TANIA BARHAM
HEALTH DISPARITIES AND BEHAVIOR
CPCU DAY 2021

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Research Areas

Health and development economics with a focus on human capital development and poverty reduction.

- Causal effect of important social intervention programs through the life cycle
  - *Short–term effects*: on early childhood development
  - *Longer-term effects*: understand earlier changes in an individual’s human capital effect later-life educational attainment, employment and income, cognition, health status, or migration…

- Newer Research: intergenerational effects on the children of those who benefited when they were young

- Future Research: effects on aging

**Countries**: Bangladesh, Brazil, Mexico, Nicaragua, Yemen, USA
Bangladesh: Mother and Child Health and Family Planning Program in Matlab (MCH-FP)

Research funded by: NIH, NSF, 3ie, PRB, CUPC, IBS

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University of Colorado: Jane Menken, Nobuko Mizoguchi, Elisabeth Root, Jill Williams

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Former Graduate Students

- Chris Jochem-Geog, Emily Steiner-Soc, Patrick Turner-Econ, Brachel Champion-Econ, Svetoslava Milusheva-Econ
The Matlab Study Area – Rural Bangladesh

- Mother and Child Health and Family Planning Program (MCH-FP)
  - Started: ICDDR,B 1977
- Contiguous areas
  - Minimize spillovers from vaccinations
- Demographic surveillance site
- Treatment and Comparison areas
  - Binary intent-to-treat indicator
- Baseline balance good
  - Except - access tube well water, religion
MCH-FP Study Design
Intervention and Cohorts of Interest MHSS2

- icddr,b, pilot for the government
- Vaccination <= age 5; Interventions provided in home
MCH-FP Study Design
Cohorts of Interest MHSS2

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Timeline:
- 1947
- 1977
- 1982
- 1986
- 1989
- 1996
- 2015

Events:
- Family planning / tetanus toxoid
- Measles
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- 1947: Family planning / tetanus toxoid
- 1977: Measles
- 1982: DPT, Polio, Vitamin A Nutrition
- 1986: Vaccines and increased family planning comparison area
- 1989: 
- 1996: 
- 2015: 
MCH-FP Study Design
Cohorts of Interest MHSS2

- icddr,b, pilot for the government
  - Vaccination <= age 5; Interventions provided in home
  - Matlab Health and Socio-Economic Survey (MHSS) 1996 & 2015
MCH-FP Study Design
Cohorts of Interest MHSS2

- icddr,b, pilot for the government
- Interventions provided in home by community health workers
- Matlab Health and Socio-Economic Survey (MHSS) 1996 & 2015
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- Matlab Health and Socio-Economic Survey (MHSS) 1996 & 2015
Individual Panel Data from 1974-2012

1) Matlab Health & Socioeconomic Survey I: 1996
   - Random 10% of bari’s in Matlab icddr,b study area
   - Large socio-economic survey

   - MHSS1 sample + all descendants + most spouses + pre-1996 migrants
   - Extensive tracking of migrations < 10% attrition
     - 60 percent of our main male sample migrated

3) Census (1974) – Pre-Intervention Data
Intent-To-Treat Effects
Treat-Control Groups

Children born when child health interventions available:

**Ages 8-14 (MHSS1):** (Barham, 2012)

- significant improvements in
  - height ~ 1 cm (0.22 SD)
  - cognitive functioning (0.39 SD)
  - schooling (0.17 SD)
Intent-To-Treat Effects

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**Ages 24-31 (MHSS2):**
- (Barham, Champion, Kagy, Hamadani 2021)
  - Human capital effects persist except for cognition

- (Barham, Kuhn, Turner 2021)
  - *Better jobs:* more professional, used more math skills, more entrepreneurial
  - 30% reduction in *migration* urban areas of Bangladesh not internationally.
  - No effect on *annual earnings*, but *welfare* higher due to reduced migration.
Intent-To-Treat Effects
Treat-Control Groups

Intergenerational effects on their children (aged 0-14)

*Effects for females no males - puzzle*

- Height 1.6cm
- 50 percent reduction in stunting
- Higher grip strength (0.41 Sd)
- Higher cognitive functioning (0.26 SD)