How Do Breast Feeding Practices Affect the Health of Cambodian Youth Aged 6-24 Months?

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Project Concept: The World Health Organization (WHO) recommends that women exclusively breastfeed their children until six months of age, at which point they should start introducing adequate and appropriate complimentary foods while continuing to breastfeed until two years of age. My project will look at data collected from four provinces in rural Cambodia (Svay Rieng, Kampong Speu, Takeo and Prey Veng). My objective is to examine whether specific feeding practices can be linked to disease; more specifically, whether there is a significant difference in the prevalence of diarrhea and fever in children aged 6-24 months and who are being breastfed compared to those who are not being breastfed.

Hypothesis: Children aged 6-24 months and still being breastfed have significantly lower odds of diarrhea and fever compared to those not being breastfed, after adjusting for confounding variables.

Methods: The survey was directed to female caregivers, as their individual practices are most predictive of household food characteristics in developing countries. Households were randomly selected to participate in the survey through a two-stage stratified cluster design in which the first stage consisted of clusters being selected with probability-proportional-to-size and the second stage consisted of choosing a fixed number of households from each cluster. A total of 32 clusters were selected from each province and 25 households were selected from each cluster. Target households (having a female caregiver with a child between the ages of 24-36 months) were identified through village lists, and random selection methods were then used to select the 25 target households.

Once women met the initial survey requirements, all children in their household were included in the survey. My (derived) dataset, consisting of the data on the youngest child from each included household, includes a total of 835 children aged 6-24 months. The survey included a questionnaire that assessed six topics related to nutrition and food security (household characteristics; hygiene and sanitation; maternal nutrition and health; infant and young child feeding practices; knowledge, attitudes and practices; and household food security), anthropometric measurements (height, weight and MUAC), an oedema check, and an assessment of haemoglobin levels in all women participants and children. Included is extensive data on what the mothers' feeding practices are, including how long, how often, and whether they are continuing to breastfeed their children. Diarrhea and fever were measured (separately) by asking the female caregivers whether their child had diarrhea and fever in the last two weeks (yes/no).

Statistical Advice: All of my data is currently in SPSS and I need assistance in figuring out what tests are best to use. To my knowledge, I am able to use a multinomial logistic regression. However, I am not sure whether this test would actually be best to determine odds ratios. Furthermore, I would like help to find the test that would allow me to best take into account the number of confounding variables that I have (including maternal age and number of bowls of food eaten per day). There are many confounding factors in my data that may influence my results and it will be important for me to prove that my statistical test has taken all of these factors into account.