

## Authors

Margaret McConnell  
Harvard School of Public Health

Katherine Lofgren  
Harvard University

Jessica Cohen  
Harvard University

*American Economic Review: Papers & Proceedings* 2017, 107(3): 301–305  
<https://doi.org/10.1257/aer.107.3.301>

## Precommitment, Cash Transfers, and Timely Arrival for Birth: Evidence from a Randomized Controlled Trial in Nairobi Kenya<sup>a</sup>

By JESSICA COHEN, KATHERINE LOFGREN, AND MARGARET MCCONNELL<sup>b</sup>

Nearly 2.5 million mothers and babies die each year from complications in the immediate period around childbirth. Nairobi, Kenya has among the highest maternal and neonatal mortality rates in the world. Mounting evidence suggests delivering in a facility is not enough to drive mortality reductions, with utilization of poor quality facilities and delays in receiving care the major contributors to continued poor outcomes (Luzano et al. 2011). In addition to delivering in well-equipped facilities, women must arrive at the facility and be attended to in time for complications to be effectively managed. The “three delays” model attributes poor outcomes to delays in: (i) seeking care; (ii) arriving at the facility for delivery; and (iii) receiving adequate treatment once at the facility (Thaddeus 1994). These delays are strongly associated with morbidity and mortality (Pasagolla et al. 2014).

Delays could occur for many reasons including the need to travel far distances, information gaps about when to seek care in labor, or because women are away from facilities (e.g., because of overcrowding). Our preliminary work in Nairobi

suggested that delays could also be occurring because of behavioral barriers to effective decision making and planning around facility delivery. Nairobi offers a very large, complex set of highly heterogeneous maternity facility options. Previous work has highlighted how choice in this type of decision context can lead to deferring decisions (Tversky and Shafir 1992). In our preliminary work, we found that decisions about where to deliver were often made very late in pregnancy. We hypothesized that decision-making delays could lead to poor birth planning, which has been shown to increase delays in seeking care. We designed a “precommitment transfer package” which bundles a labeled cash transfer and precommitment conditional transfer (see online Appendix Section I). This intervention was designed to help women deliver where they want and to reduce delays, both by relieving financial barriers to on-time arrival and by facilitating earlier and more deliberate planning and implementation of plans for delivery. In other work, we analyze the impact of the intervention on the quality of delivery care received.

### I. Experimental Design, Data Collection, and Outcome Measurement

The study was conducted between February and September of 2015 in the informal settlements (“slums”) of Nairobi. Twenty-four neighborhoods with primarily low-income residents and a mix of private and public maternity facilities were selected. Pregnant women between five to seven months gestation were eligible for the study if they were at least 18, planned to deliver in a facility, did not plan on leaving Nairobi during or after pregnancy, and were reachable by mobile phone. Recruitment methods are described in online Appendix Section II.

Women were surveyed three times during the study—at baseline (five to seven months gestation), midline (eight months gestation),

<sup>a</sup>Cohen: Harvard T. H. Chan School of Public Health, Building 1, Room 1200, 665 Huntington Avenue, Boston, MA 02115 (e-mail: [cohen@hsph.harvard.edu](mailto:cohen@hsph.harvard.edu)); Lofgren: Harvard Center for Health Decision Science, 718 Huntington Avenue, 2nd Floor, Boston, MA 02115 (e-mail: [klofgren@hsph.harvard.edu](mailto:klofgren@hsph.harvard.edu)); McConnell: Harvard T. H. Chan School of Public Health, Building 1, Room 1207, 667 Huntington Avenue, Boston, MA 02115 (e-mail: [mcconnell@hsph.harvard.edu](mailto:mcconnell@hsph.harvard.edu)). This work was generously supported by a Gates Foundation Grand Challenges Explorations award, a Harvard Global Health Institute Burke Fellowship, and a Harvard University Research Enabling Grant. We thank Ginger Cochran and George Omondi for superb implementation of the study. We also thank Accoranda Health for its partnership in implementation. This study received ethical approval from the Harvard T. H. Chan School of Public Health and Avenir Health Africa. We thank our discussion Money Muthoni for very helpful suggestions on the manuscript.

<sup>b</sup>Go to <https://doi.org/10.1257/aer.107.3.301> to visit the article page for additional materials and author disclosure statement(s).

# Precommitment, Cash Transfers, and Timely Arrival for Birth: Evidence from a Randomized Controlled Trial in Nairobi Kenya

Nearly 2.5 million mothers and babies die each year from complications in the immediate period around childbirth. Nairobi, Kenya has among the highest maternal and neonatal mortality rates in the world. Mounting evidence suggests delivering in a facility is not enough

to drive mortality reductions, with utilization of poor quality facilities and delays in receiving care the major contributors to continued poor outcomes (Lozano et al. 2011). In addition to delivering in well-equipped facilities, women must arrive at the facility and be attended to in time for complications to be effectively managed. The “three delays” model attributes poor outcomes to delays in: (i) seeking care; (ii) arriving at the facility for delivery; and (iii) receiving adequate treatment once at the facility (Thaddeus 1994). These delays are strongly associated with morbidity and mortality (Pacagnella et al. 2014).

Delays could occur for many reasons including the need to travel far distances, information gaps about when to seek care in labor, or because women are away from facilities (e.g., because of overcrowding). Our preliminary work in Nairobi suggested that delays could also be occurring because of behavioral barriers to effective decision making and planning around facility delivery. Nairobi offers a very large, complex set of highly heterogeneous maternity facility options. Previous work has highlighted how choice in this type of decision context can lead to deferring decisions (Tversky and Shafir, 1992). In our preliminary work, we found that decisions about where to deliver were often made very late in pregnancy. We hypothesized that decision-making delays could lead to poor birth planning, which has been shown to increase delays in seeking care. We designed a “precommitment transfer package” which bundles a labeled cash transfer and precommitment conditional transfer (see online Appendix Section I). This intervention was designed to help women deliver where they want and to reduce delays, both by relieving financial barriers to on-time arrival and by facilitating earlier and more deliberate planning and implementation of plans for delivery. In other work, we analyze the impact of the intervention on the quality of delivery care received.

November 16, 2017