Ninth Annual PopPov Conference on Population, Reproductive Health, and Economic Development

June 24-26, 2015, Addis Ababa, Ethiopia

Overall value of the meeting

This was a worthwhile meeting to attend. First, the content was strong and very relevant with new research presented on women's empowerment, reproductive health and economic development and the links and relations between these issues. Most of the papers presented focused on reproductive health. First, new information and "intelligence" was presented and gathered with regard to the above mentioned issues, info that is useful for advocacy and knowledge sharing. Moreover, it was very useful to learn more about the broader relevance of reproductive health for, for example, women's empowerment and economic development. Second, it was a good opportunity to engage with experts from well-known universities and research institutes such as Harvard University, Oxford University but also African Universities. The speakers were mostly researchers and fellows who conducted studies under the umbrella of Poppov funded by Hewlett, and on the other hand policy makers at World Bank, Hewlett Foundation and UN organisations. So, it was a very relevant and good networking opportunity. On the other hand, while presentations shared relevant new research findings the focus was on (mostly quantitative) methodology and the models used. As the larger majority of the audience consisted of economist and researchers, also discussions and questions after the presentations focused on methodology and models instead of the findings. However, at the last day round tables were organised, one of them being about strategies to communicate research findings to policy makers in order to have impact. The report of the round tables is expected to be published soon on their website. More info: http://poppov.org/

Welcome – Introduction by Wondwossen Teklemichael, Kathleen Beegle (World Bank)

Longer-Term Impacts of Interventions Targeted to Young Women and Children
Chaired by Wendy Janssen (VU)

"Thirty-five years later: the effect of a quasi-randomly placed health and family planning program on human capital and economic outcomes in Bangladesh" – Tania Barham (University of Colorado)

Improving the health and nutrition of young children is important for immediate well-being, and because it is believed to reduce poverty in the long-run through improved human capital development. Many program such as Head Start and Conditional Cash Transfer programs rely on this postulated link. Little, however, is known about the long-term effects of programs targeted to improve health and nutrition in early childhood on human capital in adulthood. This study exploits a quasi-experimental design and phasing-out of Mother and Child health and Family Planning program in rural Bangladesh in the 1970-80s to examine the effects on children born during program roll out 35 years later. Previous research shows the program led to important improvement in height and cognitive functioning in early and late childhood (ages 8-14). When these same people are aged 22-29, this study finds the effect for height persists, but the cognition effects fade out.

"*What happens once the intervention ends? The five year impacts of a cash transfer experiment in Malawi'* – Sarah Baird (George Washington University)

This report evaluates the five year impacts of the Zomba Cash Transfer Program (ZCTP) in Zomba, Malawi. The ZCTP took place for two years during 2008-2009, and involved giving cash transfers, both conditional on schooling and unconditionally, to initially never-married 13-22 year old young women. The Schooling, Income and Health Risk (SIHR) study was designed to evaluate the impacts of the cash transfer program on a variety of outcomes ranging from education to health to sexual behavior. The SIHR study is a randomized control trial where young women were randomly assigned to one of three groups: control, Unconditional Cash Transfer (UCT), and Conditional Cash Transfer (CCT). Baseline data was collected in 2007, with follow-up data collected in 2008-2009 (Round 2), during the program, in 2010 (Round 3), immediately upon the conclusion of the program and in 2012-2013 (Round 4), two years after the program ended.

The strong and significant short-term impacts of the ZCTP (using data collected in 2008 and 2010) have been documented elsewhere. This report focuses on impacts two years after the program ended, in 2012-2013, to try and understand whether this relatively short (two-year) intervention of cash transfers – introduced at a particularly important period of transition from adolescence to adulthood – can have lasting effects on this cohort of young females and their future families. The analysis focuses on four key domains for the recipients of the cash transfer program: education; marriage and fertility; health and nutrition; and sexual behavior. The analysis focuses on whether results found in the short term were sustained two years after the program ended. Results are analyzed separately for young women who were in school at baseline (baseline schoolgirls) and those that were out of school at baseline (baseline dropouts), an oft-overlooked group. The analysis for baseline schoolgirls focuses on

differential impacts between the CCT and UCT arm, while the analysis for baseline dropouts focuses on the difference between the CCT and the control (no UCT experiment was conducted for this group). Overall, results suggest that the substantial benefits conferred by unconditional treatment while the program was in place in the domains that we investigate here were almost completely transient. Even the conditional program, when implemented among those in school at baseline (and therefore likely to continue with schooling even in the absence of a CCT) had few detectable long-term impacts. The program that provided conditional cash transfers to girls who had already dropped out of school at baseline, on the other hand, had large and durable impacts on a wide range of outcomes – including primary school completion, years of education, marriage rates, likelihood of having started childbirth, and desired fertility. The results suggest that long-term impacts are sustained only when a cash transfer program achieves substantial improvements in the stock of a durable form of capital, such as human capital.

There are currently two trends observed: 1. Interest in investing in adolescents, especially girls, and 2. economist call for unconditional cash transfers. The question is how should we designing these programs?

Marriage and school drop out are related, and need to take that into account most vulnerable girls can not be reached through school programs

The CCT program: had significant effect on schooling (measured through enrollment, attendance and test scores). Baseline schoolgirls effect significant but small, for drop outs large effects. The UCT program showed large effect on decreasing pregnancy.
The research question: short term intervention have long term effects?

Most of the effects were transitory and faded out very quickly. Large and durable effect on baseline out of school girls – effect of finishing primary school is lasting. UCT resulted in negative long term effects on type of husbands, empowerment (less able to negotiate in marriage) and employment.

"Impact of a youth – targeted Reproductive Health Initiative on Teen Childbearing in South Africa" – Tanya Byker, Middlebury College

In the early 2000s, the National Adolescent Friendly Clinic Initiative (NAFCI) rolled out across South Africa with the goal of preventing HIV and unwanted pregnancy through education and increased clinical access to reproductive health services. Based on interviews with stakeholders, exploiting a series of controls, and a difference-in-differences strategy, it was argued that the roll-out led to a conditionally random increase in reproductive health knowledge and clinical access for adolescents. GPS data and historical residence information was used from secure National Income Dynamics Study data to geolink respondents' location to the accreditation date and location of NAFCI clinics. The results show that women who lived near a NAFCI clinic when they were 12-17 years old are less likely to experience an early-teen birth. It was also estimated that adolescents who had access to NAFCI complete more years of schooling, suggesting that reducing early teen pregnancy results in increased schooling in South Africa.

The 1998 South African DHS data shows that out of the 20% mothers by age 18, 86% of these pregnancies were unintended (=unmet demand). While at the same time, contraceptive access was widespread and free at this time (= untapped supply).

There are barriers for teenage uptake of contraceptives:
- Lack of knowledge about reproductive health
- Stigmatization of adolescent sex

Teen childbearing has a large and significant negative impact on educational outcomes in SA. And, delaying childbearing has a positive significant impact.

What is the effect of access to adolescent friendly reproductive health services on early pregnancy, education and employment/earning? There is very little literature on effective adolescent friendly health services.

Women living near a NAFCI accredited clinic: nearly 30% drop of the likelihood of having first birth at 18. Little impact on years of education, but no effect on finishing secondary school, nor employment. NAFCI reduce the incidence of early pregnancy, delay of age at first birth, but not in secondary school completion or increase employment or earnings.

Evaluating Strategies for empowering women and girls

"Household recombination, retrospective evaluation, and the effects on consumption of a health and family planning intervention"- Sveta Milusheva (Brown University)
Analysis of the long term effects of social and public health programs using household survey data requires an understanding of patterns of household recombination–that is the processes by which households divide and fuse over time. In this paper the following was examined: the effects on educational mobility of a well-known maternal and child health and family planning program in Matlab Bangladesh. Using a novel resampling procedure that relies on longitudinally collected demographic surveillance data, biases were corrected that arise from household recombination that occurred subsequent to a baseline census but prior to the collection of the first round of detailed economic data. The results suggest that the program resulted in a small increase in consumption per capita, decreases in family sizes, small changes in household recombination, and increases in child schooling except among the lowest education households. It was also shown that approximate corrections for these biases using more limited data are reasonably effective.

"*Barriers to female empowerment: evidence from a field experiment in Tanzania*" – Linda Helgesson Sekei (Development Pioneer Consultants)

Many young girls in developing countries experience early pregnancy and lifelong dependence upon family and partners, which may prevent them from reaching their full potential. In this paper, two potential barriers to female empowerment were considered: lack of reproductive health knowledge and lack of economic opportunities, ands reports from a randomized control field experiment of an empowerment program involving 3,900 adolescent girls in 80 schools in rural Tanzania. One group was randomly offered a training program on reproductive health, a second group was offered a program on entrepreneurship while a third

group was offered both programs. The evidence from two rounds of follow-up surveys show that both the entrepreneurship program and the combined program have empowered girls in the economic domain, while the impact of the reproductive health training is muted. These findings suggest that entrepreneurship training is more important than health training in empowering the adolescent girls.

Young females are trapped by: low investments in human capital – majority fails secondary school, early childbearing, limited income- comparable to young men (DHS 2010). This causes a lifelong dependencies on family and partners. 39% of women had their first child by age 18.

Femina Hip – Tanzania, NGO focus on SRH through different media products. E.g. Fema magazines distributed to half of all secondary schools. Young women indicated that it is 'Nice to get SRH info but also need jobs.' 3500 girls were selected in rural areas in 80 secondary schools in the last 4 months, most will fail their secondary exams. What then?

Three treatment in this study:

1. SRH info treatment 'protect your life'
2. Entrepreneurship training and economic empowerment program 'build your life'
3. Combined both training programs

The trainings were delivered by school teachers, given in school but as extra activity.

Strong impact on sales and economic activities in treatment arm 2 and 3. No impact on fertility could be measured. Modest impacts from health training. Girls received both trainings: are more happy.

"*Girls' Education, Aspiration, and social networks: Evidence from a RTC in rural Rajasthan*" – Alan Griffith (University of Michigan)

In recent years, policymakers have begun to recognize the importance of "soft skills" to a variety of outcomes, especially in the context of girls' empowerment. By means of a randomized trial involving 30 schools in rural Rajasthan, the causal effects of a life-skills program was measured in the form of a girls' parliament on soft skills for approximately 1200 young girls in rural Rajasthan. Girls were either elected by their peers to participate, were randomized into the program, or served as controls. Network data was used to show selection into the program as well as partial segregation of friend groups between elected and non-elected girls. Differential effects of the program were found on measures of aspirations and gender attitudes, depending on the selection mechanisms into the program.

NGO implemented program Bal Sabha. Participants (girls) undergo extensive training on soft skills (role playing etc.) and encouraged to share learning with class mates. At best, the program has no short-term effect on soft skills: some evidence of negative effects on those not chosen.

"*The effect of cash, vouchers and food transfers on intimate partner violence: evidence from a randomized experiment in northern Ecuador*" – Amber Peterman

Using a randomized experiment in Ecuador, this study provides evidence on whether cash, vouchers and food transfers targeted to women and intended to reduce poverty and food insecurity also affected intimate partner violence (IPV). Results indicate that transfers reduce controlling behaviors, moderate physical, and any physical or sexual violence by 6-7 percentage points. Impacts do not vary by transfer modality, and instead, initial bargaining power of women is important in determining the magnitude of impact. Possible mechanisms are explored, and findings suggest that reductions in IPV are due to both improvements in her bargaining power and decreases in poverty-related conflict.

IPV affects 1 in 3 women globally. In Ecuador: 35% for physical violence, 14,5% for sexual violence, 43,3% for psychological violence. There is no link studied between IPV and women's economic empowerment. But there are economic theories: Different theories for roles of IPV and link to women's economic empowerment. In total 80 neighborhoods, and 145 clusters were included in the study. Results: all outcomes decreases, 3 were significant (e.g. sexual violence, controlling behavior). Also a qualitative study was done: 48 in-depth interviews, 8 FGD, which shows the following:

- Reduced daily stress within couple
- Improved household well-being
- Increases in women's empowerment

In conclusion: rigorous evidence on how programs can improve IPV in households. The study did not find that programs changed women's empowerment. But found change in women's status in households.

Discussants: Abhiroop (Indian Statistical Institute) – first paper.
Discussant: Niklas – three last papers

Paper 2.

- Are schools the right setting for the interventions: - for successful entrepreneurship training and – for unsuccessful reproductive health training? Can be debated but worked well. Reached a lot of girls and in terms of sustainability, teachers are a suitable trainer.
- Is increased engagement in entrepreneurial activities by itself a positive outcome? Can this crowd out wage employment or lead to unfavorable schooling outcomes? Zero impact on earnings
- Extremely short duration of training produces considerable impacts leads to the question what is optimal?
- "Young women's low economic development is therefore explained by a lack of economic opportunities rather than a lack of information about reproductive health and gender equality": zero impact on outcomes related to reproductive practices makes it difficult to distinguish a non-binding constraints from ineffective programming
- Why nog use the panel dimension of the data?

Paper 3.

- Zero impact of intervention is quite interesting itself – other than power considerations, what are possible reasons?
- It's speculative which implementation approach would have been most successful in case of effective programming

- Interesting findings that the election progress made some girls worse off but not others better off.

Paper 4.

- From the qualitative study, how much does the framing of the cash transfer matter? Cash vs cash did not matter apparently (surprisingly) but the it needs to be framed that women were informed that the cash needed to be spend on food.
- Any direct impacts on households-bargaining? Especially since the argument is based on assumptions on spouses' preferences over consumption.
- Using household size or baseline poverty measures to test poverty as a moderator
- Long run effects? What makes the impacts last?

HIV and Risky Sexual Behaviour

"*Using lotteries to incentivize safe sexual behavior: Evidence from a RCT on HIV prevention*" – Damien de Walque (World Bank)

Financial incentives are a promising HIV prevention strategy. The effect on HIV incidence of a lottery program in Lesotho was assessed with relatively low expected rewards but a chance to win a high prize conditional on negative STI test results. The intervention resulted in a 21.4% reduction in HIV incidence over two years. Lottery incentives appear to be particularly effective for individuals willing to take risks. A model was estimated linking sexual behavior to HIV incidence and find that risk-loving individuals reduce the number of unprotected sexual acts by 1.2 for every $1 increase in the expected prize.

Lottery is easier to scale up than cash transfer and is more attractive for young people. The effect are sustained, if looking at incidence over 3 years. No additional effect but the effect is sustained.

"*Social Interactions and HIV testing*" – Muthoni Ngatia (Tufts University)

Social interaction might be important re. decision to go for HIV testing, and might also provide support for testing.

Early diagnosis of HIV infection provides access to antiretroviral therapy that can reduce morbidity and prolong life, however fear of the stigma of being identified with HIV is a frequently attributed barrier to testing. A simple model was developed that incorporates stigma into individuals' decision to get tested and test the model using a novel dataset with the nearly complete social networks of individuals in 21 villages in Central Malawi. The results suggest that stigma matters for individuals' decision to get tested and further that stigma has negative externalities in social networks.

Social network information: friends, relatives, people in the village that the respondent admires. Nature of links: how often interact, transfers of money, etc.

Collecting social network information: 1667 in the sample.

Lottery A. Randomly draw between 0, 100, 300 , 600 Kwacha. Visit redemption center to collect lottery draw
Lottery B. Randomly draw between 0, 100, 300 , 600 Kwacha. Visit redemption center and get HIV test to collect lottery draw

"*Improving Risk coping with personal savings: impacts of sexual behavior*" – Kelly Jones (International Food Policy Research Institute)

Transactional sex: 311 self-identified sex workers in Kisumu (contacted through NGO providing services). SarariCom: 70% market share. Setting weekly savings goals. MPESA account labeled for emergencies and saving goals (linked to mobile account), 3 months free fees reimbursed. Weekly sms reminders. Finance shock (caused by illness by the women or family members, job loss, conflict etc.): reason for getting into sex work, and staying in sex work. Focus on illness as primary shock cause. Sex income: 2$/day, 40% have other income. Own health shocks reduced sexual behavior. Dependent health shocks (in households) increased sexual behavior. Intervention reduced use of sex for shock-coping.

Access and Design Issues in Family Planning Programs: Impacts on Fertility

" *Family Planning and Fertility in South Africa under Apartheid*" – Johannes Frederick Norling
From the 1960s through the 1980s, the apartheid government of South Africa expanded its provision of family planning services for black residents of townships and white-owned farms. It was demonstrated that government provision of family planning services led to a 17 percent decline in fertility, at a cost of nearly $3,800 (2012 USD) per averted birth. Over the following decades, monthly household income in adulthood rose by $300 for children whose mothers had access to contraception.

"*Sex, Drugs, and unplanned births: how changes in contraceptive suppl affect fertility in Zambia*" – Jennifer Shen

Expanding access to family planning to reduce unwanted fertility is a major policy initiative in Zambia. Recent years show improvement in fertility indicators, with the country's total fertility rate dropping from 6.0 to 5.3 and unmet need dropping from 27% to 21% between 2007 and 2013. The decline in fertility occurred simultaneously with an increase in donor funding for modern contraceptive supply. For women in Zambia who wish to space or limit fertility through modern methods, the majority receives family planning products free from public clinics, or highly subsidized from pharmacies. Public clinics receive family planning commodities through a supply chain logistical system that is coordinated by USAID DELIVER and funded by multi-laterals and international non-governmental organizations. Data from the Reproductive Health Interchange (RHI) shows that the quantity of contraceptives sent to Zambia increased dramatically in 2007. This study will examine the policy mechanisms behind an increase in contraceptive supply to Zambia after 2007, and estimate how much the increase in contraceptive supply shipments to the country affected fertility in Zambia. Regression coefficient estimates showed that increases in contraceptive supplies sent to Zambia at a monthly level are associated with declines in fertility. Negative effects are more persistent after 2007 when USAID DELIVER started operations in the country.

How did contraceptive supply changes over time? How has fertility changes over time in Zambia? What causes supply change over time? Contraceptive supply over time. Increase in supply. Could not only be contributed to women changing behavior. What did it cause? A lot of things could have contributed to the decline in fertility over time.
Commercial sector: 5 million condoms, Public donations: 90 million condoms.
What is relation supply and fertility? Effects are small but negative. More supply means less fertility, could be matter of distribution.

"*Postpartum empowerment: an integrated approach to driving demand and delivery of quality, low-cost postnatal services in Kenya"* - Claire Watt Rothschild (Harvard University)

Globally, a notable gap in the continuum of maternal and newborn health (MNH) care occurs during the postnatal period, resulting in low uptake of critical health interventions for mother and baby (Bhutta et al. 2008). There is strong evidence that pregnancy intervals of less than 18 months increase risk of preterm birth, low birth weight, and small-for-gestational-age newborns (Conde-Agudelo et al. 2006). Birth spacing of two years or more has also been shown to improve the health of the mother as well as future children (WHO 2007). Despite significant progress in contraceptive uptake overall, use of postpartum family planning to achieve healthy birth spacing remains relatively neglected (Cleland et al. 2012). In Kenya, there remains a persistently high unmet need for family planning among postpartum women: According to the 2003 Kenyan Demographic and Health Survey, approximately 90 percent of women from delivery to three months postpartum and 68 percent of women at one year postpartum have an unmet need for family planning (Borda and Winfrey 2006). There is therefore a need to develop and evaluate new strategies to promote family planning use in the critical period before postpartum return to fertility. While post-partum family planning has been identified as a critical component of the continuum of maternal care, more evidence is needed about innovative strategies for encouraging greater utilization of post-partum family planning. While many efforts to increase utilization of post-partum family planning have focused on education and access, more rigorous evidence is needed about how to adapt these policies to the specific needs of women in the post-partum period who may face may conflicting demands on their attention. Evidence from research in psychology has shown that deadline-based incentives can facilitate action in the presence of behavioral barriers like procrastination and indecision. Deadlines could also be effective if they help women come together with their spouses to make a timely decision to start contraception and improve birth spacing. Health vouchers and other demand-side financing mechanisms have been found to increase utilization of key maternal health interventions across a variety of settings, including antenatal care and institutional delivery. However, the impact of vouchers on increasing access to timely postpartum family planning has not yet been studied. Furthermore, the efficacy of deadline-specific health vouchers is not known. This research built upon a growing body of evidence that suggests the utility of mobile phone interventions in encouraging uptake of key health services. Mobile phone-based messages have been associated with significant increases in antenatal attendance and adherence to routine healthcare appointments. The impact of subsidies was evaluated with targeted deadlines and SMS reminders as mechanisms to increase postpartum contraceptive uptake and encourage use before return to fertility.

90% unmet need for FP among postpartum women in Kenya (3 months postpartum). 60% of women are unable to stick to the spacing time recommended by WHO of 24 months.

Two different vouchers: FP counselling, administration for a method of women's choice (not include permanent methods). Important time: 6 weeks after delivery (also convenient as it coincides with children's vaccination). The deadline of the voucher of 8 weeks after delivery so it can not be used later, women had to come within those weeks. Different groups: with deadline, and without deadline.

Self-reported postpartum family planning uptake by treatment arm. No impact of no deadline voucher group on early postpartum contraceptive use. Also looking at long term effects deadline on vouchers: Positive program impact of deadline voucher on postpartum contraceptive use.

"Examining the Impact of Improving Access to Family Planning on Fertility, Maternal and Child Health, and Economic Well-Being: Plans for a Field Experiment in Burundi" – Mahesh Karra (Harvard University)
A randomized controlled trial is proposes to be conducted to identify the causal impact of family planning on fertility, maternal and child health outcomes, and measures of economic well-being. The proposed trial will be implemented in Burundi, where total fertility is high, contraceptive prevalence is low, and access to family planning services is poor, but some infrastructure does exist. In order to inform the design if the trial a number of preliminary studies were undertaken:
1. A mixed methods study that assesses the family planning environment in two districts in rural Burundi;
2. A pilot study that examines the key barriers to accessing family planning from provider and client perspectives in Bujumbura, the capital of Burundi;
3. A pilot of a baseline quantitative survey instrument similar to the Burundi DHS Survey;
4. A qualitative study with women that investigated the relationships between fertility, women's time use, and women's work in Bujumbura.

Women pregnant or just given birth were eligible for this study. Selected 2000 women: 1000 treatment group, 1000 control group. In order to get a real understanding of the key barriers, qualitative methods were also used: in-depth interviews were included in the baseline study.

3 key barriers:
1. Information – women get info from different sources, misconceptions
2. Transport – even though urban area. Distance not too far, but the actual time is very long (up to 3 hours). And very long waiting times at public clinics
3. Fear for side effect costs: Women do not want to uptake FP as medical costs caused by side effects need to come out of pocket (FP is free)

Intervention: Address key barriers that were identified in pilots in Bujumbura
1. Transport to ABUBEF clinics (IPPF clinics)
2. Four counselling session on FP

3. Side effects management + reimbursements (2 doctors were available for questions on phone for the women- if doctors determines emergency, she can go to the clinic and will be reimbursed).

Education and Fertility

"*Higher education and fertility: evidence from a natural experiment in Ethiopia*" – Miron Tequame (FUNDP)

This paper studied the effect of women's higher education on fertility outcomes in Ethiopia. To address endogeneity, an abrupt increase in the supply of tertiary education is exploited that is induced by a deregulation policy. Using an age discontinuity in the exposure to higher education reform, it can be shown that education lowers fertility by 8%, reduces the ideal number of lifetime children by 9% and increases the likelihood of never giving birth by 25%. The role of potential underlying mechanisms was explored and this negative effect on fertility was found to be channeled through positive assortative mating and marginal bargaining power in urban areas. More importantly, it was found that such effect on fertility is driven by the postponement of marriage and motherhood; they are 17% less likely to be married.

In sub-saharan Africa: education gender gap decreases fast. In 45 countries more boys than girls in schools, in 60 countries more women in universities than man.

Recommendations for policy:
- Increase education: an effective mechanism for reducing fertility and child marriage
- Social policy: benefits for children of women with higher education
  maternal education affects intergenerational transmission of human capital

"*A social vaccine? HIV Infection, Fertility, and non-pecuniary returns to secondary schooling in Botswana*"- Jan-Walter de Neve (Harvard University)

Education has been hailed as a 'social vaccine' against HIV infection; but there is little causal evidence to support this claim. A 1996 policy reform in Botswana changed the grade structure of secondary school and led to sharp increases in educational attainment among affected birth cohorts. This 'natural experiment' was used to identify the effect of secondary schooling on HIV infection risk, fertility, sexual behaviors, and labor market outcomes. Data were obtained from the 2004 and 2008 Botswana AIDS Impact Surveys, nationally-representative household surveys with HIV biomarker collection. Each additional year of secondary schooling induced by the policy change decreased the probability of HIV infection by 8.1% points, relative to a baseline prevalence of 25.6%. Effects were particularly large among women, who also saw a 15.8% point reduction in the probability of having ever given birth. Schooling had no effect on HIV knowledge; however it influenced norms and behaviors, increasing condom use, HIV testing, and reporting that it is acceptable for women to carry condoms. For women, education delayed sexual debut and increased labor force participation. For men, education increased number of partners, but also increased literacy, and discussion about HIV with others. Supply-side measures to expand access to education in developing countries may have large health benefits. Estimates of the returns to schooling that exclude these non-pecuniary benefits may be too low.

For women, education delayed sexual debut by almost one year. For men, it increased the likelihood of having more than one partner by 11%.

Secondary schooling is very cost-effective by standard benchmark of 1x per capita GDP.

Additional years of sec schooling had a large protective effect against HIV risk, particularly for women in Botswana. Increasing progression through sexuality education, school may be a cost-effective HIV prevention. No effect of schooling on HIV knowledge but on norms and behavior.

"*Child quantity-quality trade-off: intra-urban disparities*" – Idrissa Ouili (University of Montreal)

In Ouagadougou (the capital of Burkina Faso), at least 33% of the 2 million inhabitants live in informal settlements. This subpopulation lacks social infrastructure and has extremely low education attainments. Through a two-step control function approach, disparities in the Child Quantity Quality trade-off were investigated between formal and informal settlements in this city. The focus was on differences in families' behavior towards schooling in the two settlement types through children educational attainment.

Evidence was found of a child quantity and quality tradeoff in both settlements. By adapting long's (2009) group comparisons multiple testing procedure, the trade-off was found to be more acute in informal settlements. Moreover, if it is assumed that the endogeneity of the number of children is essentially due to the reverse causality, the results suggest some evidence that in the formal settlements parents take into account the children's schooling in the decision of their number of children but it's not the case in the informal ones.

Natural Experiments: Fertility and Birth Outcomes

"*Fertility Limits on Local Politicians in India*" – S Anukriti (Boston College)

Despite theoretical advances, measurement issues have impeded empirical research on aspirations. Political aspirations were quantified in a developing country by estimating individuals' willingness to trade-off family size for political candidacy. Utilizing quasi-experimental variation in legal fertility limits on village council members in India, it was found that at least 2.21% of married couples of childbearing age altered their fertility to remain eligible for council membership. This implies that returns to local leadership in low-income democracies are potentially high. Poorer, less educated, and lower-caste families display strong political aspirations, thereby lowering the extent of elite-capture at the local level of governance.

Local leadership ambitions in India are quite strong. High willingness to reduce fertility for a chance to hold political office in the future. Significant fertility drop among lower castes, strong leadership aspirations even among historically under-represented groups.

Aspiration failure: cause and consequence of poverty, but aspirations are hard to measure. Novel approach to measure political aspirations. Examination the impacts of limits (people

with more than 2 children can not take place in village council). Regular elections are held every 5 years.

"*What can we learn from babies born uring health-worker strikes*" – Willa Friedman (University of Houston)

This study looked at what happens when children are born during health-worker strikes in sub-Saharan Africa. A retrospective panel of births using Demographic and Health Surveys was created and linked with a new database of health-worker strikes based on digital archives of newspapers from sub-Saharan Africa. The timing of health-worker strikes is plausibly exogenous with respect to women's fertility decisions. Comparing outcomes of births in the months just before, during, and just after strikes allows us to control for variation in unobservable factors across time and place to identify the impacts of health-worker strikes. In addition to estimating the impacts of the strikes themselves, this will also provide insights about the benefit - or lack thereof - of access to different types of health facilities in improving maternal and child outcomes. Preliminary results based on limited data on strikes show that babies born during health-worker strikes are less likely to survive, less likely to have been born in a facility, and survivors are smaller.

For example when hospitals are on strikes, babies might die (see newspaper articles). People are turned away: also mothers in labor. Or if you are helped, you will get lower quality of care. Or if you know the hospital is closed, you decide to stay at home or to go to a lesser quality facility. Are strikes helpful? Maybe the quality of the hospital or facility is so low, you are better off at home without risking an infection.

Putting together two different data sets. DHS data, and social conflict in Africa Database: designed to study low-level conflict, including strikes and protests. Based on associated press and agency presse france. For each strike, reports: start and end dates, location, actors, targets, issue. Selection: may be missing less-publized strikes.

Resulted in 9 countries with health worker strikes longer than 2 weeks, in the previous 5 years. All births within 6 months of a strike were included. Mortality rate is higher but not much change of women delivering at different facilities or at home.

Summary of findings:

- Babies born during health-worker strikes are less likely to survive
- Less likely to have been delivered at a facility
- Survivors may be smaller

Next steps:
Better strikes data with new searches through local national newspapers.

Details of strikes: use information on who was striking etc. Use subnational information. More on mechanisms, like early life inputs such as vaccinations etc. Maternal mortality. – difficult to measure through DHS as it measures if women were pregnant when they died, not if they just delivered a baby.

Food Prices Rises: Effects on Maternal and Childhood Nutrition – David Stuckler (Oxford University)

Global Rice Prices Triple in 2008 due to global financial crises. Would this have health consequences? Very little data to answer this question. 75 million people are food insecure. Globally, there is under and over nutrition. Acute under nutrition in Sub Saharan Africa and India.

Study 1. Impact of food price rises on children's risk of wasting. Three quarters of their energy comes from rice. 50% rise in wasting prevalence in low income households. No rise in high-income households. So, yes it had influence on health and nutritional intake in low income households.

Study 2. Cross district Food price rises. In 364 districts. Children under 5: high-protein diary (meet, fish) and under 5-mortality are strongly linked. What can we do about this?

Study 3. India's Public distribution system rice and sugar subsidies. Access to system: sugar and rice. PDS does seem to result in Greater sugar consumption, similar to rice. But has no effect on protective benefit (wealth).

Study 4. Do girls have a nutritional disadvantage?
Only nations where girls are more likely to die than boys. Female child mortality is higher than male. Nothing found on food as rice, sugar etc. but boys receive greater breast and fresh milk. About 13 million children (6 – 65 months?) reported not to have received water in the past 24 hours (reported by their mothers). Shorter duration of breastfeeding especially when first child female. This accounts about half of India's male-female survival gap.

As researchers we can document these injustices, and to get to the bottom of some issues.

Economic Activity, Employment and Income

"*Women's work and productivity during pregnancy and postpartum in Burkina Fa*so" – Jenny Cresswell (London School of Hygiene and Tropical Medicine)

The aim of this study was to collect detailed data on women's experiences, focusing on working patterns, health and postpartum family planning in a population-representative sample, which could be used to inform possible interventions to improve women's health and productivity. An observational mixed-methods prospective cohort study was conducted in Bobo-Dioulasso, Burkina Faso. A multi-stage sampling design, stratified by urban-rural areas, was used to recruit 839 women between seven months gestation and three months postpartum at baseline. Three structured questionnaires were administered over a nine month follow-up period. A nested qualitative component and focus group discussions complemented the quantitative data. About two-thirds of women reported that they earned money from income-generating activities at some point during the period of observation. Only 7% of women had salaried employment. Very few women (5%) benefited from the maternity leave benefits described in the current legal framework. By nine months postpartum just over 40% of urban women and 20% of rural women were using a method of family planning. There

was found no evidence of an association between time to use of family planning and women's occupation. In this region of Burkina Faso women overwhelmingly work outside of the formal sector, with insecure labour conditions and lack of access to social security benefits such as maternity leave. Domestic work remains very important. Many women found reduced income-generation during the postpartum period challenging to deal with, particularly as her earnings are one of the few sources of income that the woman herself can control. Fertility and unmet need for family planning remain high. Investing in women to allow them to reach their full potential will have important benefits for the development of Burkina Faso.

Law allows for 14 weeks paid maternity leave if in employment. Total fertility rate is 6.0. Double burden of income-generating and domestic work (often informal sector). Most women do not benefit from the law that exists. This study describes how women spend their time during late pregnancy and postpartum. Both rural and urban areas. Mixed method design prospective cohort study.

Urban women were more likely to describe themselves as a housewife and more likely to have a salaried job. In rural areas mostly described themselves to have irregular informal jobs. Domestic work represents a substantial proportion of women's time. On average women resumed domestic work 7 days postpartum. On average women resumed their professional activities 60 days postpartum. Few women benefited from maternity leave (only 4%). Of those with salaried work, 54% benefited from paid maternity leave.

Informal workers earned less during the immediate postpartum period. Around 45% of sexually active were using family planning. There was no evidence found of an association between use of family planning and job type.

"*Estimating the short run effects of South Africa's Employment Tax Incentives on youth employment probabilities using a difference-in-difference approach*" – Vimal Rachhod (University of Cape Towns)

What effect did the introduction of the Employment Tax Incentive (ETI) have on youth employment probabilities in South Africa in the short run? The ETI came into effect on the 1st of January 2014. Its purpose is to stimulate youth employment levels and ease the challenges that many youth experience in finding their first jobs. Under the ETI, firms that employ youth are eligible to claim a deduction from their taxes due, for the portion of their wage bill that is paid to certain groups of youth employees. The nationally representative Quarterly Labour Force Survey (QLFS) data was utilized for the period from January 2011 to June 2014, and implement a difference-in-differences methodology at the individual level to identify the effects of the ETI on youth employment probabilities.

The primary finding is that the ETI did not have any statistically significant and positive effects on youth employment probabilities. There was no evidence found that the ETI has resulted in an increase in the level of churning in the labour market for youth. What these results imply is that any decrease in tax revenues that arise from the ETI are effectively accruing to firms which, collectively, would have employed most of these youth even in the absence

Youth (18 – 29) employment rate is more than double than that of the rest of the workings population unemployment rate. 2/3 of youth never had a job. Persistent problem in post-apartheid SA.

"*HIV Treatment as economic stimulus: Community Spillover effects of mass ART Provision in Rural South Africa*" – Zoe McLaren (University of Michigan)

This is the first study to estimate the spillover effects of mass ART provision on labor market outcomes for HIV-uninfected community members. Using socioeconomic survey data from the Africa Centre's demographic surveillance area (2001 – 2011) and population-based HIV biomarker surveillance, large increases in employment were found among HIV-uninfected individuals who do not live with individuals who ever initiated ART. These results represent evidence of positive spillover effects of ART scale-up on employment of HIV-uninfected community members through channels that operate outside the household.

What is the economic impact of health investments, including spillovers? What is the distribution of benefits? Public sector scale up of ART in 2004. SA: 6 mln infected, 2.5 M on ART Number of studies found links between HIV treatment and economic impacts. E.g. Increases in labor supply and employment among HIV patients on ART.

ART could reduce employment for HIV-negatives.

- Increased labor supply of HIV positives could increase competition for jobs

ART could increase employment of HIV-negatives

- Aggregate labor demand increases (higher productivity, decreased capital, more health care workers are employed)
- Labor supply of HIV negatives increases

1. Employment increases nearest to clinic: large relative gains increase as treatment scales up.
2. Rising employment in HIV-negatives of who do not live with individuals who ever initiated ART.

Conclusions: evidence of positive spillover effects of ART scale up on HIV's – through channels that operate outside the households