Household Food insecurity and Child Survival: Implications for child mortality in Ogun State Nigeria
By Adeyemi, Ezekiel Oluwagbemiga
Dept of Sociology, Lagos University, Ojo
Lagos Nigeria.
gbemiga.adeyemi@lasunigeria.org, gbemibolaa@yahoo.com.

Introduction
Millions of people around the world are suffering from food shortages, and hunger, primarily due to bad harvests related to climate change, unjust terms of trade and the rush for bio fuels. These have resulted to upsurge in food prices in the last two years. The Food and Agriculture Organization (FAO, 2008) revealed that food prices rose by 9% in 2006, 24% in 2007 and has surged by 51% in the last 12 months. FAO forecasts that the world will spend US$1,035 billion on food imports in 2008, US$215 billion more in 2009. This will severely strain the budgets of low-income food-deficit countries (LIFDCs) that will see their import bills soar by more than 40% that year (FAO, 2008). By June 2008, the FAO had identified 22 developing countries as being particularly vulnerable to the food crisis in which Nigeria was part. Its assessment was based on a combination of three risk factors: an underweight prevalence rate of 30 per cent or more in the population, a high degree of dependence on imports of food staples such as rice, wheat and maize and a high degree of dependence on imported petroleum products. The food price crisis is likely to have pushed at least 100 million people back into poverty in 2008 and erase at least four years of progress towards the Millennium Development Goal (MDG) 1 target for the reduction of poverty (Ivanic and Martin, 2008). At the household level, consequences of this crisis are most acutely felt in LIFDCs where 50% rise in staple food prices causes 21% increase in total expenditure. In high income countries the rise in retail food expenditure will increase the income expenditure on food from 10 to 11% (Trostle, 2008).

Even before the food crisis hit an estimated 7 out of 10 of the world’s hungry were women and girls. Particularly vulnerable groups, such as young children and pregnant women, are now at risk of becoming permanently malnourished—irreversibly impacting the next generation. Women are also more vulnerable to poverty, with less access to credit, property rights, education, training, good jobs, and farm inputs such as fertilizer and extension services, compared to men, making them one of the hardest hit groups in times of crisis (United Nation, 2004; UNIFEM 2007; ICRW, 2006). For example, women own less than 15% of land worldwide and make up some 60% of the world’s working poor, people who work but do not earn enough to lift themselves above the $1 per day poverty line (ILO, 2006). The crisis is having a devastating effect on maternal health in particular. Malnutrition renders pregnant women more susceptible to infection, miscarriage and premature labour, and increases the likelihood that pregnant and lactating women who are HIV-positive will transmit the virus to their children (Del Vecchio, 2006).

Global food crisis will reduce the available stock of food for already insecure families thus leading to inequity in intra-household food distribution: when food is insufficient, women and children tend to received less than they need and this results in low consumption of food. ICRW (2006) reports that during an emergency such as a food crisis, pregnant and lactating mothers, together with infants, are among those considered most at risk of under-nutrition, owing to their higher nutritional requirements. For example, pregnant women require almost
285 additional calories per day, and lactating women require an additional 500 calories per day. Their micronutrient needs are also higher, and they require adequate intake of iron, folic acid, vitamin A and iodine to ensure the health of both mother and infant. Food insecurity tends to result in alteration of child feeding practices. UNICEF (2008) reports that the global food crisis will adversely affect the practice of exclusive breastfeeding (EBF) because EBF depends on good maternal nutrition. But with global food crisis, mothers may not have the wherewithal to feed well and this may affect their pre-pregnancy, intra-pregnancy and post-pregnancy nutrition. Already there is a decline in the practice of exclusive breastfeeding in resources – poor nations because of diminishing food stock for the family (Anno, 2008). Del Vecchio (2003), explained that food shortages and high poverty levels are also contributing to a decrease in the number of women seeking family planning services and antenatal care. The number of home deliveries is also on the rise, as the constant search for food for their families leads women to neglect their own health which has resulted to high pregnancy complications and maternal death in the most affected countries.

However, food insecurity is a serious problem in Nigeria and has become an important issue for public policy concern. Effective formulation, implementation and developmental policies on maternal and child health programmes depend largely on the proper identification of the nature and extent of food insecurity being experienced by vulnerable households in the community. It is therefore, imperative to provide adequate and timely information about the dynamics of food insecurity at the household level as well as the nutrient intake of pregnant women, nursing mothers and their children as it affects their health which will help in reducing the high infant mortality in the study area.

Methods

Ogun State otherwise known as the Gateway State (this is not a complete statement). It was created out of the defunct Western State of Nigeria on February 3, 1976 by the Federal Military Government of Late General Murtala Ramat Mohammed. The state lies within the tropics of latitude 6°30' and 8°10' North of the equator and from longitude 4°15' East. It is bounded in the West by the Benin Republic, in the East by Ondo State, in the North by Oyo and Osun States and in the South by Lagos State.

Two local governments were selected from the twenty local governments, one urban and one rural local government. These are Abeokuta South local government and Odeda local government. Desire sample size was selected using

\[ S = Z^2 \cdot Z (P (1-P)) / (D^2) \]  

In which D is one half the width of the desired sample confidence interval. Z is a Percentile of the standard normal distribution determined by the specified confidence level (1.96 for 5% confidence level). S is then adjusted by a finite population correction factor to obtain the final estimate of sample size as, follows:

\[ \text{Sample Size} = S / (1 + S / \text{population}) \]  

These equations were written for the software by Centre for Disease Control.

The population of each Local Government, the expected frequency of the factor i.e. desired sample confidence interval and the worst accepted result of 5.7, which is the fertility rate for the nation. This is based on the fact that the study is looking at the impact of food insecurity on the health of the infant and nursing mothers. It will also believe that this equation will reduce errors in the determining the sample size from a large population since it is computer based software. The sample size arrived at based on this formula was 320.

Multistage sampling procedure was used to select women in reproductive age and who are caregivers were selected. In all 300 nursing mothers were interviewed. Both qualitative and
quantitative methods were used for data gathering. For quantitative data the Questionnaire method was used and for qualitative, Focus Group Discussion (FGD) and In-depth interview were used for the collection of data. Returned questionnaire were subjected to through editing and due to the precoded nature of the questionnaire this facilitate(d) easy entry and analysis. The qualitative data collected from this survey was (were) subjected to three levels of analysis. The first level involves an examination of the distribution of the respondents according to selected characteristics. The second level involves the examination of the pattern of relationship between the dependent variables. The third level of the analysis involves the use of advanced statistical techniques to test the formulated hypotheses and the pattern of relationship between the dependent and independent variables. The regression technique was used to test these relationships. Specifically, logistics regression was used to show the relationship between the dependent variable

The discussions from the FGDs and IDIs were transcribed and translated verbatim. Analysis involved developing a system of indexing the data into sets of categories or codes that provided structure to the data based on the research objectives and the topic included in the questions guide. A qualitative software ZY-index software package for ethnographic data was used for textual data analysis. This does not allow the use of percentages and statistical analysis. Some striking expressions were for verbatim reporting. Data from qualitative survey have been extensively used in this paper to validate quantitative analysis where and when necessary.

Findings.

From the survey, increase in the prices of food commodities has affected the disposable income available to households, 45% of the respondents spent more than two-thirds of their income on feeding. It was also revealed that carbohydrates are now the major food for the children under-5 years while only 10% can afford appropriate nutrition for their children based on the nutritional chart provided during the survey. Fifty–two percent of the respondents indicated that children under five years had one illness or the other in the last four weeks preceding the survey. The food insecurity within the household has resulted into skipping of meals only 28% of the household reported that they normally have three square meals per day, while more than half of the respondents are now having two square meals per day. Thirteen percent of the respondents indicated that their children had anaemia. Only 23% of the women interviewed practise exclusive breastfeeding, it was also pointed out during the FGDs that food crisis did not allow mothers to practice exclusive breastfeeding, since there is no enough milk in the breast to satisfy the infant; therefore they used complementary foods such as pap, rice and tea. The study reveals that there is a significant relationship between household feeding pattern (P< 0.001), level of income (P< 0.000), place of residence, mothers health seeking behaviour (P<0.0001) and ever had illness. The logistic regression shows that women socio-economic status (age, income, occupation, level of education and place of residence) and nutritional status are the predisposing factors for likelihood of illness among infants in the study area.

Conclusion and Recommendation
The food insecurity in the family will result to health crisis especially among the infants. The much gained MDGs will be eroded if appropriate steps are not taken. A healthy population brings out a socially and economically productive population with longer life expectancy, low infant and maternal mortality. Since food plays a prominent role in the health of mother and a child; families should strive to have small irrigated gardens which will provide basic food stuffs for the household. Government should encourage large irrigation farming and subsidise farm produce to nursing mothers.