

GIRLS' ECONOMIC EMPOWERMENT: EVIDENCE FROM TANZANIA

CENTER FOR CHILD WELL-BEING AND DEVELOPMENT

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Teenage pregnancies

- **High rates in low-income countries**

- Up to 299 births per 1000 girls aged 15 to 19 in sub-Saharan Africa; global average is 49 per 1000 (WHO)

- **Negative effects on health and future livelihoods**

- Complications during pregnancy and childbirth are the second cause of death for 15-19 year-old girls globally (WHO)
 - Babies born to adolescent mothers face a substantially higher risk of dying than those born to women aged 20 to 24 (WHO)
 - School dropouts, reduced income prospects (eg Miller, 2009, on Colombia)



Why? What can we do about it?

- Lack of **knowledge**: Education on reproductive health; negotiation skills
- Lack of **alternatives**: Incentivize education and employment; business training



The Tanzania “Girl Power” project

- 3500 adolescent girls, rural Tanzania
- RCT on impact of health and business training
- Which is more effective in delaying pregnancy and improving livelihoods and health?
- Long-term study: 4 years, 4 rounds of follow-up surveys
- Survey evidence, text analysis of essays, biomedical data



Plan of presentation

1. Brief literature overview
2. The Tanzania “Girl Power” project
3. Concluding remarks



Health education: lessons from literature

- Health education can be very effective in reducing teenage pregnancy
 - But *type* of program matters: Teaching abstinence not so effective, but information about HIV risks of inter-generational sex very effective
-
- Dupas, P. (2011). 'Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya', *American Economic Journal: Applied Economics*
 - Duflo, E., Dupas, P., & Kremer, M. (2015). 'Education, HIV, and Early Fertility: Experimental Evidence from Kenya', *American Economic Review*, 105/9: 2757–97.



Financial incentives: lessons from literature

- Cash transfers, education subsidies, incentives to delay marriage, lottery tickets for better health, have all been effective in reducing teenage pregnancy and STIs
- Baird, S., McIntosh, C., & Özler, B. (2011). ‘Cash or Condition? Evidence from a Cash Transfer Experiment’, *The Quarterly Journal of Economics*, 126/4: 1709–53.
- Buchmann, N., E. Field et al (2016). The effect of conditional incentives and a girls’ empowerment curriculum on adolescent marriage, childbearing and education in rural Bangladesh: a community clustered randomized controlled trial, mimeo
- Duflo, E., Dupas, P., & Kremer, M. (2015). ‘Education, HIV, and Early Fertility: Experimental Evidence from Kenya’, *American Economic Review*, 105/9: 2757–97.
- Nyqvist, M. et al (2016). Incentivizing Safer Sexual Behavior: Evidence from a Lottery Experiment on HIV Prevention, CEPR Discussion Paper



Business training: lessons from literature

- Strong results from employment program in India and a health and business training program in Uganda, while a similar program in Tanzania had no effect (perhaps because of less efficient implementation).
- Jensen, R. (2012). 'Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India', *The Quarterly Journal of Economics*, 127/2: 753–92.
- Bandiera, O. et al (2015). Women's Empowerment in Action: Evidence from a Randomized Control Trial in Africa, mimeo
- Buehren, N. et al (2015). Evaluation of Layering Microfinance on an Adolescent Development Program for Girls in Tanzania, mimeo



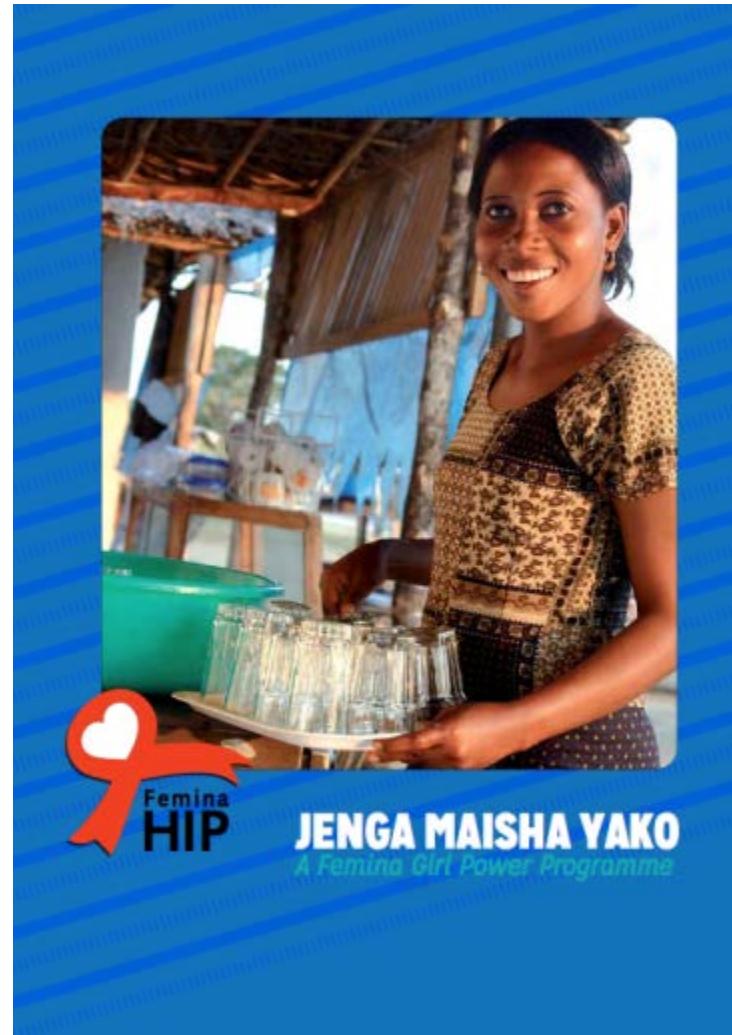
- Strong impact from business training and health education in Uganda...but which of the two is more important? Health training or business training?



Our partner

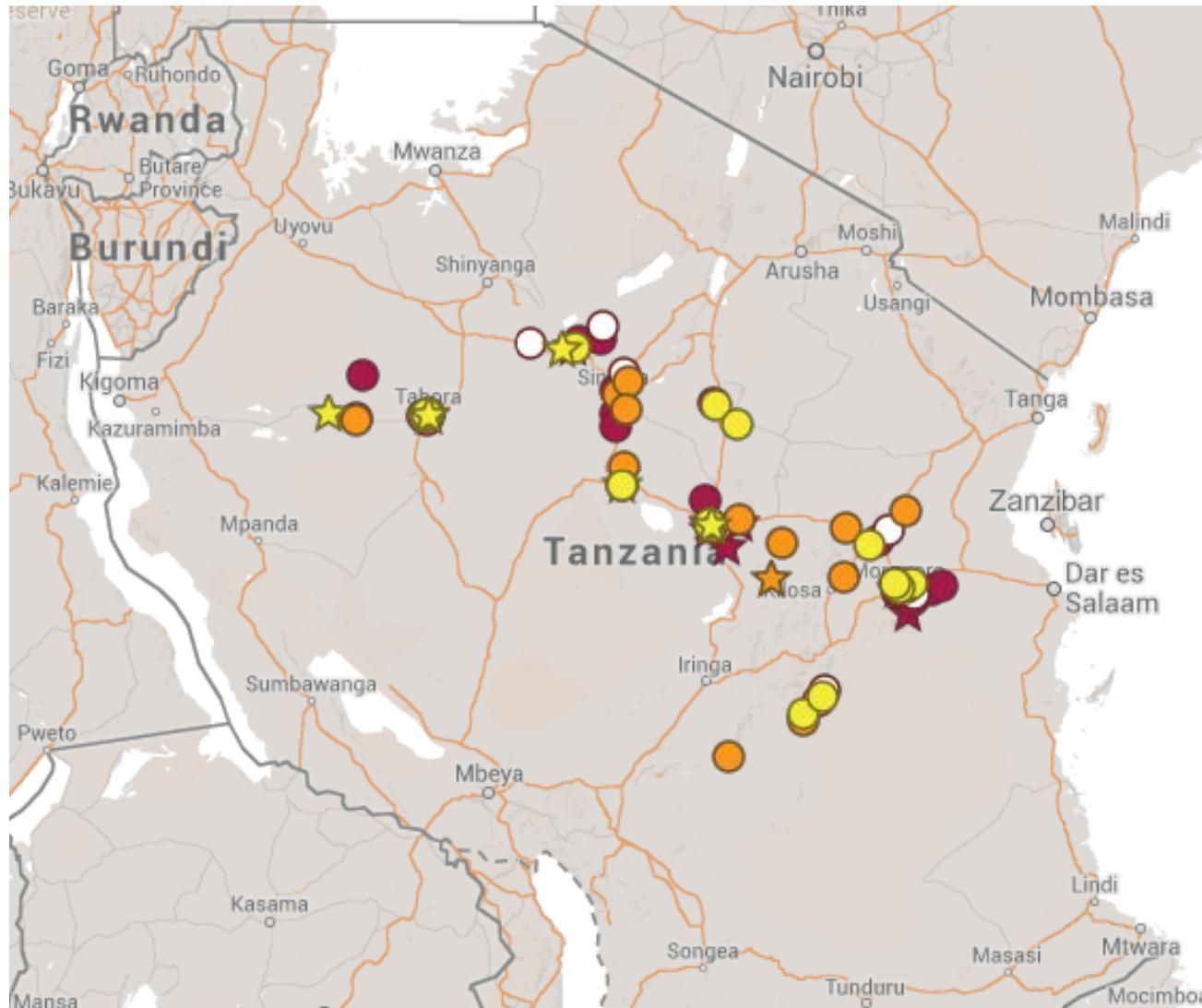


- A multimedia platform in Tanzania established in 1999
- Promote healthy life styles and gender equality
- In recent years increasingly also entrepreneurship and financial literacy





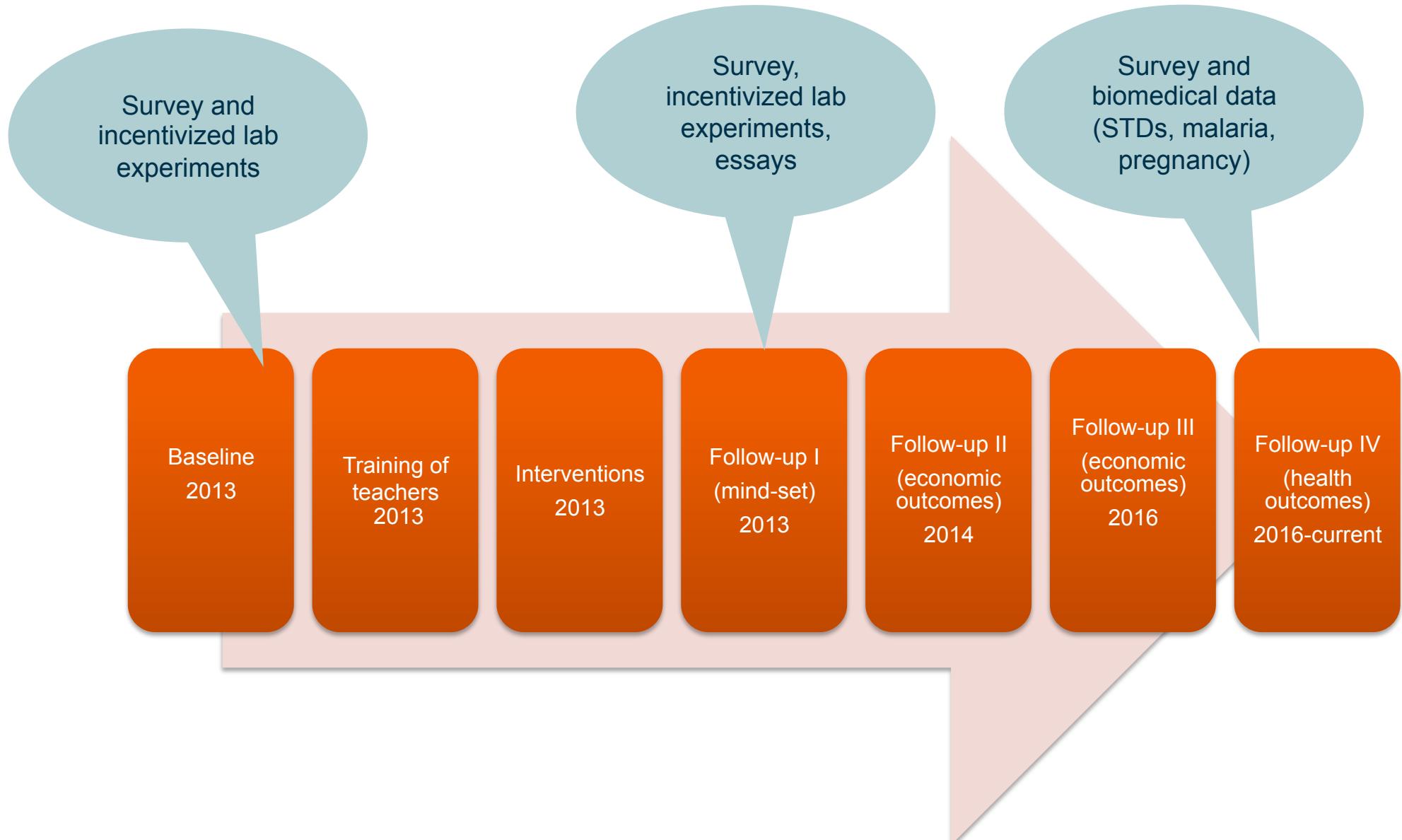
Our Girl Power project in Tanzania: 80 schools, four treatment arms



1. Control
2. Health
3. Business
4. Health and Business



Time line





The interventions

- 8 sessions (16 in combined treatment), each 1.5-2 hours, weekly
- Implemented at schools (after school program), and given by school teachers (who had been carefully selected, and who had undergone a training program)



The Girl Power girls

- 3500 girls, 16-17 years old at baseline, final months of secondary school
- 80% agreed with the statement “*Girls in my age sometimes receive money or gifts for having sex with older men*”.
- 60% report that girls their age are often sexually harassed
- Most of them also know girls who dropped out of school because of pregnancy



The Girl Power essays

- A few weeks after the treatment: short essay about where they envisioned themselves in five to ten years' time in terms of education, livelihood, marriage
- Essays complement standard survey questions (can give a deeper understanding of how interventions shape aspirations)
- In-depth analysis: complete reading and categorization of 192 essays
- Full-sample analysis: based on word counts of 3069 essays





My first priority in life is to educate myself and once I do, I will use my education to prevent cruel practices that other girls are being subjected to such as child marriage, circumcision and arranged marriages. (...)



Since I started Form one, it was very difficult for my parents to pay my fees or buy school uniform. I have many problems that bother me, for instance I am completing Form four and to date my parents have not paid the school fees.



Sometimes when I go back home, I often cry. Therefore I would like to say that I have many aspirations in life. However, I feel that I will not be successful due to the difficulties I am encountering. (...)



I do not have much more to say but I do have one worry. I would like you to give me advice. Once I finish school, what should I do in order for me to avoid the pressures of unwanted pregnancy and the expectation of early marriage?

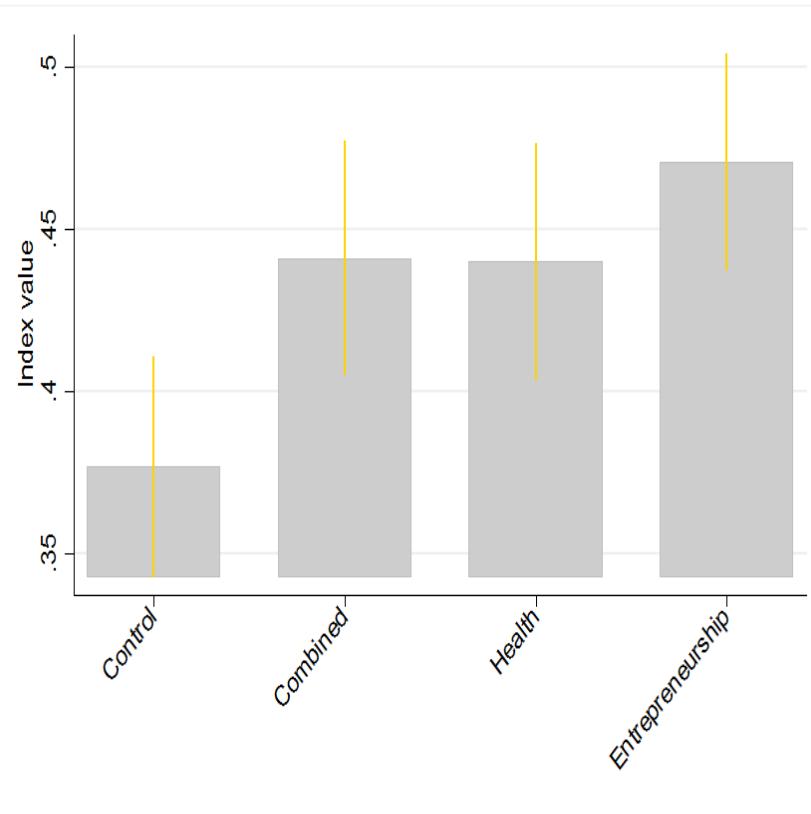


- How do we reduce the pressures of unwanted pregnancy and the expectation of early marriage?
- Health training or business training or both?
- Evidence on locus of control; business plans; business outcomes....medical evidence on pregnancies and reproductive health being conducted now

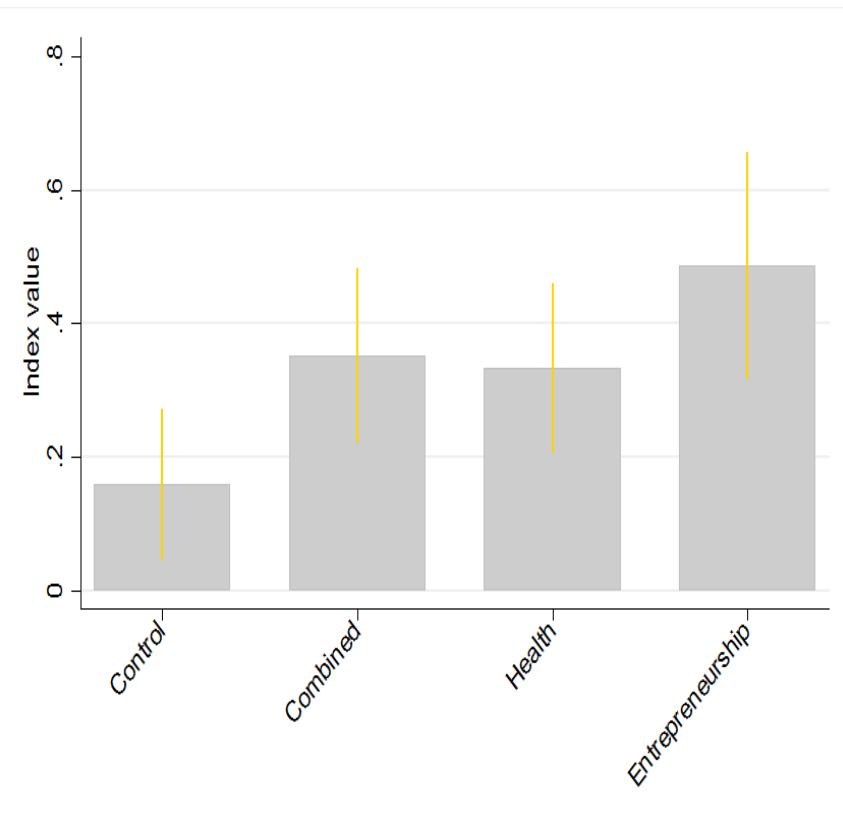


Locus of control: “I am confident”, “I am capable”, ...

Full sample (n=3069)



In-depth sample (n=192)





- *I have received training on fertility and health and been taught how to say no when a man asks you to have sex with him. You should have a firm stand in saying no and not fear him and start to bite your nails or dig your foot into the ground. You have to stare at him in the face and be serious. All the girls should receive education on how to say no. (health trained)*



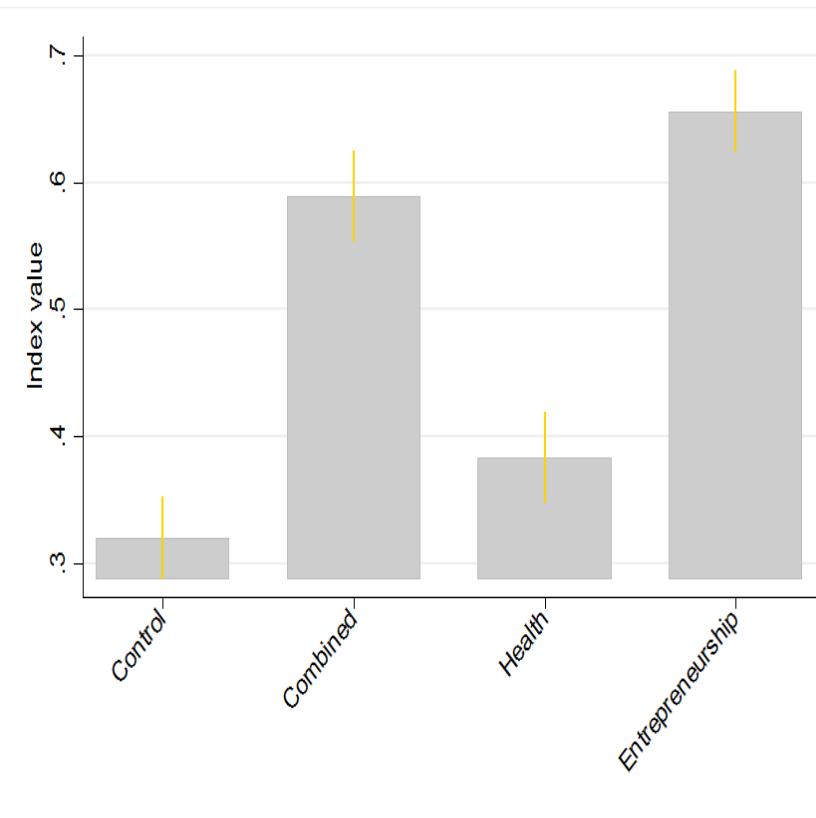
Impact over time

- Survey data from 2013 and 2014 shows that the *combined* treatment has been the most effective in strengthening locus of control over time

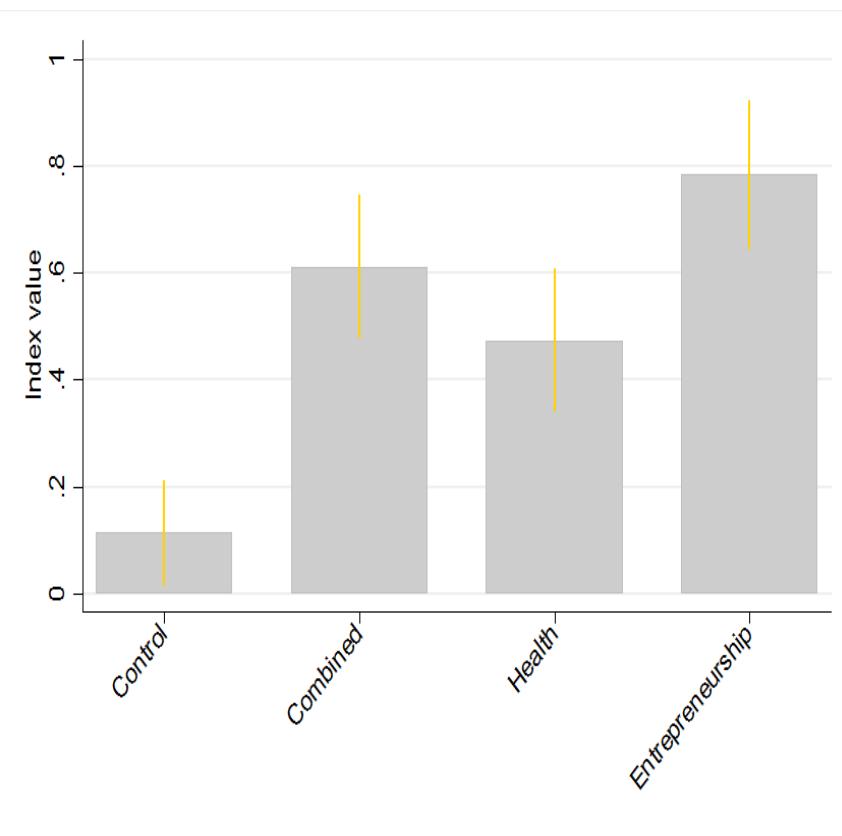


Entrepreneurship general: “*I will start a business*”, ...

Full sample (n=3069)

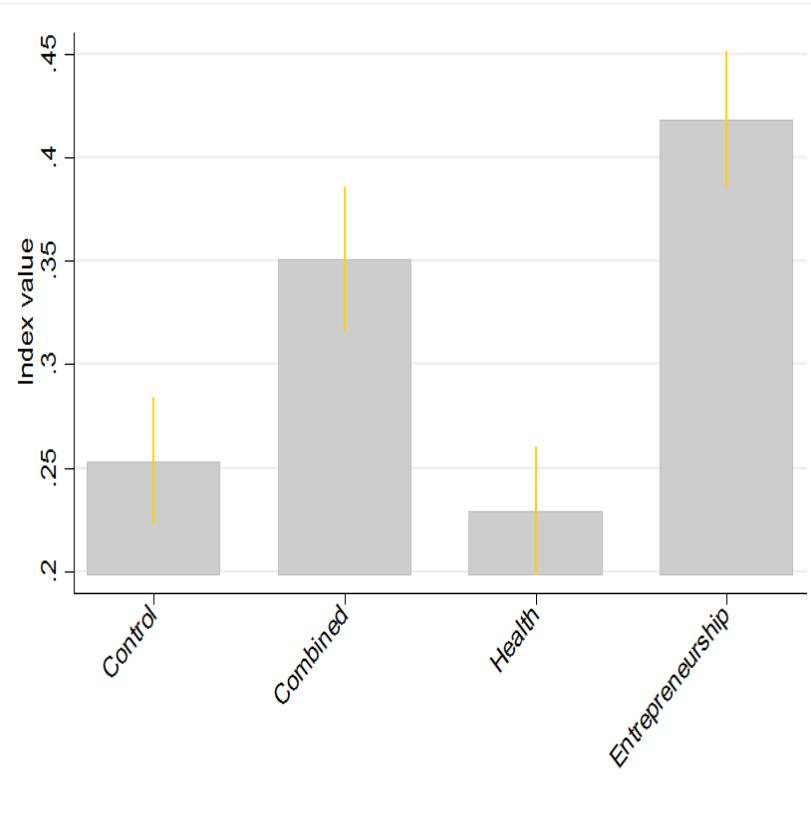


In-depth sample (n=192)

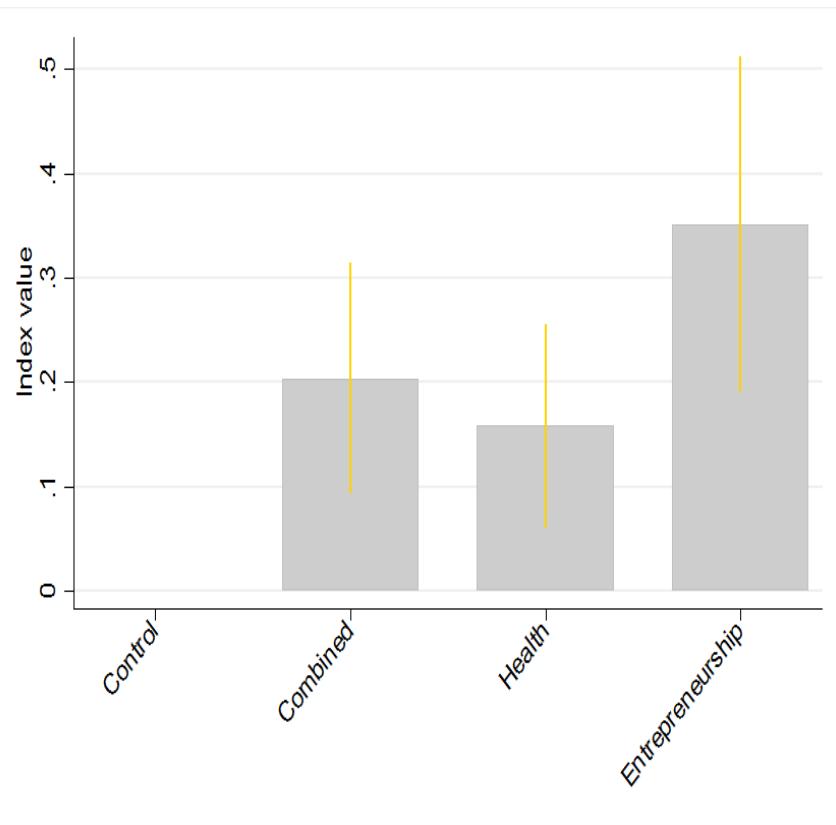


Entrepreneurship specific: “I will start a business selling vegetables”, ...

Full sample (n=3069)



In-depth sample (n=192)





- *I am a 17 year-old girl who studies at XXXX secondary school. In August, I received training on entrepreneurship, which has enabled me to understand the opportunities available to me as a girl. (...) After the training, I became more informed on how to start my own business, which will make me work hard for my future. In the next 5 years, I will have a huge business, which I know will bring in income. After completing my education, my life will be based in Morogoro. I do not expect to have children during this time until when I am employed or running my own business that will bring in income and independence from anyone else. (business trained)*

Business outcomes, 2013 and 2014 follow-up surveys

NHH



	2013		2014	
	Business know	Business plans	Economic activity	Sales
Health	0.01 (0.06)	0.02 (0.03)	0.03 (0.02)	0.52 (0.38)
Business	0.16*** (0.06)	0.38*** (0.04)	0.12*** (0.03)	1.43*** (0.49)
Health & Business	0.32*** (0.07)	0.42*** (0.05)	0.18*** (0.04)	2.03*** (0.61)
Control variables	Yes	Yes	Yes	Yes
Mean value control	1.896	0.151	0.186	1.452
Observations	2873	2873	2950	2950
r ²	0.042	0.22	0.042	0.025



Summary Girl Power project so far

- Business training (alone or in combination with health) has had stronger impact than (only) health training....
- ...on business plans, and business outcomes, but also on locus of control
- But what about impact on pregnancies and reproductive health?
- We shall soon see...we are currently collecting medical data on pregnancy and STIs, and have so far reached 70% of the girls...aiming for 90%!



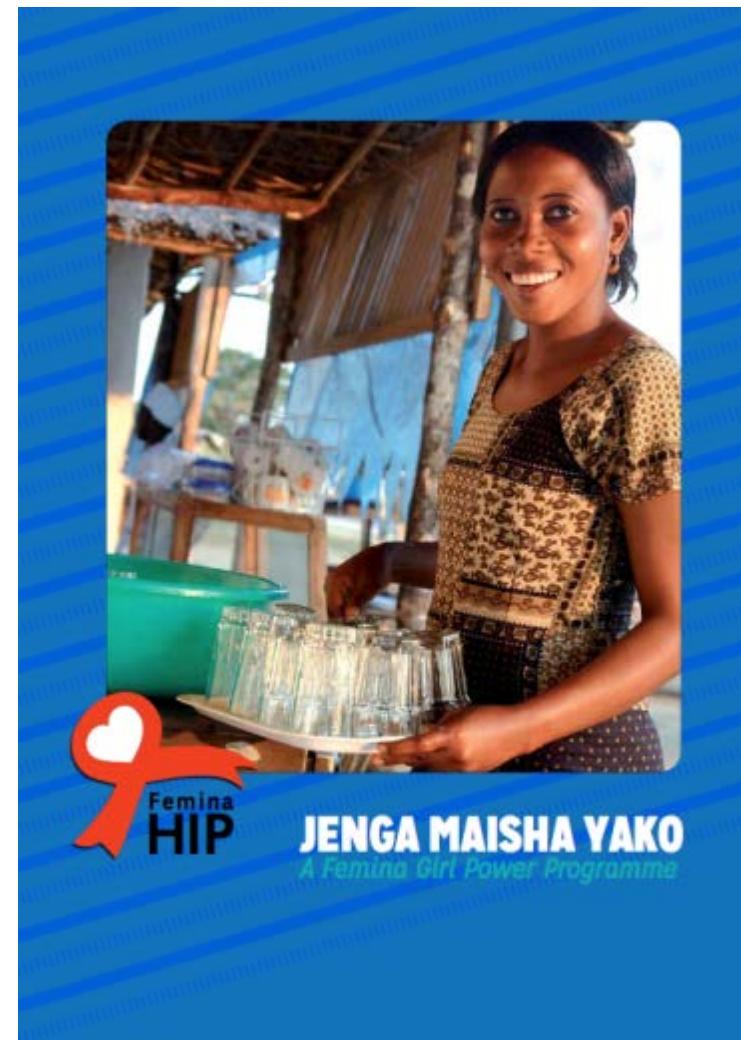
Concluding remarks

- Interventions strengthening health knowledge and alternatives to childbearing can be very effective in reducing teenage pregnancy and improving reproductive health
- But *design* of intervention matters (eg abstinence vs risk information); and *context* matters (eg BRAC project in Uganda and Tanzania)
- Evidence that addressing *both* health knowledge and entrepreneurship knowledge can be very effective (BRAC in Uganda, our Girl Power project in Tanzania....)





NHH
Protect Your Life
Build Your Life





My main arguments

- **“Big push” policies are needed!**

There are complementarities between financial and human capital

- **Target women when they are young!**

After marriage and childbearing, it may be too late, and even a “big push” policy may not be enough.



- Field and co-authors (2016). Bangladesh
- Incentive program led to reduction in under 18 marriage and reduction in under 20 child bearing
- Incentivize not to marry (also applicable to out-of-school girls). The conditional incentive program was an in-kind transfer of cooking oil to encourage parents to postpone daughters' marriage until the legal age of consent (18). The value of the incentive was approximately \$16 per year, an amount chosen to offset the estimated financial cost of higher dowry
- Empowerment program: The empowerment curriculum included education support and social competency training. The education component aimed to enhance the basic literacy, numeracy, and oral communication of both school-attending and illiterate girls. The social competency component trained girls in life skills and nutritional and reproductive health knowledge via a curriculum designed by Save the Children USA. In randomly selected communities (50%), financial literacy and encouragement to generate own income was added to the curricula. SIMILAR TO BRAC...
- AND COMBINED TREATMENT



My first priority in life is to educate myself and once I do, I will use my education to prevent cruel practices that other girls are being subjected to such as child marriage, circumcision and arranged marriages. (...) Since I started Form one, it was very difficult for my parents to pay my fees or buy school uniform. I have many problems that bother me, for instance I am completing Form four and to date my parents have not paid the school fees. Sometimes when I go back home, I often cry. Therefore I would like to say that I have many aspirations in life. However, I feel that I will not be successful due to the difficulties I am encountering. (...) I do not have much more to say but I do have one worry. I would like you to give me advice. Once I finish school, what should I do in order for me to avoid the pressures of unwanted pregnancy and the expectation of early marriage?

	Empowerment					
	Short term				Medium term	
	Compete	Index	Little control	Feel useless	Little control	Feel useless
Health	-0.03 (0.06)	0.06+ (0.03)	-0.16* (0.08)	-0.03 (0.07)	-0.11 (0.07)	-0.01 (0.08)
Business	0.06 (0.05)	0.01 (0.04)	-0.06 (0.07)	-0.09 (0.06)	-0.07 (0.06)	-0.07 (0.08)
Health & Business	0.01 (0.04)	-0.03 (0.04)	-0.25*** (0.08)	-0.18*** (0.06)	-0.13* (0.07)	-0.08 (0.08)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Mean value control group	0.333	-0.014	3.150	2.405	3.458	2.595
Observations	2873	2873	2873	2873	2806	2806
r ²	0.018	0.0079	0.018	0.009	0.005	0.002 ³⁷
NORWEGIAN SCHOOL OF ECONOMICS						

Survey evidence business, short- and medium term

	Short term				Medium term			
	Knowledge		Behavior		Behavior			
	Health	Business	Safe sex	Business plans	Childbearing	Business	Sales	Patience
Health	0.02 (0.09)	0.01 (0.06)	-0.04 (0.03)	0.02 (0.03)	0.01 (0.02)	0.03 (0.03)	0.44 (0.40)	-0.04 (0.03)
Business	0.02 (0.09)	0.16*** (0.06)	-0.05 (0.04)	0.38*** (0.04)	0.01 (0.01)	0.11*** (0.03)	1.32** (0.52)	-0.04 (0.04)
Health & Business	0.09 (0.09)	0.32*** (0.07)	-0.01 (0.04)	0.42*** (0.05)	0.03 (0.02)	0.17*** (0.04)	2.37*** (0.62)	-0.04 (0.04)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean value control	4.785	1.896	0.688	0.151	0.054	0.191	1.502	0.457
Observations	2873	2873	2873	2873	2806	2806	2806	2806
r ²	0.051	0.042	0.032	0.22	0.006	0.042	0.028	0.007

	Welfare (medium term)				
	Happiness (SD)				
	General	Health	Economic	Sickness	Income
Health	0.12 (0.09)	0.03 (0.08)	0.12** (0.06)	0.03 (0.03)	-0.11 (0.49)
Business	-0.01 (0.05)	-0.01 (0.08)	0.14** (0.06)	0.01 (0.03)	0.11 (0.47)
Health & Business	0.25*** (0.05)	0.15** (0.08)	0.19*** (0.07)	-0.00 (0.03)	0.84* (0.44)
Control variables	Yes	Yes	Yes	Yes	Yes
Mean value control	3.786	4.506	2.547	0.252	15.384
Observations	2806	2806	2806	2806	2806
r2	0.030	0.013	0.015	0.004	0.013



	Gender equality			
	Short term		Medium term	
	Wife beating	Wife earner	Wife beating	Wife earner
Health	-0.22*** (0.08)	0.12*+ (0.07)	-0.00 (0.03)	0.11 (0.09)
Business	0.07 (0.06)	0.27*** (0.07)	0.02 (0.03)	0.25** (0.10)
Health & Business	-0.25*** (0.07)	0.27*** (0.07)	-0.01 (0.03)	0.10 (0.09)
Control variables	Yes	Yes	Yes	Yes
Mean value control group	0.284	3.816	0.242	3.439
Observations	2873	2873	2806	2806
r ²	0.026	0.021	0.013	0.009



	Locus of control			
	Short term		Medium term	
	Little control	Feel useless	Little control	Feel useless
Health	-0.16*	-0.03	-0.11	-0.01
	(0.08)	(0.07)	(0.07)	(0.08)
Business	-0.06	-0.09	-0.07	-0.07
	(0.07)	(0.06)	(0.06)	(0.08)
Health & Business	-0.25***	-0.18***	-0.13*	-0.08
	(0.08)	(0.06)	(0.07)	(0.08)
Control variables	Yes	Yes	Yes	Yes
Mean value control group	3.150	2.405	3.458	2.595
Observations	2873	2873	2806	2806
r ²	0.018	0.009	0.005	0.002



Protect your life

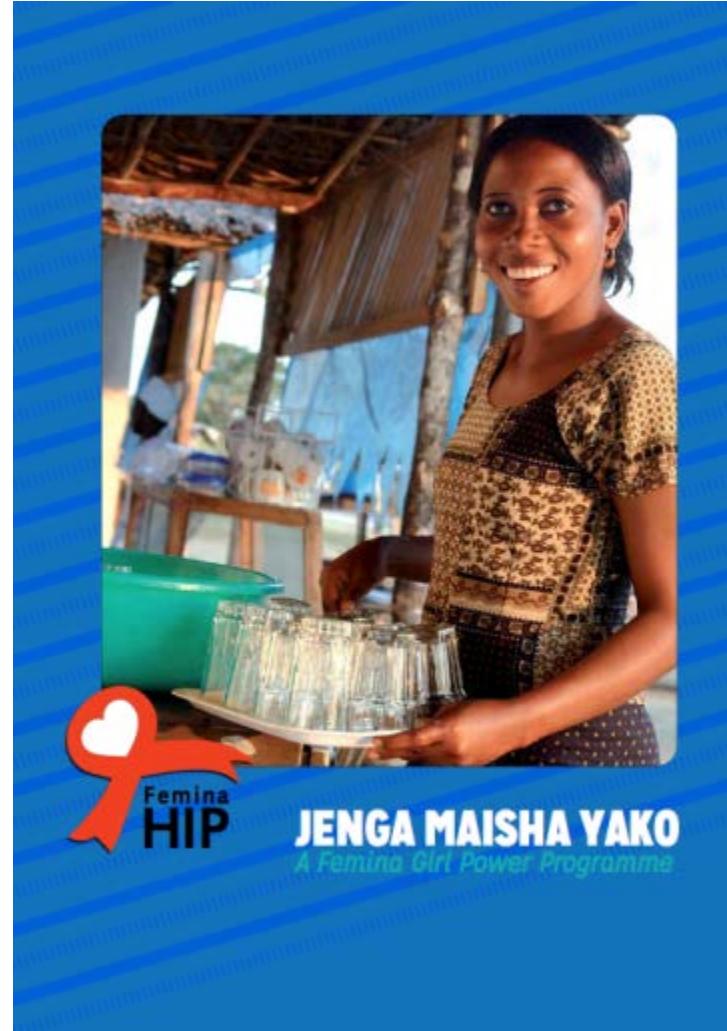




- Changing economic opportunities



Build your life





Sex: “Sex”, “Love”, “Maternity”, ...

