

A Comment on “Population,
Poverty and International
Development” (Sinding, 2008)

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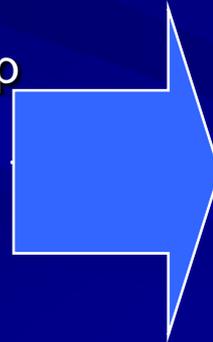
Overview

1. What have we recently learned about the **micro-impacts of fertility decline**?
2. What have we recently learned about the **design of effective population programs**?
 - Types of services
 - Delivery systems
3. What are most important **unanswered questions**?

Micro-impact of fertility decline: Evidence from Matlab, Bangladesh

Program Details:

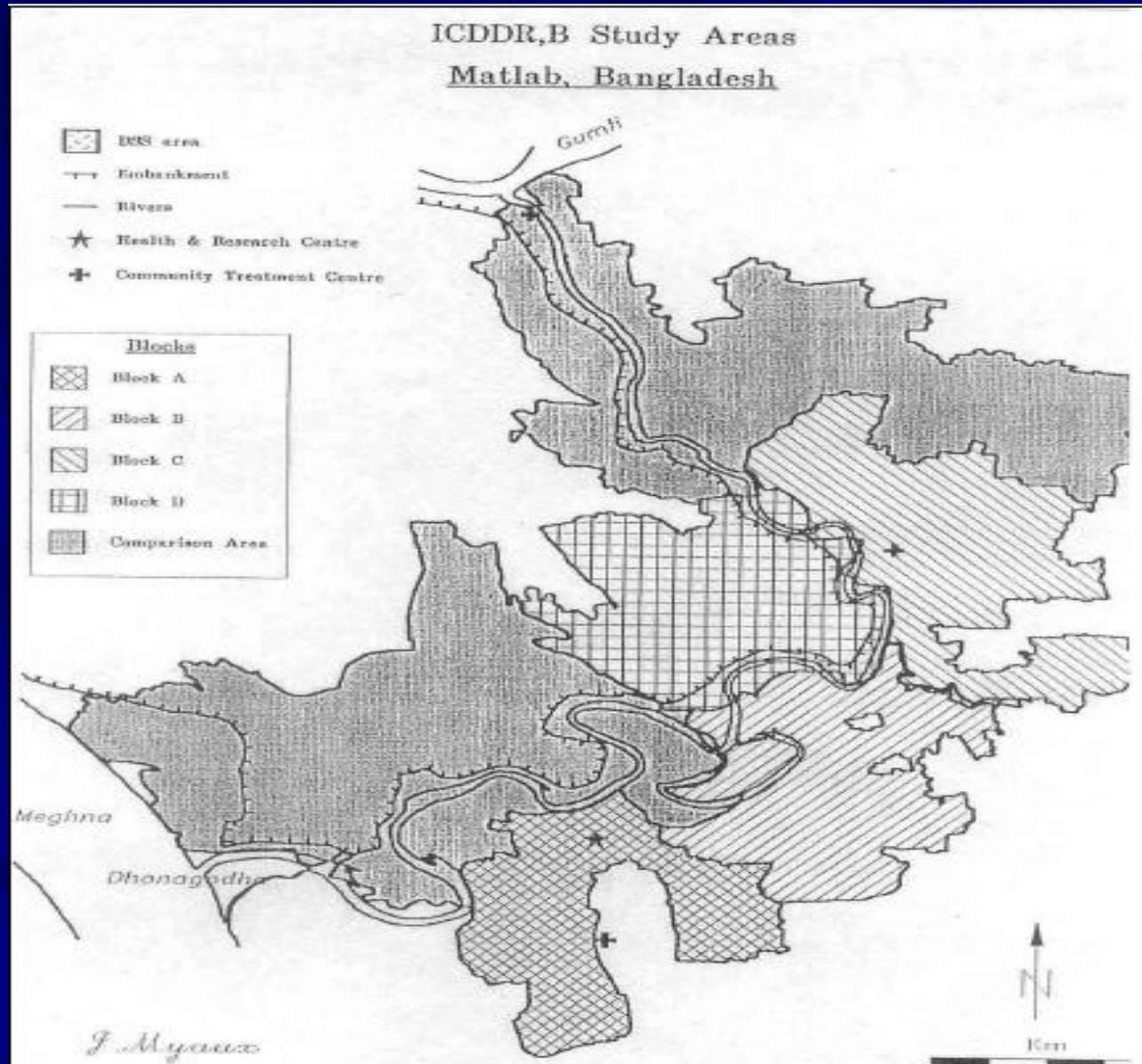
- Women with 8+ years of schooling were trained as “Health workers”
 - Visited a set of married women in their own village every 2 weeks in their homes
- Provided key functions:
 - Choice of services and follow-up support
 - Referred women to the hospital pre-natal and ante-natal care medical care
 - Distributed “safe delivery” kits
 - Prenatal and ante-natal care
 - Tetanus inoculations
 - Children’s immunizations
 - Treatment for simple diseases (diarrhea, respiratory diseases, etc.)



Impact over 30 years

- Benefits to women:
 - 15% reduction in fertility = 1 less child
 - Improved weights and BMI’s
 - Lower mortality risks
 - Increased labor-market participation & wages
- Benefits for children
 - Better health (vaccinations)
 - Higher schooling attainment for boys
- Benefits for families
 - Increased resources (drinking water)

Map from Chaudhuri (2005, Fig 2)



	Woman age 25—30	Woman age 45-50
	8-10 years of exposure	20 years of exposure
Total children	-0.710*** (0.264)	-1.520*** (0.282)
First birth interval (years between first and second child)	0.357 (0.322)	0.125 (0.333)
Second birth interval (years between second and third child)	0.957*** (0.335)	0.706** (0.318)
Fraction of all children who died before age 5	-0.035 (0.029)	-0.086*** (0.029)
Fraction of boys died before age 5	-0.053 (0.041)	-0.143*** (0.039)
Fraction of girls died before age 5	-0.008 (0.044)	-0.092*** (0.039)
Weight	0.987 (0.912)	2.397** (0.973)
BMI	0.840*** (0.366)	1.169*** (0.390)
Drinking water drawn from a clean well on the bari	0.165*** (0.065)	0.210*** (0.071)

Educated women are able to improve income and savings

- Educated women aged 20—30 in the treatment area:
 - 17% increase in income from their primary occupation
 - 1% increase in household asset holdings
 - 8% increase in household agricultural asset holdings
 - 7% increase in household non-agricultural asset holdings
 - 15% increase in household savings
- Educated women aged 30—40 experience the following:
 - 79% increase in income from their primary occupation
 - 22% increase in household asset holdings
 - 20% increase in household agricultural asset holdings
 - 34% increase in household non-agricultural asset holdings
 - 27% increase in household savings

New research expanding the empirical base for further research into these issues

Randomized trials:

- **Dow** (Southern Tanzania)
- **Vera-Hernandez** (Malawi)
- **Hallman** (South Africa)
- **Ashraf and Field** (Zambia)
- **Thomas and Frankenburg** (Bangladesh)
- ... (Several others too!)

Panel datasets:

- **Filippe** (Burkina Faso)
- **Baschieri** (Malawi)
- **Foster and Weil** (India and others)
- **Hill and Aryeetey** (Ghana)
- **Thomas and Frankenburg** (Indonesia)
- **Ruben and Kamazima** (Sub-Saharan Africa)
- **Lam and Liebbrandt** (South Africa)
- **Hooimeijer and Musahara** (Rwanda)

 New cross-sectional data

 Development of panel datasets

 Collection of sub-national data for large countries with significant internal variation

 Use of random assignment evaluation methods

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Effective population policies must go beyond family planning

Reproductive health services:

- Variety of family planning methods
- Follow-up services
- Nutrition before, during and after pregnancy
- Prenatal and antenatal care
- Safe delivery systems
- Tetanus inoculations
- Prevention and treatment of STDs

Early childhood services:

- Children's nutrition
- Prevention and treatment of early childhood illnesses
- Essential vaccinations

Socio-economic supports:

- Financial literacy
- Educational opportunities for women and their children
- Labor market opportunities
- Credit
- Investment opportunities

Such programs require strong delivery systems

- **Long-term commitment** on part of policy-makers
 - Require significant resources
 - Micro-impacts may take time to become fully evident
- **Strong and uninterrupted supply chains**
 - Some medical supplies may require cold storage
- **Local health workers**
 - Personal networks, knowledge of the local community
 - Strong training systems
- **Delivery must be sensitive to local culture**
 - Factors that must be considered: structure of the family, levels of female autonomy and female mobility, and history of past family planning or health programs
- **Data-collection, surveillance and analysis**

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We are hoping to learn more!

- What are the **core constituents** of a “reproductive health program”?
 - What exact interventions work best?
- Can **experimental** reproductive health programs be truly **scaled up**?
- How do the **costs** of reproductive health interventions compare with **other poverty-alleviating policies**?
- What is the **best time-horizon** for measuring the impact of a program?
 - Improvements in income, assets and children’s human-capital take time!
- We need to better understand **contextual factors** in fertility decisions
 - Fertility and health decisions are not always made by a woman
 - There is variation in who is included in this decision across geographies, cultures, religions, economic systems, etc.