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## Identifying Nutrition-sensitive Development Options in Madagascar through a Positive Deviance Approach

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### Abstract

In Madagascar, food insecurity is a major public health concern. Atsimo Antsinanana region is one of the most affected regions with its 6-months lean period in the year. To identify local strategies to improve household food security, we adopt the positive deviance approach. It is based on the concept that in all societies, there are positive deviant individuals who are more successful while having the same resources as others. The approach has already proved its worth when applied to child malnutrition at individual level. Here, we extend the analysis to food and nutrition security at household level. Thus, the objective of this study is to identify the particular practices and behaviours adopted by households with superior food and nutrition security. Household performance was assessed on four dimensions: Household food insecurity access scale (HFIAS), minimum acceptable diet (MAD) of children under two years, women's dietary diversity score (WDDS), and child diarrhea frequency (as a proxy for nutrition-related hygiene behaviour). Subjects of the study were 413 households located in 3 districts of the Atsimo Antsinanana region. The methodology used combines qualitative and quantitative methods. The data analysis started with removing the influence of household resources on food security performance, then the identification of positive deviant households by using Pareto frontier of the four performance dimensions. As results, 20 positive deviant households were identified. We find that positive deviance is strongest for HFIES, and weakest for child diarrhea frequency. To identify 'deviant' practices, 16 positive deviant households were interviewed, and 8 focus group discussions with nutrition experts in the region were conducted to evaluate the findings on possible innovative practices. This methodology led to the identification of several strategies used by positive deviant households, including the strategy of buying rice during the harvest season and selling in the off-season, adoption of new cultivation techniques and new agricultural channels, the renewal of fruit plantations, and cultivation of cloves. These findings can contribute to the life improvement of Atsimo Antsinanana population especially on their food security so that they can lead a healthy life.

**Keywords:** Atsimo Antsinanana, food security, household, Madagascar, positive deviance

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