Access to Family Planning Services Improves Child Growth Patterns and Cognitive Development

FINDINGS FROM THE MALAWI FAMILY PLANNING STUDY (MFPS)

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ABSTRACT

Improved access to family planning services for new and expecting mothers increases their children's heights by 0.26 standard deviations relative to a "healthy" growth distribution. These results are complemented by a 0.1 standard deviation increase in performance on a caregiver reported measure of cognitive development.

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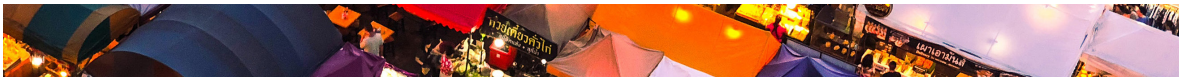

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INTRODUCTION

Each year, roughly 14 million unwanted pregnancies occur in Sub-Saharan Africa.[4] While many of these pregnancies will be terminated, those that are carried to term will leave women and couples with a child that was unplanned, and they may be unprepared to raise. As raising a child is costly, this high rate of unwanted pregnancy may influence how limited household resources are allocated among children, having potentially deleterious effects on children's growth and development.

One may expect family planning and reproductive health (FP/RH) services to have positive impacts on child health as they allow families to better space and time births. Yet, there is little empirical evidence linking FP/RH services to longer-term outcomes such as child health, despite a strong body of evidence linking them to short term outcomes such as contraceptive use and birth spacing. To fill this knowledge gap, researchers studied the effects of a randomized controlled trial that provided new and expecting mothers in Lilongwe, Malawi with access to a range of postpartum family planning services on children conceived just prior to the intervention.

INTERVENTION

Woman assigned to the intervention arm were offered a multi-component family planning package over a two-year period. The package consisted of a counseling component, a transport component, and a financial reimbursement component.

- **Counseling:** women were offered up to six (6) free home visits from a trained family planning counseling where they were counseled on the benefits of contraceptives and healthy birth spacing.
- **Transportation component:** offered women a free on demand taxi service to the Good Health Kauma Clinic where they could receive contraceptive services.
- **Financial reimbursement component:** offered women with 7,500 Malawi Kwacha (roughly $25 PPP) that they could use to purchase family planning services from the Good Health Kuama Clinic.[5]

UNCERTAINTY IN FERTILITY

Recent advances in the economic theory that has modeled household fertility have suggested that the inability to control fertility, driven by an unmet need for family planning, discourages couples from investing in children's health and education.[6] As couples with an unmet need for family planning are unable to predict the costs of childcare in the distant future, they are unable to properly allocate investments towards children in the more immediate future.

As such, the intervention discussed above should encourage investments in children in two ways:

- **Price effects:** by offering free transport and financial reimbursement for family planning methods, the intervention reduced the implicit price of contraceptive use, making contraceptives more accessible.

[4] Akinrinola Bankole et al., "From Unsafe to Safe Abortion in Sub-Saharan Africa: Slow but Steady Progress" (New York, NY: Guttmacher Institute, December 31, 2020), https://www.guttmacher.org/report/from-unsafe-to-safe-abortion-in-subsaharan-africa.

[5] All women in the treatment group also received an emergency package in case they experienced contraceptive-related side effects.

[6] Tiago Cavalcanti, Georgi Kocharkov, and Cezar Santos, "Family Planning and Development: Aggregate Effects of Contraceptive Use," *The Economic Journal* 131, no. 634 (February 1, 2021): 624–57, https://doi.org/10.1093/ej/ueaa070.

- **Knowledge effects:** through counseling, the intervention sought to improve knowledge of different family planning methods. In this way, the intervention may have caused more effective use of contraceptives or greater confidence in their use.

Between these two pathways, the intervention discussed here aimed to give women and couples greater control over their fertility. In accordance with the recent extensions to the theory studying fertility, one may then reasonably expect the intervention to encourage investments in child health.

CONTRACEPTIVE INTENTIONS AND PERCEIVED RISK

Our theory of change is predicated on the assumption that women and couples use contraceptives to prevent pregnancy and properly space births which, in turn, reduces their perceived risk of pregnancy. However, in practice, there are many reasons as to why women and couples choose to use contraceptives that are not driven by fertility intentions or pregnancy prevention. Common reasons include preventing HIV and other sexually transmitted infections, facilitating control over menstruation, and improving sexual satisfaction and well-being, among others.

With this in mind, prior to analyzing effects on child health, we study women's contraceptive intentions and the impacts of our intervention on pregnancy perceptions.

This analysis has three main findings:

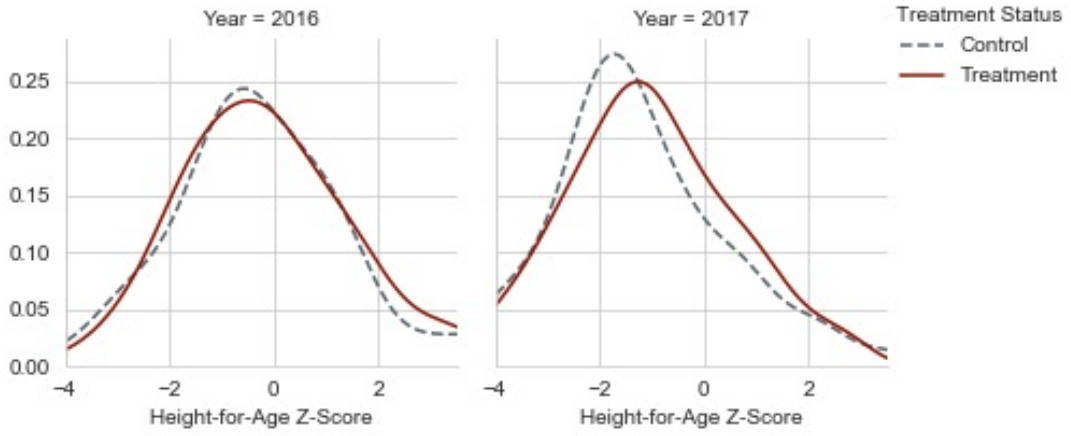
- **Women prioritize pregnancy prevention when choosing contraceptives.** When asked what feature is most important to them in their contraceptive choice, women were most likely to cite a method's ability to prevent pregnancy. Overall, 48 percent of women said this was most important to them.
- **Contraceptives give women more certainty over fertility.** Women who were using contraceptives at baseline thought they were less likely to get pregnant within the next year, when compared to women who were not using. There was also significantly less variation in expectations among women who were using contraceptives, suggesting that contraceptives provide certainty.
- **The Malawi Family Planning Experiment reduces perceived pregnancy risk.** Our results show that women assigned to the intervention arm report higher faith that their contraceptive method will prevent pregnancy. This result seems to be driven by a higher proportion of women using contraceptives, rather than those who are using contraceptives thinking their method is more effective.

KEY FINDINGS

One year into the intervention, children were less likely to be stunted.

- Children who were conceived just prior to the intervention start were 0.26 standard deviations taller for their age and sex near their first birthday.
- The increase in child height meant that children born to mothers in the intervention arm were 7.8 percentage points less likely to be stunted during our first follow-up survey.

Figure 1: Children's Standardized Heights at Baseline and Midline

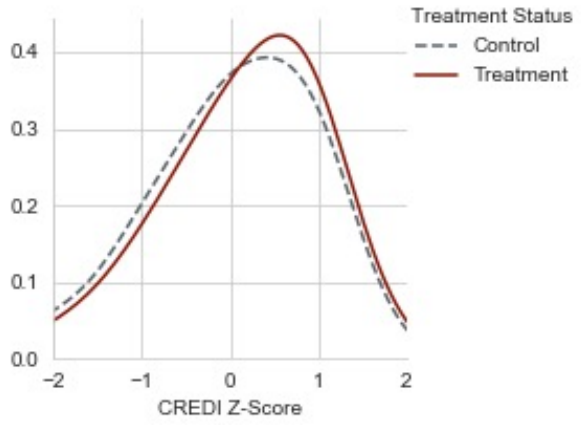


Source: Boston University Global Development Policy Center, 2022.

Two years into the intervention, children performed better on cognitive measures.

- Using the Caregiver Reported Early Development Instrument (CREDI), we show that children born to women in the intervention arm were developing at a higher rate than those born to mothers in the control arm.

Figure 2: Standardized CREDI Scores at Endline



Source: Boston University Global Development Policy Center, 2022.

Changes in child growth and development can be explained by increases in health-care usage, but not changes in birth spacing.

- Using a causal mediation analysis, we show that women assigned to the intervention arm were 10.4 percentage points more likely to have attended a medical clinic within the last year. Our results suggest that this increase can explain roughly 30 percent of the changes in child growth and development.
- While we observe that children in the intervention arm are less likely to have a younger sibling two years after the intervention start, this change does not seem to explain the improvements in child development.

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POLICY RECOMMENDATIONS

Our findings suggest that:

- Current gaps in the provision of family planning services have negative downstream consequences for child health and education.
- Improving access to high quality postpartum family planning services would encourage greater childhood growth, cognitive development, and school preparedness.

Decades of theory has suggested that parents view investments in their children and the number of children they have as substitutes. Our results seem to support this hypothesis and suggest that there are large gains to be made in child health by helping couples to better control and reduce their fertility.

Experts advocate that family planning services should be included in country development plans and strategies to end childhood stunting.[7] Our results support this recommendation and show that family planning programs can be used to reduce stunting.

Due to the age of the children in this study, we are currently unable to say anything about schooling. However, our results do suggest that much of the observed gains were made by girls. In this way, the provision of family planning services may result in the convergence of educational levels between boys and girls, due to the increase in girls' cognitive development relative to boys. These positive externalities would be directly in line with the thematic area of Gender Capacity and Development as is laid out in the Malawi Growth and Development Strategy II (MGDS II).

[7] Robert E Black et al., "Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries," *The Lancet* 382, no. 9890 (August 3, 2013): 427–51, https://doi.org/10.1016/S0140-6736(13)60937-X.