Food Insecurity and Age of Menarche

Background

Nutrition and food consumption has been linked to puberty and menarche cross-culturally. When severe food insecurity leads to under-nutrition, menarche is often delayed because the body needs to hold onto its energy for the livelihood of the individual rather than reproduction. However, food insecurity often correlates with over-nutrition, where the amount of nutrients consumed is much more than what is needed for normal growth and development. As a result, food insecurity has been tied to overweight and obesity, and many chronic diseases.

Research Question

The research question that this study aims to answer is: does household food insecurity correlate with early or delayed menarche in adolescent females in the United States? It is the researcher’s hypothesis that food insecure adolescent females will have poorer diets and more over-nutrition, and therefore will be more likely to begin menarche at earlier ages than food secure individuals.

Methods

In collaboration with Feeding Tampa Bay, families with adolescent females will be recruited. It is anticipated that this study will be conducted Fall of 2016 until Spring of 2017. In-depth interviews with the mothers and adolescent females will be conducted to obtain life history information including age of menarche, health status and history, sociodemographics, food resources, and food and income assistance Anthropometric measurements of Weight and height will be used to assess BMI. For dietary analysis and nutritional status, the teenagers will take photos of all the food they consume for a specific amount of time (3-5 days), and the youth-adolescent food frequency questionnaire will be conducted. The results will either be compared to a controlled group of food secure households, or compared to national averages.