

# Estimating mortality among displaced populations in the Sahel

Brahima Touré, Epicentre, Paris

## Background

The intensification of Boko Haram attacks in the Sahel belt since 2014 have led to substantial displacements of the population in the area. In support of MSF's humanitarian assistance programs, population surveys were conducted in the town of Maiduguri (Nigeria) and in 5 locations in the Diffa region (Niger) to obtain mortality estimates over the course of 2015 among the host population, refugees, and returnees. In addition, the nutritional status and the measles vaccination coverage among children aged between 6 and 59 months were estimated.

## Methods

A cross-sectional retrospective survey was performed in Maiduguri from June to July 2015 and from January to April 2016, including 21 414 individuals in Maiduguri and 51 081 individuals in the Diffa region (including the town of Diffa, Chetimari-Gagamari, Assaga, Yébi and Toumour), selected by random spatial sampling.

## Results

In the town of Maiduguri, the crude mortality rate (CMR) was 0.30 deaths/10 000 persons/day [95%CI: 0.27 – 0.35] and 28.5% of the deaths were violence-related. The prevalence of severe acute malnutrition (SAM) was estimated at 1.3% [95%CI = 0.93 – 1.76].

In the Diffa region, the CMR varied from 0.30 deaths/10 000 persons/day [IC95%: 0.25 – 0.36] in Chetimari-Gagamari to 0.60 deaths/10 000 persons/day [IC95%: 0.53 – 0.68] in Yébi. Among the 841 recorded deaths in the Diffa region, 14.4% were violence-related; violence-related deaths varied from 10.1% in Assaga to 15.2% in Yébi.

The prevalence of SAM varied from 0.5% [95%CI = 0.22 – 1.0] in Yébi to 3% [IC95% = 2.3 – 3.9] in Toumour. Measles vaccination coverage confirmed by documentation was 11.7% in Toumour, 15.4% in Yébi, 42.4% in Diffa, 51.4% in Chetimari-Gagamari and 88.1% à Assaga.

These are the first crude mortality estimates available for the displaced populations in the region that is prone to Boko Haram attacks. The CMR and the prevalence of SAM observed were below the emergency and alert thresholds. However, the proportion of deaths caused by violence continue to be a matter of great concern in Maiduguri and the Diffa region.