

**Trends of Cluster Malnutrition Prevalence and Hunger Pattern in
Kazaure Local Government Area of Jigawa State, North-Eastern
Nigeria (2010 - 2012)**

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ABSTRACT

This paper presents the result of a statistical surveillance system carried out in Kazaure Local Government Area in Jigawa State, North-eastern Nigeria, using a multi-stage cluster sampling technique with repeated surveys which stratified the Local Government Area into three equal parts called stratum based on the principle of Population Proportional to Size (PPS). The prevalence of Severe Acute Malnutrition (SAM) and Global Acute Malnutrition (GAM) were estimated with the pattern of hunger gaps within the clusters at different survey times captured from March 2010 to February 2012. The system was put in place as a pilot for future replication and up-scaling to other states in Nigeria with malnutrition and food security challenges, if it impacted on the wellbeing and livelihoods of the people. The study was designed such that data were collected and analyzed through repeated surveys with the application of the Emergency Nutrition Assessment (ENA) for SMART Methodology which promptly gave the point and interval estimates of malnutrition prevalence on a 95% confidence interval with an assurance that the point and interval estimates were close enough to precision and hence could be used as a basis for generalization on the entire Kazaure population. Passive surveillance and constant monitoring at selected health centers in Kazaure Local Government Area with systematic tracing of defaulters also helped to generate more data sets. Through this system, a data driven and informed decisions on the prevalence of malnutrition and the pattern of hunger gaps in Kazaure, targeting children between the ages of 6-59 months or those children whose heights were between 65cm-110cm from 30 randomly selected clusters were made.

Key Words: Statistical surveillance, malnutrition, mortality, severe acute malnutrition global acute malnutrition, mid-upper arm circumference, anthropometrics, passive surveillance, emergency nutrition assessment, cluster, confidence interval and bilateral edema.