

Tracking food security during the Ebola Virus Disease (EVD) outbreak in Guinea

Highlights

- The Reduced Coping Strategies Index (rCSI) is particularly high in Forest Guinea, the part of the country that has been most affected by the Ebola Virus Disease (EVD). Households are using more severe coping strategies, leading to a food security situation that is more precarious than in the rest of the country. According to surveys conducted before the crisis, this area already had a high prevalence of food insecurity.
- Casual labour rates are lower in Nzerekore than in other regions. Limited market access to trade agricultural products could further reduce the demand for unskilled labour during the harvest period.

Methodology: Remote Mobile Phone Surveys

Why Remote Mobile Surveys?

The expansion of the Ebola Virus Disease (EVD) outbreak has been declared a Level Three emergency, the highest within the UN System. Up-to-date information is essential to support informed, evidence-based responses. Unfortunately, given the current conditions, collecting primary data remains difficult. Restrictions on staff movement and the risk to enumerators and interviewees in a major public health emergency make countrywide face-to-face data collection a difficult proposition.

WFP has therefore opted to resort to remote data collection through mobile phones in order to collect basic food security data. Rounds of data collection will take place every month. Mobile data collection is quick – an advantage in a fast-breaking crisis such as the EVD outbreak.

When interpreting the data below, readers are cautioned to note that mobile phone surveys skew towards better-off households in urban areas. According to the World Bank, there are 63 cellular subscriptions per 100 people in Guinea (2013). While the rate of cell phone usage is rapidly increasing, a large segment of the population does not own a cell phone and thus has not been reached by the survey. Remote data collection will not replace the need for on-the-ground emergency assessments, particularly those used for targeting and response design.

The data used in this bulletin was collected using Interactive Voice Response technology from a sample of 780 randomly selected respondents. At least 100 respondents reside in the Nzerekore region, the area most affected by the epidemic. As per standard survey procedures, respondents' consent was obtained prior to the interviews and an airtime credit incentive, in line with best practices for this form of data collection, was provided.

The methodology has been informed by WFP's mVAM project, which has implemented mobile surveys in the Central African Republic, DR Congo, Kenya and Somalia. An article on mobile text message surveys published in *Humanitarian Exchange*¹ informs the methodological choices implemented in Guinea.

¹ http://www.odihpn.org/the-humanitarian-space/news/announcements/blog-articles/a-new-tool-in-the-toolbox-using-mobile-text-for-food-security-surveys-in-a-conflict-setting



Results: Higher Levels of Coping in Forest Guinea

The survey collected information to inform the Reduced Coping Strategies Index (rCSI)², which evaluates the frequency and severity of household coping strategies. A high rCSI reflects greater vulnerability to food insecurity.

October data for Guinea suggests that the rCSI is high in Forest Guinea (rCSI=23.5), indicating greater food insecurity in this zone compared to the rest of the country. The rCSI is particularly high in Macenta prefecture in the Nzerekore region, a zone that has been hard hit by the epidemic. Unfortunately, the limited number of responses received from Macenta does not permit us to draw more precise conclusions.

Map 1: Guinea - High Coping Strategies Observed in Guinea in October 2014



Source: mVAM, data WFP, October 2014

In Upper Guinea, households are

using fewer coping strategies than in other areas of the country (rCSI=20.6). Households in Conakry (rCSI=21.8) fall between those in Forest Guinea and Upper Guinea in terms of coping strategies. There is high standard deviation in Conakry, which is likely indicative of a more heterogeneous population that would be better understood with more disaggregated data.

The coping strategies most frequently used by households include reducing the quality and frequency of meals. Consumption of less-preferred foods is noted, probably including the substitution of rice with cassava. In Forest Guinea, many households reported limiting adult household members' food consumption for the benefit of their children. In Conakry, a large proportion of households reported incurring debt to purchase food.

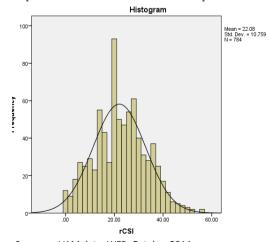
Of all the regions of the country, the rCSI level reported by this mobile phone survey is higher than in the baseline surveys conducted in Guinea in 2009 and 2012. This may be caused by the methodology and/or the impact of the EVD epidemic on household livelihoods and food consumption. Note that nationally, 57 percent of Guinean households had poor or borderline food consumption behaviours before the crisis, indicating chronic food insecurity, which has been further exacerbated by the EVD epidemic.³

At the end of October 2014, the bulk of EVD cases were reported in the prefectures of Macenta and Gueckedou and in the city of Conakry. However, high rCSI are also found in areas with lower frequencies of EVD.

Quality of Data Collection

As Graph 1 shows, the rCSI data results in a normal distribution. This indicates that data is suited to statistical analysis. Given that the average is around 20, the distribution is characteristic of a situation where households are implementing a number of coping strategies. In a more 'normal' situation, the data would have a typical binary distribution, with a peak at 0 and another peak at 15–20.

Graph 1: Distribution of rCSI Responses



Source: mVAM data, WFP, October 2014

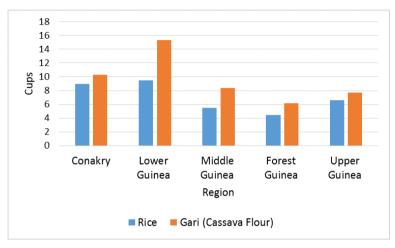
²The rCSI includes the severity and frequency of coping strategies linked to food consumption. If more households adopt coping strategies, the rCSI level will be higher. http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

^{3 &}lt;a href="http://www.wfp.org/content/guinee-enquete-nationale-de-la-securite-alimentaire-et-de-la-vulnerabilite-janvier-2014">http://www.wfp.org/content/guinee-enquete-nationale-de-la-securite-alimentaire-et-de-la-vulnerabilite-janvier-2014

Food Prices and Terms of Trade

Prices for basic commodities vary across the country. The price for palm oil, which is a primary source of income in Forest Guinea, seems particularly low. A half-litre of palm oil sells for under 3,000 Guinean Francs (GNF), while it is sold for over 3,600GNF in other regions of the country. In addition, there are relatively high prices for palm oil and *gari* (local word for cassava) in Upper Guinea. This phenomenon is likely linked to trade restrictions caused by country border closures, which have reduced the volume of cross-border trade to Senegal, according to analyses conducted by WFP in September. These restrictions have already led to a sharp drop in potato prices in Upper Guinea⁴ and could eventually affect other sectors' annuity, damaging income and food access for people who depend on these markets.

Graph 2: Cups of Rice per Day Worked



Source: mVAM Data, WFP, October 2014

In Guinea, prices often vary greatly from one locality to another, indicating a reduction in trade between production areas and other regions (i.e., higher prices for palm oil and local rice in Forest Guinea compared to other regions). This decrease in trade flows is caused by the winter season when road access is often limited. There may also be a link to EVD, as some traders are no longer willing to purchase products from areas that are heavily affected by EVD, even if they are normally high production areas.

Survey results suggest that the casual wage rate for unskilled labourers is particularly low in Forest Guinea, where the daily rate is 18,000GNF/day. This level is well below daily wage rates recorded in Conakry and Lower Guinea, where the salaries of daily labourers exceed 30,000GNF/day.

Low daily wage rates in Forest Guinea could be linked to limited market access and/or disruptions to agricultural activities, which are a key source of revenue for the area. Relatively low wage levels imply reduced purchasing power. Currently, day labourers residing in Forest Guinea can only purchase 4–5 cups of rice per day, whereas people in Conakry or Lower Guinea can purchase 8-9 cups of rice with their daily wage. This disparity in purchasing power across zones also applies to cassava flour.

Conclusions and Outlook

As in Sierra Leone, some links were observed between the extent of the epidemic and food insecurity. However, in the most-affected areas of Guinea, EVD appears to be a shock to an already precarious situation of chronic food insecurity, especially in Forest Guinea.

With harvests well underway, Guinea is entering the time of year when rural households should be consuming more. The country is also approaching the market period for cash crops, which, during normal times, leads to increased incomes in rural areas. The impact of the EVD epidemic on these activities will be critical to the livelihoods and food security of households.



For more information, please contact:

Arif Husain arif.husain@wfp.org

Jean-Martin Bauer jean-martin.bauer@wfp.org

Anne-Claire Mouilliez anne-claire.mouilliez@wfp.org

To download mVAM data on the ebola-affected countries, please visit: http://vam.wfp.org/sites/mvam_monitoring/index.html

⁴ http://documents.wfp.org/stellent/groups/public/documents/ena/wfp268458.pdf