come from Arua in Uganda (1.4% ±1.5% of IDP HH). The main reasons for displacement are conflict-related, with personal insecurity due to generalized violence (52.3% ±9.7%) and conflict interrupting access to livelihoods (11.5% ±4.9%) or services (9.1% ±5.3%) ranking highest.

For returned and relocated households, key drivers are improvement of security in area of return (74.6% ±11.2%), government assurance on safety (40.7% ±14.5%) and resolution of communal clashes (32.2% ±14.4%). Two in three of these households (66.1% ±16.0%) are satisfied with their decision to return or relocate, and 32.2 (±16.0) per cent are not satisfied but will remain in their location. 1.7 (±3.3) per cent regret their decision and plan to relocate.

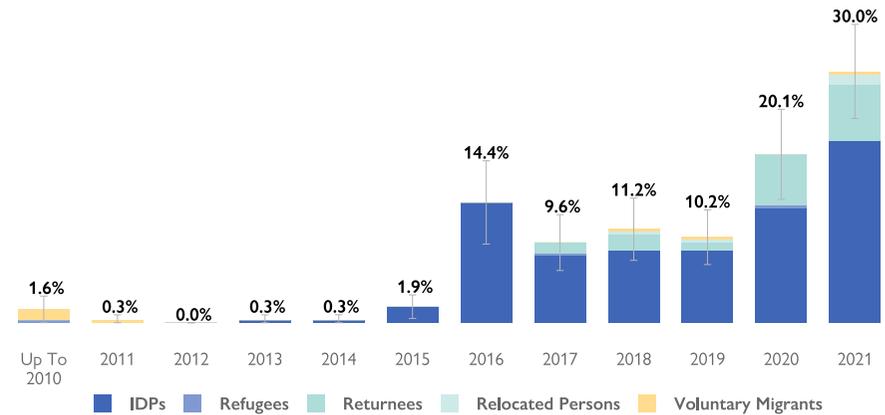
Over one in three IDP households intend to remain in their current location (35.0% ±10.3%) while over half intend to return to their area of habitual residence (56.8% ±11.0%) in the next two years. Only a few intend to relocate to a different location (1.6% ±1.5%), and 5.8 (±3.6) per cent are unsure of their plans. Of the displaced households intending to return, 51.4 (±13.9) per cent plan to return after a year. Indicatively, 10.2 (±7.8) per cent of returned or relocated households have not reached their final destination where they intend to settle.



% HH BY DISPLACEMENT OR MIGRATION STATUS [N = 653]<sup>1</sup>



% HH BY YEAR OF ARRIVAL AND DISPLACEMENT OR MIGRATION STATUS [N = 653]



% IDP HH BY MAIN REASON FOR MOST RECENT DISPLACEMENT (TOP 5) [N = 243]

REASON	%	LL	UL
Personal Insecurity (Generalized)	52.3%	42.6%	62.0%
Conflict / No Access To Livelihoods	11.5%	6.6%	16.4%
Natural Disaster Destroyed Home	9.5%	2.6%	16.3%
Conflict / No Access To Services	9.1%	3.7%	14.4%
Personal Insecurity (Targeted)	8.2%	4.2%	12.3%

% IDP HH NOT INTENDING TO RETURN WITHIN THE NEXT TWO YEARS BY MAIN REASON (TOP 5) [N = 234]

BARRIER	%	LL	UL
Insecurity In AOR	61.1%	53.6%	68.6%
House / Land Destroyed	41.0%	32.2%	49.8%
Lack Of Services In AOR	34.2%	25.9%	42.5%
No Means	27.4%	18.9%	35.8%
Lack Of Livelihoods In AOR	20.5%	15.0%	26.1%



<sup>1</sup> N for sub-groups: HC n = 340; IDPs n = 243, Refugees n = 3; Returnees n = 53, Relocated persons n = 6, Voluntary migrants n = 8.  
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Over half of households (57.9% ±6.7%) have close family members living elsewhere in South Sudan (28.2% ±4.7%), abroad (17.0% ±6.7%) or both (12.7% ±4.5%). 18.6 (± 5.4) per cent of households have children living elsewhere, mostly to attend studies (66.2% ±9.8%) or due to seek employment (37.7% ±9.7%).

Only 4.4 (±2.2) per cent of households possess identification documents for all their members. In 53.9 (±6.4) per cent of households some members have IDs, and in 40.0 (±6.2) per cent none of the members do. Indicatively, displaced and returned or relocated households are more likely to lack IDs (49.8% ±6.9% and 45.8% ±12.8%) compared to host community households (32.6% ±8.3%). Of the households who have children, 23.3 (±4.4) per cent have access to birth notifications for all their children, 49.0 (±5.6) per cent for some children and 24.9 (±5.1) per cent for none of their children.

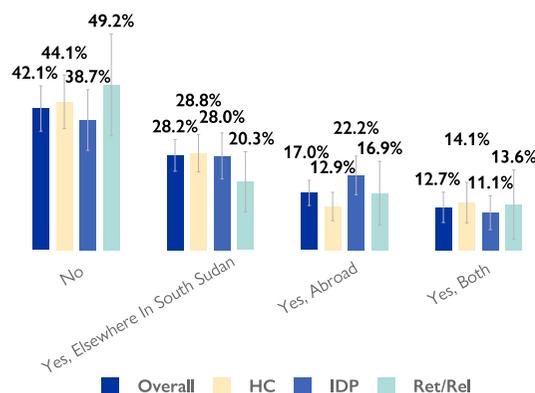
Half of all households have experienced challenges in the 12 months preceding the assessment affecting their ability to travel safely within South Sudan (35.7% ±7.5%), abroad (2.1% ±1.1%) or both (12.4% ±5.0%). Households facing challenges cite insecurity due to conflict (78.0% ±6.7%) or crime (59.8% ±10.0%) and increase in cost (23.2% ±6.0%) as the main reasons. Climate-related challenges – including flooding and impassable roads during the rainy season – are also notable with one in five respondents having faced travel issues citing them as reasons (20.4% ±7.8%).

Households without any identification **40.0%**  
 Households without any birth notifications **24.9%**



**50.2%** faced travel challenges (internal and abroad) affecting their safety in past 12 months

% SUB-GROUP HH WITH CLOSE FAMILY CURRENTLY LIVING ELSEWHERE



% HH WITH CHILDREN LIVING ELSEWHERE BY REASON [N = 228]

REASON	%	LL	UL
Attend Studies	66.2%	56.5%	76.0%
Seek Employment	37.7%	28.1%	47.4%
Married	34.6%	24.7%	44.6%
Visit Family Members Elsewhere	14.9%	9.1%	20.7%
Missing (Left And No News)	11.4%	5.1%	17.8%
Sent To Relatives	9.2%	5.7%	12.7%
Joined Army / Armed Groups	2.2%	0.2%	4.1%
Other	1.3%	0.0%	2.7%
Arbitrarily Detained	0.9%	0.0%	2.0%
Kidnapped	0.4%	0.0%	1.3%
No Answer	0.9%	0.0%	2.1%

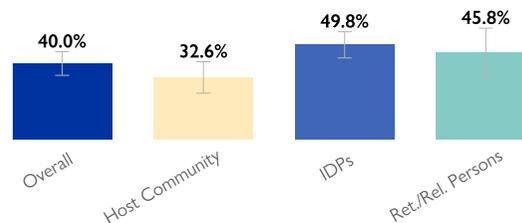
% SUB-GROUP HH WITH CHILDREN WITHOUT ACCESS TO BIRTH NOTIFICATIONS FOR ALL CHILDREN



% HH WITH ADULT FAMILY MEMBERS LIVING ELSEWHERE BY REASON (TOP 5) [N = 351]

REASON	%	LL	UL
Looking For Work / Employment	29.9%	24.7%	35.1%
Education	27.4%	21.3%	33.4%
Displaced By Insecurity	23.6%	17.7%	29.6%
Join Family Members / Relatives	8.8%	5.1%	12.5%
Stayed Behind When Family Was Displaced / Returned / Migrated	2.3%	0.3%	4.3%

% SUB-GROUP HH WITHOUT ACCESS TO VALID IDENTITY DOCUMENTATION FOR ALL MEMBERS



% HH FACING TRAVEL CHALLENGES (INTERNAL AND ABROAD) IN THE PAST 12 MONTHS BY CHALLENGE (TOP 5) [N = 328]

CHALLENGE	%	LL	UL
Insecurity Due To Conflict	78.0%	71.4%	84.7%
Insecurity Due To Crime	59.8%	49.8%	69.7%
Increase In Cost	23.2%	17.2%	29.1%
Roads Impassable	18.6%	10.8%	26.4%
COVID-19 Restrictions	14.0%	8.0%	20.1%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Community-driven Assistance

Overall, 17.6 (±4.4) per cent of households host IDPs (9.5% ±3.1%), returnees (7.5% ±2.3%) or unaccompanied, separated or orphaned children (11.5% ±3.7%). IDP and returnee households (25.9% ±4.5% and 23.7% ±13.5%) are significantly more likely to host individuals compared to host community (10.3% ±4.5%), underlining the increased burden on households in displacement. Over one in three households hosting others is worried that they may have to stop hosting some or all of them over the next three months while they still need support (34.8% ±14.8%), indicatively citing high costs and a lack of space as the main reasons.

In the 12 months preceding the assessment, similar shares of households were receiving remittances in support from friends or relatives living elsewhere (17.6% ±4.0%) and sending remittances (11.8% ±2.6%). Half of households receiving remittances did not see any changes in the amounts they sent in the past six months (49.5% ±13.5%) while 33.8 (±12.8) per cent note a slight decrease and 11.7 (±9.0) per cent a substantial decrease in the amount. Indicatively, households sending remittances are less likely to report a decrease in the amount received in the past six months, with 28.7 (±10.8) per cent noting a slight and 1.7 (±3.3) per cent a significant decrease in the amount. Host community households were indicatively more likely to receive remittances than displaced and returned or relocated households.



**17.6%**  
hosting IDPs, returnees or unaccompanied children

Good  
**81.5%**

IDP / Returnee - Host Community Relations

Poor  
**0.6%**

**30.4%**

experienced a decrease in the amount of remittances received



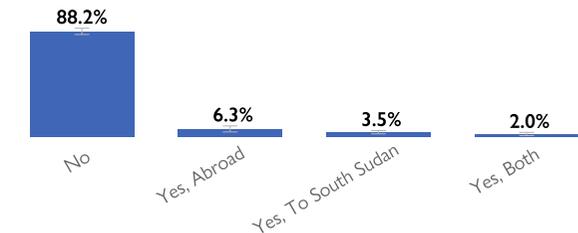
% HH BY HOSTING IDPS, RETURNEES OR UNACCOMPANIED / SEPARATED CHILDREN [N = 653]

HOSTING	%	LL	UL
Any individuals	17.6%	13.2%	22.0%
IDPs	9.5%	6.4%	12.6%
Returnees	7.5%	5.2%	9.8%
Unaccompanied children	11.5%	7.7%	15.2%

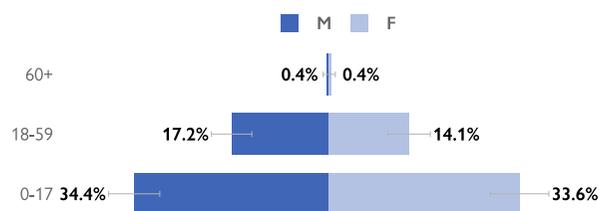
% HH WORRIED ABOUT STOPPING HOSTING INDIVIDUALS IN THE NEXT THREE MONTHS BY REASON [N = 31]

REASON	%	LL	UL
No Longer Able To Bear The Cost	77.4%	60.5%	94.3%
Not Enough Space	16.1%	0.0%	32.3%
Discriminated Against / Persecuted As A Result Of Hosting	6.5%	0.0%	14.7%

% HH SENDING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 653]



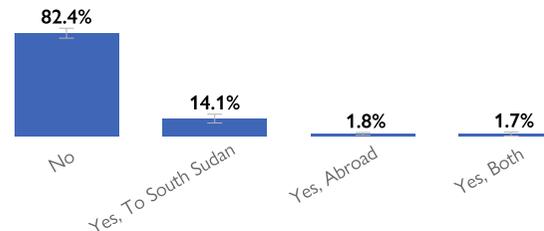
% HOSTED INDIVIDUALS BY AGE AND GENDER [N HH = 109; N IND = 262]



**34.8%**  
worried that they might need to stop hosting in the next 3 months

Sending remittances **11.8%**    Receiving remittances **17.6%**

% HH RECEIVING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 653]



% HH RECEIVING REMITTANCES AS SUPPORT FROM FRIENDS / RELATIVES BY CHANGE IN AMOUNT IN LAST SIX MOS. [N = 115]

CHANGE	%	LL	UL
Increased Substantially	0.9%	0.0%	2.6%
Increased Slightly	7.0%	1.5%	12.4%
Same	61.7%	48.0%	75.5%
Decreased Slightly	28.7%	17.9%	39.5%
Decreased Substantially	1.7%	0.0%	5.1%
Not Applicable	0.0%	0.0%	0.0%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Shelter and Non-Food Items

Three in five households (59.7% ±6.3%) live in traditional mud huts with thatched roofs (tukuls), while 28.2 (±6.1) per cent live in permanent semi or concrete buildings. Among those most in need, 6.1 (±0.9) per cent live in improvised shelters and 0.6 (±0.9) per cent in communal shelters, community buildings or emergency shelters provided by humanitarian partners. Overall, about one in ten households (9.3% ±2.3%) live in partially damaged or destroyed shelters. IDP households are slightly more likely to live in partially or completely damaged shelters (11.9% ±5.7%) than host community households (7.6% ±3.2%).

14.1 (±3.4) per cent of households live in shelters made of only one room.

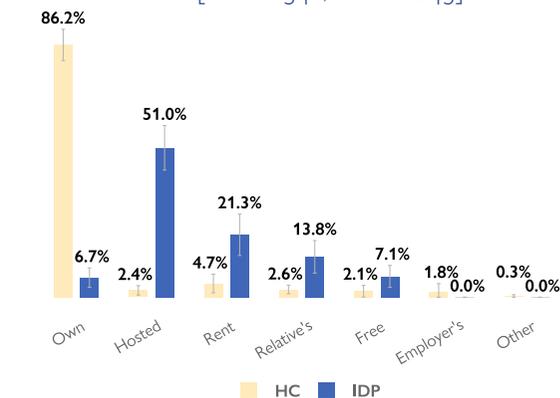
15.0 (±7.0) per cent of households are involved in open disputes relating to their current housing and/or property, although the sensitivity of this issue in the context of South Sudan may result in under-reporting. Indicatively, the most common issues leading to open disputes are disputed ownership (5.8% ±2.8%) and unlawful occupation (5.4% ±4.5%). Over a quarter of households (28.6% ±11.9%) report that they did not take any action, while only 12.8 (±6.8) per cent state using formal dispute resolution mechanisms. Most households relied on community leaders or chiefs (29.1% ±13.0%) or traditional courts (25.0% ±8.9%).



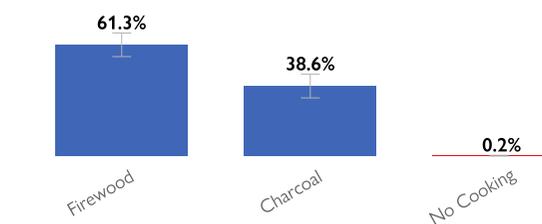
% HH BY SHELTER TYPE [N = 653]

SHELTER TYPE	%	LL	UL
Tukul	59.7%	53.1%	66.4%
Permanent Semi/Concrete Building	28.2%	22.1%	34.3%
Improvised Shelter (Plastic Sheet And Other Materials)	6.1%	2.8%	9.4%
Rakooba	5.4%	1.5%	9.2%
Emergency Shelter By UN / NGO	0.5%	0.0%	1.3%
Communal Shelter	0.2%	0.0%	0.5%

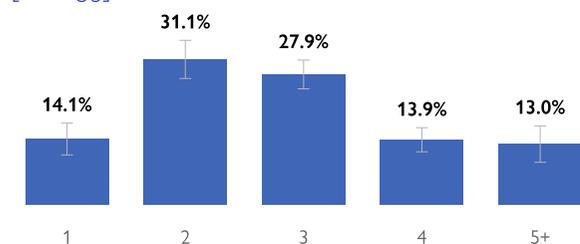
% HC AND IDP HH LIVING IN INDIVIDUAL SHELTERS BY OWNERSHIP STATUS [HC N = 340; IDP N = 243]



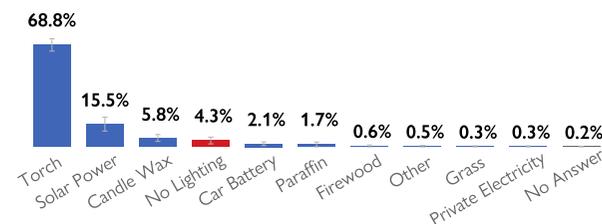
% HH BY MAIN SOURCE OF ENERGY FOR COOKING [N = 653]



% HH BY NUMBER OF ROOMS / PARTITIONED SPACES IN SHELTER [N = 653]



% HH BY MAIN SOURCE OF ENERGY FOR LIGHTING [N = 653]



1 Damaged include those reported as "partially damaged" and "completely destroyed".

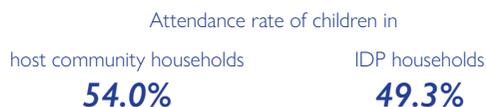
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Education

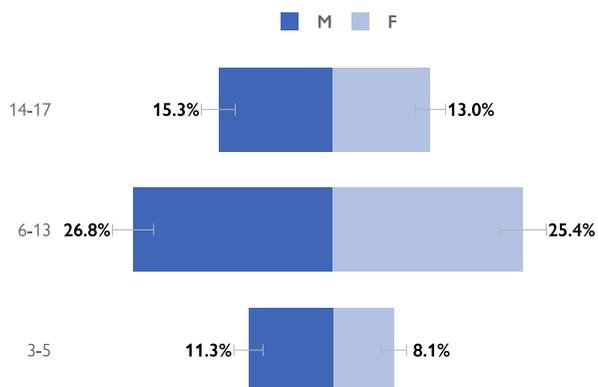
With an attendance rate of 52.9 (±4.4) per cent, almost half of all children did not regularly attend formal school in the current school year (2021-2022), defined as attending an institution within a system of full-time education developed by and overseen by the National Ministry of Education. 9.2 (±2.0) per cent of children dropped out of school in the 2021-2022 school year. Comparing attendance rates between host community, IDP and returnee households, displaced households are indicatively less likely to have children attending school. Returnee and IDP households are also more likely to have children dropping out compared to host community households.

The top barrier that boys and girls face to accessing education are financial issues (63.9% ±7.4% for boys; 64.0% ±2.3% for girls). Notably, 9.6 (±4.1) per cent of households also indicate that marriage and/or pregnancy are one of the top three barriers to girls. Two in five households (40.9% ±6.1%) report that it takes between 30 minutes and 1 hour by foot to reach the nearest functional education facility, while 13.2 (±4.4) per cent report that they travel more than an hour by foot.

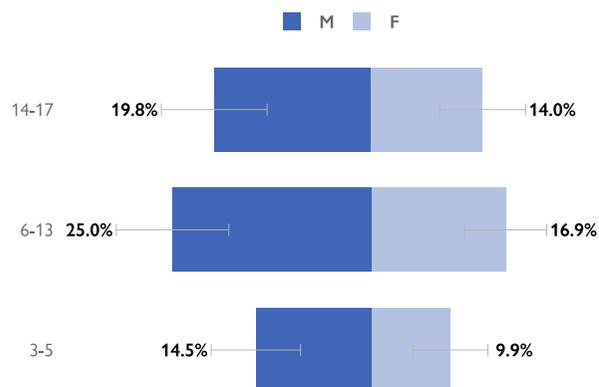
Estimates of attendance and dropout rates were calculated based on the total number of children reported in the household demographics section.



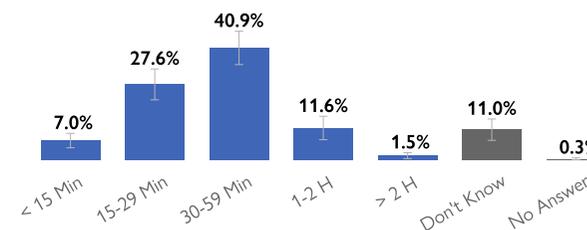
% CHILDREN ATTENDING SCHOOL FOR THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 1,069]



% CHILDREN HAVING DROPPED OUT OF SCHOOL IN THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 172]



% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL EDUCATION FACILITY [N = 653]



% HH RECEIVING TRAINING IN THE LAST 12 MONTHS BY TYPE OF TRAINING [N = 112]

TRAINING	%	LL	UL
Vocational Training	33.9%	22.8%	45.0%
Agriculture	28.6%	18.7%	38.4%
Business Skills Training	16.1%	9.0%	23.2%
Childcare	7.1%	1.9%	12.4%
Nutrition	6.2%	1.5%	11.0%
Other	6.2%	2.2%	10.3%
Functional Adult Literacy (FAL)	1.8%	0.0%	4.3%



Financial Issues

**64.0%**  
**63.9%**



Closure due to COVID-19

**18.4%**  
**21.0%**



Distance

**8.6%**  
**7.8%**

Top barriers to education girls and boys face

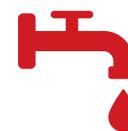
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Water, Sanitation and Hygiene (WASH)

Overall, 28.8 (±5.5) per cent lack access to a safe and timely water source<sup>1</sup>, with male-headed households indicatively faring worse than their female-headed counterparts. This is driven by the combination of 19.4 (±4.6) per cent needing more than half an hour to collect water and 14.4 (±4.7) per cent feeling unsafe when collecting water or using shallow wells, rivers, etc. as their main water source.

The main water sources for households are deep boreholes or protected wells (87.3% ±4.8%) and shallow wells, rivers, streams or ponds (7.1% ±5.7%). Most households do not treat their water (71.1% ±5.9%), while 18.4 (±5.0) per cent use chlorine. 7.7 (±2.7) per cent report having felt unsafe collecting water from their main water source in the two weeks prior to the interview, with female-headed, displaced and returned or relocated households indicatively being more likely to be affected than other sub-groups.

The survey did not include questions about the cost of water but asked about the change in the price experienced by households in the past six months. About three in four households (72.7% ±7.9%) report that the price of water has not changed, while 4.0 (±2.0) per cent report an increase and 19.3 (±7.5) per cent report a decrease.



**28.8%**

lack access to a safe and timely water source

**1.8%**

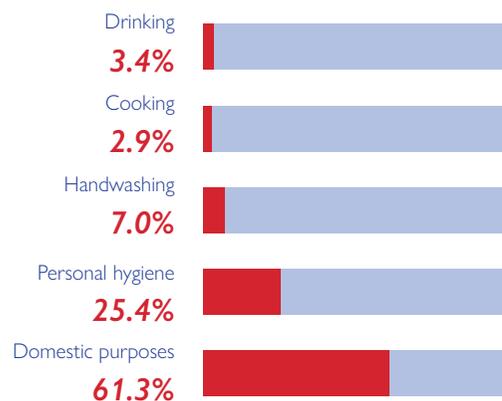
cannot meet any of their water needs



Main drinking water source:

**DEEP BOREHOLE / PROTECTED WELL**

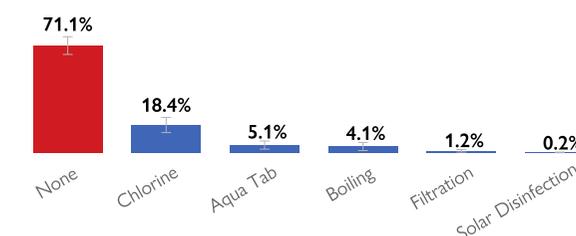
Households not having enough water to meet needs:



% SUB-GROUP HH WITH ACCESS TO SAFE AND TIMELY WATER

GROUP	N	%	LL	UL
Overall	653	71.2%	65.7%	76.7%
Female HoH	348	73.6%	67.6%	79.5%
Male HoH	305	68.5%	60.8%	76.3%
Host Community	340	71.2%	63.4%	78.9%
IDPs	243	70.0%	63.5%	76.4%
Ret./Rel. Persons	59	74.6%	62.0%	87.2%

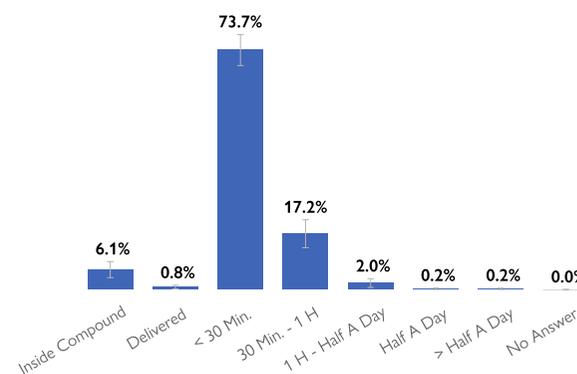
% HH BY MOST COMMON WATER TREATMENT [N = 653]



% HH BY MAIN SOURCE OF DRINKING WATER [N = 653]

SOURCE	%	LL	UL
Deep Borehole / Protected Well	87.3%	82.5%	92.1%
Shallow Well / River / Stream / Pond	7.1%	2.8%	11.0%
Public Tap (> 5 HH)	2.1%	0.2%	4.1%
Tap Stand (< 5 HH)	2.0%	0.6%	3.3%
Buy Water From Tank / Truck	0.8%	0.0%	1.5%
Piped Water Into The House	0.8%	0.0%	1.5%

% HH BY TIME TAKEN TO COLLECT WATER [N = 653]



% SUB-GROUP HH FEELING UNSAFE COLLECTING WATER

GROUP	N	%	LL	UL
Overall	653	7.7%	4.9%	10.4%
Female HoH	348	8.0%	4.1%	12.0%
Male HoH	305	7.2%	4.4%	10.0%
Host Community	340	5.6%	3.1%	8.1%
IDPs	243	9.9%	5.3%	14.5%
Ret./Rel. Persons	59	11.9%	2.4%	21.3%

<sup>1</sup> "Access to safe and timely water" is fulfilled by the following criteria: the main water source is either deep borehole / protected well, tapstand serving no more than five households, public tapstand serving more than five households, bottled water or piped water into the house; households do not feel unsafe when collecting water; and households need less than 30 minutes to collect water.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Over half of all households (55.1% ±7.5%) do not have access to basic WASH NFIs, including at least two jerrycans in good conditions and soap. 31.7 (±8.6) per cent of households do not have solid, liquid or powder soap at home. Of the households without soap, most state that they cannot afford soap (67.1% ±16.1%) or ran out of soap or detergent (30.9% ±15.7%). More than three in four households (78.6% ±6.9%) report that women use sanitary pads in dealing with menstruation. 6.0 (±2.6) per cent report that women use pieces of cloth while 9.8 (±4.8) per cent report that women use nothing.

The majority of households (92.3% ±2.7%) report having access to family latrines, with traditional or open pit latrines being the most common (64.5% ±8.2%). 1.7 (±1.6) per cent rely on buckets, bushes or open spaces for defecation. Indicatively, displaced households are more likely to lack access to a toilet. Of households with children under the age of five, 70.5 (±8.0) per cent indicate that children use household latrines. More than one in eight households (17.3% ±7.8%) state that their children defecate openly.

For disposing waste, about four in five households discard their solid waste in garbage bins (81.3% ±4.5%) while 6.0 (±3.5) per cent burn theirs.

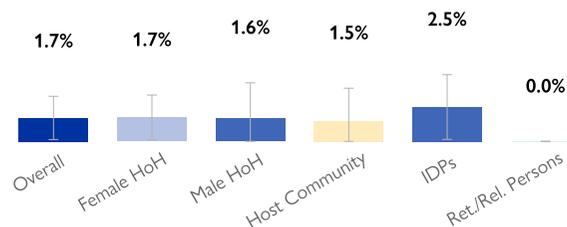
**55.1%**  
of households do not have access to WASH NFI

**31.7%**  
Households not using soap

Main reason for not using soap  
**CANNOT AFFORD IT**

Main female hygiene product:  
**SANITARY PADS**

% SUB-GROUP HH WITHOUT A TOILET



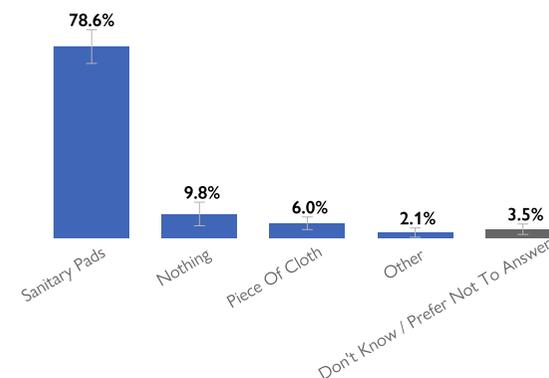
% HH BY TIMES WHEN THEY USUALLY WASH HANDS [N = 653]

TIMING	%	LL	UL
Before Eating	98.8%	97.6%	99.9%
After Defecation	94.0%	90.4%	97.7%
Before Cooking	91.0%	87.2%	94.8%
Before Breastfeeding	43.4%	35.2%	51.6%
Before Feeding Children	37.7%	29.6%	45.8%
After Handling A Child's Stool	32.7%	24.4%	41.0%
After Interacting With People	22.1%	15.7%	28.4%
After Coughing / Sneezing	21.1%	14.8%	27.5%
Other	0.3%	0.0%	0.9%
No Answer	0.2%	0.0%	0.5%

% HH BY WASTE DISPOSAL LOCATION [N = 653]

LOCATION	%	LL	UL
Garbage Pit	81.3%	76.8%	85.8%
Burn	6.0%	2.4%	9.5%
On The Street	5.2%	3.2%	7.2%
Other	2.8%	1.2%	4.3%
Garbage Bin	2.5%	1.1%	3.8%
River / Canal / Drainage	2.3%	1.2%	3.4%

% HH BY PRODUCT/MEASURE FOR DEALING WITH MENSTRUATION [N = 653]



% HH BY ACCESS TO SANITATION [N = 653]

LOCATION	%	LL	UL
Family Latrine - Traditional Pit Latrine / Open Pit	64.5%	56.2%	72.7%
Family Latrine - Water-seal / Pour-flush Latrine	14.9%	6.6%	23.1%
Family Latrine - Improved Pit Latrines With Concrete Slab	13.0%	9.1%	16.9%
Communal Latrine - Traditional Pit Latrine / Open Pit	3.8%	1.9%	5.8%
No Toilet / Bush / Open Space	1.5%	0.1%	3.0%
Other	1.2%	0.5%	2.0%
Communal Latrine - Improved Pit Latrines With Concrete Slab	0.5%	0.0%	1.0%
Communal Latrine - Water-seal/ pour-flush Latrine	0.5%	0.0%	1.0%
Bucket	0.2%	0.0%	0.5%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Healthcare and COVID-19

Two in five households (38.3% ±5.8%) had a health problem and needed to access healthcare in the past three months, of which 44.8 (±9.2) per cent were unable to do so. Indicatively, male-headed households are more likely to lack access to healthcare compared to female-headed households. Of the households that could access health care, 19.6 (±8.8) per cent needed more than one hour by foot to reach the nearest functional health facility. This highlights the difficulty of households to access timely health services when they need them.

Among households with unmet healthcare needs, the main barriers to access are unaffordable treatment costs (46.7% ±12.9%), long waiting times (37.0% ±9.1%) and unaffordable consultation costs (29.0% ±9.6%). 66.6 (±7.2) per cent have attempted to access ante-natal care services.

While most households aware of COVID-19 (97.9% ±1.8%) know that washing hands with soap is a prevention measure against the transmission, only two in three households know of using masks (66.6% ±8.0%) and 41.2 (±8.8) per cent of covering their cough or sneeze with a tissue. Less than one in five households know of preventive measures, such as reporting suspected cases and self-isolating, and only 10.1 (±5.2) per cent know of vaccination.

Experienced health issues in past 3 mo.

**38.3%**



Needing care who were unable to access

**44.8%**

Accessed ante-natal care services

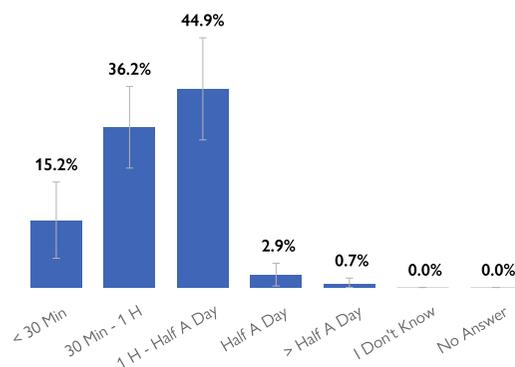
**66.6%**



Ante-natal care services not available

**0.3%**

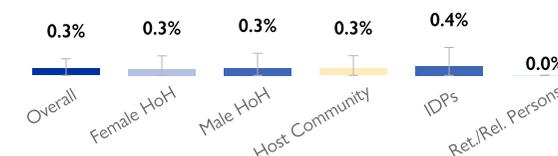
% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL HEALTH FACILITY [N = 653]



% HH WITH UNMET HEALTH CARE NEEDS BY BARRIER TO ACCESS IN THE PAST THREE MONTHS [N = 138]

BARRIER	%	LL	UL
Unaffordable Treatment Cost	46.7%	33.8%	59.6%
Long Waiting Time	37.0%	25.9%	48.1%
Unaffordable Consultation Cost	29.0%	19.3%	38.6%
Specific Service Needed Unavailable	21.9%	14.1%	29.7%
Distance	21.2%	13.5%	28.8%
No Functional Facility Nearby	16.1%	9.1%	23.0%
Unaffordable Transportation Cost	15.3%	8.1%	22.6%
Incorrect Medications	15.2%	6.6%	23.9%
No Means Of Transport	12.3%	7.4%	17.2%
None	4.3%	0.9%	7.8%
Did Not Need To Access	4.3%	1.0%	7.6%
Only Accessible At Certain Times	2.9%	0.2%	5.7%
Disability	1.4%	0.0%	3.4%
Other	1.4%	0.0%	3.3%
Discrimination	0.7%	0.0%	2.1%
Distrust Services	0.7%	0.0%	2.1%

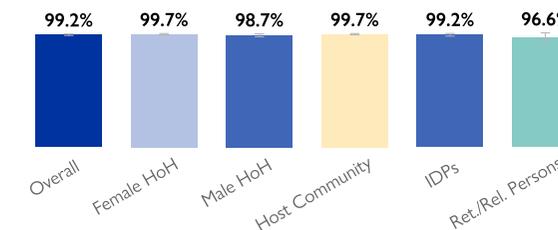
% SUB-GROUP HH UNAWARE OF COVID-19



% SUB-GROUP HH WITH HEALTH ISSUES UNABLE TO ACCESS HEALTH CARE WHEN NEEDED IN THE PAST THREE MONTHS

GROUP	N	%	LL	UL
Overall	250	55.2%	46.0%	64.4%
Female HoH	138	58.0%	48.0%	68.0%
Male HoH	112	51.8%	39.9%	63.7%
Host Community	125	51.2%	39.6%	62.8%
IDPs	103	59.2%	45.2%	73.2%
Ret./Rel. Persons	14	70.6%	49.2%	92.0%

% SUB-GROUP HH TAKEN ACTION AGAINST COVID-19



Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Economic Vulnerabilities and Livelihoods

Over one in five households (23.6% ±7.3%) report a decrease in their income level or amount during the past six months, with 2.6 (±1.6) per cent reporting a substantial decrease. Households experiencing a decrease in income levels are engaged in similar livelihood activities as those not experiencing a decrease in income in the past six months.

Own agricultural production (53.6% ±5.6%) and casual work or petty trading (26.3% ±4.4%) are the top sources of livelihoods. Host community households are more likely to rely on their own agricultural production (68.2% ±7.6% vs 39.5% ±7.4%) while displaced households are more likely to engage in casual work or petty trading (36.2% ±8.1% vs 15.0% ±7.6%). Livelihood activities of displaced households have significantly changed after displacement, with households previously relying on their own agricultural production (68.3% ±8.6%) switching to casual work or petty trading (36.7% ±8.2% of those HH).

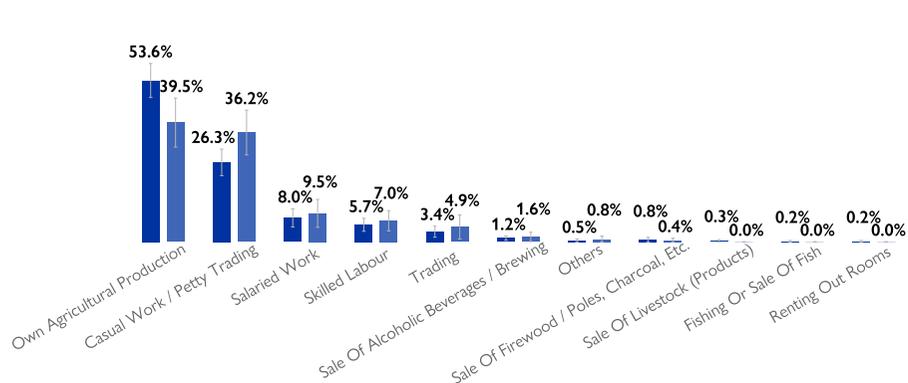
Overall, 71.7 (±7.6) per cent of households have experienced difficulties or shocks in the six months prior to the assessment. Female-headed households are more likely to be affected than male-headed households (76.7% ±8.8% vs 64.6% ±8.8%).



Top economic shocks experienced in the past 6 mo.

- Unusually high food prices**
- Unusually high non-food prices**
- Currency fluctuations**

% HH BY MOST IMPORTANT ACTIVITY FOR GETTING FOOD AND INCOME IN LAST THREE MONTHS [N = 653; IDP N = 243]



Most important livelihood activity pre-displacement:

Own Agricultural Production  
**68.3%**

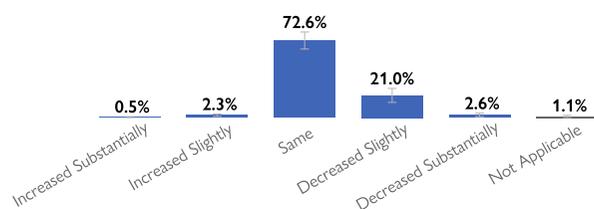
Casual Work / Petty Trading  
**15.2%**

Salaried Work  
**4.9%**

% HH BY ASSETS OWNED (TOP 15) [N = 653]

ASSET	%	LL	UL
Kitchen Utensils	95.6%	93.1%	98.0%
Mattress	93.3%	90.6%	95.9%
Bed	89.6%	85.4%	93.8%
Chairs	88.1%	82.3%	93.8%
Tables	78.9%	71.1%	86.6%
Phone	72.3%	67.0%	77.5%
Sleeping Mat	72.1%	64.8%	79.5%
Mosquito Net	67.8%	61.1%	74.6%
Lighting Tools	58.8%	52.3%	65.3%
Blanket	53.3%	45.1%	61.5%
Radio	47.9%	41.1%	54.8%
Agriculture Tools	44.0%	35.3%	52.6%
Mask For COVID-19	25.3%	18.3%	32.3%
Stove	23.9%	15.3%	32.5%
Seeds	22.5%	14.8%	30.2%

% HH BY INCOME LEVEL CHANGE DURING THE PAST SIX MONTHS [N = 653]



% HH BY DIFFICULTIES OR SHOCKS EXPERIENCED IN PAST SIX MONTHS (TOP 5) [N = 653]

SHOCK	%	LL	UL
Unusually High Food Prices	45.8%	37.3%	54.3%
No Shock Experienced	28.9%	21.3%	36.6%
Unusually High Non-food Prices	26.2%	19.2%	33.2%
Currency Fluctuations	19.8%	14.5%	25.0%
No Foods In Markets	15.6%	10.1%	21.1%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

31.9 (±7.9) per cent of households spent at least 65 per cent of their total household expenditure on food alone in the past three months while 22.7 (±5.4) per cent report spending over 65 per cent of their expenditure on cereals and pulses only on average per month – these households are particularly vulnerable to market shocks. 10.7 (±6.3) per cent of households use over three quarters of their expenditure on food. High to very high expenditure on food (over 65%) affects male-headed households slightly more than female-headed households (33.8% ±11.3% vs 30.2% ±6.6%).

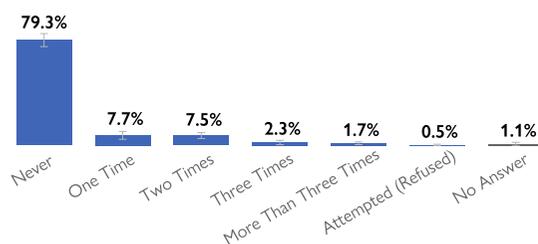
Over two in three households (68.1% ±7.1%) need to walk over 30 minutes to their nearest operational marketplace or grocery store, with 21.7 (±6.6) per cent needing more than one hour. Indicatively, female-headed households are more likely to need more than 30 minutes compared to male-headed households (71.6% ±7.7% vs. 64.3% ±9.5%), highlighting the potential risks women can face during long travels for essential daily activities.

One in five households (19.6% ±5.0%) attempted to use or used credit or borrowed money in the three months prior to the assessment, with over 11.5 (±3.5) per cent having used credit or borrowed money more than once. Of these households, the vast majority did so to purchase food (65.6% ±10.6%).

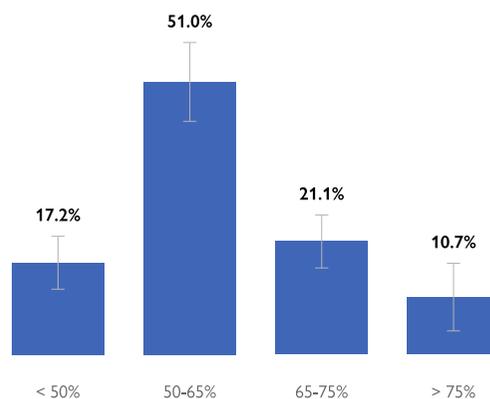
Despite living in an urban area, 64.5 (±6.2) per cent have access to land for cultivation and 29.9 (±6.3) per cent own livestock or farm animals, with male-headed households and host community households being significantly more likely to have access to land for cultivation than female-headed households and displaced households.



% HH BY FREQUENCY USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS [N = 653]



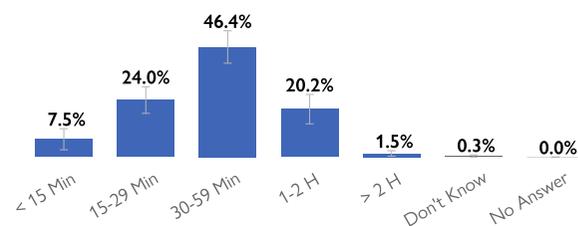
% HH BY PROPORTION OF EXPENDITURE GOING TO FOOD IN THE LAST THREE MONTHS [N = 653]



% HH USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS BY REASON [N = 128]

REASON	%	LL	UL
Purchase Of Food	65.6%	54.9%	76.3%
Payment Of Tuition Fees	18.0%	10.0%	26.0%
Health Care	8.6%	4.2%	13.0%
Other	3.1%	0.0%	6.7%
Investment In Business/shop	1.6%	0.0%	3.7%
Purchase Of Any Household Equipment	1.6%	0.0%	3.7%
Livestock Purchase	0.8%	0.0%	2.4%
Purchase Of Agricultural Inputs	0.8%	0.0%	2.3%

% HH BY WALKING DISTANCE TO NEAREST OPERATIONAL MARKET / GROCERY STORE [N = 653]



% HH BY CHALLENGES EXPERIENCED DURING TRAVEL TO MARKET IN THE LAST MONTH [N = 653]

CHALLENGE	%	LL	UL
None	55.7%	46.3%	65.2%
Distance	30.0%	21.8%	38.2%
Too Hot	9.5%	5.2%	13.8%
Conflict / Violence	8.3%	4.0%	12.6%
Children Have To Join	6.4%	2.0%	10.9%
Checkpoints	3.2%	0.9%	5.6%
Struggled To Carry All Purchases	2.9%	1.1%	4.7%
Unsafe	2.3%	0.7%	3.9%
Robberies / Crime	1.4%	0.2%	2.5%
Lack Of Shelter On The Way	1.2%	0.2%	2.2%
Lack Of Water / Food On The Way	1.1%	0.0%	2.2%
Floods	0.8%	0.0%	1.5%
Wild Animals	0.6%	0.0%	1.3%
Other	0.6%	0.1%	1.2%
COVID-19 Movement Restrictions	0.3%	0.0%	0.9%
Market Damaged / Destroyed	0.2%	0.0%	0.5%
Markets Closed Due To COVID-19	0.2%	0.0%	0.5%

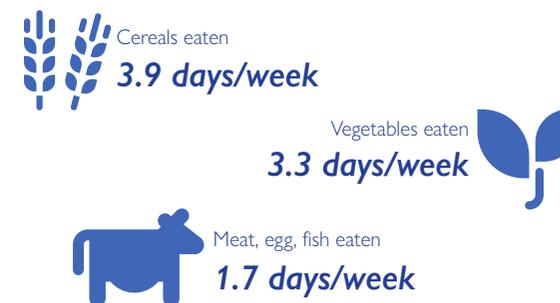
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Food Security

On average, households consume cereals on 3.9 (±0.6) days, vegetables on 3.3 (±0.4) days, spices on 3.1 (±0.5) days, oil on 3.0 (±0.4) days and sugar on 3.0 (±0.5) days per week. All other food groups are consumed less than three days per week. On average, female-headed and displaced households tend to consume cereals and dairy on more days during the week, while male-headed and host community households tend to consume all other food groups more frequently.

The main source for these foods in the last seven days are markets for the majority of households, with some also relying on their own production, especially for cereals, vegetables and fruits.

About half of all households purchase their staple foods from the local market within the neighborhood (48.1% ±6.6%), while 22.5 (±7.5) per cent purchase locally from other community members. 11.3 (±3.8) per cent do not purchase any staple foods at all. Of households that buy their staple foods, households spend the most in cash or credit on maize (flour or grain; 84.6% ±3.9%), cassava (flour or grain; 35.6% ±9.0%) and beans (janjaro; 33.7% ±8.6%).



### Cereals



### Grains



### Roots



### Vegetables



### Orange vegetables



### Leafy vegetables



### Spices



### Dairy



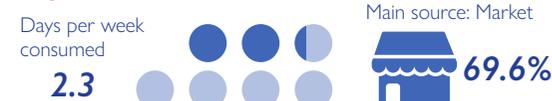
### Meat, egg, fish



### Oil



### Legumes



### Organ meat



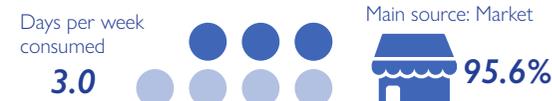
### Eggs



### Fruits



### Sugar



### Flesh meat



### Fish



Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

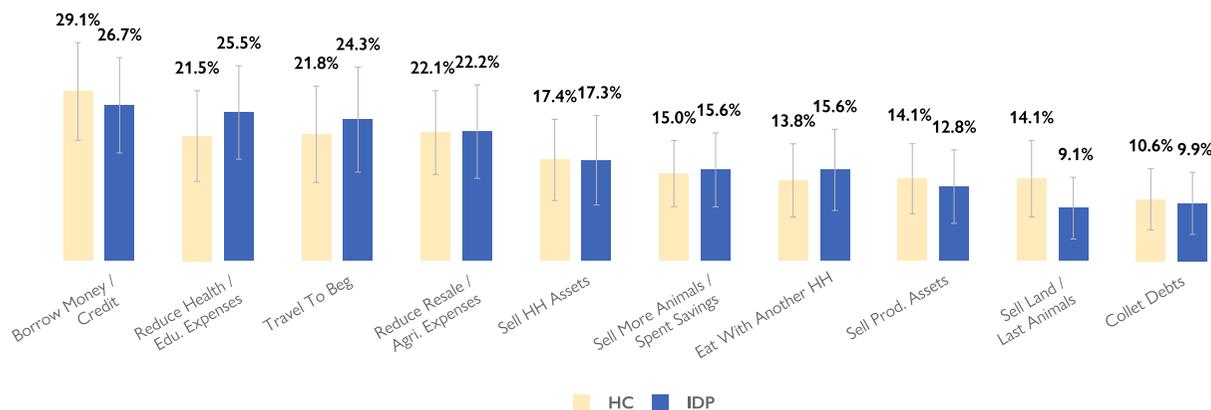
## Coping Strategies

Livelihood-based coping strategies illustrate households' capacity to cope with future shocks and maintain productivity. Close to half of all households (46.7% ±9.4%) engaged in at least one type of livelihood-based coping strategy in the 30 days prior to the interview. Most report borrowing money (28.0% ±7.1%), followed by reducing health and education expenses (23.9% ±7.0%), travelling to beg (23.6% ±7.4%) and reducing resale or agricultural expenses (22.7% ±6.7%) because of a lack of food or money for food. Over a quarter of households (27.9% ±7.9%) indicate engaging in emergency coping, the most severe category of coping strategies.

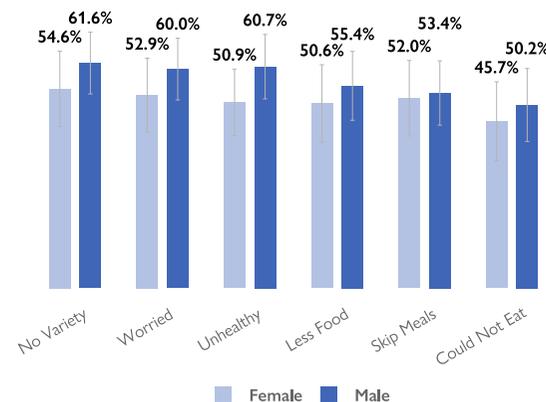
Overall, 70.4 (±7.9) per cent of households report to have used food-based coping strategies during the 12 months prior to the survey. 56.3 (±8.2) per cent ate less varied foods while 55.4 (±7.9) per cent worried about not having enough food because of a lack of resources to obtain food. Over two in five households (44.6% ±8.8%) went to sleep at night hungry because there was not enough food in the past 12 months, of which 81.1 (±5.7) per cent did so within four weeks prior to the interview. 26.2 (±6.3) per cent of households went for a whole day and night without eating anything at all because there was not enough food, of which 76.6 (±6.6) per cent did so within four weeks prior to the interview.



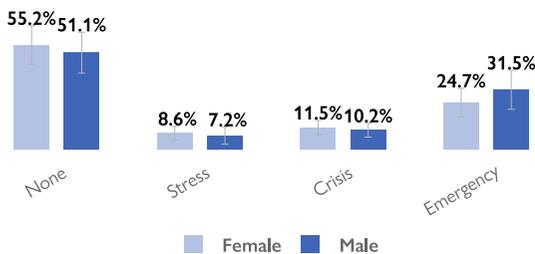
% IDP AND HC HH BY LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 653]



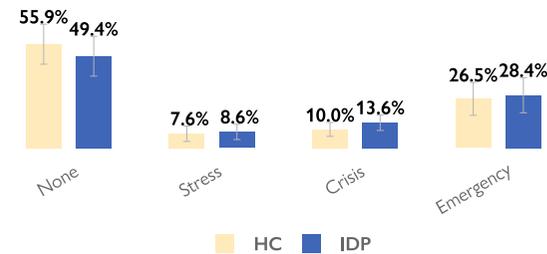
% FEMALE AND MALE-HEADED HH BY FOOD-BASED COPING STRATEGIES IN THE PAST 4 WEEKS [N = 653]



% FEMALE AND MALE-HEADED HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 653]



% IDP AND HC HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 653]



1 Breakdown of livelihood coping strategies by actions taken within 30 days prior to assessment due to a lack of food or money to buy food: **Stress coping strategies:** sent household members to eat with another household, sold more animals than usual for this time of the year or spent savings, borrowed money or purchased food on credit more than usual during this time of year, sold household assets / goods; **Crisis coping strategies:** reduced expenses on goods for resale or on business / petty trade or agricultural inputs, reduced expenses on health and education, sold productive assets or means of transport; **Emergency coping strategies:** sold house or land or sold or slaughtered the last of their cows and goats, traveled back to the village / out of town to look for / search for (begging) food or other resources, used community leaders or local court to collect debts or bride wealth / dowry or engaged in illegal income activities.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Communication and Social Cohesion

Radio is the most common main source of information of households (49.9% ±6.7%) followed by word of mouth (18.5% ±6.8%). 72.6 (±5.3) per cent of households have at least one member owning a functioning mobile phone that is reliably charged, with adult women (66.7% ±6.5%) and men (64.1% ±5.7%) being the most likely owners.

Although only 13.3 (±2.7) per cent of households have members who participate in social groups, the majority (96.9% ±1.9%) feels welcomed and accepted in their current community. Indicatively, displaced and returned or relocated households are less likely to participate in social groups (11.5% ±4.7% and 6.8% ±6.1%) compared to host community households (15.3% ±3.8%). Of the households that participate in social groups, over three in five report that adult women or men are members, while less than five per cent report that children are members.

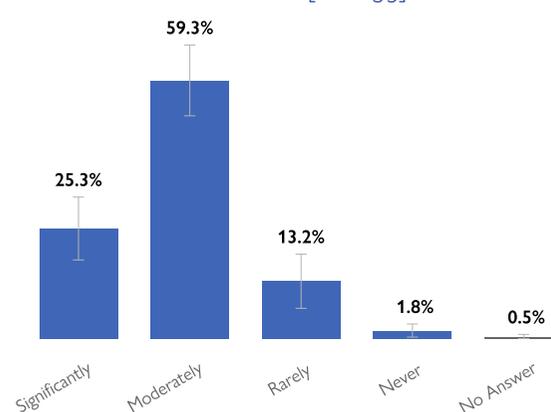
Most households report that women are either significantly involved (25.3% ±7.2%) or moderately involved (59.3% ±8.1%) in community decision-making. 1.8 (±0.5) per cent state that women never partake in decision-making. Notably, female-headed households are more likely to perceive women as significantly involved (30.5% ±9.2% vs. 19.3% ±7.0% of male-headed HH). Differences are not statistically significant, however.



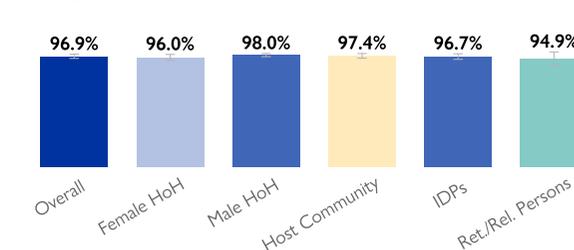
% HH BY MAIN SOURCE OF INFORMATION [N = 653]

SOURCE	%	LL	UL
Radio	49.9%	43.2%	56.6%
Word Of Mouth	18.5%	11.7%	25.3%
Local Authorities	12.7%	6.1%	19.3%
Church Authorities	11.6%	6.7%	16.6%
Public Announcements	2.0%	0.9%	3.1%
Community Mobilizers	1.4%	0.4%	2.4%
Television	1.2%	0.1%	2.3%
Communal Meetings	0.9%	0.2%	1.6%
Social Media (WhatsApp, Facebook)	0.9%	0.1%	1.7%
Other	0.3%	0.0%	0.7%
Newspapers	0.3%	0.0%	0.7%
Online News / Websites	0.2%	0.0%	0.5%

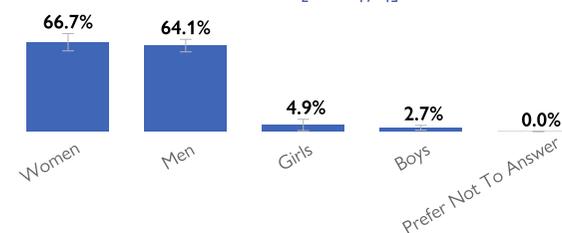
% HH BY EXTENT TO WHICH WOMEN ARE INVOLVED IN COMMUNITY DECISION-MAKING [N = 653]



% SUB-GROUP HH FEELING INTEGRATED AND WELCOME IN CURRENT COMMUNITY



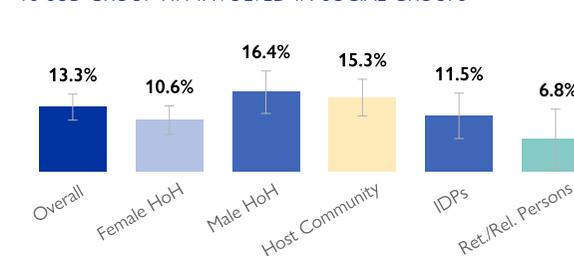
% HH WITH MOBILE PHONES BY MAIN OWNER OF FUNCTIONAL AND CHARGED MOBILE PHONE [N = 474]



% HH BY EXTENT TO WHICH FEEL WELCOMED IN CURRENT COMMUNITY [N = 653]

FEELING INTEGRATED	%	LL	UL
A Lot	50.2%	41.5%	58.9%
Moderately	46.7%	38.3%	55.1%
A Little	1.5%	0.6%	2.5%
Not At All	1.4%	0.2%	2.6%
No Answer	0.2%	0.0%	0.5%

% SUB-GROUP HH INVOLVED IN SOCIAL GROUPS



Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Protection

Over a quarter of all households (27.0% ±8.4%) state that they are not aware of any protection services in their area.<sup>1</sup> While two in five or more households are aware of GBV health and counselling services (44.9% ±10.1% and 40.9% ±8.6%) and police services (39.1% ±8.8%) being available, only few (less than 15%) are aware of any other protection services related to child protection, housing land and property, and others. 2.8 (±1.6) per cent report to have been affected by a safety or security incident in the past month, with male household members being indicatively more likely to be affected than female members.

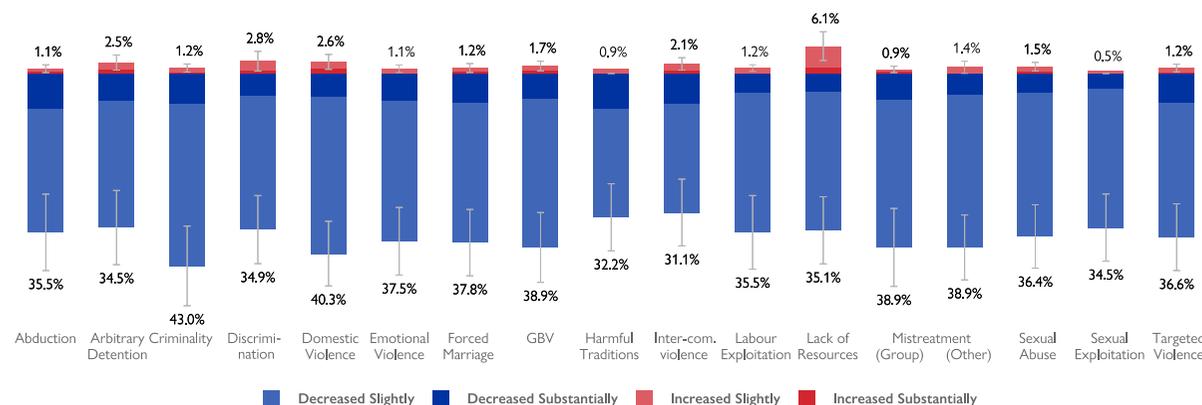
Households cite harmful traditional practices (23.3% ±5.6%), discrimination (18.4% ±5.9%), domestic violence (16.1% ±5.6%) and mistreatment of women or emotional violence (15.2% ±5.0%) as the most serious protection concerns in their community at the time of assessment. Female-headed households are more likely list a larger number of serious concerns than male-headed households. Notably, female-headed households are also indicatively more likely to report GBV (15.2% ±6.1% vs. 7.5% ±3.8% of male HoH) and forced or arranged marriage (14.7% ±5.7% vs. 12.8% ±5.7%) as serious concerns.



Top three protection issues of serious concern:



% HH BY CHANGE IN LIKELIHOOD OR FREQUENCY OF PROTECTION ISSUES IN COMMUNITY OVER THE PAST SIX MONTHS [N = 653]



% HH WITH TRAVEL OFFER IN THE PAST THREE MONTHS BY MEMBER RECEIVING OFFER [N = 11]

MEMBER	%	LL	UL
Men	81.8%	50.3%	100.0%
Women	9.1%	0.0%	24.8%
Girls	9.1%	0.0%	24.8%
Boys	0.0%	0.0%	0.0%
No Answer	0.0%	0.0%	0.0%

% SUB-GROUP HH AFFECTED BY A SECURITY INCIDENT IN THE LAST 30 DAYS

GROUP	N	%	LL	UL
Overall	653	2.8%	1.2%	4.4%
Female HoH	348	2.6%	0.4%	4.8%
Male HoH	305	3.0%	0.8%	5.1%
Host Community	340	2.9%	0.6%	5.2%
IDPs	243	2.5%	0.7%	4.2%
Ret./Rel. Persons	59	3.4%	0.0%	8.1%

% HH BY AWARENESS OF AVAILABLE PROTECTION SERVICES IN AREA (TOP 5) [N = 653]

SERVICE	%	LL	UL
Health Services (GBV)	44.9%	34.8%	55.0%
Counselling (GBV)	40.9%	32.3%	49.5%
Police	39.1%	30.3%	47.8%
Legal Aid (GBV)	27.3%	19.3%	35.2%
None	27.0%	18.5%	35.4%

% HH BY CURRENT PROTECTION ISSUES THAT CAUSE SERIOUS CONCERN (TOP 5) [N = 653]

CONCERN	%	LL	UL
Harmful Traditions	23.3%	17.7%	28.8%
Discrimination	18.4%	12.5%	24.3%
Domestic Violence	16.1%	10.4%	21.7%
Emotional Violence	15.2%	10.1%	20.2%
Targeted Violence	14.9%	8.9%	20.8%

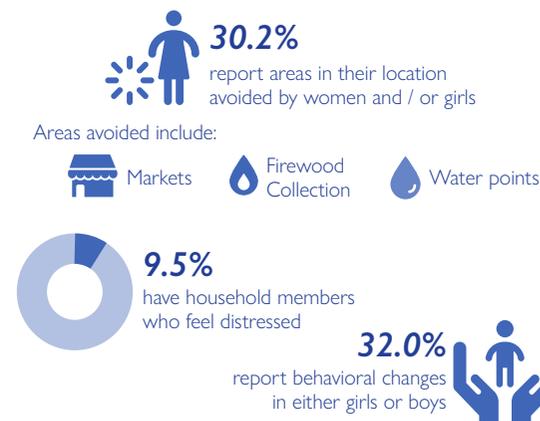
<sup>1</sup> This question was posed to all respondents, regardless of potential protection services needs.

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

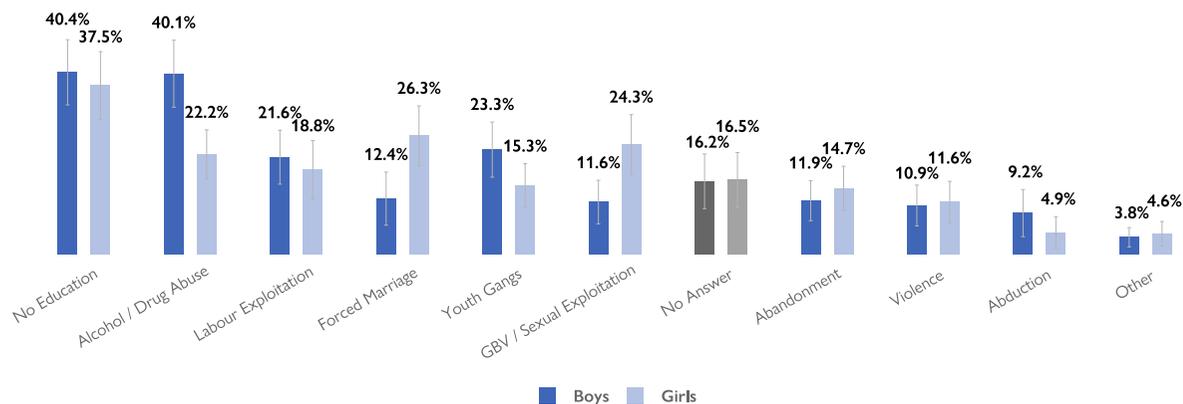
Two in five households (30.2% ±8.5%) report that there are areas in their location that women and / or girls avoid because they feel unsafe. The main areas avoided are markets (11.3% ±7.1%), routes for collecting firewood (10.7% ±4.3%) and water points (3.7% ±2.3%), underlining the challenges women face when conducting daily, essential tasks. 9.5 (±3.9) per cent of households include at least one member who feels distressed to the extent that they have a lot of difficulty to work or perform daily routine activities. Indicatively, female-headed households are more likely to be affected than male-headed households.

While similar proportions of households report boys and girls to be most at risk to lack of access to education (40.4% ±7.2% for boys and 37.5% ±7.5% for girls), there are significant gender-specific differences between other top risks. Households are more likely to see girls at risk of forced or arranged marriage (26.3% ±6.6%) and GBV or sexual exploitation (24.3% ±6.7%). In contrast, households view boys to be more at risk of substance abuse (40.1% ±7.4%) and involvement in youth gangs (23.3% ±6.1%).

32.0 (±9.0) per cent of households report seeing behavioral changes in their children during the month before the assessment, with households being equally likely to see these in boys and girls (30.2% ±8.9% vs 29.2% ±8.9%). The most common behavioral changes are more aggressive behavior (12.7% ±6.5% for girls and 12.7% ±5.9% for boys) and disrespectful behavior (10.1% ±4.3% and 12.4% ±4.9%).



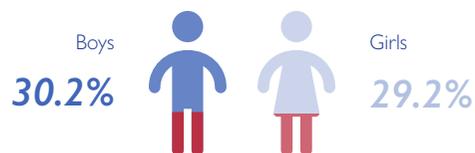
% HH BY PERCEIVED BIGGEST RISKS CHILDREN UNDER 18 ARE EXPOSED TO IN COMMUNITY [N = 653]



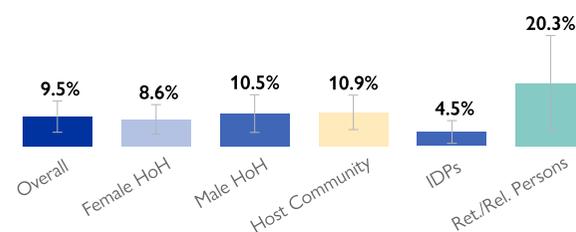
% SUB-GROUP HH OBSERVING THREE OR MORE BEHAVIORAL CHANGES IN BOYS IN THE LAST MONTH



% HH OBSERVING BEHAVIORAL CHANGES IN CHILDREN IN THE LAST MONTH



% SUB-GROUP HH OBSERVING THREE OR MORE BEHAVIORAL CHANGES IN GIRLS IN THE LAST MONTH



% SUB-GROUP HH WITH HH MEMBERS FEELING DISTRESSED

GROUP	N	%	LL	UL
Overall	653	9.5%	5.6%	13.4%
Female HoH	348	10.3%	5.5%	15.2%
Male HoH	305	8.5%	4.4%	12.6%
Host Community	340	7.6%	4.3%	11.0%
IDPs	243	11.5%	5.1%	18.0%
Ret./Rel. Persons	59	11.9%	4.1%	19.7%

Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Humanitarian Assistance

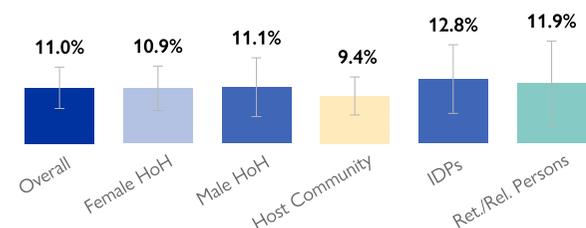
During the three months preceding the assessment, 11.0 (±4.1) per cent of households received some form of humanitarian assistance, most of them receiving general food for all (45.8% ±21.5%) and agricultural inputs (30.6% ±13.5%). 5.1 (±2.2) per cent report to be dependent on humanitarian services to cover basic needs such as food, WASH, health and education.

Two in three households (64.2% ±5.9%) state that they do not receive adequate information about the different available humanitarian services. Although displaced and returned or relocated households are less likely to lack this information compared to host community households (60.5% ±3.4% and 52.5% ±15.3% vs 70.0% ±6.6%), the large shares of households not receiving humanitarian assistance and lacking access to information about assistance indicate that many households in need of assistance are not receiving the help they require.

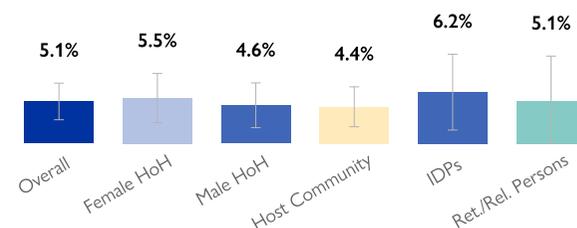
As top priority needs for their household, respondents name food (87.3% ±3.8%), healthcare (44.9% ±8.5%) and shelter or housing (32.2% ±7.6%). A significantly larger proportion of IDP households lists food (92.6% ±3.5%) as priority needs compared to host community households (82.9% ±5.9%) while they fare similarly with regards to other top priority needs.



% SUB-GROUP HH RECEIVING HUMANITARIAN ASSISTANCE IN THE PAST THREE MONTHS



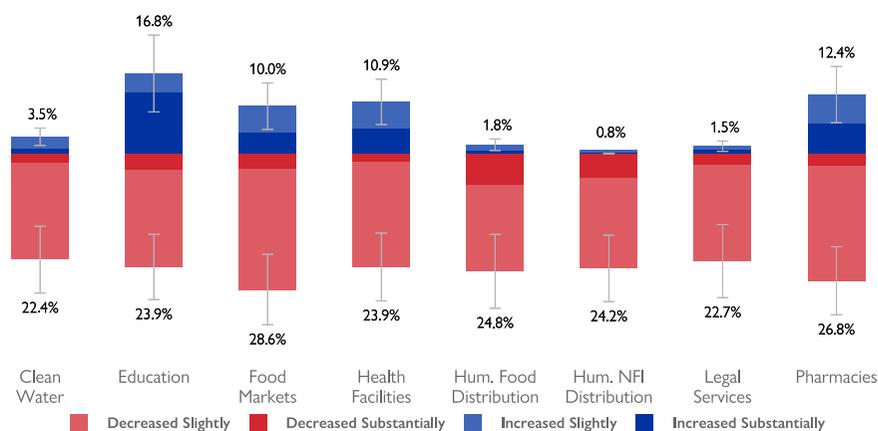
% SUB-GROUP HH DEPENDENT ON HUMANITARIAN SERVICES TO COVER BASIC NEEDS



% HH WHO HAVE ACCESSED ASSISTANCE OR BASIC SERVICES IN THE PAST THREE MONTHS BY TYPE [N = 72]

ASSISTANCE	%	LL	UL
General Food For All	45.8%	24.3%	67.4%
Agricultural Inputs	30.6%	17.1%	44.1%
Agricultural Tools	15.3%	3.8%	26.7%
WASH Materials	13.9%	1.3%	26.5%
Unconditional Cash / Voucher Transfer	11.1%	3.2%	19.1%
Food For Assets	6.9%	0.6%	13.3%
Nutrition	6.9%	1.4%	12.5%
Food For School Children	5.6%	0.9%	10.2%
Cash For Work / Cash For Training	5.6%	0.3%	10.9%
Household Utensils	4.2%	0.0%	9.5%
Other	4.2%	0.0%	8.7%
Veterinary	1.4%	0.0%	4.1%
School Fees / Uniforms	1.4%	0.0%	4.0%
Health / Medicines	1.4%	0.0%	4.0%
Fishing Gear	0.0%	0.0%	0.0%
Shelter Material	0.0%	0.0%	0.0%
No Answer	2.8%	0.0%	6.3%

% HH BY CHANGE IN ABILITY TO ACCESS HUMANITARIAN OR BASIC SERVICES OVER THE PAST SIX MONTHS [N = 653]



Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

## Urban Vulnerability Index and Intersectoral Analysis

The Urban Vulnerability Index (UVI) uses Principal Component Analysis (PCA) – a dimensionality reduction technique. In this usage, PCA aggregates and simplifies the various component indicators into a single index that reflects the greatest variation in needs and vulnerability. The technique weights more highly indicators for which the data displays greater variance, and weights lower on indicators for which we see little variation. The computed weights of the indicators are used to calculate the vulnerability score of each assessed household, ranging from 0 to 100 (maximum vulnerability).

Overall, the largest proportion of households fall in the third range (41% - 60% or medium vulnerability) of the UVI (38.4% of HH), followed by the fourth range (61% - 80% or high vulnerability; 28.9% of HH). As the population's most vulnerable category, 8.7 per cent of households fall into the highest range (81% - 100% or maximum vulnerability). Comparing different sub-groups, female-headed households tend to score higher on the UVI than male-headed households, with a higher proportion of households falling into high or maximum vulnerability classes (43.7% vs 30.8%). Female-headed households are also more likely to fall into the highest range (9.8% vs 7.5% of male-headed HH). Although these interpretations are only indicative due to the small sample size by population sub-group, the UVI indicates that displaced, returned and relocated households fare considerably worse than host community households. Displaced and returned households stand out with over 16.5 per cent and 16.7 per cent in the highest range, respectively, compared to the proportion of host community households (2.6%).

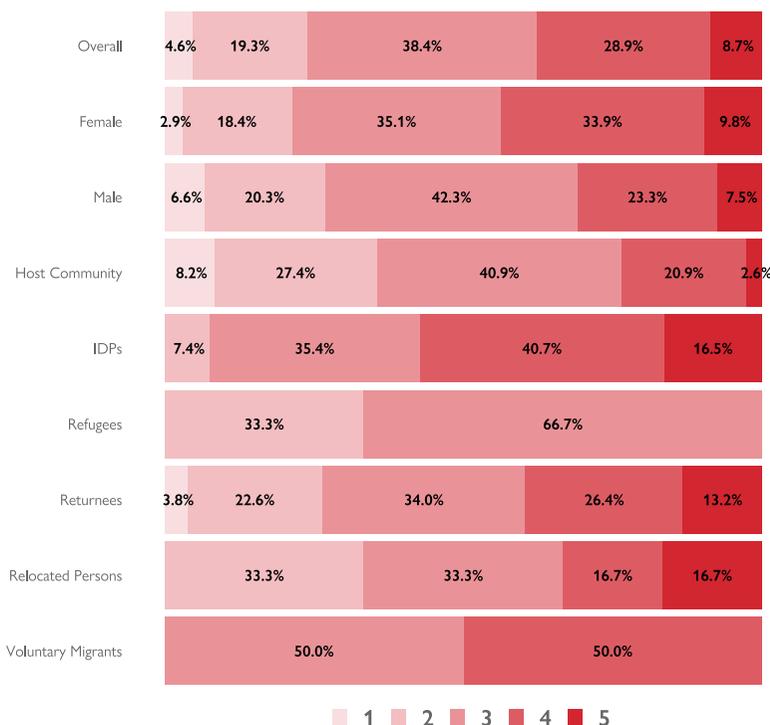
*UVI Indicators with largest weights:*

Sufficient Water  
**56.8%**

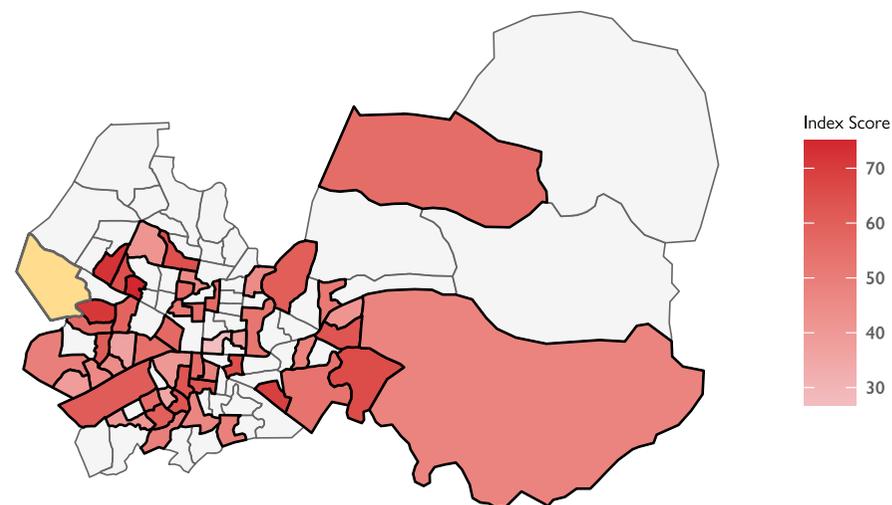
WASH NFI  
**32.8%**

Displacement  
**28.4%**

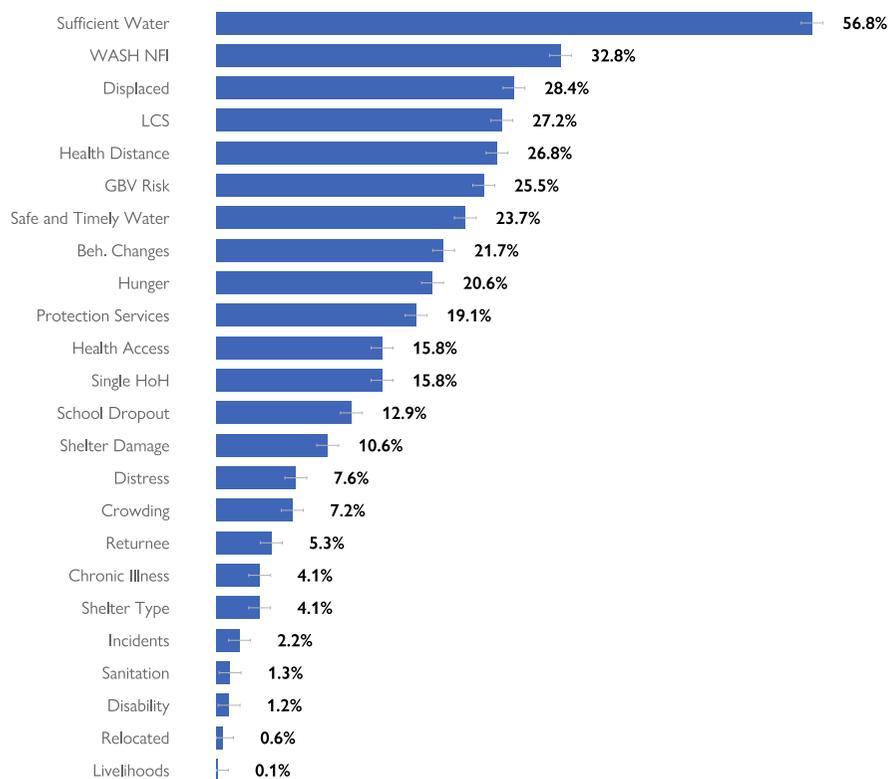
% HH BY VULNERABILITY INDEX SCORE RANGE (MINIMUM TO MAXIMUM) BY SUB-GROUP



AVERAGE INDEX SCORE BY ASSESSED ENUMERATION AREA IN YEI TOWN



VULNERABILITY INDEX SCORE WEIGHT BY SELECTED INDICATORS



METHODOLOGY ANNEX I: PRINCIPAL COMPONENT ANALYSIS - IMPORTANCE OF COMPONENTS

MEASURE	PC <sub>1</sub>	PC <sub>2</sub>	PC <sub>3</sub>	PC <sub>4</sub>	PC <sub>5</sub>	PC <sub>6</sub>	PC <sub>7</sub>	PC <sub>8</sub>
Standard deviation	14.656	5.908	5.525	4.774	4.725	4.573	4.297	4.109
Proportion of Variance	0.461	0.075	0.065	0.049	0.048	0.045	0.040	0.036
Cumulative Proportion	0.461	0.536	0.601	0.650	0.698	0.743	0.782	0.818

METHODOLOGY ANNEX II: PRINCIPAL COMPONENT ANALYSIS - INDICATOR DEFINITIONS

INDICATOR	SCORE RANGE
<i>Household Vulnerabilities</i>	
Displaced household	0 - 1
Returned household	0 - 1
Relocated household	0 - 1
Single-headed household or elderly / children-only household	0 - 1
Number of household members with a disability	0 - Inf
Number of household members with a chronic illness	0 - Inf
<i>SNFI</i>	
Shelter damage	0 - 3
Number of persons in most crowded room	1 - Inf
Shelter type	0 - 2
<i>Education</i>	
Number of children in household having dropped out of school	0 - Inf
<i>WASH</i>	
Access to safe and timely water	0 - 1
Access to sufficient water	0 - 1
Access to latrines	0 - 1
Access to WASH NFIs	0 - 1
<i>Health</i>	
Access to health facility when needed	0 - 1
Availability of health facility within 30 min. walking distance	0 - 1
<i>Protection</i>	
Protection services available	0 - 1
Household affected by security incident	0 - 1
Behavioral changes in children observed	0 - 1
Concerns about GBV or sexual exploitation issues	0 - 4
Households with members feeling distressed	0 - 1
<i>Food Security and Livelihoods</i>	
Begging, Kinship or Sale of Aid as main livelihood	0 - 1
Whole day and night spent hungry in last 4 weeks	0 - 1
Livelihood-based Coping Strategy employed	0 - 3

Note: All indicators were demeaned and rescaled before PCA was run.



International Organization for Migration (IOM)  

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The UN Migration Agency