

The Impact of Contraceptive Use and Its Outcomes on the Change in School Participation in 350 Districts of 26 African Countries, 1995-2010

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Abstract

This paper analyzes the extent to which investments in FP services can lead to improvements in educational enrollment at the primary level in Sub Saharan Africa (SSA). The major research question is: How is improvement in primary school enrollment of young children related to contraceptive usage and its outcomes at district level? This paper sets out to answer this question by analyzing district level panel data on 350 districts of 26 SSA countries. We find that a lower percentage of young children in the district and a decrease in the percentage of young children are associated with increasing primary enrollment rates. The analyses also revealed that a higher use of contraceptives and increasing use of contraceptives are associated with a decrease in the number of young children. Preliminary findings indicate that contraceptive use may help increasing educational participation at the district level by reducing the number of young children in the district.

Introduction

Differences in access to Family Planning (FP) services are a major source of inequality in developing countries. Having fewer children means more educational resources, better school performance and reduction in child labor. Poverty and poor FP are intrinsically linked.

High levels of fertility contribute directly to poverty, reducing women's opportunities, diluting expenditure on children's education and health, precluding savings and increasing vulnerability and insecurity. Girls may be pulled out of school to care for siblings at any time during their education.

Low levels of investment by families and society in the education and development of children translate into poorer outcomes when those children grow up: - reduced employment and lower wages, higher rates of early and non-marital childbearing and lower incomes, with all the concomitant risks to family health and well-being. Improvements in FP are linked to economic and social development and must be addressed to achieve sustainable poverty reductions.

This paper aims at understanding the extent to which investments in FP services can lead to improvements in educational enrollment at the primary level in SSA. The major research question is:

How is improvement in primary school enrollment of young children related to contraceptive usage and its outcomes at district level?

To answer this question we analyze the influence of contraceptive use through FP outcomes on the changes in education participation at the level of urban and rural areas of 350 districts within 26 SSA countries. The model that is central in our paper is presented in Figure 1. The FP outcome studied is average number of children under five of women in the district and the change in this average number over time. On the right hand side of the model is the relationship between this family planning outcome and primary school participation in the district. On the left hand side of the model is the relationship between (changes in) contraceptive use in the district and the family planning outcome. Control factors are included for attitudes, knowledge, and district-level socio-economic factors. Trends in urban and rural areas of the districts are studied separately.

Our model assumes that if more investments are made in family planning services, more of those services will be available, which can boost their actual use. In this case the improvements in FP services will improve the availability of contraceptives which can also influence accessibility and usage. The increased use will lead to fewer child births. Fewer young children allow couples to invest more in their children's education. Increased children's participation in school contributes positively to poverty reduction and economic growth.

Method

Our model is tested on a newly built district panel dataset. The data for this panel dataset are derived from a harmonized set of Demographic and Health Surveys that were constructed as part of the "Database Developing World" project (www.databasedevelopingworld.org), in which household level datasets for many developing countries are connected, harmonized and supplemented with district and national indicators. Data is available for urban and rural areas of 350 districts of 26 Sub-Saharan African countries with at least two waves of Demographic and Health surveys from 1995 to 2010.

The data are analyzed with advanced multilevel panel models that address the clustered structure of the data in a methodologically sound way. We include explanatory variables at district and national level. The key dependent variables are the change in primary school enrollment in the district, change in average number of young children and in contraceptive use between T1 and T2. Major independent variables are average number of young children below age of five and contraceptive use at T1 and their changes between T1 and T2. Contextual factors at the district and national level are used as control factors.

Results

The preliminary findings of our study are largely in line with expectations. Our analyses revealed that, in sub Saharan Africa, a lower percentage of young children in the district and a decrease in the percentage of young children are associated with increasing primary enrollment rates. The analyses also revealed that a higher use of contraceptives and increasing use of contraceptives are associated with a decrease in the number of young children. Preliminary findings indicate that contraceptive use may help increasing

educational participation at the district level by reducing the number of young children in the district.

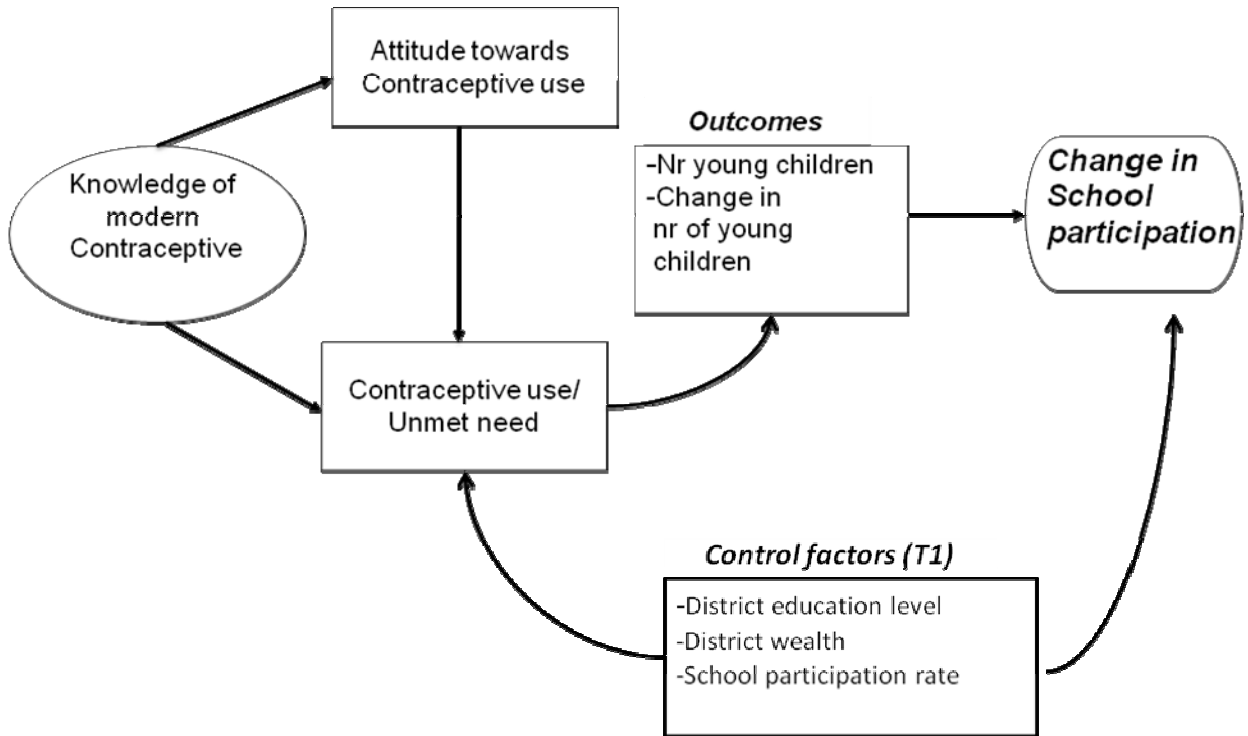


Figure1 theoretical model of change in school enrollment