



Hurricane Matthew Response

DISPLACEMENT TRACKING MATRIX (DTM) - HAITI ROUND 1 REPORT 28 NOVEMBER 2016

HIGHLIGHTS & CURRENT STATUS



692 evacuation shelters have been inventoried. Of these, 254 have been assessed by DTM teams. Registration data is currently available for 61 sites.



A total of 3,145 households (representing 14,217 individuals) have been registered in 61 evacuation centres.



A reported 2,087 individuals (14.7%) of the 14,217 individuals registered present various vulnerabilities.



57.6% of households interviewed have reported that their house has been destroyed while 28.9% have indicated that their house had been severely damaged by the hurricane.



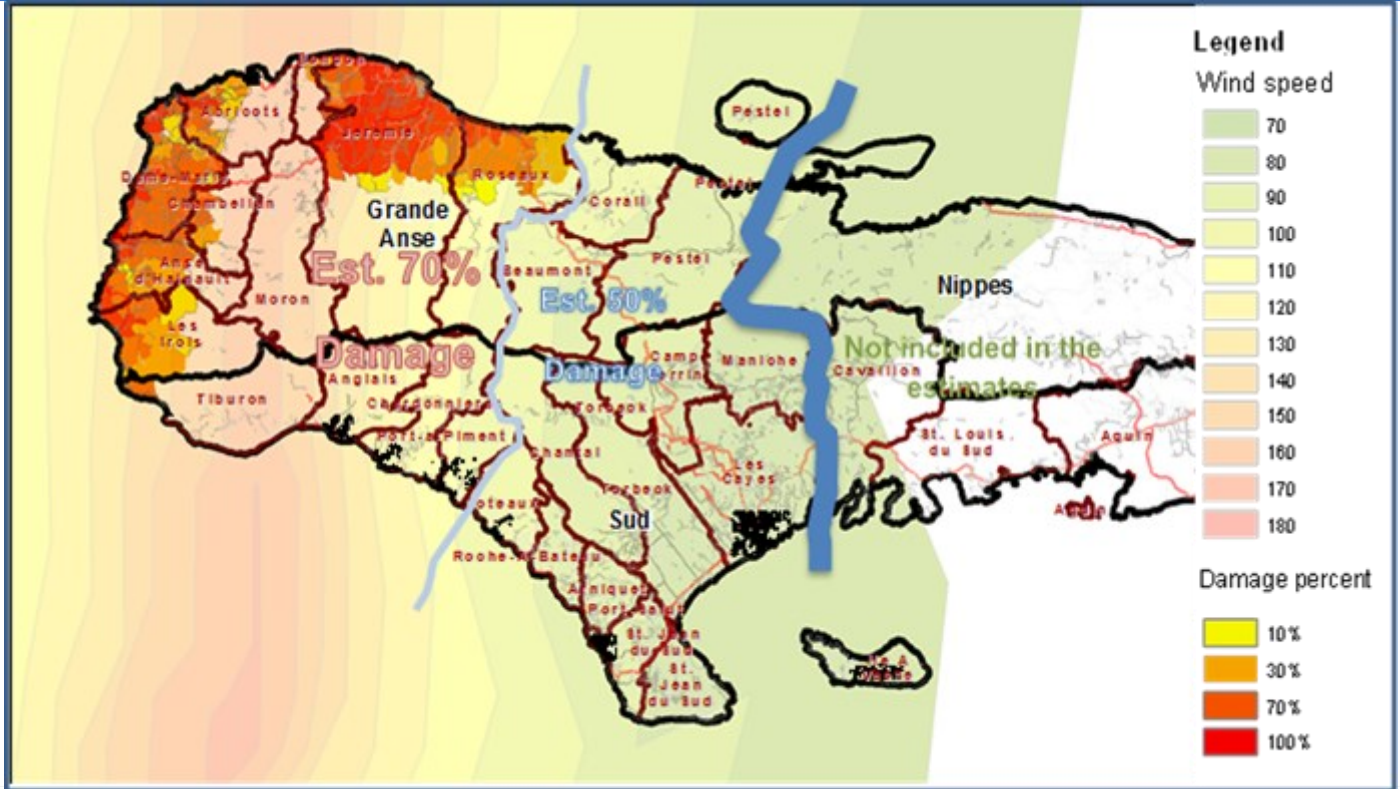


CONTEXT

Hurricane Matthew, a category 4 Hurricane, made landfall in the Western part of Haiti on 4 October, causing severe damage in the southern peninsula and in areas of the North of the country, particularly the departments of Sud, Grande Anse, Nippes and Nord Ouest. As a result of the hurricane, many households took refuge in locally designated evacuation centers as well as other buildings which have served as evacuation centers. The Haitian Ministry of Interior estimated that 175,000 persons were sheltering in 307 evacuation centers in the Departments of Grande Anse and Sud.

IOM recognizes the importance of having timely and accurate information on the displaced population living in the hurricane affected departments to advise both the humanitarian response and plan an effective recovery. The Displacement Tracking Matrix (DTM), has been designed to identify the most pressing needs following hurricane Matthew in the departments of Grande Anse, Sud, and Nippes. IOM will use various DTM tools to collect, analyze and disseminate information. The information produced by the DTM will be shared with all relevant stakeholders through regular reports, factsheet, maps and tables and will include data on:

1. **Overall situation** and damage assessment of the areas affected by hurricane Matthew
2. **Shelter assessments and registration** of displaced population (inventory of all shelters in use and registration of their population)
3. **Mapping of affected areas with building inventory and status** (damaged, partially damaged, severely damaged, destroyed or not damaged)
4. **Demographics, vulnerabilities, and socio-economic profile** of the displaced populations linked to the inventoried buildings.
5. **Population movement** trends and tracking of the displacement
6. **Sectoral needs, gaps, and service provisions** to the displaced populations



Estimated damage assessment using UNOSAT evaluation and percentage of population in affected communes in Grand Anse and Sud (estimated 210,000 households of which 120,000 are affected).

DAMAGE ASSESSMENT

The DTM is currently using damage assessments based on evaluations carried out by various expert partners in the field of cartography such as UNOSAT, Copernicus and NGA satellite data. UNOSAT has undertaken an analysis of the damage sustained by the departments most affected by the hurricane, using satellite images after the hurricane and comparing them with earlier images to determine the scope of the damage and estimate the number of damaged structures. The information was triangulated and punctually verified through the use of UAV imagery (drone) to ascertain the information produced by satellite. The shaded areas in the map above represent the damage percentage—which has been color coded from yellow (a 10% damage evaluation) to light orange (30% damage evaluation), bright orange (70% damage) and red (100% damage).

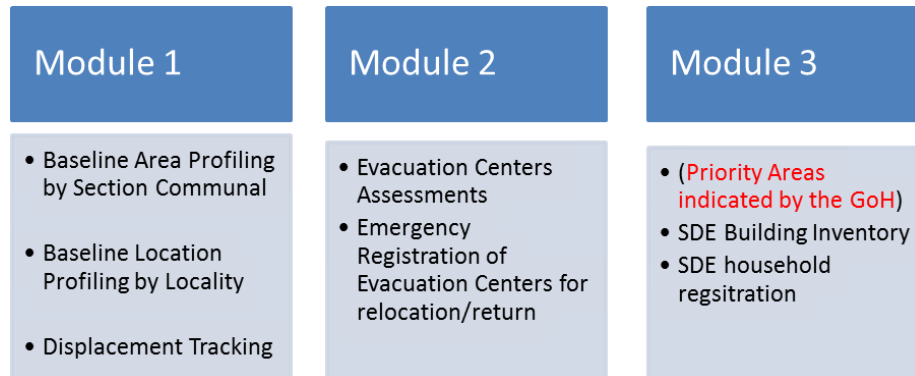
The DTM has also paired the aforementioned evaluations with existing information and data, such as the building inventory carried out on the entire country by the National Institute of Statistics (IHSI in French). The building inventory was carried out in geographical areas (census block units) used for censuses, surveys and data collection purposes, called Enumeration Section (SDE in French).

The current available data was extrapolated taking into account the wind speed during the passage of the hurricane to further elaborate the damage assessment. Areas that registered winds of 160 to 180 mph have been found to be areas with a maximum of damage (between 70% to 100 % of damage) while areas to have experienced 70 to 110 mph winds registered less damage (between 10 to 30% damage). Damage per SDE has also been estimated and it has been determined that the average damage level per SDE is 74%

Based on IHSI's population data from 2015, a total of 211,528 households reside in 175,634 buildings in 1,151 SDE units in the departments of Grande Anse and Sud (with an estimation of 1.2 households per building). Extrapolating the damages assessed to the estimated population, an estimated 124,866 households have been directly affected by damages sustained to the buildings where they are residing.

METHODOLOGY

The DTM is carried out in 3 **independent and simultaneous** modules, from the broadest image to the most precise, from the smallest geographical division – the section communale – to the locality/zones, to the evacuation centers assessment and registration – and to the building inventory and registration of the affected households in localities. All the activities carried out within this DTM are supported by damage analysis from existing satellite imagery (UNOSAT) which is complemented at the micro level by drone imagery undertaken by IOM teams and its partners. Using aerial images and geographical and satellite preliminary damage assessment, overlaid with official statistical information provided by Section d' Enumeration (SDE), the DTM is implemented as follows:



1. Module 1: Baseline Location and Area Profiling

Baseline Area Profile is carried out in order to establish a database of IDPs and displacement patterns within the departments affected by the hurricane, using the smallest official geographical subdivision available in Haiti, the section communale. Following the baseline area profiling, detailed information by locality/neighborhood is collected. Information gathered in each section communale firstly and on each locality and neighborhood, secondly, includes estimations of affected population disaggregated by household living in homes and out of homes, as well as detailed information on building damages and evacuation centers. The information is collected through local key informants from the local government (ASEC and CASEC, Mayors) and other local communal organizations.

2. Module 2: Evacuation Center/Site Assessment and Registration

In-depth site assessments will be undertaken independently. Through field visits, observation, physical counts and key informant interviews, all evacuation centers identified before and after the hurricane and confirmed through Module 1, will be targeted for Evacuation Site Assessment. The DTM Evacuation Center/Site Assessment component contains a master list of information on the displaced population as well as additional information on multi-sectoral needs and services (Shelter, NFI, WASH, Food and Nutrition, Health, Education, etc...). Information on GBV and Counter Trafficking is also collected. Simultaneously, systematic registration is carried out in evacuation centers and disaggregated information on demographics, special needs, previous residence, damage assessment of residence amongst other is collected.

3. Module 3: Building Inventory and Household Registration in Locality/SDE

Independently of the aforementioned modules, the registration in localities is carried out based on priority areas pre-identified by the GoH. The registration contains 2 steps: 1) The building and plot inventory and cartography and 2) The household registration at SDEs level.

The building inventory consists in the cartography and listing of all buildings housing the affected population. This step will include a basic damage assessment of each building/plot, as well as preliminary basic information on the household residing on the building/plot (aiming at identifying displacement within host communities).

In conjunction with the building/plot inventory, IOM teams, in collaboration with communal DPC representatives, will proceed with the individual emergency identification, registration and monitoring of affected households through face to face interviews. The information collected includes data relevant to all sectors of humanitarian assistance and as such, will flag urgent needs, improve geographical coverage by partners and will contain detailed information on each household (demographics, location, housing status and protection indicators).

MODULE 2: Shelter Profiling

A – Main shelter profiling findings

IOM has carried out an inventory of **692 evacuation shelters**, conducted a profiling exercise in 254 and registered 61¹ of these shelters .

The **shelters assessed** by IOM are housing **8,666 households** equivalent to **35,074 persons**. It is important to note that aforementioned population figures are partial data corresponding to 186 sites (data available at publication of report).

Overview of shelter assessments

Evacuation Shelters	Grande Anse	Sud	Nippes
Inventoried	282	265	145
Profiled	123	93	38
Registered	38	20	3
Closed	36	44	-

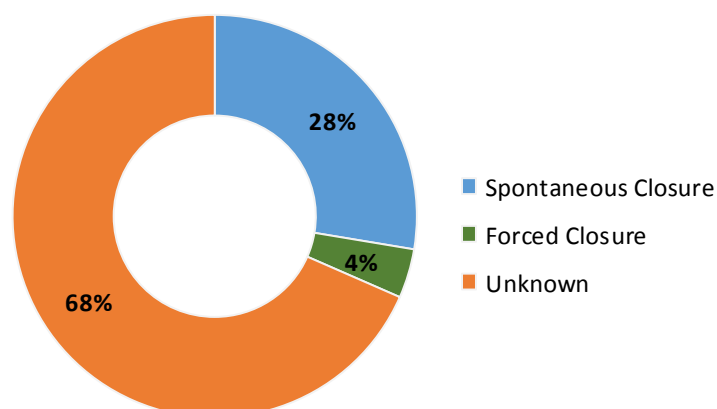
Closure of shelters

Based on reports from field partners, departmental authorities and physical observation of the evacuation shelters that were opened following Hurricane Matthew 80 shelters have since closed: 36 were located in Grande Anse and 44 were in Sud.

Following IOM’s assessments in the localities where these shelters were situated, the reasons for their closure can be summarized below:

- 11 evacuation shelters have closed spontaneously (information on shelter closure provided by community leaders in the shelters)
- 55 evacuation shelters for which the closure reason is unknown (under investigation by IOM and DPC teams)
- 14 forced closures: 3 in Grande Anse and 11 in Sud department

Overview of shelter closure reason



¹The figures presented in this report are being cross-checked with DPC available data and will be harmonized every week.

MODULE 2: Shelter Profiling

B – Sectoral Assessments

This section presents the findings of needs assessments carried out during the evacuation shelters profiling phase. Data collection is ongoing and the figures below refer to the evacuation shelters where data collection has been completed.

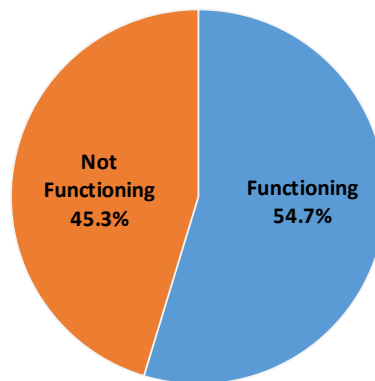


WATER, SANITATION AND HYGIENE (WASH)

Functioning Latrines

Of 117 evacuation sites where complete information on the status of latrines has been collected, it was reported that 64 sites have access to functioning toilets (54.7%) while 53 did not have access to functioning toilets (45.3%).

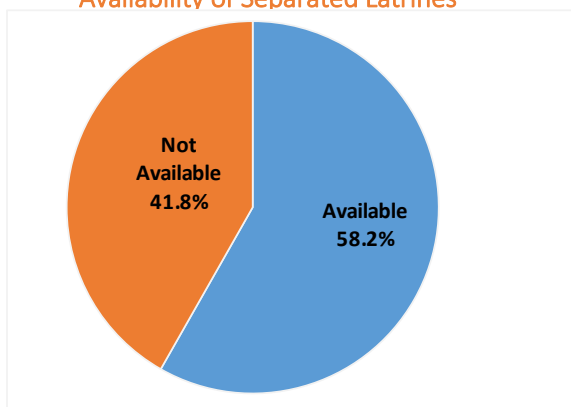
Availability of functioning toilets



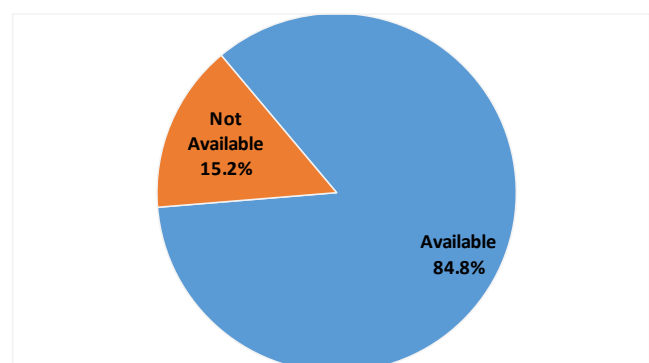
Separated Latrines and Bathing Areas

Within 79 evacuation shelters where data collection on latrines has been completed, residents of 46 shelters (58.2%), have indicated having access to gender separated latrines while 33 have indicated not having access to gender separated latrines (41.8%). In addition, residents of 12 evacuation shelters have indicated having access to gender separated bathing areas (15.2%) while 67 have reported not having access to gender separate bathing areas (84.8%).

Availability of Separated Latrines



Availability of Separated Bathing Areas



MODULE 2: Shelter Profiling

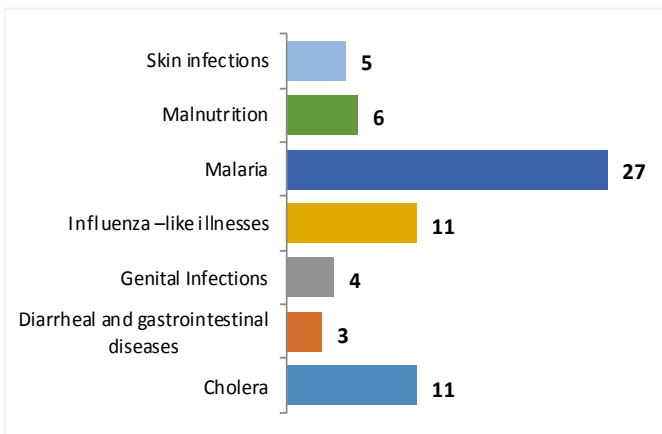


HEALTH

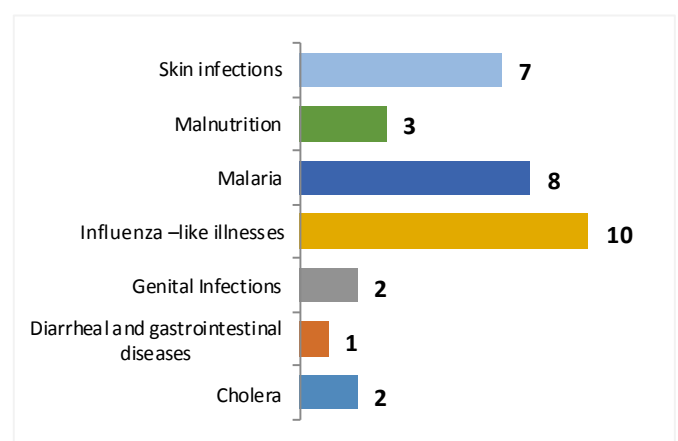
Prevalence of health problems

In 67 evacuation shelters where data collection on health has been completed, a variety of health issues has been reported. Particularly, in 27 of these shelters (40.3%), the affected population indicated that Malaria was the most prevalent health issue. In another 11 shelters (16.3%) it was reported that influenza-like illness was the most prevalent problem. Cholera was reported as being the most common health issue in another 11 shelters (16.3%). Other illnesses cited as most prevalent have included malnutrition (9.0% of shelters assessed), skin infections (in 7% of sites), genital infections (6.0%) and diarrheal and gastrointestinal diseases (4.5%).

Most prevalent illness reported per sites



Second most prevalent illness reported per sites



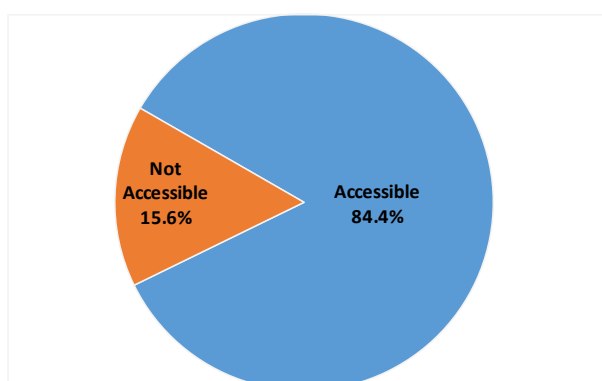
EDUCATION

Access to education

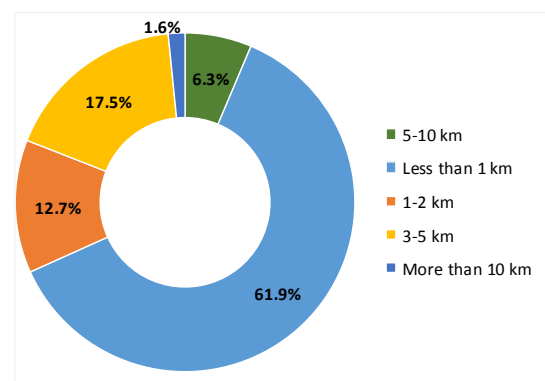
Out of the 77 evacuation shelters where information on the accessibility of education services is complete, children residing in 12 evacuation shelters (15.6%) are enrolled in school (15.6%) while children in 65 shelters (84.4%) are not currently enrolled in school.

In addition, out of a total of 63 evacuation shelters with complete information on the distance of educational facilities, 39 shelters are located at less than 1 km from the nearest education facility, 8 are located between 1 km to 2 km from the nearest education facility and 11 shelters are located at a distance of 3 km to 5 km.

Access to Education Services for children



Distance of shelters to the nearest education facility



MODULE 2: Shelter Profiling

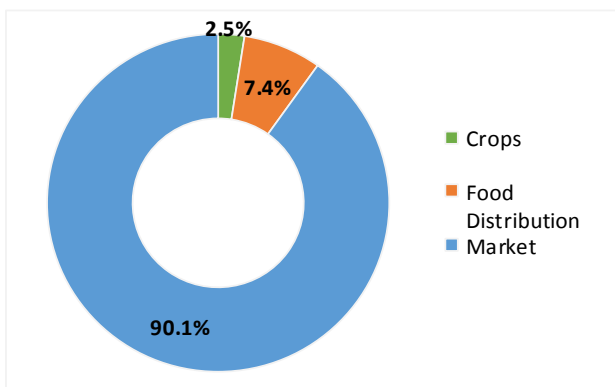


FOOD AND NUTRITION

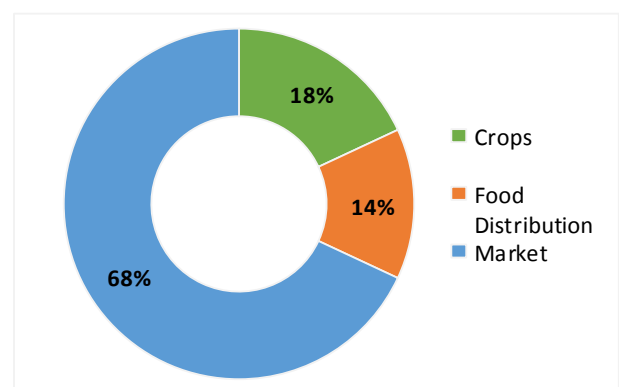
Main source of food

Of the 81 evacuation shelters where information on food sources has been completed, residents in 67 shelters (90.1%) have indicated acquiring food on the local market while in 6 shelters (7.4%) the population relies on food distribution and in 2 shelters (2.5%) the population harvest their crops to obtain food.

Main source of food for population living in open shelters



Secondary source of food for population living in open shelters



IOM and DPC staff at an NFI distribution in Jeremie, Grande Anse .© IOM October 2016

MODULE 2: Registration

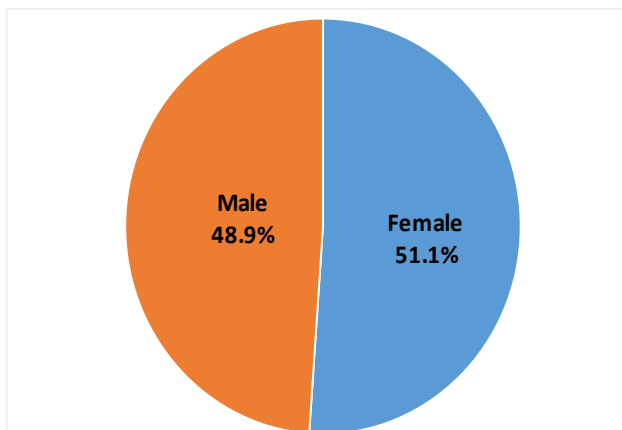
B– Registration Data

A total of 75 out of the 254 evacuation shelters profiled have been registered by IOM teams assisted by communal DPC volunteers in the departments of Grande Anse and Sud. Registration operations are currently ongoing in open evacuation shelters. This report presents registration information collected in 61 shelters. Data will be updated as it becomes available.

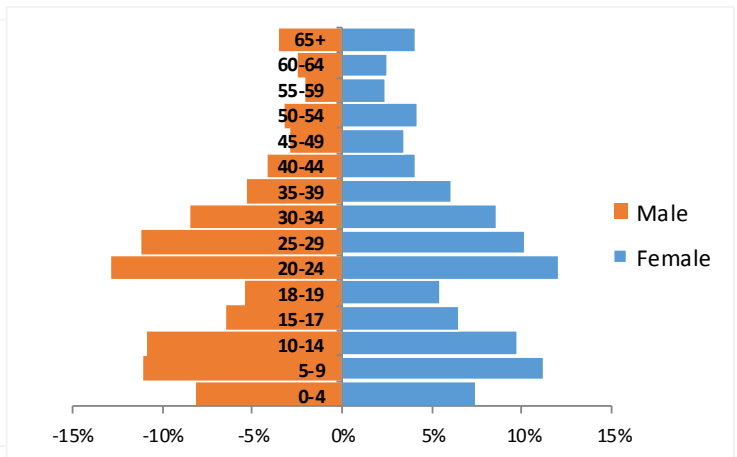
Demographics

Of the 14,217 individuals registered (3,145 households) in 61 sites, 51.1% are female while the other 48.9% are male. The majority of the affected population reported being aged between 18-59 years old, individuals from this group represented 56.0% of registered individuals. A reported 37.7% are minors (aged between 0-17 years old): 7.8% are under the age of 5 and 29.9% are between 5-18 years old. 6.3% are aged 60 and above.

Sex Breakdown



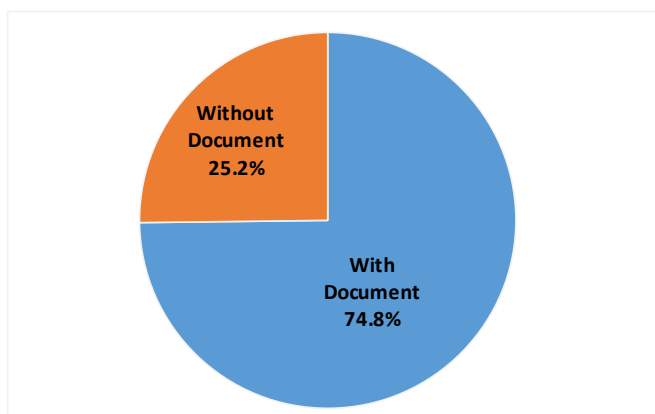
Age and Sex Breakdown



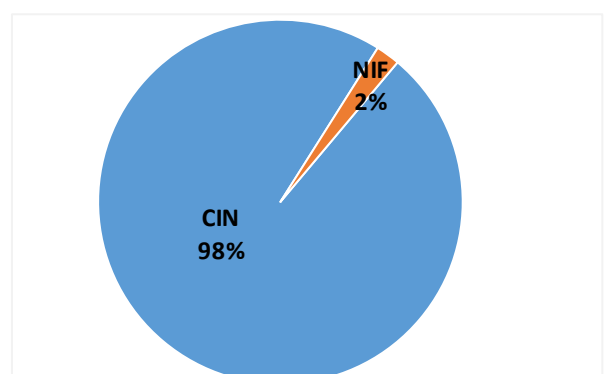
Documentation

74.8% of the 3,145 heads of households registered have reported having documentation while 25.2% did not possess any documentation. The most common ID held is the Carte d’Identité Nationale or CIN (98% of households with documentation). The Numéro d’Identification Fiscale, or NIF, is held by 2% of those registered.

Documentation status of registered households



Documentation held by registered households



MODULE 2: Registration

Counter trafficking indicators

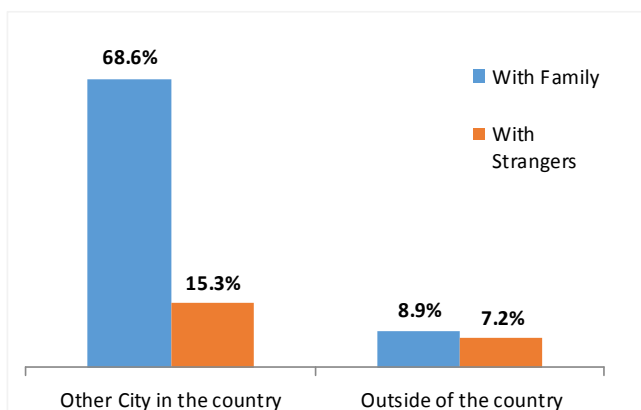
Of the 3,145 households registered, a reported 7.5% (236 households) have indicated that they had decided to send their children away. More specifically:

- 162 households (68.6%) of these 236 households intend to place their child with family in another city in Haiti while 36 households (15.3%) intend to place their child with non-family members (acquaintances or other) in another city in Haiti
- 21 households (8.9%) of the 236 households intend to place their child with relatives living in another country while 17 households (7.2%) intend to place their child with non-family members (acquaintances or other) in another country.

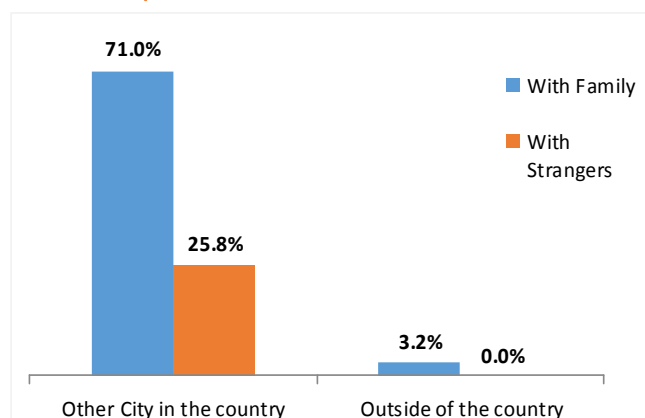
In addition, 31 households (1.0%) of the 3,145 registered households have reported being offered to place their child in another home or household. The 31 households have specifically indicated the following:

- 22 households (71.0%) of the 31 households have received offers to place their children with family in another city in Haiti while 8 households (25.8%) have been offered to place their children with non-family members in another city in Haiti.

Households who have decided to place their children outside of the household.



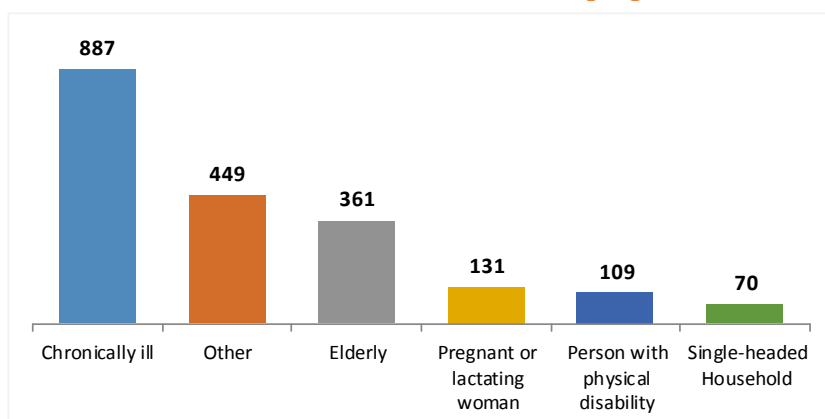
Household who have been offered the possibility to place children outside of the household



Vulnerabilities

Of the 14,217 individuals registered, 2,087 (14.7%) were identified as vulnerable. Of the 14,217, 887 (6.2%) are chronically ill, 361 (2.5%) are elderly and 131 (0.9%) are pregnant or lactating women. Furthermore, a reported 14 (0.1%) are presumed to be unaccompanied minors, 10 (0.1%) are orphaned children and 14 (0.1%) are minors who are separated from their parents or guardians.

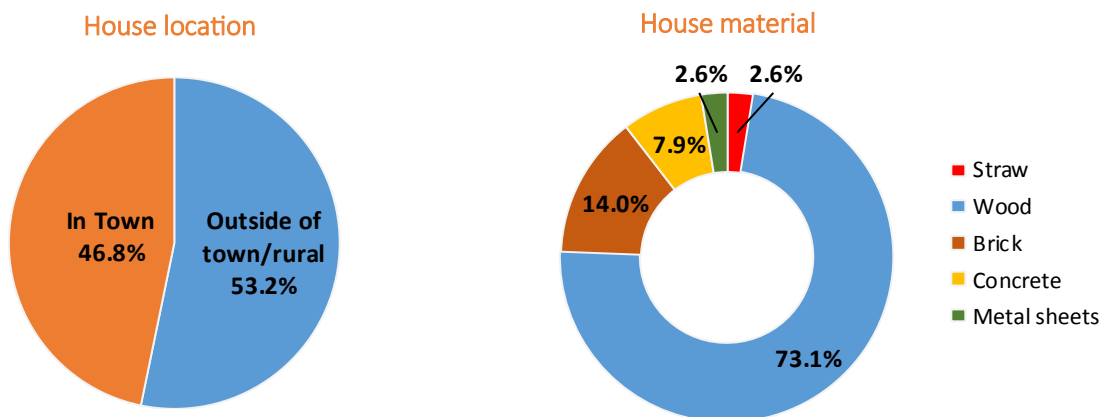
Six Most common vulnerabilities assessed among registered households



MODULE 2: Registration

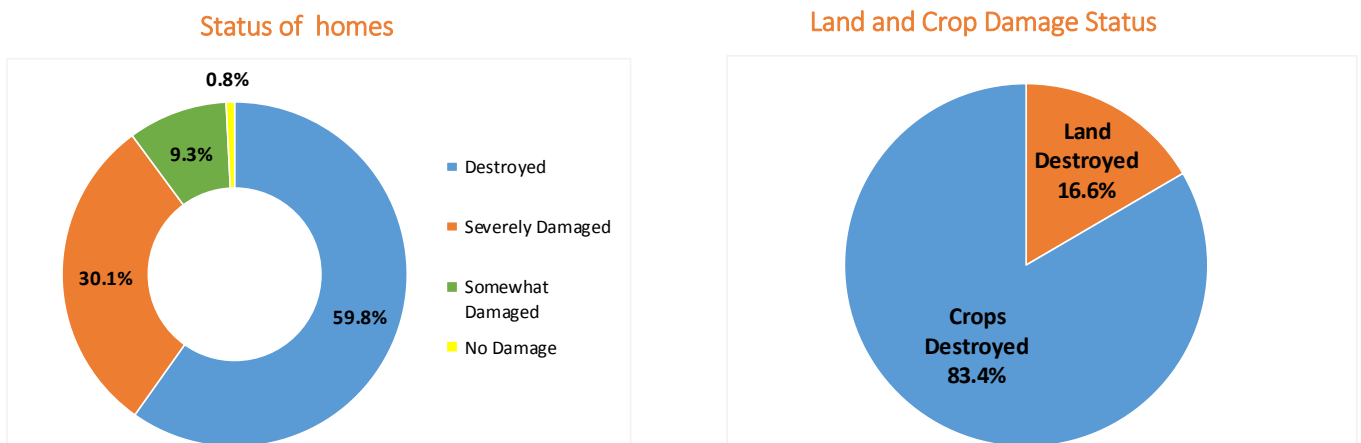
House characteristics and location

46.8% of 3,145 households registered have indicated that their residence is located in an urban area (in town) while 53.2% have indicated that they reside in a rural area (outside of town). 73.1% of 3,145 households have also indicated that their house is mostly constructed with wood, while 14.0% have indicated that their residence is built with bricks.



Damage assessment

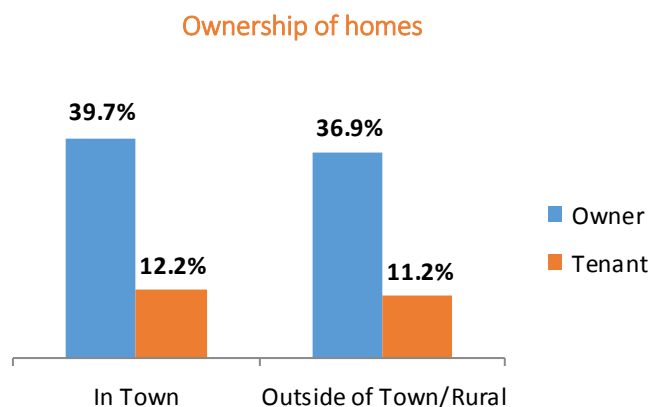
A reported 57.4% of households registered have indicated that their home has been destroyed while 28.9% have indicated that their home has been severely damaged by the hurricane. 16.6% of respondents have also indicated damage sustained to their land while 83.4% claim damage to their crops (difference being the prior land had no crops growing while damage to crops includes also land damage).



Building and land occupancy

A reported 76.6% of the registered households have indicated owning their residence while 23.4% have indicated renting their residence. In parallel, 70.3% of the registered households have indicated owning their lands while 29.7% have indicated renting their land.

Furthermore, whether in town or outside of town, the proportion of the affected population that are owners is higher than the proportion that are tenants.





Aerial image of Jérémie. © IOM October 2016

The DTM activities in response to Hurricane Matthew are made possible with the support of the following donors:



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