Background

India bears the greatest burden worldwide of poor nutrition and maternal and child health.
- 52 million children reported to have stunted growth
- 68,000 deaths/year of mothers during pregnancy
- 1.8 million deaths/year
- 52 million children under the age of 5

2005: India Established National Rural Health Mission to meet MCH Millennium Development goals set by World Health Organization
- No significant improvement
- Policies unlikely to be supported by evidenced based findings with focus on delivery at expense of prenatal and postpartum care

Study Objectives

"Understanding Predictors of Maternal and Child Health in Rural and Western India"
- A study which aims to uncover underlying causes of adverse birth outcomes and stunted development of children in India.
- Findings will help direct the development of interventions to address identified risk factors of maternal child health (MCH).
- Collaboration with community members at CAM will enhance the likelihood of successful and accepted interventions.

- Study Creators
  - Apurv Soni (class of 2016 UMass)
  - Nisha Fahey (class of 2016 DMU)
  - Psychosocial Determinants
  - Jeroan Allison (UMass)
  - Milagros Rosal (UMass)
  - OB/GYN
    - Tiffany Moore-Simas (UMass)
    - Nitin Raithatha (CAM)
  - Pediatrics
    - Somashekhar Nimbalkar (CAM)
  - Psychiatry
    - Nancy Butt (UMass)
    - Anusha Prabhakaran (CAM)
  - UMass students
    - Haley Newman
    - Jasmine Khushchandani
    - Michaela Tracy
    - Hannah Rosenfield
    - Sarah Servatiable

Methods and Materials

- 200 women were recruited to participate from outpatient clinics at CAM or referred from village health workers.
- Participants were followed from first trimester of pregnancy through 6 months postpartum, including study visits at 1st, 2nd and 3rd trimesters, delivery and three visits postpartum.
- Information collected includes clinical and laboratory data related to nutritional, physical and psychosocial health.
- Interviews were conducted by trained research coordinators at CAM.
- Comprehensive clinical mental health evaluations were conducted by psychiatrists.

Lab Values
- Complete Blood Count
- Hemoglobin
- TSH
- Glucose
- Serum Iron
- Folic Acid
- Vitamin B-12

Ultrasound
- Crown rump length
- Amniotic Fluid Index
- Fetal Heart Beat

Mental Health Screening
- Food Frequency Questionnaire

Study Coordinators on route to village visit near CAM.

Study Progress and Future Directions

Phase 1. Data collection from 200 study participants almost completed
- Summer 2015 aims include data checking and cleaning to prepare for initial analysis.

Phase 2. Initial analysis and manuscript preparation ongoing. Areas of interest include prevalence of physical abnormalities, undernutrition, depression during pregnancy and perceived discrimination.

Phase 3. Future directions include disseminating findings and working with local communities to generate creative solutions to health barriers.

Thank you!