



Hurricane Matthew Response

DISPLACEMENT TRACKING MATRIX (DTM) - HAITI ROUND 3 REPORT 15 DECEMBER 2016

HIGHLIGHTS & CURRENT STATUS



692 evacuation shelters have been inventoried. Of these, 349 have been assessed by DTM teams. Registration data is currently available for 76 sites.



A total of 3,996 households (representing 17,748 individuals) have been registered in 76 evacuation centres.



A reported 3,014 individuals (17.0%) of the 17,748 individuals registered present various vulnerabilities.



58.2% of households interviewed have reported that their house has been destroyed while 31.4% have indicated that their house had been severely damaged by the hurricane

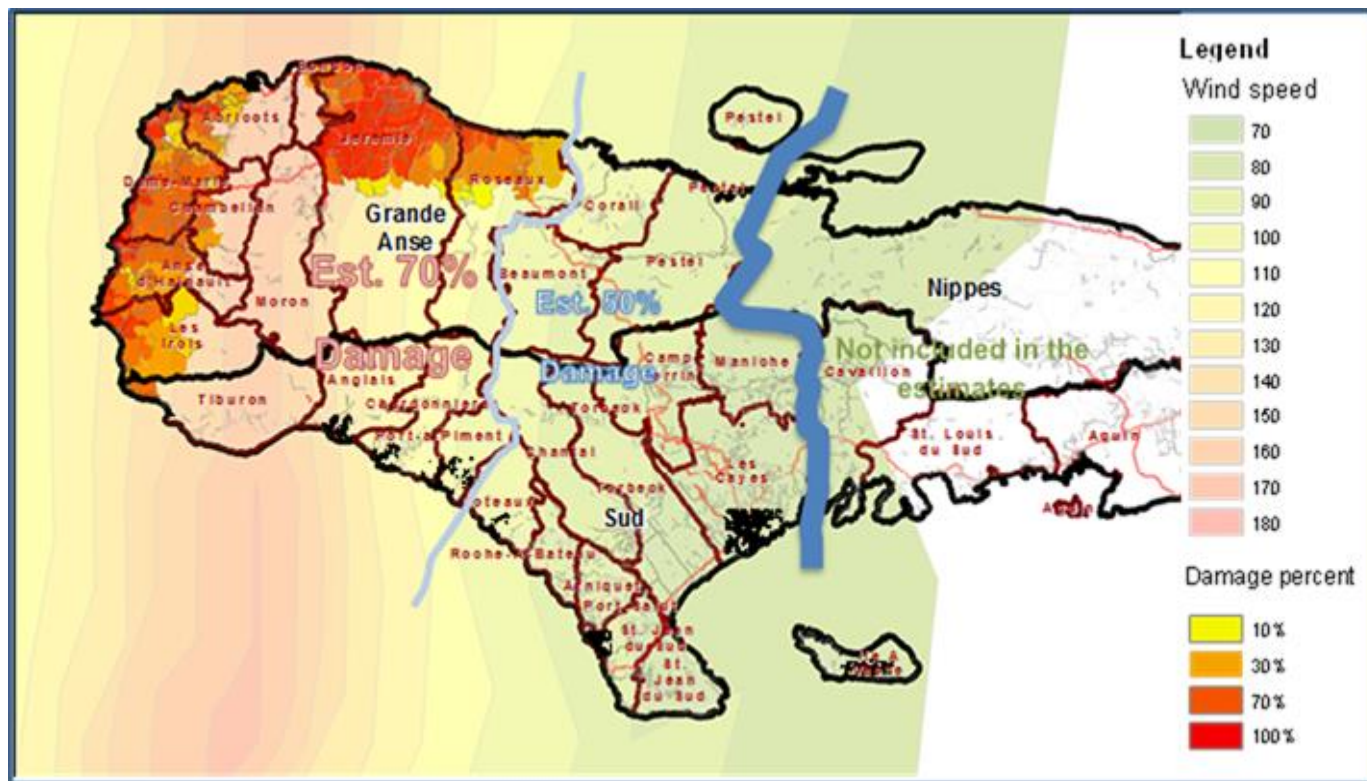


CONTEXT

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 evacuation 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).

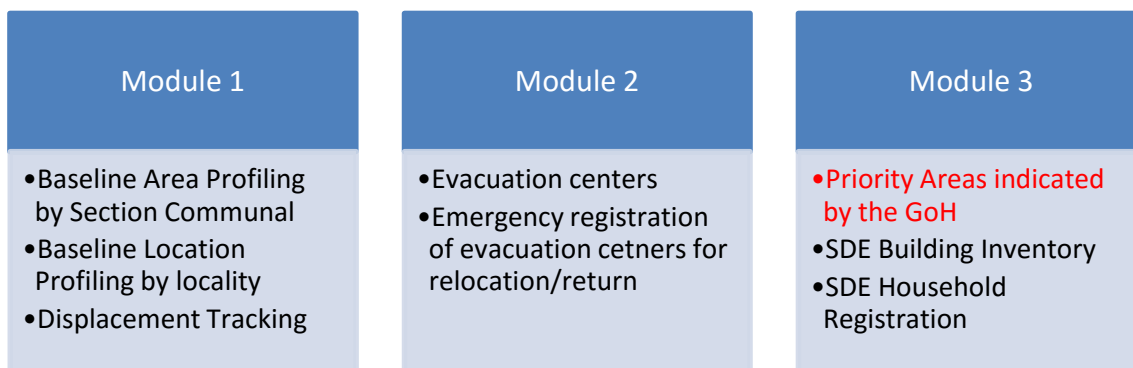
The DTM has also paired the aforementioned evaluations with existing information and data, such as the building inventory carried out on the entire country by the National Institute of Statistics (IHSI in French). The building inventory was carried out in geographical areas (census block units) used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

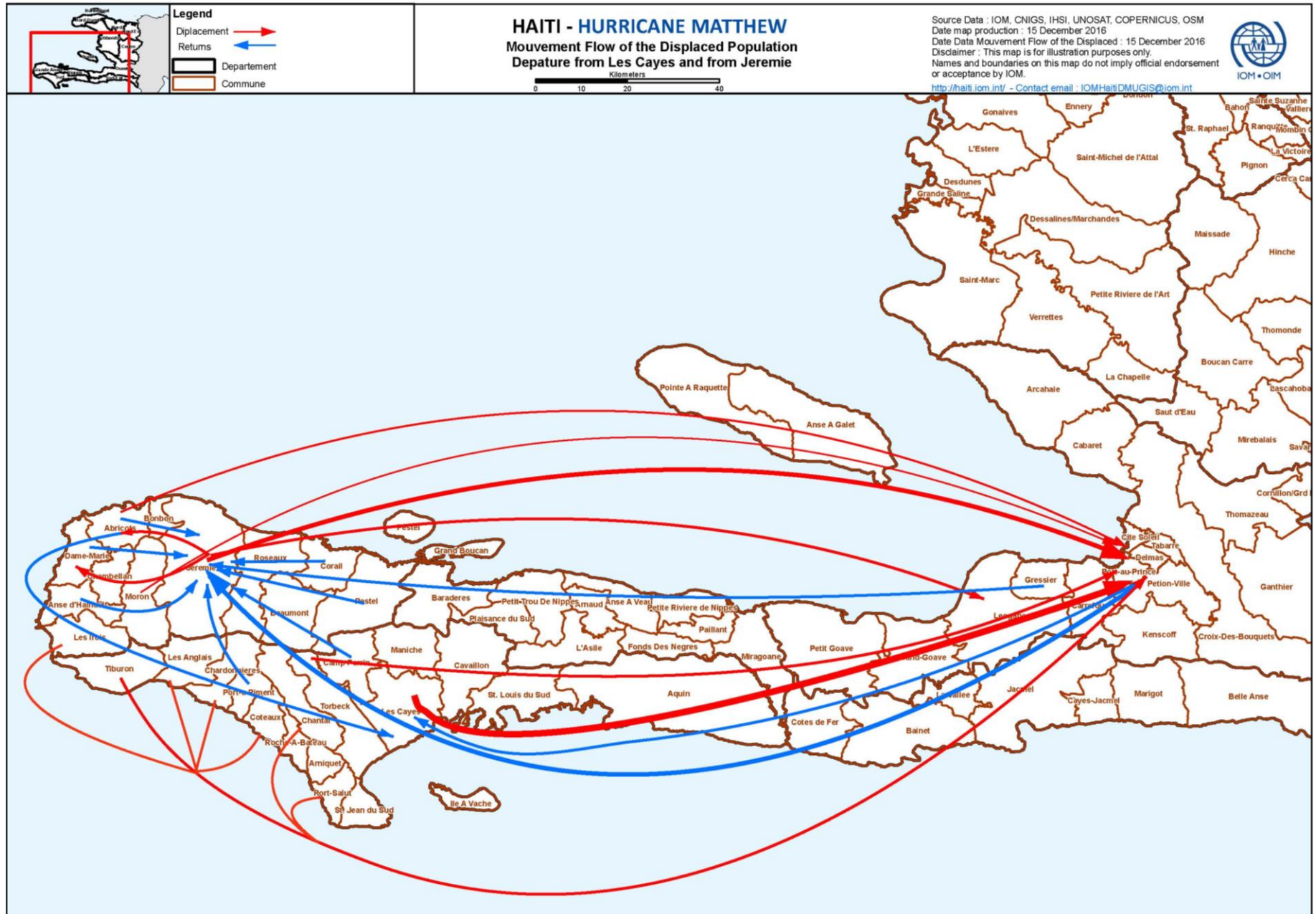
Independently of the aforementioned modules, the registration in localities is carried out based on priority areas pre-identified by the GoH. The registration contains 2 steps: 1) The building and plot inventory and cartography and 2) The household registration at SDEs level.

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 1: Population movement trends

This map presents population movement trends (displacement and return) observed in the Grande Anse and Sud departments.



MODULE 2: Shelter Profiling

A – Main shelter profiling findings

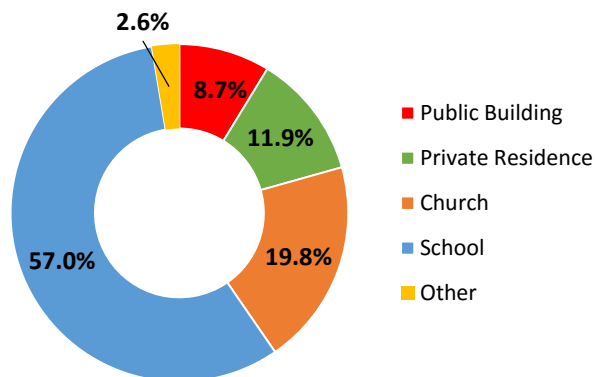
IOM has carried out an inventory of **692¹evacuation shelters**, conducted a profiling exercise in 349 and registered 76¹ of these shelters.

The **shelters assessed and profiled** by IOM are housing **9,593 households** equivalent to **38,858 persons**. It is important to note that aforementioned population figures are partial data corresponding to 181 sites (data available at publication of report).

Overview of shelter assessments

Evacuation Shelters	Grande-Anse	Sud	Nippes
Inventoried	282	265	145
Profiled	165	97	89
Registered (open)	45	24	9
Closed	90	52	45

Typology of profiled shelters



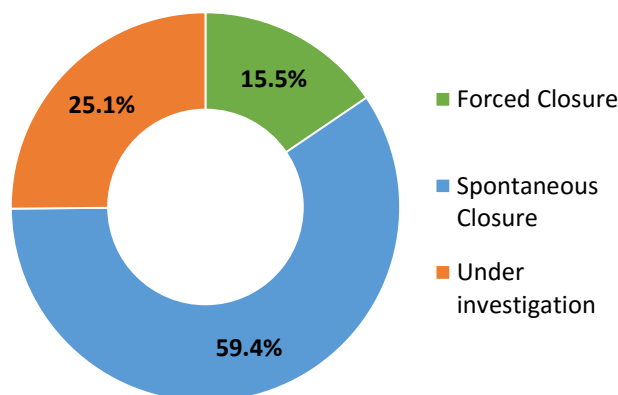
Closure of shelters

Based on reports from field partners, departmental authorities and physical observation of the evacuation shelters that were opened following Hurricane Matthew 187 shelters have since closed: 90 were located in Grande Anse, 52 were in Sud and 45 were in Nippes.

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

- 111 evacuation shelters have closed spontaneously (information on shelter closure provided by community leaders in the shelters): 19 in Sud, 48 in Grande Anse and 44 in Nippes
- 47 evacuation shelters for which the closure reason is unknown (under investigation by IOM and DPC teams): 20 in Sud, 26 in Grande Anse and 1 in Nippes
- 29 forced closures: 13 in Sud and 16 in Grande Anse.

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.

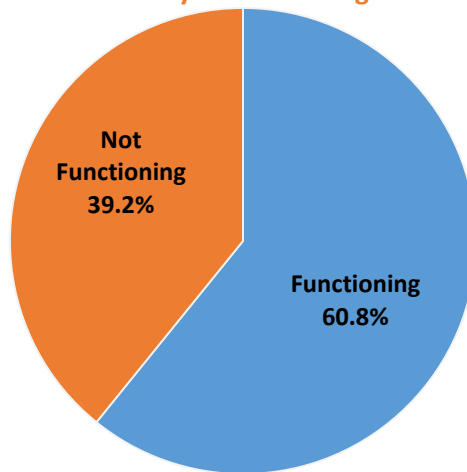


WATER, SANITATION AND HYGIENE (WASH)

Functioning Latrines and Water Source

The affected population residing in 59 of the 97 shelters in which data collection has been completed has indicated having access to functioning latrines (60.8%) while 38 did not have access to functioning toilets (39.2%).

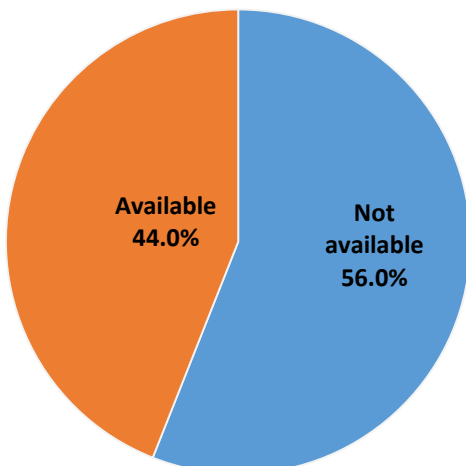
Availability of functioning toilet



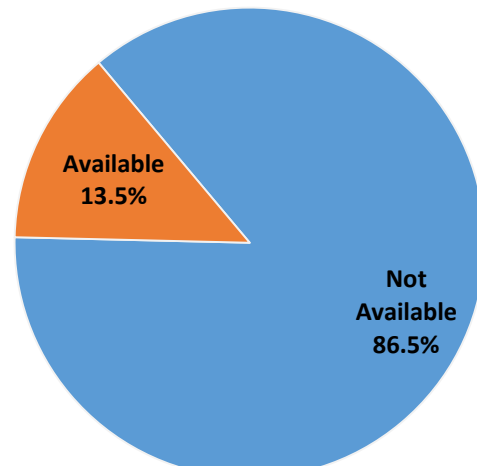
Separated latrines and bathing areas

Within 75 evacuation shelters where data collection on latrines has been completed, residents of 33 shelters (44.0%), have indicated having access to gender separated latrines while 42 have indicated not having access to gender separated latrines (56.0%). In addition, residents of 10 evacuation shelters have indicated having access to gender separated bathing areas (13.5%) while 64 have reported not having access to gender separated bathing areas (86.5%).

Availability of separated latrines



Availability of separated bathing areas



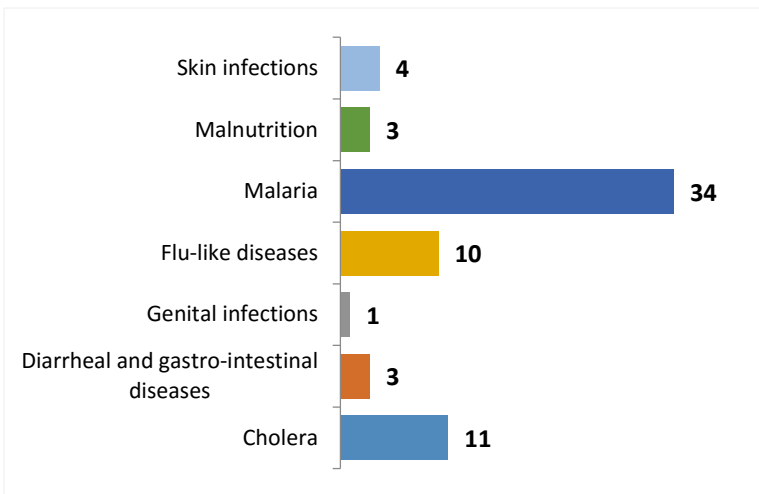
MODULE 2: Shelter Profiling



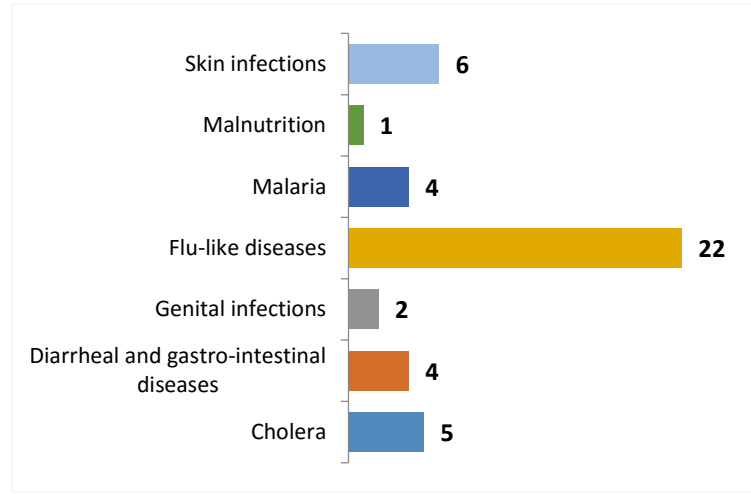
Prevalence of health problems

Residents in 66 shelters have reported a variety of health issues. Particularly, in 34 of these shelters (51.5 %), the affected population indicated that Malaria was the most prevalent health issue. In another 10 shelters (15.2 %) it was reported that flu-like illness was the most prevalent problem. Cholera was reported as being the most common health issue in another 11 shelters (16.7 %). Other illnesses cited as most prevalent have included malnutrition (4.5% of responding shelters), skin infections (in 6.1% of sites), genital infections (1.5 %) and diarrheal and gastrointestinal diseases (4.5%).

Most prevalent health problem in shelters



Second most prevalent health problems in shelters

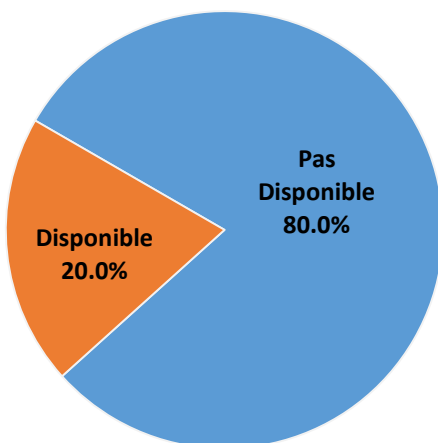


Access to education

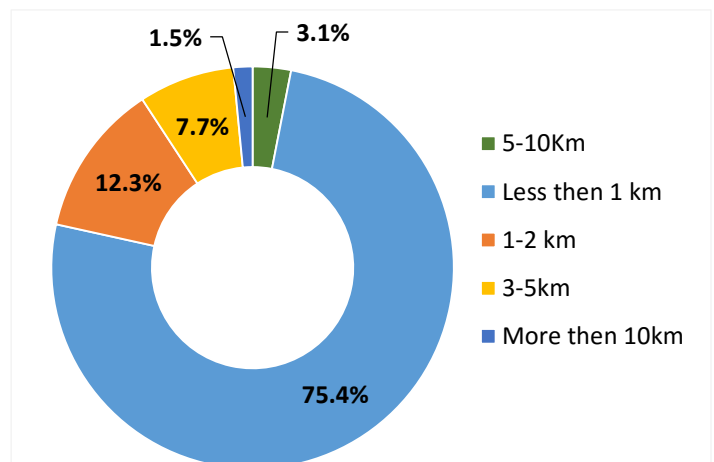
Of 75 shelters with complete information, children residing in 15 evacuation shelters (20.0 %) are enrolled in school while children in 60 shelters (80.0 %) are not currently enrolled in school.

In addition, out of a total of 65 evacuation shelters with complete information on the distance of educational facilities, 49 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 5 shelters are located at a distance of 3 km to 5 km from the nearest education center.

Access to education services for children



Distance of shelters to the nearest education



MODULE 2: Shelter Profiling

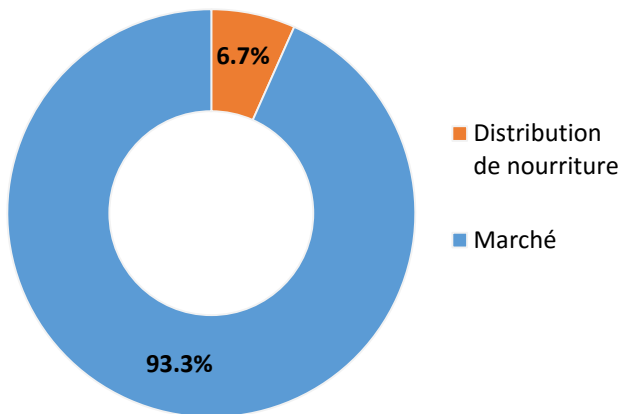


FOOD AND NUTRITION

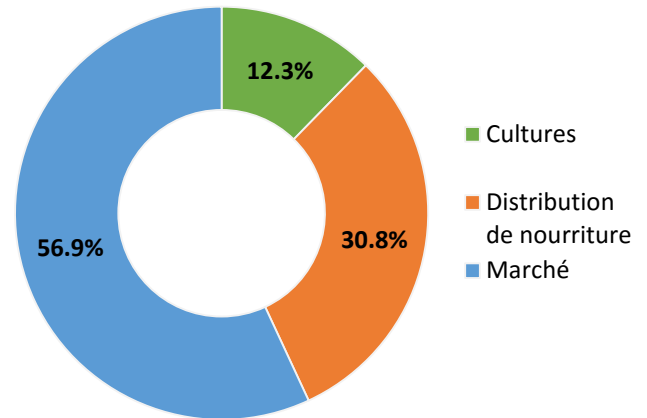
Main source of food

Of the 75 evacuation shelters where information on food sources has been collected, residents in 70 shelters (93.3 %) have indicated acquiring food on the local market while in 5 shelters the population relies on food distribution (6.7 %).

Main source of food for population living in open shelters



Second source of food for population living in open shelters



MODULE 2: Registration

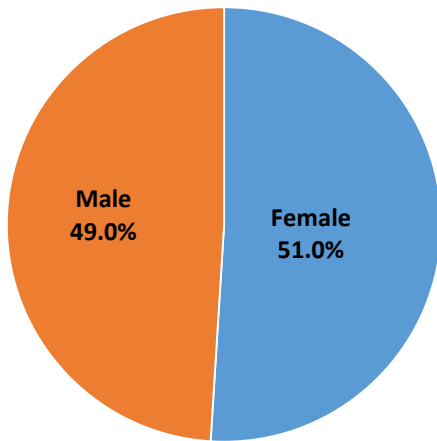
B- Registration Data

A total of 78 out of the 349 profiled evacuation shelters have been registered by IOM teams assisted by communal DPC volunteers in the departments of Grande Anse, Sud and Nippes. Registration operations are currently ongoing in open evacuation shelters. This report presents registration information collected in 76 shelters. Data will be updated as it becomes available.

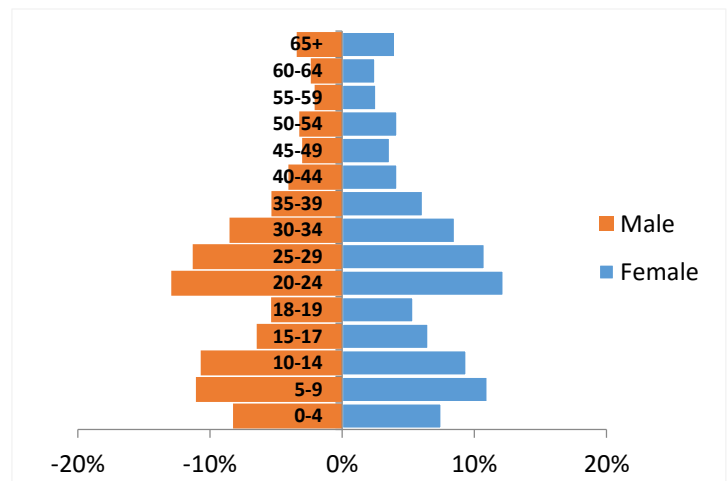
Demographics

Of the 17,748 individuals registered (3,996 households) in 76 sites, 51.0% are female while the other 49.0% are male. The majority of the displaced population reported being aged between 18-59 years old, individuals from this group represented 56.7% of registered individuals. A reported 35.4% are minors (aged between 0-17 years old): 7.9% are under the age of 5 and 27.5% are between 5-18 years old. 6.1% are aged 60 and above.

Sex Breakdown



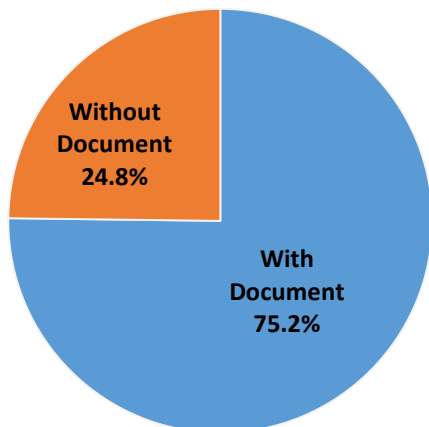
Age and Sex Breakdown



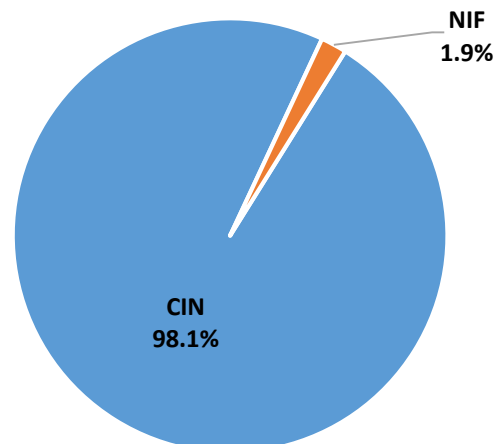
Documentation

75.2% of the 3,996 heads of households registered have reported having documentation while 24.8% did not possess any documentation. The most common ID held is the Carte d'Identité Nationale or CIN (98.1% of households with documentation). The Numéro d'Identification Fiscale, or NIF, is held by 1.9% of those registered

Documentation status of registered



Documentation held by registered



MODULE 2: Registration

Counter trafficking indicators

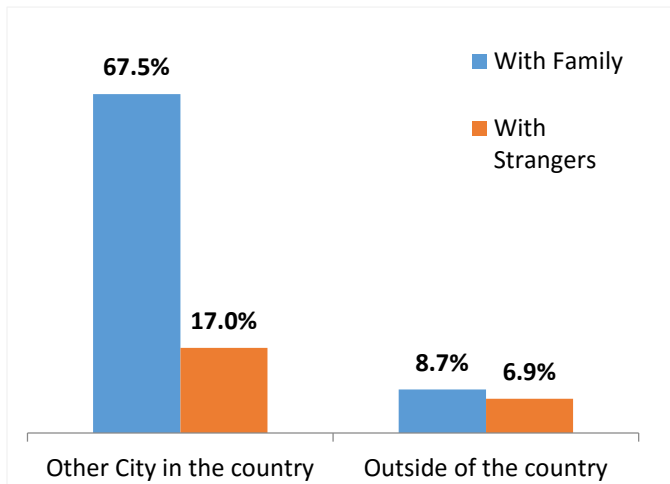
Of the 3,996 households registered, a reported 7.6% (277 households) have indicated that they had decided to send their children away. More specifically:

- 187 households (67.5%) of these 277 households intend to place their child with family in another city in Haiti while 46 households (17.0%) intend to place their child with non-family members (acquaintances or other) in another city in Haiti
- 24 households (8.7 %) of the 277 households intend to place their child with relatives living in another country while 19 households (6.9 %) intend to place their child with non-family members (acquaintances or other) in another country.

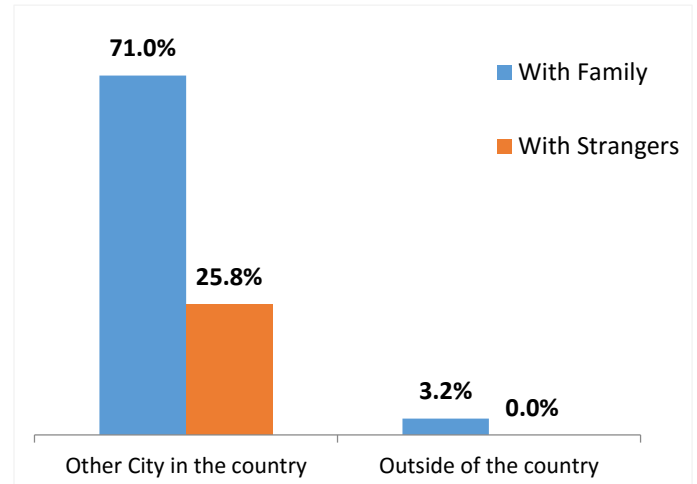
In addition, 31 households (0.8%) of the 3,996 registered households have reported being offered to place their child in another home or household. The 31 households have specifically indicated the following:

- 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



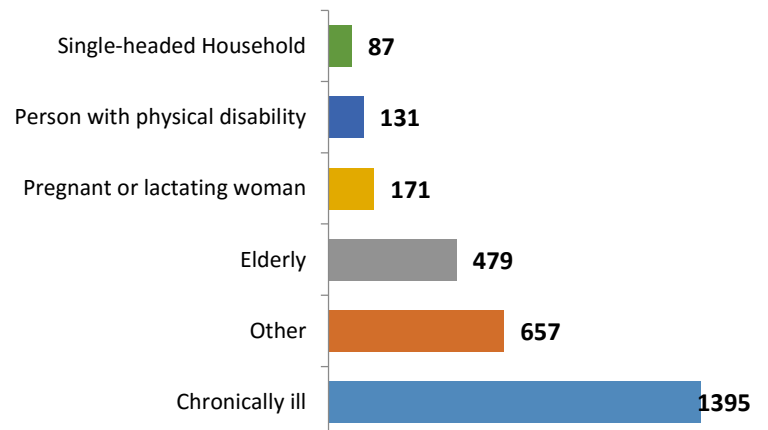
Household who have been offered the possibility to place children outside of the household



Vulnerabilities

Of the 17,748 individuals registered, 3,014 (17.0 %) were identified as vulnerable. Of the 17,748, 1,395 (7.9 %) are chronically ill, 479 (2.7%) are elderly and 171 (1.0 %) are pregnant or lactating women. Furthermore, a reported 14 (0.1%) are presumed to be unaccompanied minors, 13 (0.1%) are orphaned children and 16 (0.1%) are minors who are separated from their parents or guardians.

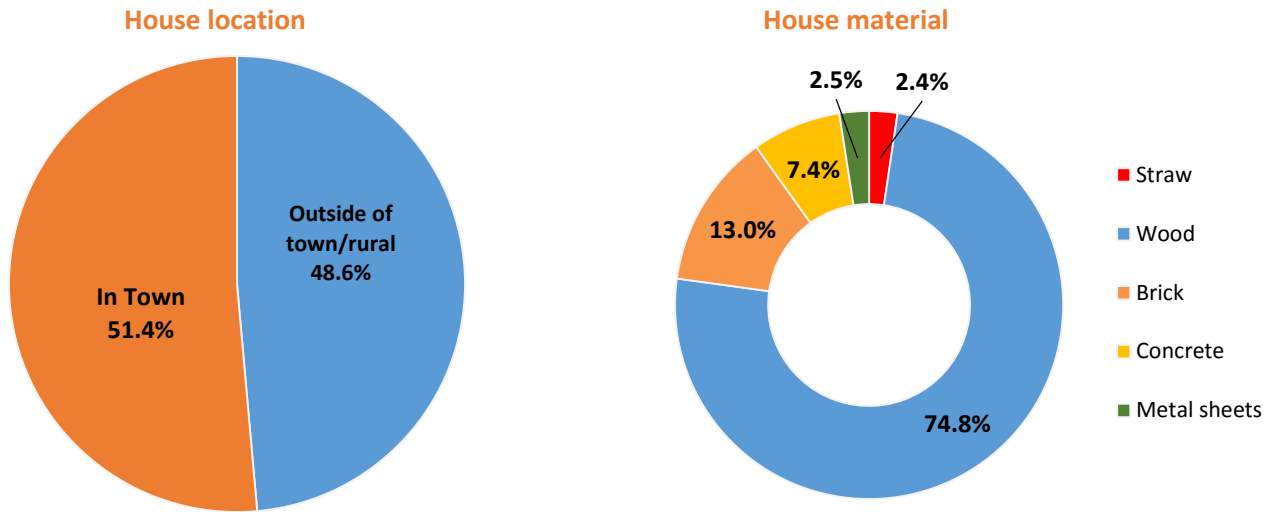
Six most common vulnerabilities assessed among registered households



MODULE 2: Registration

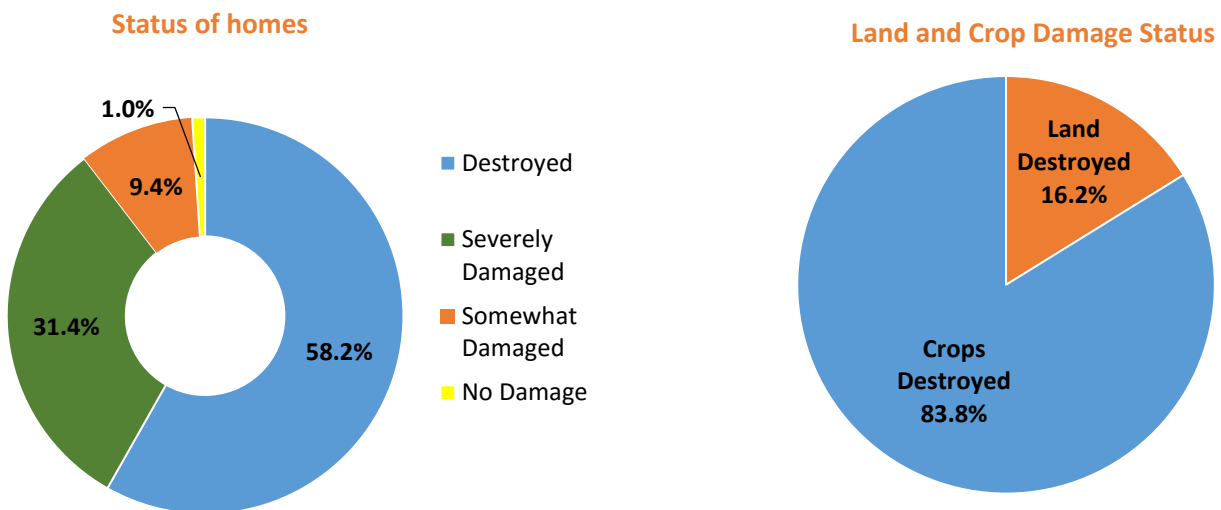
House characteristics and location

51.4% of 3,996 households registered have indicated that their residence is located in an urban area (in town) while 48.6% have indicated that they reside in a rural area (outside of town). 74.8% of 3,996 households have also indicated that their house is mostly constructed with wood, while 13.0% have indicated that their residence is built with bricks.



Damage assessment

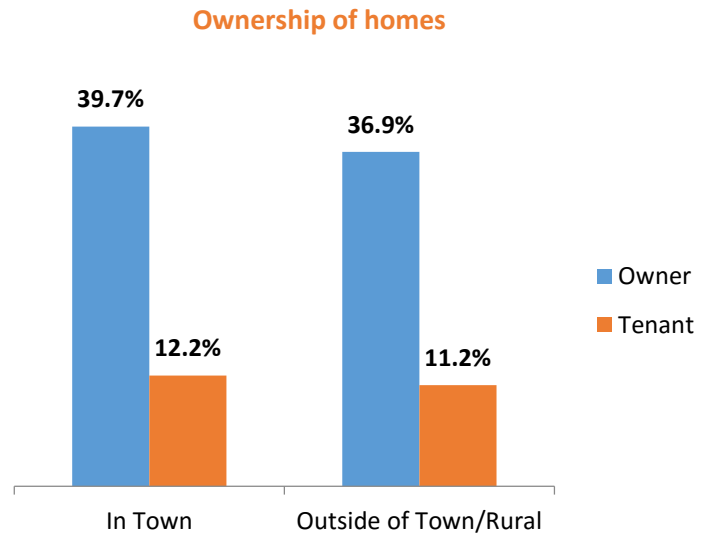
58.2% of households registered have indicated that their home has been destroyed while 31.4% have indicated that their home has been severely damaged by the hurricane. 16.2% of respondents have also indicated damage sustained to their land while 83.8% claim damage to their crops (difference being the prior land had no crops growing while damage to crops includes also land damage).



Building and land occupancy

A reported 71.1% of the registered households have indicated owning their residence while 26.1% have indicated renting their residence. In parallel, 65.2% of the registered households have indicated owning their lands while 28.4% have indicated renting their land.

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





Aerial image of Jérémie © IOM October 2016

The DTM activities in response to Hurricane Matthew are supported by the following donors:



For additional information, please visit our website: <http://iomhaitidataportal.info/dtm>

or contact the DTM Haiti Team: dtmhaiti@iom.int