Food and Nutrition Security Measurement: A field experience
Methods must determine

- **WHO?**
  - is food insecure or vulnerable

- **WHY?**
  - are they food insecure or vulnerable

- **WHERE?**
  - do they live

- **WHAT?**
  - should be done to save their lives and livelihoods

- **HOW MANY?**
  - are they

- **HOW?**
  - is the situation likely to evolve and what are the risks threatening them
Credible analysis must inform decisions

RELEVANCE
TIMELINESS
FREQUENCY
COVERAGE
Latest Measurement Instruments
Very High Resolution (VHR) Satellite Imagery
Estimation of crop production in conflict areas
Evolution of IDP camp

May 14 2016

Layout of the camp showing rapid expansion

July 30 2016

Flooding following onset of rainy season (indications of standing water)

Oct 21 2016

Relocation of camp residents following flooding
The number of IDP shelters at the camp continues to increase. MSF reports that there were approximately 55,000 residents in the camp as of 27 July.

**Summary of expansion:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 May 2016</td>
<td>3,600</td>
</tr>
<tr>
<td>13 June 2016</td>
<td>3,800</td>
</tr>
<tr>
<td>23 June 2016</td>
<td>4,350</td>
</tr>
<tr>
<td>30 July 2016</td>
<td>4,900</td>
</tr>
</tbody>
</table>
Call Detail Records (CDR)
**Estimated population away from their home Section Communaute**

**HOME DEPARTMENT:**
- **GRANDE ANSE:** 20%
- **SUD:** 17%
- **NIPESES:** 17%

**POLLUTION AWAY FROM HOME:**
- **77000**
- **132000**
- **51000**

**PERCENTAGE AWAY FROM HOME:**
- **18%**
- **17%**
- **17%**

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**Location** | **Population pre-hurricane** | **Persons arrived** | **Ratio (%)**
--- | --- | --- | ---
Port-au-Prince (metropolitan area) | 80700 | 80700 | 100
Baieau (Sud) | 31600 | 31600 | 100
Fond Rouge (Sud) | 48000 | 48000 | 100
Fond Rouge (Nipeses) | 61900 | 61900 | 100

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[2] Of the people normally resident within the given Department, we estimate the total number away from their home Section Communaute on the day.

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**National Overview**

19 August 2015

1. **Overview**

<table>
<thead>
<tr>
<th>District</th>
<th>Population</th>
<th>Inflow above normal</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathmandu</td>
<td>2,780,000</td>
<td>121,000</td>
<td>4.7</td>
</tr>
<tr>
<td>Rasmeedkip</td>
<td>218,000</td>
<td>28,600</td>
<td>12</td>
</tr>
<tr>
<td>Dhading</td>
<td>360,000</td>
<td>62,200</td>
<td>17</td>
</tr>
<tr>
<td>Kapotananchok</td>
<td>494,000</td>
<td>12,500</td>
<td>3.1</td>
</tr>
<tr>
<td>Nukhak</td>
<td>297,000</td>
<td>9,620</td>
<td>3</td>
</tr>
<tr>
<td>Mahawang</td>
<td>443,000</td>
<td>9,000</td>
<td>2</td>
</tr>
<tr>
<td>Devarika</td>
<td>199,000</td>
<td>3,860</td>
<td>2</td>
</tr>
<tr>
<td>Sindhupalchok</td>
<td>308,000</td>
<td>3,570</td>
<td>1.2</td>
</tr>
<tr>
<td>Dhanidrung</td>
<td>159,000</td>
<td>2,610</td>
<td>1.6</td>
</tr>
<tr>
<td>Sindhuli</td>
<td>315,000</td>
<td>2,230</td>
<td>0.71</td>
</tr>
<tr>
<td>Nimalika</td>
<td>209,000</td>
<td>1,380</td>
<td>0.68</td>
</tr>
<tr>
<td>Rasuwa</td>
<td>45,000</td>
<td>980</td>
<td>0.22</td>
</tr>
</tbody>
</table>

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Population flows between districts are large under normal conditions. Here we present, for each district as of 19 August, the estimated above-normal number of people inside each district who have homes in other districts and moved from their home district sometime after the earthquake. Inflows to a district are comprised of people leaving their home district to come into the new district and Nepalese relief workers (relief workers coming into Nepal after the earthquake are excluded). The table to the left presents the absolute numbers for key districts.
mobile Vulnerability Analysis and Mapping (mVAM)
mVAM GLOBAL PRESENCE:
- 33 active countries, 4 planned
- Used in 5 major emergency responses
- Over 14,000 monthly surveys

ADVANTAGES:
- **Safety**: no need for “boots on the ground”
- **Cost**: between $5-9, compared to $20-40 for a face-to-face survey
- **Time**: 1-2 week turnaround compared to 6 weeks for a face-to-face survey
- **Flexibility**: can be used to collect other indicators
Mobile surveys
Respondents are contacted on their mobile phones

Data is anonymized and cleaned

Data is stored in a database and analyzed by a 'stats engine'

Results and data are shared as a global public good

Humanitarian decision making process

2-Way Communication
Respondents contact WFP on their mobile phones

In development
Chatbot
[Automated chats]
Free Basics
[Free basic online services]
A global public good
Open and big data and analyses
vam.wfp.org
Looking for a wellbeing indicator
Thank you