

SECONDARY ANALYSIS OF DATA

MEASURE Evaluation funded several studies based on the secondary analysis of existing innovative evaluation data sets. The objective was to increase the evidence-base on program impact and evaluate the strengths and weaknesses of recent evaluation methodological developments. These studies, now available as MEASURE Evaluation Working Papers at www.cpc.unc.edu/measure/publications, answer questions of particular importance to global health and evaluation research.

What is the link between HIV/AIDS and recent fertility patterns in Kenya?

Data from the Kenya Demographic Health Survey 2003 was used to explore the individual and contextual community-level HIV/AIDS factors on fertility. Findings indicated a fertility inhibiting effect of HIV/AIDS. However, some trends in proximate determinants (reduced duration of breastfeeding, increased child mortality, and a reduced desire to stop childbearing) may be contributing to a stalled fertility decline. At the community-level, the data did not indicate a significant relationship between community-level HIV/AIDS prevalence and fertility. When data was broken down by region, it became apparent that the most notable increase in fertility and the greatest decline in contraceptive prevalence were found in Nyanza Province, which had the highest HIV/AIDS prevalence for women at 18.3%. Conversely contraceptive prevalence increased the most in Western Province, which had the lowest HIV/AIDS prevalence at 5.8%. Nyanza also has the lowest age at first sex, the lowest age at first marriage, and the highest infant and child mortality in Kenya. These findings highlight the complex relationship between HIV/AIDS and fertility.

- *The Link between HIV/AIDS and Recent Fertility Patterns in Kenya* by Monica Magadi and Alfred Agwanda: is available at www.cpc.unc.edu/measure/publications/pdf/wp-07-92.pdf

How do community and health facility factors influence contraceptive use in Eastern Cape, South Africa? How do they influence contraceptive method choice?

Two papers linked individual and health facility data from the 1998 South Africa Demographic and Health Survey and the 1998 Eastern Cape Facility Survey to understand the influence of community and health facility factors on contraceptive use and contraceptive method choice.

The first paper found that women living in communities with higher levels of female autonomy were more likely to be using modern contraceptives. However, few significant effects of the health facility factors were identified. Availability of services and family planning methods, levels of staffing, and training and infrastructural capacity of the health facility were not significant. The residual variation in contraceptive use may highlight deficits in the current data sets for capturing community and health facility influences.

The second paper found that women living in communities that were wealthier and had higher levels of female autonomy were more likely to be using the pill or a more permanent method than injection. Women living in communities with higher levels of education and higher mean age at first sex were more likely to be using the pill over the injection. There seemed to be a relationship between quality of health facilities



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This flyer was made possible by support from the U.S. Agency for International Development (USAID) under the terms of Cooperative Agreement GPO-A-00-03-00003-00. The opinions expressed are those of the authors and do not necessarily reflect the views of USAID.

and method choice. More doctors present at health facilities increased the use of both the pill and more permanent methods of contraception. Women residing in communities where health facilities scored high on the facility asset index were more likely to be using a permanent method.

- *Community and Health Facility Influences on Contraceptive Use in the Eastern Cape, South Africa* by Rob Stephenson, Andy Beke, and Delphin Tshibangu is available at www.cpc.unc.edu/measure/publications/pdf/wp-07-98.pdf
- *Community and Health Facility Influences on Contraceptive Method Choice in the Eastern Cape, South Africa* by Rob Stephenson, Andy Beke and Delphin Tshibangu is at www.cpc.unc.edu/measure/publications/pdf/wp-07-99.pdf

Can the non-experimental technique of propensity score matching substitute for social experiments in Nicaragua?

Assessing whether the non-experimental technique of propensity score matching (PSM) can substitute for social experiments is important because social experiments are difficult to implement, cannot be used to evaluate universal or on-going programs, and can raise ethical concerns due to denial of benefits to eligible groups. The social experiment studied is the conditional cash transfer program implemented in Nicaragua in 2000. Outcomes assessed were total and food expenditure as well as child education and several child health outcomes. The PSM technique seemed most promising for evaluating individual outcome and easily measured outcomes, such as those related to child schooling and health, but less so for more complex outcomes such as expenditures.

- *Matching the Gold Standard: Evidence from a Social Experiment in Nicaragua* by Sudbanshu Handa and John Maluccio is available at www.cpc.unc.edu/measure/publications/pdf/wp-07-100.pdf

Do women respond to expansions in reproductive health care?

Between 1991 and 1998 Indonesia trained 50,000 midwives and placed them in poor communities distant from health centers. Data from the Indonesia Family Life Survey, an ongoing panel study of individuals, households, communities, and facilities, were used to answer this question. The authors used data from the 1983, 1997, and 2000 interviews with information on 4,501 women and 7,108 births that occurred between 1988 and 2000. It was found that regardless of a women's education level, the addition of vil-



lage midwives to communities was associated with a significant increase in receipt of iron tablets and in choices about care during delivery with a move away towards reliance on traditional birth attendants (TBAs). Village midwives had the additional benefits of increasing the use of any prenatal care and the use of prenatal care during the first trimester for women with relatively low levels of education.

- *Do Women Respond to Expansions in Reproductive Health Care?* by Elizabeth Frankenberg, Alison Bittenheim, Bondan Sikoki, and Wayan Suriastini is available at www.cpc.unc.edu/measure/publications/pdf/wp-08-103.pdf

What is the impact of Oportunidades on skilled attendance at delivery in rural areas in Mexico?

The Oportunidades program is a conditional cash transfer program which aims to improve the education, health, nutrition, and living conditions of populations living in extreme poverty in Mexico. A key part of the program is to improve the health of mothers and children by providing skilled attendance at delivery. This paper assesses the impact of the Oportunidades program on skilled attendance at delivery in rural areas through the application of a variety of evaluation techniques, taking advantage of the experimental nature of the program. Results indicated that the Oportunidades program had at best a very small effect on skilled attendance at delivery in the treatment communities. The effect was higher for women with a poverty score closer to the eligibility cut-off-point while it did not seem to have an effect on women from the poorest households. When comparing enrolled versus non-enrolled women in the treatment areas, positive impacts of the program were not seen. In Mexico a woman's decision about delivery is heavily affected by family members, so the authors suggest the Oportunidades program may need to revise its strategies.

- *Impact of Oportunidades on Skilled Attendance at Delivery in Rural Areas* by Jose Urquieta, Gustavo Angeles, Tom Mroz, H. Lamadrid-Figueroa, and Bernardo Hernandez is available at www.cpc.unc.edu/measure/publications/pdf/wp-08-102.pdf