



DTM
IOM DISPLACEMENT
TRACKING MATRIX
SOUTH SUDAN



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

BENTIU / RUBKONA TOWN

In collaboration with:



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Photo (cover page):

People in an open area after disembarking a bus.

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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 Bentiu / Rubkona. Separate profiles have been published for the urban areas of [Juba](#), [Wau](#), [Bor](#), [Yei](#) 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](#)¹). 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 arrivals² 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)

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.

analysis for February to March 2022, 6.8 million people – more 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 Bentiu / Rubkona were then re-adjusted to obtain 39 areas with an average of about 200 inhabited shelters (range: 50 to 275).³ Bentiu IDP Camp was excluded from the town’s sampling frame and assessed independently.

Sampling Design

In Bentiu / Rubkona town, the study adopted a stratified sampling strategy designed to be self-weighting. The sample was distributed between the enumeration areas proportional to the estimated number of inhabited shelters.

Enumerators were provided with georeferenced maps helping them locate the sampled shelters on hand-held devices and were instructed to interview the household living in the pinpointed shelter or record it as empty⁴, 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

³ 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.

⁴ 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.

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 419 households from 39 enumeration areas was calculated to achieve a 5 per cent margin of error on a 95 per cent confidence interval, assuming a design factor of 1 and a non-response rate of 10 per cent.

Data Collection

Data collection in Bentiu / Rubkona took place in October 2021, and 411 households were successfully interviewed. Challenges included non-response, non-residential, empty and destroyed shelters in some areas.

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.



A woman responding to survey questions by an enumerator in Bentiu.

Statistical Analysis

Confidence intervals – denoted in the summary text by a $(\pm X.X)$ – were calculated using R's survey package⁵ to account for the survey's sampling design (stratification). 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, 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 payam⁶.

⁵ Lumey, T. (2020). "Survey: analysis of complex survey samples". R package version 4.0.

⁶ Official payam boundaries are yet to be determined in South Sudan. The payams are used as reference for data systems. This study relies on NBS boundaries from the 2008 Census / 2011 Independence Referendum for statistical purposes only. As such, IOM on its own does not officialize any of payam and boma boundaries.



Enumerators taking measurements of a child in Bentiu.

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

PAYAM	N SAMPLED	% SAMPLED	% EST. RESIDENTIAL	P.P. DIFFERENCE
Bentiu	230	56.0	56.6	-0.6
Rubkona	181	44.0	43.4	0.6

Using the estimates proportion of residential buildings in each stratum as weights does not result in meaningful differences for vulnerability and need indicators. 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 analysis⁷.

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

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

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

Coping Strategies

Livelihoods
- Behavioral Changes in Children

Hunger Levels

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 border⁸. 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 location⁹.

Returnees

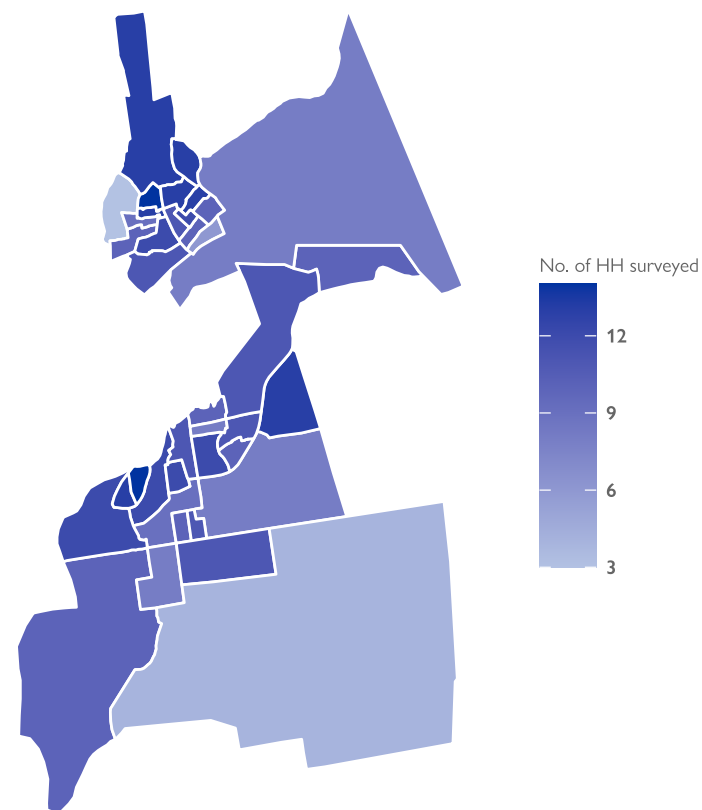
Someone who was displaced from their habitual residence either within South Sudan or abroad, who has since returned to their habitual residence. Please note: the returnee category, for the purpose of DTM data collection, is restricted to individuals who returned to the exact location of their habitual 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.

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).

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.

NUMBER OF ASSESSED HH IN BENTIU / RUBKONA TOWN BY ENUMERATION AREA

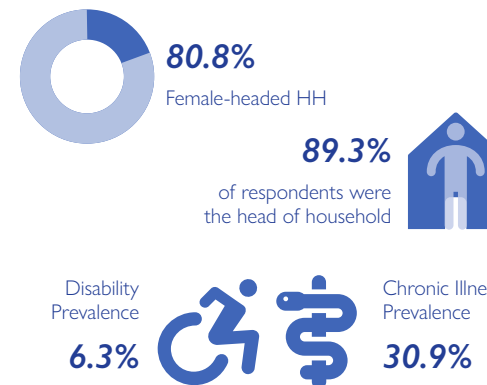


Demographics and Household Vulnerabilities

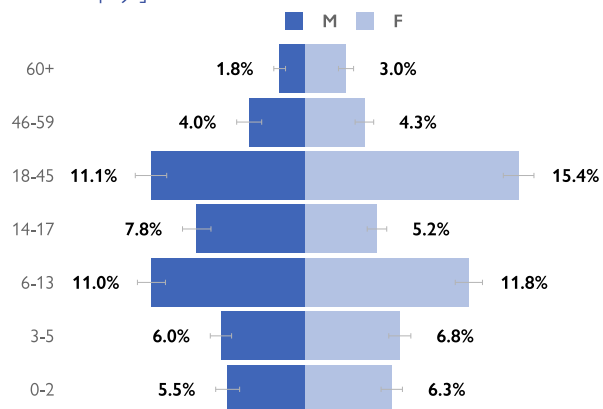
In this assessment, 89.3 (±2.7) per cent of responses are given by heads of household (HoH), while 10.7 (±2.7) per cent of households are represented by some other household member. These respondents tend to be younger members of the household (average age of 30 years compared to 36 years for heads of households responding).

The average household size is 7.6 (±0.4) persons, with a median of 7 persons. The average size of households hosting individuals is 11.5 (±1.8) persons whereas the size of households not hosting any individuals is 7.2 (±0.4) persons. Most households are headed by women (80.8% ±3.6%). Compared to their female counterparts, male heads of household are more likely to be older and have a secondary or university diploma. 24.7 (±1.4) per cent of household members are between the ages 0 and 5, and 35.8 (±1.7) per cent are between the ages of 6 and 17. Only 4.8 (±0.7) per cent are above the age of 60.

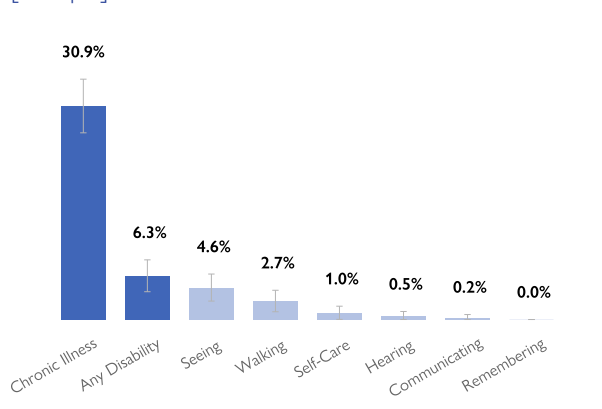
Among all households, 30.9 (±3.9) per cent of households have at least one member with a chronic illness, and 6.3 (±2.3) per cent report to have at least one member with a disability, as measured by the [Washington Group Short Set](#) questions. In comparison to figures from previous assessments and national estimates of the prevalence of persons with disabilities¹, these figures should be treated as an estimation of the lower bound of the real prevalence.



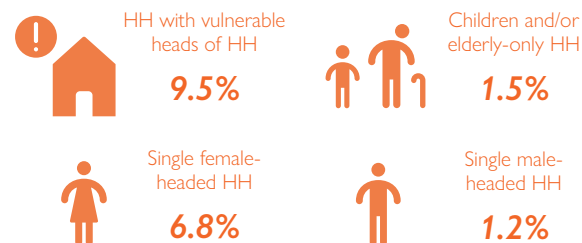
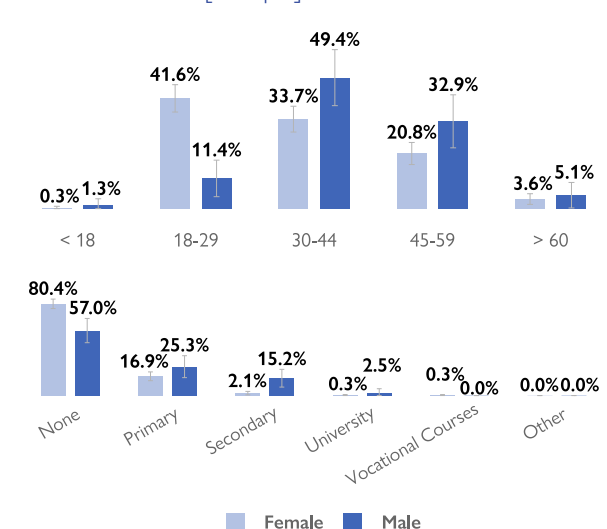
% INDIVIDUALS BY AGE GROUP AND GENDER [N IND. = 3,100; N HH = 409²]



% HH WITH A MEMBER WITH A DISABILITY OR CHRONIC ILLNESS [N = 411]



% MALE AND FEMALE-HEADED HH BY AGE AND EDUCATION LEVEL OF HH HEAD [N = 411]



% HH BY NATIONALITY [N = 411]

NATIONALITY	%	LL	UL
South Sudan	99.0%	98.1%	100.0%
Mixed Foreign	1.0%	0.0%	1.9%

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

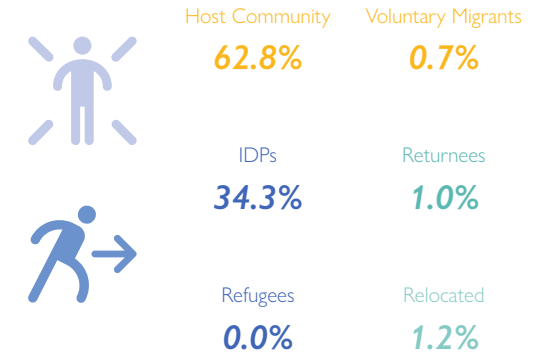
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Displacement and Migration

Displaced households come mostly from within Unity state (97.9% ±2.4% of IDP HH), with Rubkona, Mayom and Koch being the most prominent counties. The main reason for displacement is natural disaster destroying homes (43.2% ±4.1%), followed by conflict-related reasons, with personal insecurity due to generalized violence (27.0% ±5.3%) and conflict interrupting access to livelihoods (22.7% ±6.1%) ranking the highest.

For returned and relocated households, key drivers are improvement of security in area of return (77.8% ±27.5%), government assurance on safety (77.8% ±27.1%) and resolution of communal clashes (55.6% ±32.1%). Over half of these households (55.6% ±32.9%) are satisfied with their decision to return or relocate, and, indicatively, one in three households is not satisfied but will remain in their location.

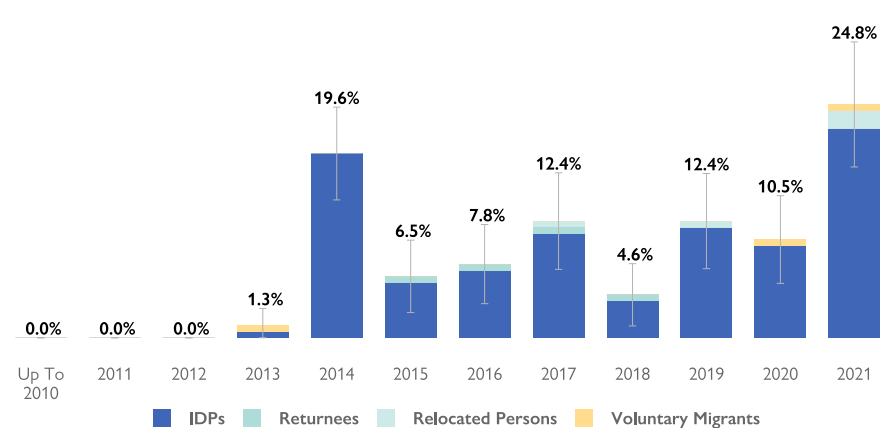
The majority of IDP households intend to remain in their current location (58.2% ±7.8%) while one in three intends to return to their area of habitual residence (32.6% ±7.4%) in the next two years. Only a few intend to relocate to a different location (2.1% ±2.3%), and 5.0 (±3.4) per cent are unsure of their plans. Of the displaced households intending to return, 52.2 (±14.4) per cent plan to return after a year. Indicatively, 11.1 (±20.8) 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 = 411]¹



% HH BY YEAR OF ARRIVAL AND DISPLACEMENT OR MIGRATION STATUS [N = 411]



% IDP HH BY MAIN REASON FOR MOST RECENT DISPLACEMENT (TOP 5) [N = 141]

REASON	%	LL	UL
Natural Disaster Destroyed Home	32.6%	26.2%	39.0%
Personal Insecurity (Generalized)	27.0%	21.7%	32.2%
Conflict / No Access To Livelihoods	22.7%	16.6%	28.8%
Conflict / No Access To Services	7.1%	3.1%	11.1%
Food Insecurity	2.1%	0.0%	4.5%

% IDP HH NOT INTENDING TO RETURN WITHIN THE NEXT TWO YEARS BY MAIN REASON (TOP 5) [N = 128]

BARRIER	%	LL	UL
House / Land Destroyed	34.4%	26.4%	42.4%
Insecurity In AOR	32.0%	24.5%	39.5%
Lack Of Livelihoods In AOR	25.8%	18.6%	33.0%
No Barriers	21.9%	15.5%	28.3%
Lack Of Services In AOR	21.1%	14.3%	27.9%



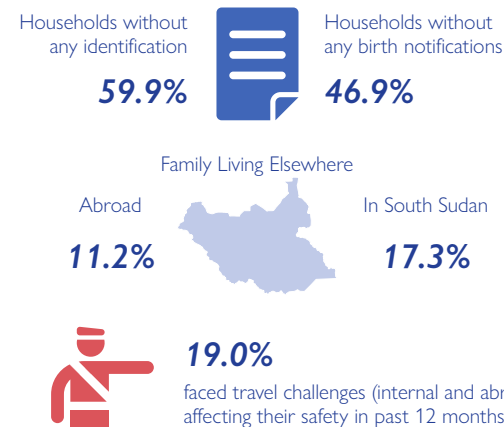
¹ N for sub-groups: HC n = 258; IDPs n = 141; Refugees n = 0; Returnees n = 4; Relocated persons n = 5; Voluntary migrants n = 3.

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.

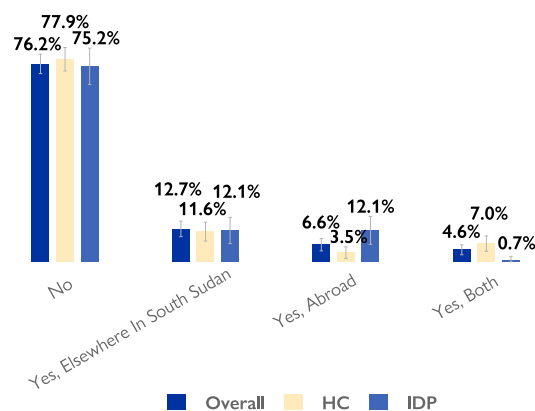
A quarter of all households (23.8% ±3.7%) have close family members living elsewhere in South Sudan (12.7% ±3.0%), abroad (6.6% ±2.4%) or both (4.6% ±1.9%). 19.0 (±3.6) per cent of households have children living elsewhere, mostly to attend studies (67.5% ±10.2%) or to temporarily visit family members elsewhere (22.5% ±6.1%).

Only 2.9 (±1.6) per cent of households possess identification documents for all their members. In 36.0 (±4.1) per cent of households some members have IDs, and in three in five households (59.9% ±4.1%) none of the members do. Indicatively, host community households are more likely to lack IDs (69.4% ±9.3%) compared to displaced and returned or relocated households (45.0% ±4.9% and 48.3% ±17.2%). Of the households who have children, only 7.6 (±2.5) per cent have access to birth notifications for all their children, 45.0 (±4.4) per cent for some children and 46.9 (±4.5) per cent for none of their children.

19.0 (±2.8) per cent of households have experienced challenges in the 12 months preceding the assessment affecting their ability to travel safely within South Sudan (6.6% ±2.2%), abroad (1.5% ±1.1%) or both (10.9% ±1.9%). Households facing challenges cite climate-related issues, such as flooding (62.8% ±9.9%), other natural disasters (17.9% ±7.9%) and impassable roads during the rainy season (9.0% ±6.4%), as well as COVID-19 restrictions (52.6% ±8.2%) and increase in costs (17.9% ±7.9%) as the main reasons.



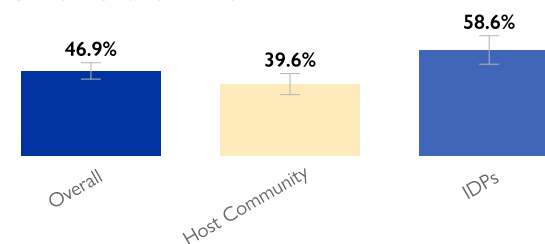
% SUB-GROUP HH WITH CLOSE FAMILY CURRENTLY LIVING ELSEWHERE



% HH WITH CHILDREN LIVING ELSEWHERE BY REASON [N = 80]

REASON	%	LL	UL
Attend Studies	67.5%	57.3%	77.7%
Visit Family Members Elsewhere	22.5%	13.4%	31.6%
Married	15.0%	7.5%	22.5%
Sent To Relatives	10.0%	3.5%	16.5%
Seek Employment	2.5%	0.0%	5.9%
Joined Army Or Armed Groups	2.5%	0.0%	6.0%
Missing (Left And No News)	1.2%	0.0%	3.7%
Kidnapped	0.0%	0.0%	0.0%
Arbitrarily Detained	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%
No Answer	1.2%	0.0%	3.7%

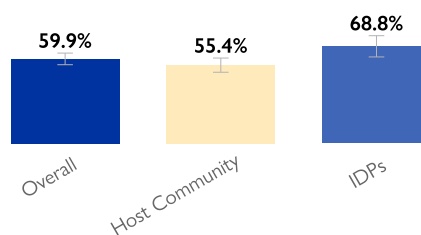
% SUB-GROUP HH WITH CHILDREN WITHOUT ACCESS TO BIRTH NOTIFICATIONS FOR ALL CHILDREN



% HH WITH ADULT FAMILY MEMBERS LIVING ELSEWHERE BY REASON (TOP 5) [N = 74]

REASON	%	LL	UL
Education	60.8%	49.8%	71.8%
Join Family Members / Relatives	13.5%	6.0%	21.1%
Displaced By Insecurity	5.4%	0.3%	10.5%
Looking For Work / Employment	5.4%	0.2%	10.6%
Displaced By Natural Disaster	4.1%	0.0%	8.4%

% 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 = 78]

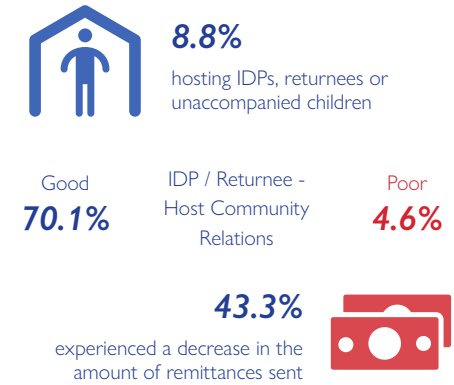
CHALLENGE	%	LL	UL
Flooding	62.8%	52.9%	72.7%
COVID-19 Restrictions	52.6%	44.4%	60.7%
Other Natural Disasters	17.9%	10.1%	25.8%
Increase In Cost	17.9%	9.6%	26.3%
Insecurity Due To Conflict	12.8%	6.3%	19.3%

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, 8.8 (±2.6) per cent of households host IDPs (6.6% ±2.3%), returnees (2.4% ±1.4%) or unaccompanied, separated or orphaned children (2.9% ±1.6%). IDP households are significantly more likely to host individuals (14.9% ±5.5%) compared to host community households (4.7% ±2.5%), underlining the increased burden on households in displacement. One in three households hosting others are worried that they may have to stop hosting some or all of them over the next three months while they still need support (33.3% ±14.7%), indicatively citing a lack of space, fear of disease or COVID-19 and bad relations the main reasons.

In the 12 months preceding the assessment, more households were sending remittances to support friends or relatives living elsewhere (12.9% ±3.0%) than receiving remittances (3.6% ±1.8%) in the last 12 months. 46.7 (±24.9) per cent of households receiving remittances did not see any changes in the amounts they sent in the past six months while 20.0 (±20.3) per cent note a slight decrease and 20.0 (±20.3) per cent a substantial decrease in the amount. Indicatively, households sending remittances are more likely to report a decrease in the amount received in the past six months, with 35.8 (±12.5) per cent noting a slight and 7.5 (±7.0) per cent a significant decrease in the amount.



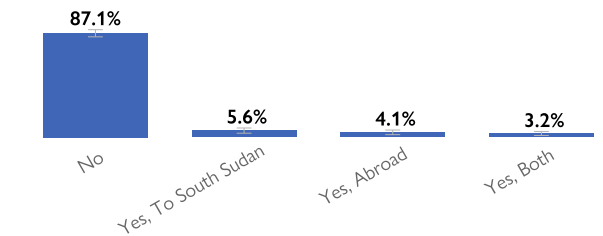
% HH BY HOSTING IDPS, RETURNEES OR UNACCOMPANIED / SEPARATED CHILDREN [N = 411]

HOSTING	%	LL	UL
Any individuals	8.8%	6.1%	11.4%
IDPs	6.6%	4.3%	8.9%
Returnees	2.4%	1.0%	3.9%
Unaccompanied children	2.9%	1.3%	4.5%

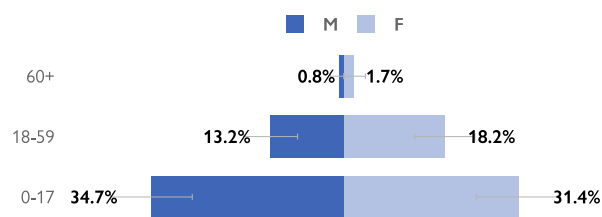
% HH WORRIED ABOUT STOPPING HOSTING INDIVIDUALS IN THE NEXT THREE MONTHS BY REASON [N = 12]

REASON	%	LL	UL
Not Enough Space	83.3%	61.3%	100%
I Am Worried About C-19 / Disease	8.3%	0.0%	24.8%
We Are Not Getting Along	8.3%	0.0%	23.8%

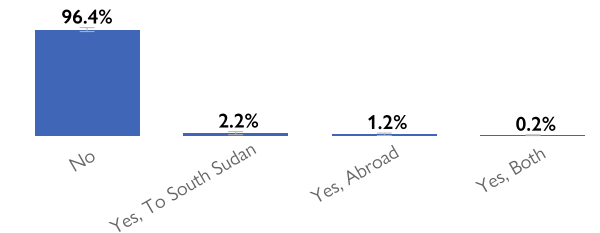
% HH SENDING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 411]



% HOSTED INDIVIDUALS BY AGE AND GENDER [N HH = 35; N IND = 121]



% HH RECEIVING REMITTANCES TO SUPPORT FRIENDS / RELATIVES IN LAST 12 MONTHS [N = 411]



% HH SENDING REMITTANCES TO SUPPORT FROM FRIENDS / RELATIVES BY CHANGE IN AMOUNT IN LAST SIX MOS. [N = 53]

CHANGE	%	LL	UL
Increased Substantially	0.0%	0.0%	0.0%
Increased Slightly	18.9%	8.5%	29.2%
Same	35.8%	23.6%	48.1%
Decreased Slightly	35.8%	23.4%	48.3%
Decreased Substantially	7.5%	0.6%	14.5%
Not Applicable	1.9%	0.0%	5.5%

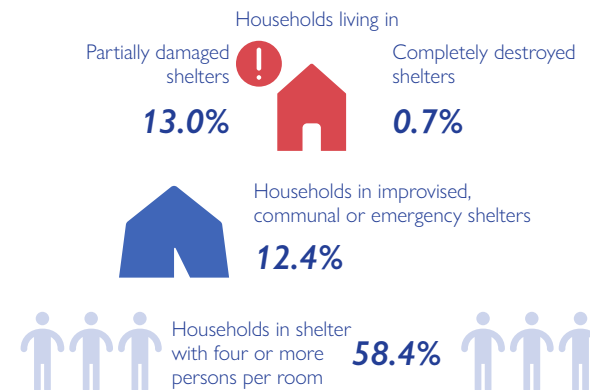
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Shelter and Non-Food Items

Over half of all households (58.6% ±4.0%) live in shacks built with local materials (rakooba), while 22.1 (±3.6) per cent live in traditional mud huts with thatched roofs (tukuls). Among those most in need, 11.7 (±2.5) per cent live in improvised shelters and 0.7 (±0.8) per cent in communal shelters, community buildings or emergency shelters provided by humanitarian partners. Overall, over one in eight households (13.6% ±3.1%) live in partially damaged or destroyed shelters. IDP households are more likely to live in partially or completely damaged shelters (22.7% ±6.3%) than host community households (8.9% ±3.3%).

23.4 (±3.9) per cent of households live in shelters made of only one room.

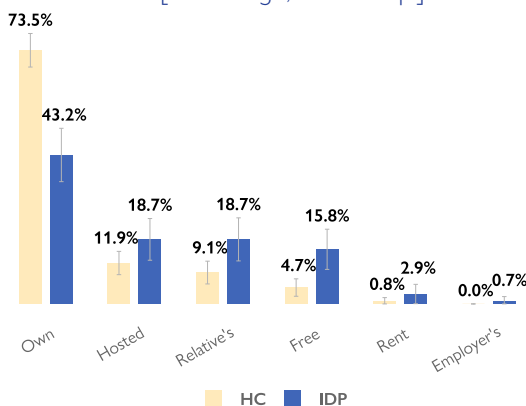
14.4 (±2.9) per cent of households are involved in open disputes relating to their current housing and/or property, although the sensitivity of this issue in the context of South Sudan may result in under-reporting. Indicatively, the most common issues leading to open disputes are disputed ownership (5.4% ±2.0%) and unlawful occupation (2.9% ±1.4%). Two in five households (38.1% ±5.6%) report that they did not take any action, while 23.8 (±5.2) per cent state using formal dispute resolution mechanisms. Other households relied on traditional courts (17.6% ±4.9%) or community leaders or chiefs (12.9% ±4.5%).



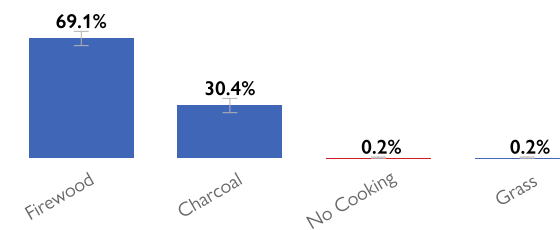
% HH BY SHELTER TYPE [N = 411]

SHELTER TYPE	%	LL	UL
Rakooba	58.6%	54.6%	62.6%
Tukul	22.1%	18.6%	25.7%
Improvised Shelter	11.7%	9.2%	14.2%
Permanent Semi/ Concrete Building	5.8%	3.9%	7.8%
No Shelter (Sleeping In The Open)	0.7%	0.0%	1.5%
Communal Shelter	0.2%	0.0%	0.7%
Community Building	0.2%	0.0%	0.7%
Transitional Shelter By UN / NGO	0.2%	0.0%	0.7%
Other	0.2%	0.0%	0.7%

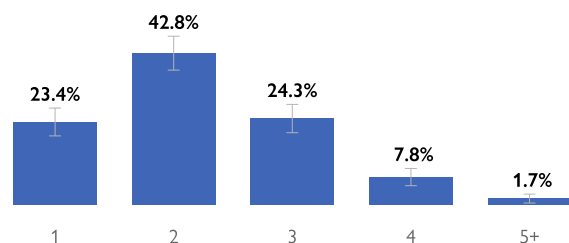
% HC AND IDP HH LIVING IN INDIVIDUAL SHELTERS BY OWNERSHIP STATUS [HC N = 258; IDP N = 141]



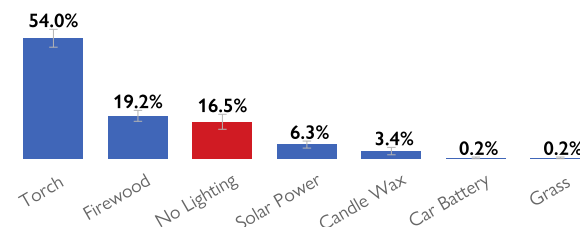
% HH BY MAIN SOURCE OF ENERGY FOR COOKING [N = 411]



% HH BY NUMBER OF ROOMS / PARTITIONED SPACES IN SHELTER [N = 411]



% HH BY MAIN SOURCE OF ENERGY FOR LIGHTING [N = 411]



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

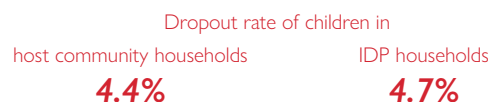
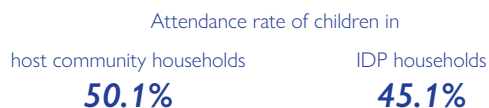
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Education

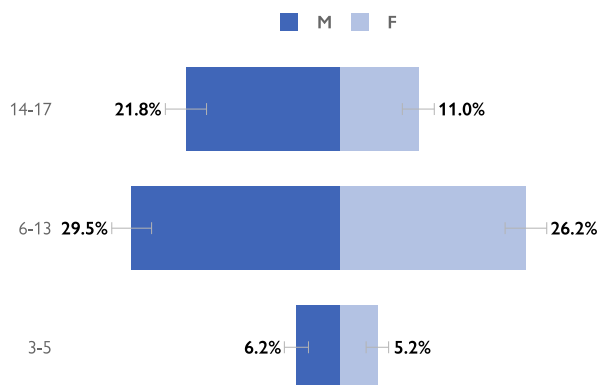
With an attendance rate of 48.4 (±3.3) per cent, over half of all children did not regularly attend formal school in the current school year (2021-2022), defined as attending an institution within a system of full-time education developed by and overseen by the National Ministry of Education. 4.4 (±1.6) per cent of children dropped out of school in the 2021-2022 school year. Comparing attendance rates between host community and displaced households, displaced households are less likely to have children attending school and are also slightly more likely to have children dropping out. Differences are not statistically significant, however.

The top barrier that boys and girls face to accessing education are financial issues (41.8% ±4.3% for boys; 42.3% ±4.0% for girls). Notably, 17.0 (±3.0) per cent of households also indicate that marriage and/or pregnancy are one of the top three barriers to girls. One in four households (25.5% ±3.8%) report that it takes between 30 minutes and 1 hour by foot to reach the nearest functional education facility, while 3.4 (±1.1) per cent report that they travel more than an hour by foot.

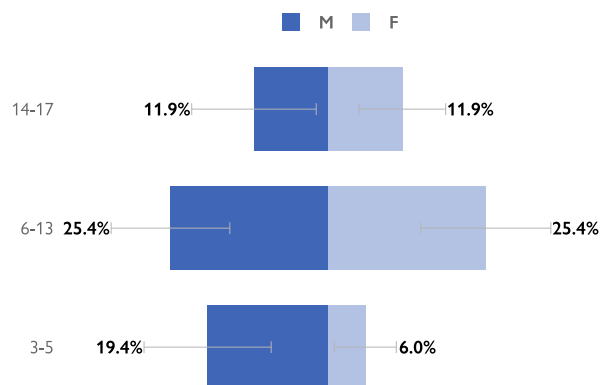
Estimates of attendance and dropout rates were calculated based on the total number of children reported in the household demographics section.



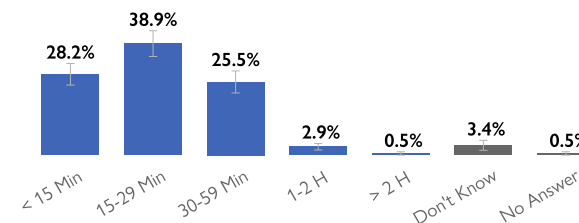
% CHILDREN ATTENDING SCHOOL FOR THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 743]



% CHILDREN HAVING DROPPED OUT OF SCHOOL IN THE PAST SCHOOL YEAR BY AGE AND GENDER [N IND = 67]



% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL EDUCATION FACILITY [N = 411]

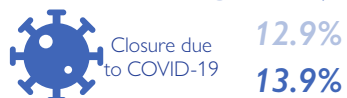


% HH RECEIVING TRAINING IN THE LAST 12 MONTHS BY TYPE OF TRAINING [N = 94]

TRAINING	%	LL	UL
Agriculture	43.6%	34.4%	52.8%
Nutrition	19.1%	11.4%	26.9%
Childcare	16.0%	8.6%	23.3%
Business Skills Training	9.6%	3.7%	15.5%
Vocational Training	6.4%	1.5%	11.3%
Other	4.3%	0.2%	8.3%
Functional Adult Literacy (FAL)	1.1%	0.0%	3.1%

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.

Top barriers to education girls and boys face

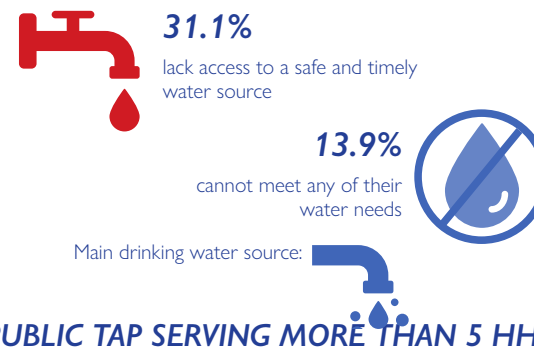


Water, Sanitation and Hygiene (WASH)

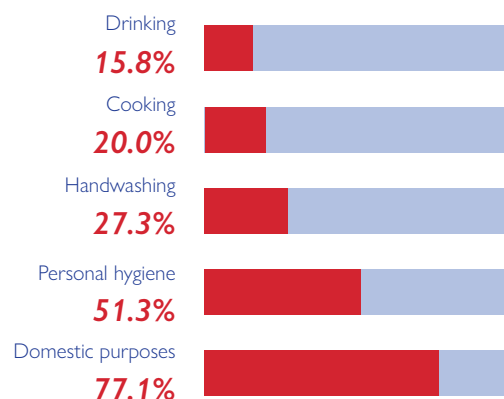
Overall, 31.1 (±4.2) per cent lack access to a safe and timely water source¹, with households in all sub-groups faring similarly. This is driven by the fact that 18.0 (±3.5) per cent need more than half an hour to collect water and 18.7 (±3.5) per cent have access to only unsafe water sources or feel unsafe when collecting water.

The main water sources for households are public taps serving more than five households (70.1% ±2.7%), deep boreholes or protected wells (9.7% ±2.4%) and tap stands serving less than five households (8.5% ±2.5%). 43.8 (±2.8) per cent of households use chlorine to treat their water, while 42.3 (±2.8) per cent do not use any treatment. 10.8 (±2.8) per cent report having felt unsafe collecting water from their main water source in the two weeks prior to the interview, with male-headed households being more likely to be affected than female-headed households.

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 five households (61.3% ±3.4%) report that the price of water has not changed, while 15.6 (±2.6) per cent report an increase and 22.6 (±3.2) per cent report a decrease. Households obtaining water from tap stands serving less than five households are indicatively more likely to have experienced a price increase.



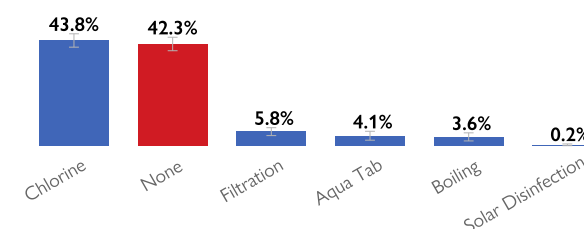
Households not having enough water to meet needs:



% HH BY MAIN SOURCE OF DRINKING WATER [N = 411]

SOURCE	%	LL	UL
Public Tap (> 5 HH)	70.1%	66.4%	73.8%
Deep Borehole / Protected Well	9.7%	7.4%	12.1%
Tap Stand (< 5 HH)	8.5%	6.0%	11.0%
Shallow Well / River / Stream / Pond	5.6%	3.5%	7.7%
Buy Water From Tank / Truck	3.9%	2.1%	5.7%
Piped Water Into The House	1.0%	0.1%	1.9%
Collected Rainwater	0.7%	0.3%	1.2%
Bottled Water	0.5%	0.0%	1.2%

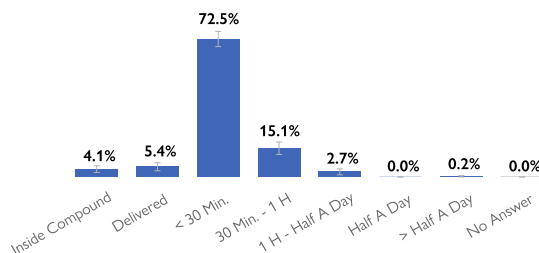
% HH BY MOST COMMON WATER TREATMENT [N = 411]



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

Group	N	%	LL	UL
Overall	411	68.9%	64.7%	73.0%
Female HoH	332	69.0%	64.3%	73.6%
Male HoH	79	68.4%	58.4%	78.3%
Host Community	258	67.4%	61.9%	72.9%
IDPs	141	73.8%	66.7%	80.8%

% HH BY TIME TAKEN TO COLLECT WATER [N = 411]



% SUB-GROUP HH FEELING UNSAFE COLLECTING WATER

Group	N	%	LL	UL
Overall	411	10.8%	8.0%	13.5%
Female HoH	332	10.0%	6.9%	13.0%
Male HoH	79	14.1%	6.7%	21.5%
Host Community	258	14.5%	10.3%	18.6%
IDPs	141	5.0%	1.5%	8.4%

1 "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 (68.1% ±3.8%) 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 ran out of soap or detergent (76.3% ±6.7%) or cannot afford soap (17.8% ±6.1%). About half of all households (48.7% ±3.5%) report that women use pieces of cloth in dealing with menstruation. 40.1 (±3.7) per cent report that women use sanitary pads while 9.5 (±2.5) per cent report that women use nothing.

46.5 (±4.4) per cent of households rely on buckets, bushes or open spaces for defecation, while 43.8 (±4.4) per cent report having access to family latrines, with traditional or open pit latrines being the most common (26.0% ±3.8%). Host community households and male-headed households are indicatively more likely to not use latrines compared to displaced households or female-headed households. Differences are not statistically significant, however. Of households with children under the age of five, more than half (69.1% ±4.8%) report that their children defecate in the open. 21.3 (±4.3) per cent indicate that children use household latrines.

For disposing waste, one in three households burns their solid waste (34.5% ±3.8%), while 27.5 (±3.1) per cent discard theirs in rivers, canals or drainages.

68.1%
of households do not have access to WASH NFI

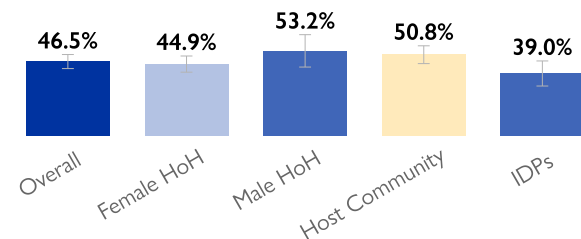
NFI

Households not using soap: **31.7%**

Main reason for not using soap: **RAN OUT**

Main female hygiene product: **PIECE OF CLOTH**

% SUB-GROUP HH WITHOUT A TOILET



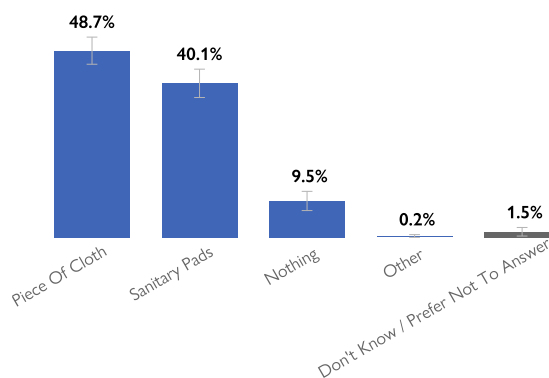
% HH BY TIMES WHEN THEY USUALLY WASH HANDS [N = 411]

TIMING	%	LL	UL
Before Eating	96.1%	94.3%	97.9%
After Defecation	81.3%	77.8%	84.7%
Before Cooking	81.0%	78.1%	83.9%
Before Breastfeeding	50.3%	45.9%	54.6%
Before Feeding Children	36.6%	32.5%	40.6%
After Handling A Child's Stool	23.9%	20.4%	27.4%
After Interacting With People	21.4%	18.7%	24.1%
After Coughing / Sneezing	13.9%	11.1%	16.7%
Other	0.0%	0.0%	0.0%
No Answer	0.2%	0.0%	0.7%

% HH BY WASTE DISPOSAL LOCATION [N = 411]

LOCATION	%	LL	UL
Burn	34.5%	30.8%	38.3%
River / Canal / Drainage	27.5%	24.4%	30.6%
On The Street	18.5%	15.4%	21.6%
Garbage Pit	14.6%	12.3%	16.9%
Garbage Bin	4.1%	2.3%	6.0%
Solid Waste Truck Collection	0.7%	0.0%	1.6%

% HH BY PRODUCT/MEASURE FOR DEALING WITH MENSTRUATION [N = 411]



% HH BY ACCESS TO SANITATION [N = 411]

LOCATION	%	LL	UL
No Toilet / Bush / Open Space	46.2%	41.8%	50.6%
Family Latrine - Traditional Pit Latrine / Open Pit	26.0%	22.3%	29.8%
Family Latrine - Improved Pit Latrines With Concrete Slab	9.2%	6.5%	12.0%
Family Latrine - Water-seal / Pour-flush Latrine	8.5%	6.1%	10.9%
Communal Latrine - Traditional Pit Latrine / Open Pit	5.8%	3.6%	8.0%
Communal Latrine - Water-seal / Pour-flush Latrine	2.9%	1.3%	4.5%
Communal Latrine - Improved Pit Latrines With Concrete Slab	1.0%	0.0%	1.9%
Bucket	0.2%	0.0%	0.7%

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.

Healthcare and COVID-19

Half of all households (49.1% ±3.5%) had a health problem and needed to access healthcare in the past three months, of which 38.1 (±5.9) per cent were unable to do so. Male-headed households are significantly more likely to lack access to healthcare compared to female-headed households (68.8% ±12.1% vs 28.6% ±7.0%). Of the households that could access health care, 8.8 (±4.9) 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 long waiting times (55.8% ±9.4%), specific services needed being unavailable (40.3% ±9.5%) and facilities only being accessible at certain times (14.3% ±7.8%). 62.8 (±3.9) per cent have attempted to access ante-natal care services.

While most households aware of COVID-19 know that washing hands with soap (97.3% ±1.5%), avoiding close contact with sick people (77.1% ±3.9%) and using hand sanitizer frequently (61.6% ±3.9%) are key prevention measures against transmission, less than half of all households know of using masks (39.7% ±3.7%) and 25.5 (±3.2) per cent of covering their cough or sneeze with a tissue. Less than one in ten households know of preventive measures, such as reporting suspected cases and self-isolating, and only 3.9 (±1.8) per cent know of vaccination.

Experienced health issues in past 3 mo.

49.1%



Needing care who were unable to access

38.1%

Accessed ante-natal care services

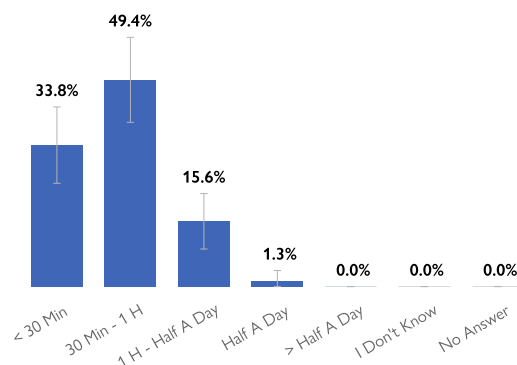
62.8%



Ante-natal care services not available

0.0%

% HH BY WALKING DISTANCE TO NEAREST FUNCTIONAL HEALTH FACILITY [N = 411]



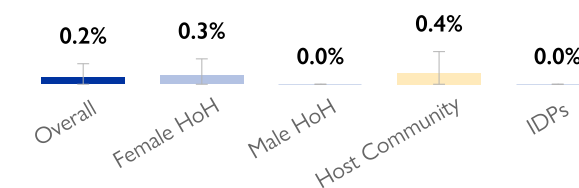
% SUB-GROUP HH WITH HEALTH ISSUES UNABLE TO ACCESS HEALTH CARE WHEN NEEDED IN THE PAST THREE MONTHS

GROUP	N	%	LL	UL
Overall	202	38.1%	32.2%	44.0%
Female HoH	154	28.6%	21.5%	35.6%
Male HoH	48	68.8%	56.6%	80.9%
Host Community	116	44.0%	35.8%	52.2%
IDPs	80	28.8%	18.9%	38.6%

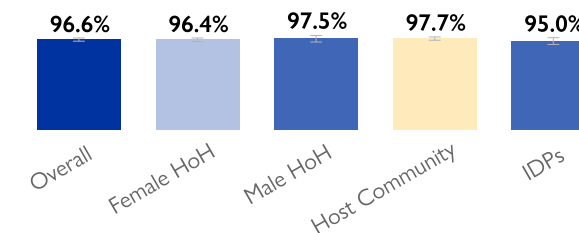
% HH WITH UNMET HEALTH CARE NEEDS BY BARRIER TO ACCESS IN THE PAST THREE MONTHS [N = 77]

BARRIER	%	LL	UL
Long Waiting Time	55.8%	46.4%	65.3%
Specific Service Needed Unavailable	40.3%	30.7%	49.8%
None	22.1%	13.8%	30.4%
Only Accessible At Certain Times	14.3%	6.5%	22.1%
No Functional Facility Nearby	13.0%	5.6%	20.3%
Unaffordable Treatment Cost	11.7%	5.4%	18.0%
Unaffordable Consultation Cost	7.8%	2.9%	12.7%
Incorrect Medications	3.9%	0.0%	8.2%
Distance	3.9%	0.0%	8.2%
No Means Of Transport	3.9%	0.0%	8.2%
Disability	2.6%	0.0%	6.2%
Wait For Improvement	2.6%	0.0%	6.0%
Did Not Need To Access	1.3%	0.0%	3.8%
Unaffordable Transportation Cost	1.3%	0.0%	3.8%
Insecurity	1.3%	0.0%	3.8%
Lack Of Staff	1.3%	0.0%	3.8%

% SUB-GROUP HH UNAWARE OF COVID-19



% 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

About half of all households (47.0% ±3.4%) reports a decrease in their income level or amount during the past six months, with 10.9 (±2.0) per cent reporting a substantial decrease. Male-headed households and displaced households were more likely to have experienced a decrease in income compared to female-headed households and host community households.

Begging, relying on help from family or the sale of aid (47.4% ±4.1%) is the most important activity for getting food and income in the three months prior to the survey. Host community households are more likely to engage in this livelihood activity (40.0% ±9.8% vs. 25.0% ±4.2%) while displaced households are more likely to engage in casual work or petty trading, sale of firewood or salaried work (40.4% ±7.2% vs. 22.9% ±5.0%). Livelihood activities of displaced households have changed after displacement, with households previously relying on their own agricultural production (56.7% ±6.6%) switching to relying on casual work or petty trading (20.0% ±7.5% of those HH), sale of firewood and other essential items (20.0% ±8.3%) or begging, kinship or the sale of aid (16.2% ±7.1%).

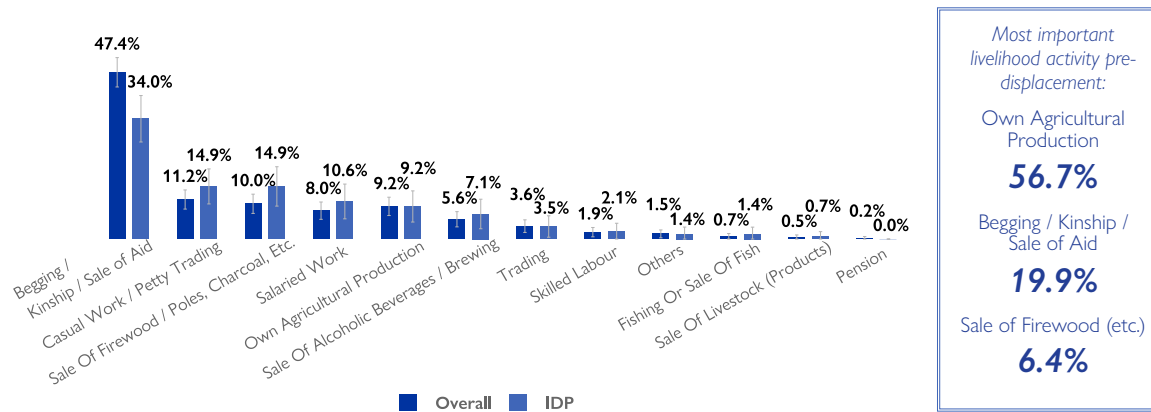
Overall, 42.8 (±3.3) per cent of households have experienced difficulties or shocks in the six months prior to the assessment.



Top economic shocks experienced in the past 6 mo.

- Unusually high food prices
- No foods in markets
- Houses / crops flooded

% HH BY MOST IMPORTANT ACTIVITY FOR GETTING FOOD AND INCOME IN LAST THREE MONTHS [N = 411; IDP N = 141]



Most important livelihood activity pre-displacement:

Own Agricultural Production
56.7%

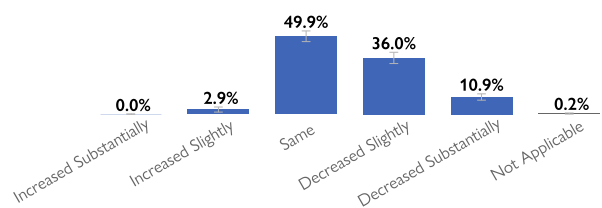
Begging / Kinship / Sale of Aid
19.9%

Sale of Firewood (etc.)
6.4%

% HH BY ASSETS OWNED (TOP 15) [N = 411]

ASSET	%	LL	UL
Sleeping Mat	68.9%	64.8%	72.9%
Bed	64.2%	60.3%	68.2%
Mosquito Net	53.3%	49.6%	56.9%
Kitchen Utensils	45.7%	42.1%	49.4%
Mattress	38.9%	34.6%	43.3%
Chairs	38.7%	34.5%	42.9%
Blanket	37.7%	34.1%	41.3%
Tables	27.0%	23.0%	31.0%
Phone	22.9%	19.6%	26.2%
Stove	7.3%	5.2%	9.4%
Mask For COVID-19	5.1%	3.2%	7.0%
Radio	4.9%	2.8%	6.9%
None	2.2%	0.8%	3.6%
Lighting Tools	1.9%	0.6%	3.3%
Livestock	1.5%	0.3%	2.6%

% HH BY INCOME LEVEL CHANGE DURING THE PAST SIX MONTHS [N = 411]



% HH BY DIFFICULTIES OR SHOCKS EXPERIENCED IN PAST SIX MONTHS (TOP 5) [N = 411]

SHOCK	%	LL	UL
No Shock Experienced	57.2%	53.9%	60.4%
Unusually High Food Prices	27.7%	24.8%	30.7%
No Foods In Markets	8.8%	6.5%	11.1%
Houses Flooded	8.5%	6.1%	11.0%
Crops Flooded	6.8%	4.9%	8.7%

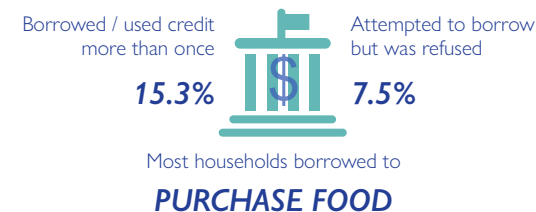
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

38.9 (±3.7) per cent of households spent at least 65 per cent of their total household expenditure on food alone in the past three months while 35.8 (±3.9) 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. 20.2 (±2.4) per cent of households use over three quarters of their expenditure on food. High to very high expenditure on food (over 65%) affects IDP households more than host community households (47.5% ±7.5% vs 34.5% ±4.3%).

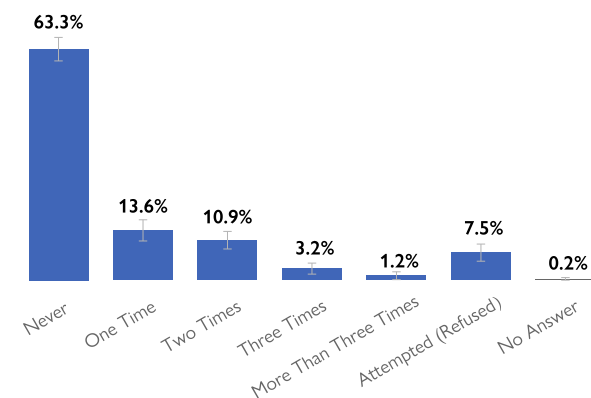
16.5 (±3.3) per cent of households need to walk over 30 minutes to their nearest operational marketplace or grocery store, with 2.4 (±1.5) per cent needing more than one hour. Indicatively, male-headed households are more likely to need more than 30 minutes compared to female-headed households (24.1% ±8.9% vs. 14.8% ±3.6%).

36.5 (±3.2) per cent of households attempted to use or used credit or borrowed money in the three months prior to the assessment, with 15.3 (±2.6) per cent having used credit or borrowed money more than once. Of these households, the vast majority did so to purchase food (90.7% ±4.4%).

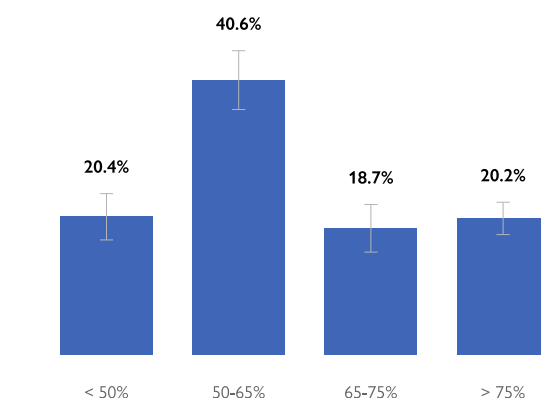
Despite living in an urban area, 22.6 (±3.6) per cent have access to land for cultivation and 30.7 (±3.8) per cent own livestock or farm animals.



% HH BY FREQUENCY USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS [N = 411]



% HH BY PROPORTION OF EXPENDITURE GOING TO FOOD IN THE LAST THREE MONTHS [N = 411]



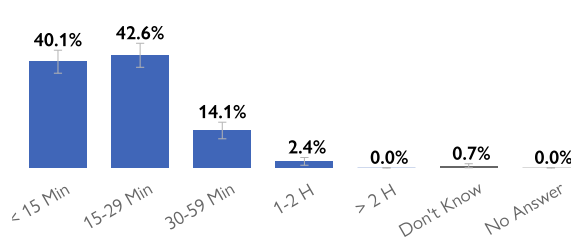
% HH BY CHALLENGES EXPERIENCED DURING TRAVEL TO MARKET IN THE LAST MONTH [N = 411]

CHALLENGE	%	LL	UL
None	64.0%	60.2%	67.8%
Floods	14.6%	11.6%	17.6%
Distance	13.9%	11.0%	16.7%
Too Hot	4.6%	2.7%	6.5%
Children Have To Join	4.1%	2.3%	6.0%
Wild Animals	3.6%	2.1%	5.2%
Robberies / Crime	3.4%	1.8%	5.0%
Conflict / Violence	1.9%	0.6%	3.3%
Lack Of Shelter On The Way	1.9%	0.7%	3.2%
Unsafe	1.2%	0.2%	2.3%
Lack Of Water And Food On The Way	1.2%	0.2%	2.3%
Struggled To Carry All Purchases	1.0%	0.0%	1.9%
Market Damaged / Destroyed	0.5%	0.0%	1.1%
Markets Closed Due To COVID-19	0.5%	0.0%	1.2%
COVID-19 Movement Restrictions	0.2%	0.0%	0.7%
Markets Closed Due To COVID-19	0.2%	0.0%	0.7%

% HH USING CREDIT OR BORROWING MONEY IN THE LAST THREE MONTHS BY REASON [N = 150]

REASON	%	LL	UL
Purchase Of Food	90.7%	86.2%	95.1%
Health Care	6.0%	2.3%	9.7%
Payment Of Tuition Fees	2.7%	0.1%	5.2%
Marriage / Ceremonies	0.7%	0.0%	2.0%

% HH BY WALKING DISTANCE TO NEAREST OPERATIONAL MARKET / GROCERY STORE [N = 411]

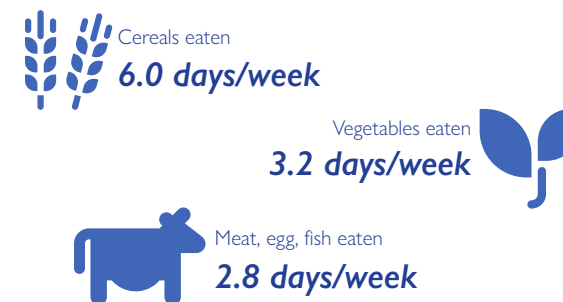


Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Food Security

On average, households consume cereals on 6.0 (±0.1) days, oil on 5.1 (±0.2) days, sugar on 3.4 (±0.2) days, vegetables on 3.2 (±0.2) days, legumes on 3.1 (±0.2) days, dairy on 3.1 (±0.2) days and spices on 3.0 (±0.2) days per week. All other food groups are consumed less than three days per week. On average, male-headed households consume most food groups more frequently than female-headed households. The main source for these foods in the last seven days are markets for the majority of households, with many also relying on food assistance or their own production.

More than two in five households purchase their staple foods from the local market within the neighborhood (46.5% ±4.2%), while 15.1 (±2.6) per cent purchase them locally from other community members. 23.8 (±3.4) per cent do not purchase any staple foods at all. Displaced households are indicatively more likely to not purchase staple foods (29.1% ±6.2%) than host community households (21.3% ±4.6%). Of households that buy their staple foods, households spend the most in cash or credit on sorghum (flour or grain; 55.9% ±4.7%), okra (37.1% ±4.6%) and sugar (29.1% ±4.2%).



Cereals



Vegetables



Spices



Grains



Roots



Orange vegetables



Leafy vegetables



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.

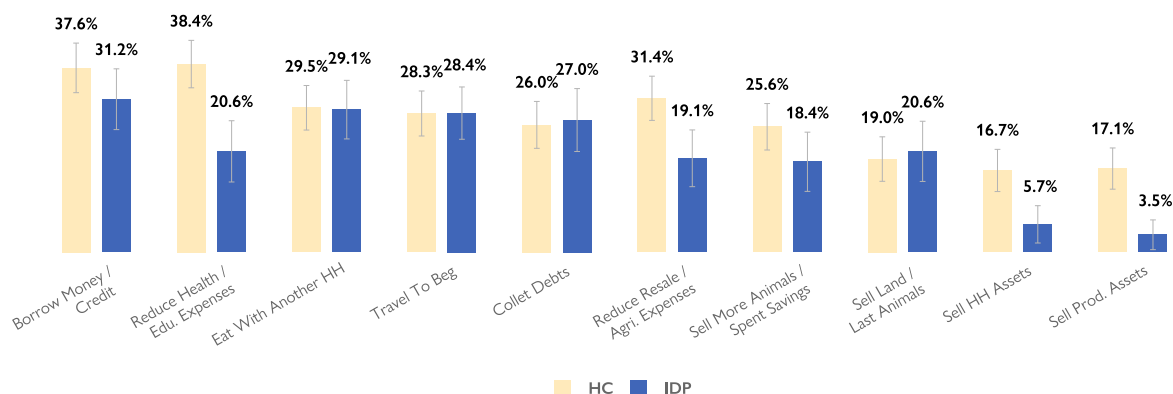
Coping Strategies

Livelihood-based coping strategies illustrate households' capacity to cope with future shocks and maintain productivity. 54.3 (±3.6) per cent of households engaged in at least one type of livelihood-based coping strategy in the 30 days prior to the interview. Most report borrowing money or taking on credit (35.5% ±3.5%), followed by reducing health and education expenses (32.4% ±3.5%) and eating with another household (28.5% ±3.2%) because of a lack of food or money for food. Two in five households (39.2% ±3.4%) indicate engaging in emergency coping, the most severe category of coping strategies.

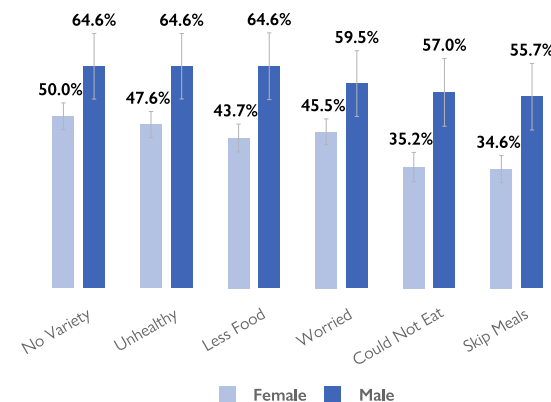
Overall, 40.6 (±3.1) per cent of households report to have used food-based coping strategies during the 12 months prior to the survey. 52.8 (±3.2) per cent ate less varied foods while 50.9 (±3.1) per cent was unable to eat healthily because of a lack of resources to obtain food. One in three households (33.3% ±3.3%) went to sleep at night hungry because there was not enough food in the past 12 months, of which 40.1 (±6.4) per cent did so within four weeks prior to the interview. 11.2 (±2.4) per cent of households went for a whole day and night without eating anything at all because there was not enough food, of which 87.0 (±9.9) per cent did so within four weeks prior to the interview.



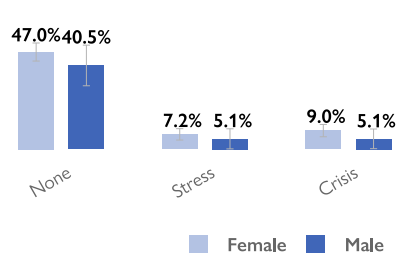
% IDP AND HC HH BY LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 411]



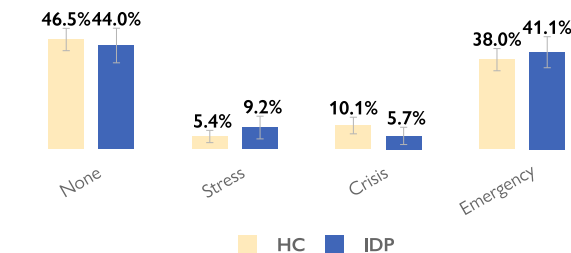
% FEMALE AND MALE-HEADED HH BY FOOD-BASED COPING STRATEGIES IN THE PAST 4 WEEKS [N = 411]



% FEMALE AND MALE-HEADED HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 411]



% IDP AND HC HH BY MAXIMUM LIVELIHOOD-BASED COPING STRATEGIES IN THE PAST 30 DAYS [N = 411]



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.

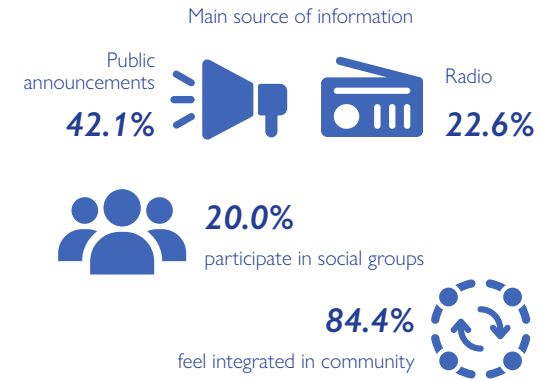
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

Communication and Social Cohesion

Public announcements are the most common main source of information (42.1% ±7.9%) followed by radio (22.6% ±3.5%). 42.6 (±4.2) per cent of households have at least one member owning a functioning mobile phone that is reliably charged, with adult women (73.7% ±6.3%) and men (38.9% ±6.8%) being the most likely owners.

Although only 20.0 (±3.3) per cent of households have members who participate in social groups, the majority (84.4% ±3.1%) feels welcomed and accepted in their current community. Indicatively, displaced households are less likely to participate in social groups or feel welcome in their community compared to host community households. Of the households that participate in social groups, over two in five report that adult women or men are members, while less than five per cent report that children are members.

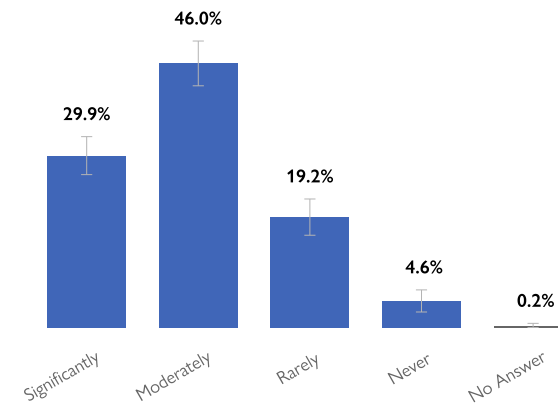
Most households report that women are either significantly involved (29.9% ±3.3%) or moderately involved (46.0% ±3.9%) in community decision-making. 4.6 (±1.9) per cent state that women never partake in decision-making. There are no significant differences in the perception of the involvement of women in decision-making between female-headed and male-headed households.



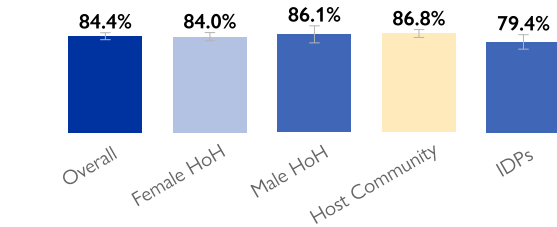
% HH BY MAIN SOURCE OF INFORMATION [N = 411]

SOURCE	%	LL	UL
Public Announcements	42.1%	39.2%	45.0%
Radio	22.6%	19.2%	26.1%
Word Of Mouth	13.9%	11.2%	16.5%
Local Authorities	9.0%	6.9%	11.1%
Communal Meetings	5.4%	3.4%	7.3%
Social Media (WhatsApp, Facebook)	2.7%	1.3%	4.1%
Church Authorities	2.4%	1.0%	3.9%
Community Mobilisers	1.5%	0.3%	2.6%
Television	0.5%	0.0%	1.2%

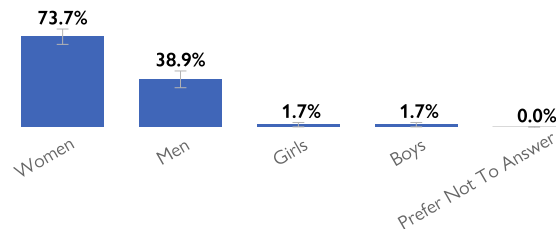
% HH BY EXTENT TO WHICH WOMEN ARE INVOLVED IN COMMUNITY DECISION-MAKING [N = 411]



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



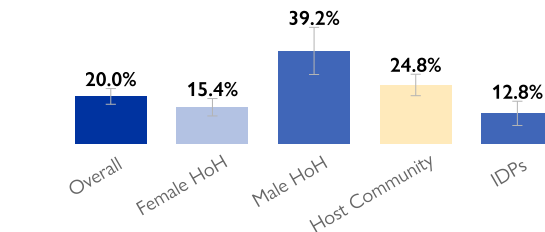
% HH WITH MOBILE PHONES BY MAIN OWNER OF FUNCTIONAL AND CHARGED MOBILE PHONE [N = 175]



% HH BY EXTENT TO WHICH FEEL WELCOMED IN CURRENT COMMUNITY [N = 411]

FEELING INTEGRATED	%	LL	UL
A Lot	38.7%	35.0%	42.4%
Moderately	45.7%	41.7%	49.8%
A Little	11.7%	8.9%	14.5%
Not At All	3.4%	1.7%	5.1%
No Answer	0.5%	0.0%	1.2%

% 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 one in five households (20.7% ±2.8%) state that they are not aware of any protection services in their area.¹ 45.7 (±3.6) per cent are aware of police services being available while over a quarter of households are aware of GBV services – including health, legal aid, counselling and case management services. However, only few (less than 10%) are aware of any other protection services related to child protection, housing land and property, and others. 2.7 (±1.5) per cent report to have been affected by a safety or security incident in the past month, with female household members being significantly more likely to be affected than male members.

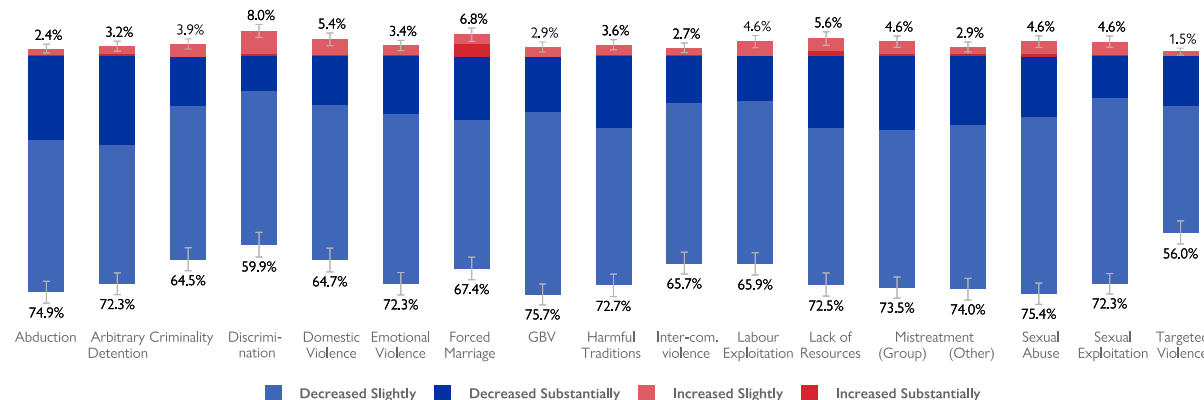
Households cite gender-based violence (29.2% ±3.7%), criminality, extortion or gang-related violence (29.0% ±3.0%), and discrimination (28.2% ±3.6%) as the most serious protection concerns in their community at the time of assessment. Male-headed households are significantly more likely to list emotional violence as a serious concern than female-headed households (29.1% ±9.3% vs 14.8% ±3.2%). Notably, female-headed households are more likely to report GBV (31.0% ±4.3% vs. 21.5% ±8.4%) and criminality, extortion or gang-related violence (30.4% ±3.8% vs. 22.8% ±8.5%) 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 = 411]



% HH WITH TRAVEL OFFER IN THE PAST THREE MONTHS BY MEMBER RECEIVING OFFER [N = 19]

MEMBER	%	LL	UL
Boys	47.4%	24.8%	69.9%
Men	31.6%	10.1%	53.0%
Girls	26.3%	6.8%	45.9%
Women	15.8%	0.0%	32.1%
No Answer	0.0%	0.0%	0.0%

% HH BY AWARENESS OF AVAILABLE PROTECTION SERVICES IN AREA (TOP 5) [N = 411]

SERVICE	%	LL	UL
Police	45.7%	42.1%	49.4%
Health Services (GBV)	28.5%	25.0%	31.9%
None	20.7%	17.9%	23.5%
Counselling (GBV)	20.2%	16.8%	23.5%
Case Management (GBV)	13.9%	10.8%	16.9%

% HH BY CURRENT PROTECTION ISSUES THAT CAUSE SERIOUS CONCERN (TOP 5) [N = 411]

CONCERN	%	LL	UL
GBV	29.2%	25.5%	32.9%
Criminality	29.0%	25.9%	32.0%
Discrimination	28.2%	24.6%	31.8%
Targeted Violence	27.3%	24.2%	30.3%
Domestic Violence	25.5%	22.4%	28.7%

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

GROUP	N	%	LL	UL
Overall	411	2.7%	1.2%	4.2%
Female HoH	332	2.7%	1.0%	4.4%
Male HoH	79	2.5%	0.0%	6.0%
Host Community	258	0.4%	0.0%	1.1%
IDPs	141	7.1%	3.0%	11.2%

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

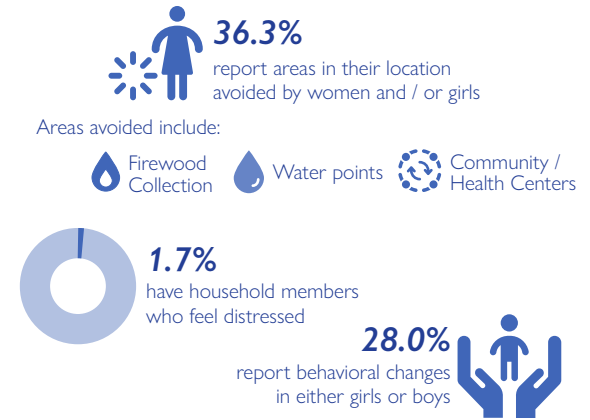
Note: The error bars and LL/UL columns in the summary tables indicate 95% confidence intervals. Percentages may not sum to 100 due to rounding error.

About two in five households (36.3% ±3.1%) report that there are areas in their location that women and / or girls avoid because they feel unsafe. The main areas avoided are routes for collecting firewood (23.1% ±2.9%), water points (5.8% ±2.0%) and routes to women community or health centers (3.9% ±1.6%), underlining the challenges women face when conducting daily, essential tasks.

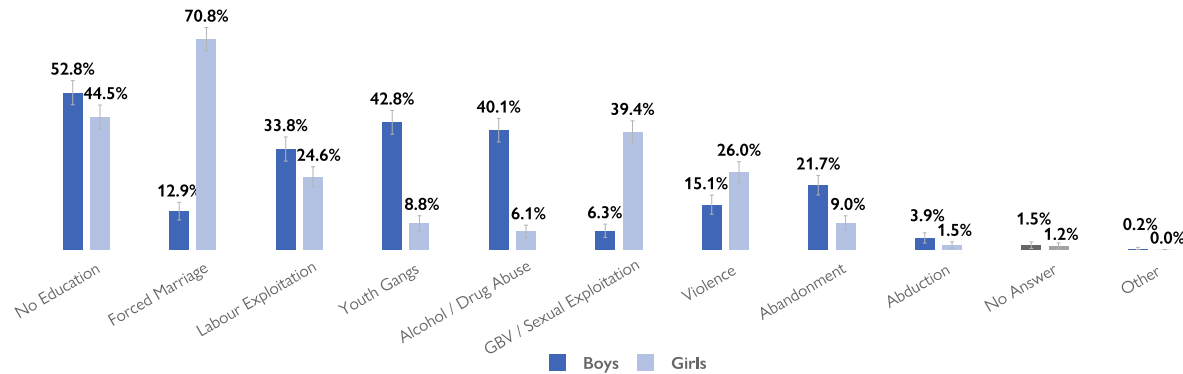
1.7 (±1.2) per cent of households include at least one member who feels distressed to the extent that they have a lot of difficulty to work or perform daily routine activities. Indicatively, female-headed households are more likely to be affected than male-headed households.

While households report the top risk to both girls and boys to be lack of education (44.5% ±4.1% and 52.8% ±4.1%), there are significant differences between other top risks to girls and boys. Households are more likely to see girls most at risk of forced or arranged marriage (70.8% ±3.9% vs 12.9% ±3.0% for boys) and GBV or sexual exploitation (39.4% ±3.9% vs 6.3% ±2.2%). In contrast, households view boys to be most at risk of involvement in youth gangs (42.8% ±4.0% vs 8.8% ±2.6% for girls) and substance abuse (40.1% ±4.0% vs 6.1% ±2.1%).

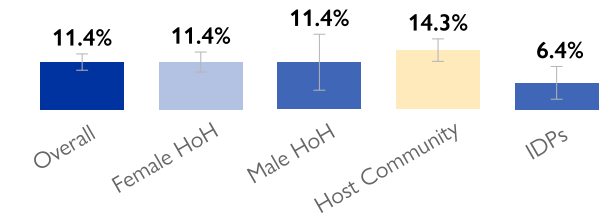
28.0 (±3.3) per cent of households report seeing behavioral changes in their children during the month before the assessment, with households being equally likely to see these in boys and girls (24.8% ±3.3% and 24.8% ±3.0%). The most common behavioral change is disrespectful behavior (11.7% ±2.4% for girls and 9.0% ±2.5% for boys).



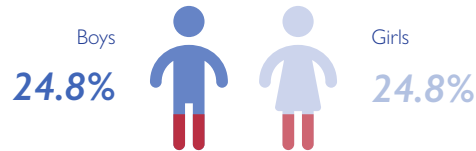
% HH BY PERCEIVED BIGGEST RISKS CHILDREN UNDER 18 ARE EXPOSED TO IN COMMUNITY [N = 411]



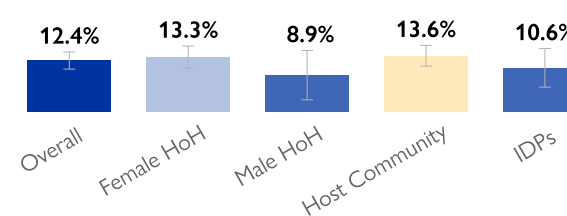
% SUB-GROUP HH OBSERVING THREE OR MORE BEHAVIORAL CHANGES IN BOYS IN THE LAST MONTH



% 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	411	1.7%	0.5%	2.9%
Female HoH	332	2.1%	0.6%	3.6%
Male HoH	79	0.0%	0.0%	0.0%
Host Community	258	1.9%	0.3%	3.6%
IDPs	141	0.7%	0.0%	2.1%

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.

Humanitarian Assistance

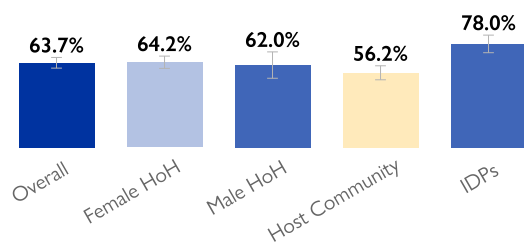
During the three months preceding the assessment, 63.7 (±4.0) per cent of households received some form of humanitarian assistance, most of them receiving general food for all (97.7% ±1.8%) and food for school children (4.2% ±2.0%). 66.9 (±4.1) per cent report to be dependent on humanitarian services to cover basic needs such as food, WASH, health and education.

Two in five households (43.1% ±4.1%) state that they do not receive adequate information about the different available humanitarian services. Displaced households are significantly more likely to lack this information compared to host community households (52.5% ±7.3% vs 38.0% ±5.4%). The proportions 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.

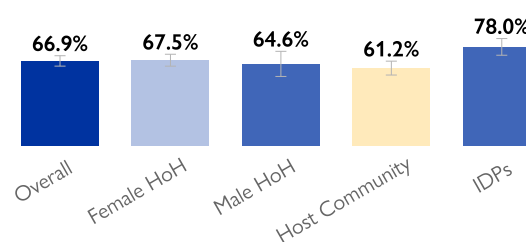
As top priority needs for their household, respondents name food (91.5% ±2.7%), healthcare (69.3% ±3.9%) and shelter or housing (54.0% ±3.7%). These top priority needs correlate with the humanitarian or basic services for which the largest share of households report a decrease in access in the past six months.



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



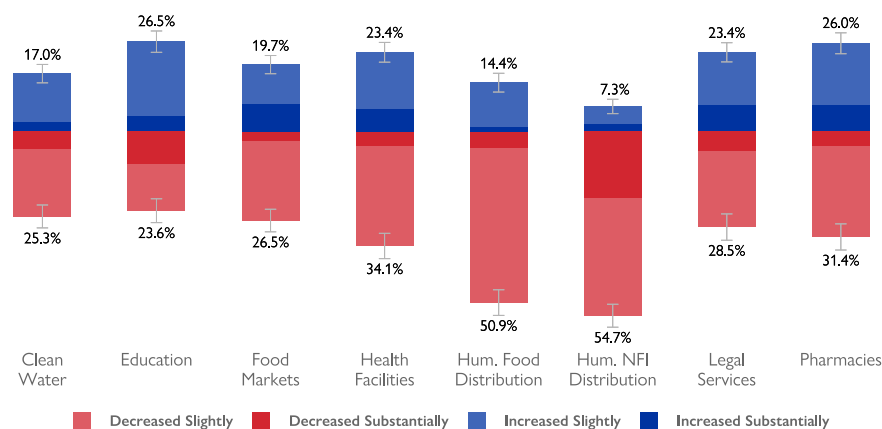
% SUB-GROUP HH DEPENDENT ON HUMANITARIAN SERVICES TO COVER BASIC NEEDS



% HH WHO HAVE ACCESSED ASSISTANCE OR BASIC SERVICES IN THE PAST THREE MONTHS BY TYPE [N = 262]

ASSISTANCE	%	LL	UL
General Food For All	97.7%	95.9%	99.5%
Food For School Children	4.2%	2.2%	6.2%
WASH Materials	3.4%	1.4%	5.5%
Nutrition	2.3%	0.7%	3.9%
Food For Assets	1.9%	0.3%	3.5%
Cash For Work / Cash For Training	1.5%	0.0%	3.0%
Agricultural Inputs	1.5%	0.0%	3.0%
Health / Medicines	1.5%	0.1%	3.0%
Shelter Material	0.8%	0.0%	1.8%
Unconditional Cash / Voucher Transfer	0.4%	0.0%	1.1%
Agricultural Tools	0.4%	0.0%	1.1%
Veterinary	0.4%	0.0%	1.1%
School Fees / Uniforms	0.4%	0.0%	1.1%
Fishing Gear	0.0%	0.0%	0.0%
Household Utensils	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%
No Answer	0.8%	0.0%	1.8%

% HH BY CHANGE IN ABILITY TO ACCESS HUMANITARIAN OR BASIC SERVICES OVER THE PAST SIX MONTHS [N = 411]



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 fourth range (61% - 80% or high vulnerability) of the UVI (38.0% of HH), followed by the third range (41% - 60% or medium vulnerability; 35.0% of HH). As the population's most vulnerable category, 11.7 per cent of households fall into the highest range (81% - 100% or maximum vulnerability). Comparing different sub-groups, male-headed households tend to score higher on the UVI than female-headed households, with a higher proportion of households falling into high or maximum vulnerability classes (56.9% vs 47.9%). Male-headed households are also more likely to fall into the highest range (21.5% vs 9.3% of female-headed HH). Although these interpretations are only indicative due to the small sample size by population sub-group, the UVI indicates that displaced households fare considerably worse than host community households. Displaced households stand out with over 16.3 per cent in the highest range and 50.4 per cent in the second-highest range, compared to the proportion of host community households (9.3% and 31.8%).

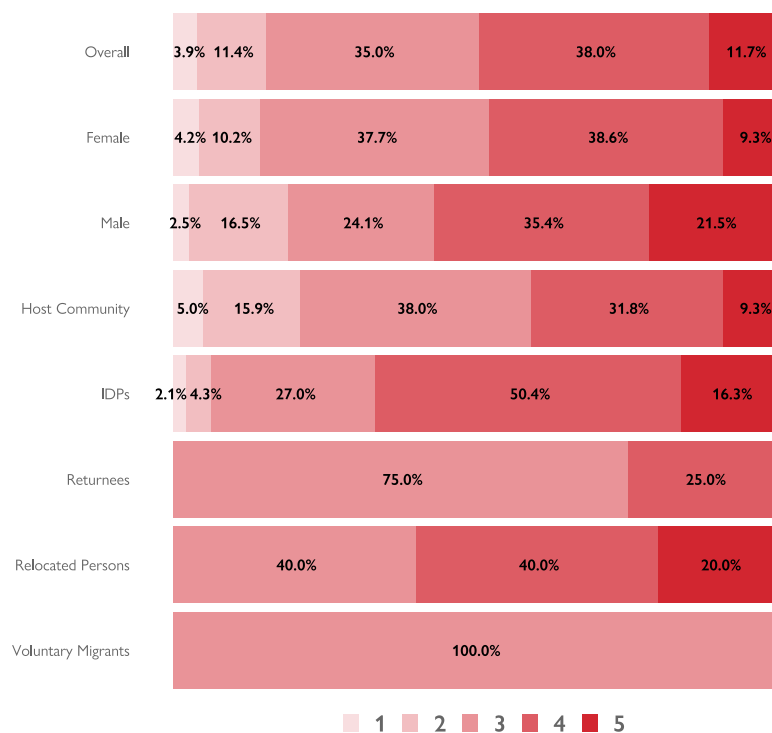
UVI Indicators with largest weights:

Sufficient Water
50.9%

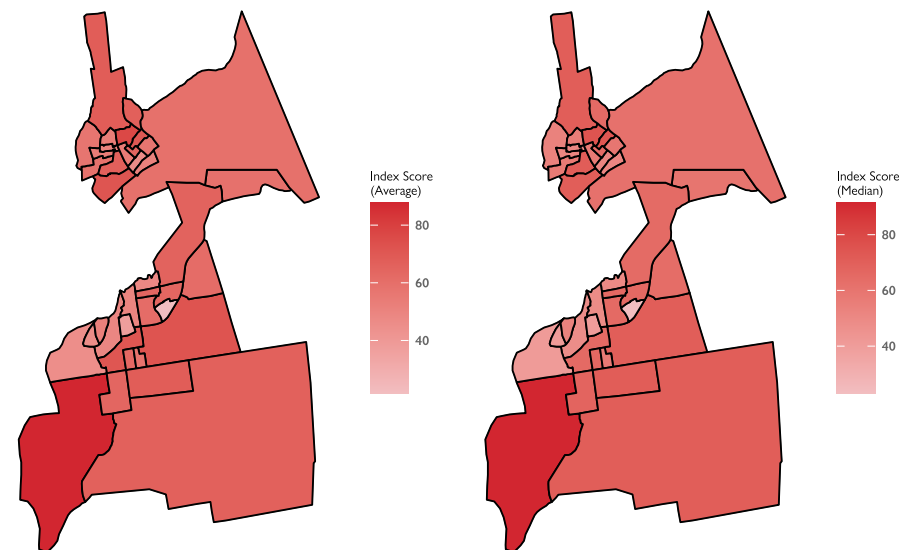
Safe & Timely Water
48.1%

Sanitation
27.5%

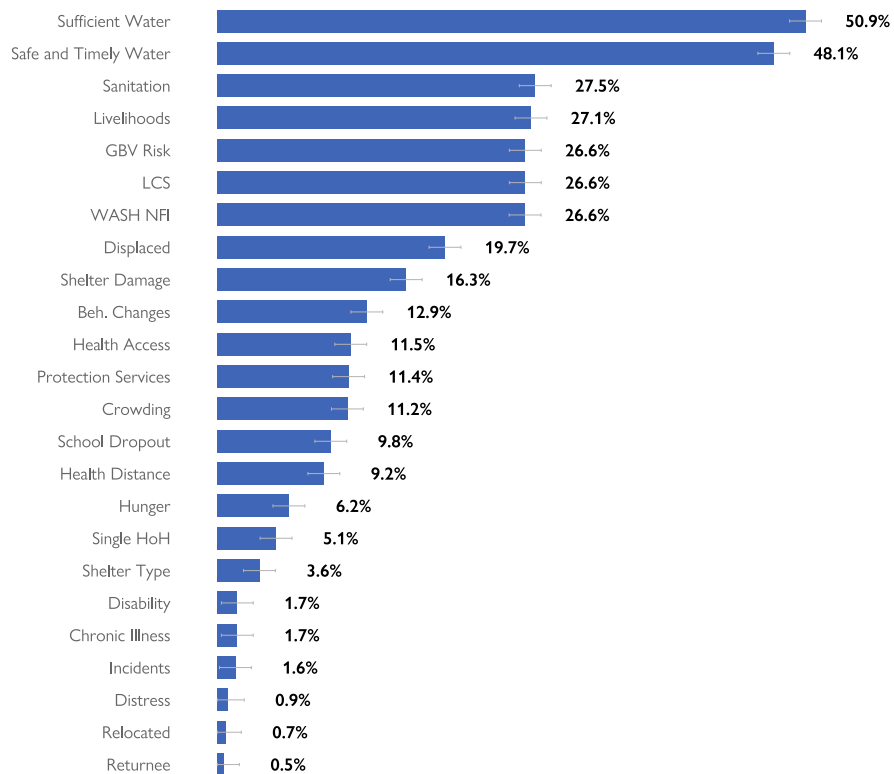
% HH BY VULNERABILITY INDEX SCORE RANGE (MINIMUM TO MAXIMUM) BY SUB-GROUP



AVERAGE AND MEDIAN INDEX SCORE BY ASSESSED ENUMERATION AREA IN BENTIU / RUBKONA



VULNERABILITY INDEX SCORE WEIGHT BY SELECTED INDICATORS



METHODOLOGY ANNEX I: PRINCIPAL COMPONENT ANALYSIS - IMPORTANCE OF COMPONENTS

MEASURE	PC ₁	PC ₂	PC ₃	PC ₄	PC ₅	PC ₆	PC ₇	PC ₈
Standard deviation	18.482	5.626	5.533	5.029	4.355	4.180	4.031	3.870
Proportion of Variance	0.594	0.055	0.053	0.044	0.033	0.030	0.028	0.026
Cumulative Proportion	0.594	0.649	0.703	0.747	0.780	0.810	0.838	0.865

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)

The UN Migration Agency