Background

- The Family Health Program is a primary health care program in Brazil that includes community health care workers linked to clinics.
- Research in previous years identified child overweight as a problem and Municipal Secretary of Health requested help understanding why some pregnant women initiate prenatal care late.

Project Goals

- To identify potential interventions for the FHP to improve maternal and child health by measuring the utilization of prenatal services and evaluating the nutritional status of children 0 to 5 years enrolled in the Family Health Program (FHP), compared to those not enrolled in the FHP.

Populations/Communities Served

- Residents of Vespasiano Municipality, a poor community near Belo Horizonte city, Minas Gerais state.
- FHP coverage of approximately 50%

Data collection

- Clinic-based convenience sample of children under 5 attending government clinics in Vespasiano
- Questionnaires measured sociodemographic variables, parental attitudes about obesity, feeding practices, pediatric medical history, etc.
- Anthropometric measurements (length/height and weight) were obtained from children and one parent
- Point of care hemoglobin testing conducted to determine children’s anemia status
- Conducted 378 clinic-based nutritional interviews and anthropometric measurements. Completed 288 hemoglobin tests.

Prenatal Care:

- Household interviews conducted with women that were pregnant between October 2009 and September 2010:
  - Sample selected from municipal database of women receiving any prenatal care at a Family Health Unit;
  - Questions concerned sociodemographic variables, pregnancy history and use of prenatal care during last pregnancy.
- Conducted 252 household interviews on prenatal care

Expected Outcomes

Child nutrition:

- Identification of point prevalence of obesity, anemia, and stunting in children under five.
- Identification of variables associated with malnutrition

Prenatal Care:

- Identification of risk factors for late initiation of prenatal care (after 3 months)
- Identification of risk factors for low number of visits, adjusting for month of first visit & gestational age at birth (i.e. number of expected visits is reduced)

Preliminary Results

Child nutrition:

- Among children, nutritional status was found to be better than anticipated: lower rates of anemia (13%) and overweight (8.3%) than found in previous studies.
- Prevalence of stunting (20.5%) was comparable to national figures.
- However, we found 30% of parents were obese and another 23% overweight.

There were no statistical differences in nutritional status between children enrolled in FHP and those attending regular government clinics.

- No statistical associations were found between overweight, stunting, and anemia.

Subsequent analysis will identify factors associated with nutritional failures and exclude 0-months age cohort.

Prenatal Care:

The Ministry of Health recommends that first prenatal care visit happen during the first trimester and recommends a total of at least 6 visits

Overall Prenatal Visits

- Late first visit
- Low subsequent visits
- Late first visit and low subsequent visits

Cause of Inadequate Overall Visits

- “Inadequate” prenatal visits

Subsequent analysis will identify the risk factors for late first visit and the risk factors for low subsequent visits.

Project Timeline

- March – May 2011: Develop study instruments
- June 2011: Meet and train research team
- June – August 2011: Implement clinic-based surveys with anemia tests and conduct household surveys
- August 2011: Conduct preliminary data analysis in Brazil, and present results to in-country partners

Next Steps

- Perform in-depth analysis of collected data
- Provide final analysis to municipality
- Submit papers to relevant journals for publication

Project Partners & Acknowledgements

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- Study participants
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