

**Authors**

Esther Duflo  
Massachusetts Institute of Technology

Pascaline Dupas  
Princeton University

Michael Kremer  
The University of Chicago

Education, HIV, and Early Fertility:  
Experimental Evidence from Kenya\*

Esther Duflo    Pascaline Dupas    Michael Kremer

Revised December 12, 2014

**Abstract**

A seven-year randomized evaluation suggests education subsidies reduce adolescent girls' dropout, pregnancy, and marriage but not sexually transmitted infection (STI). The government's HIV curriculum, which stresses abstinence until marriage, does not reduce pregnancy or STI. Both programs combined reduce STI more, but cut dropout and pregnancy less, than education subsidies alone. These results are inconsistent with a model of schooling and sexual behavior in which both pregnancy and STI are determined by one factor (unprotected sex), but consistent with a two-factor model in which choices between committed and casual relationships also affect these outcomes.

*JEL Code:* O12, I12, I25, I38

\*We are extremely grateful to Abhijit Banerjee for his essential inputs on the model, and to Prof. Saikat Saha and Dr. Vandana Sharma for their medical expertise and invaluable support. We thank the Kenya Ministry of Education, the Kenya Institute of Education, ICS Africa, and IPA Kenya for their collaboration, and Conlyte Nekesa, Gene Mokuu, and their field team for their dedication and scrupulous care collecting the data. We thank the editor, two anonymous referees, Frank Schilbach, Richard Muger, and numerous seminar participants for helpful comments, and to Abdulla Al-Schab, Jeff Guo, Richard Muger, Santiago Sarmiento and Zhaoning Wang for outstanding research assistance. We are also grateful to a long list of outstanding field research assistants. We list them in chronological order: Jessica Leiva, Jessica Morgan, Dean Oden, Ben Tomsh, Paul Wang, Willie Pindhuu, Anuja Singh, Jim Kooze, Jessica Letgile, Houston Michel, Sam Hernandez, and Thomas Gilo. The funding for this study was provided by (in alphabetical order): the Hewlett Foundation, the MacArthur Foundation, the NRE, the Nike Foundation, the Partnership for Child Development, and the World Bank. We thank them, without implicating them, for making this study possible.

Duflo: MIT Economics Department, 50 Memorial Drive, Building E52 room 252G, Cambridge, MA 02142 (e-mail: eduflo@mit.edu); Dupas: Stanford Economics Department, 579 Serra Mall, CA 94306 (e-mail: pdupas@stanford.edu); Kremer: Harvard University Department of Economics, Littauer Center, 1805 Cambridge Street, Cambridge, MA 02138 (e-mail: mkremer@fas.harvard.edu).

## Education, HIV and Early Fertility: Experimental Evidence from Kenya

A seven-year randomized evaluation suggests education subsidies reduce adolescent girls' dropout, pregnancy, and marriage but not sexually transmitted infection (STI). The government's HIV curriculum, which stresses abstinence until marriage, does not reduce pregnancy or STI. Both programs combined reduce STI more, but cut dropout and pregnancy less, than education subsidies alone. These results are inconsistent with a model of schooling and sexual behavior in which both pregnancy and STI are determined by one factor (unprotected sex), but consistent with a two-factor model in which choices between

committed and casual relationships also affect these outcomes.

September 01, 2015