

**Online Appendix to**

**HIV status, role models and attainable goals: Experimental  
evidence on inspiring women in Uganda**

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## Appendix A<sup>1</sup>

### Video 1: Sarah's story

My name is Sarah Nalwoga. I run my own business. This I have done, and you can do it too. No one cannot do it. With determination, you can do anything that you desire, and enjoy the benefits.

I have been in business for close to two years. Two years at the end of this year. I used to listen to women on the radio who have made it in business. In spite of all sorts of difficulties and conditions identical to my own. About my background: I was staying in Bweyogerere and my husband died from this disease. When he died, I became sick with the disease. I remained with my children. When they started me on treatment, I improved greatly. I realised I could no longer afford Bweyogerere, paying school fees or even buy food and other household items. My businesses are growing passion fruits, a piggery growing oranges and even some crop farming where I grow coco yams on some borrowed land. For fellow women things have changed and everyone must work. Every time you think of looking for hand-outs, you will wait in vain.

For me, when I heard of growing passion fruits on the radio I bought passion fruits I made juice, and took all of the seeds to the seed bed. From the nursery bed I would get my seedlings ready for planting. Yes, I was not familiar with the bed or passion fruit support structure. But I got assistance from someone who had grown passion fruits and I came up with an appropriate structure for my passion fruits. Of course there are difficulties: I have to ensure that I spray the passion fruits and spray the oranges. My pig has to feed well, and get treated whenever sick. I think if I expand my production I can penetrate large markets like Owino, Nakasero. These demand larger quantities like sacks, or 50kgs. Then it is possible to enter Kampala market. Now I am still small, large markets require more quantity of a given product. *When you choose to do something that you like, with your heart and with love nothing can fail you.*

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<sup>1</sup> The videos are available here: [video 1](#); [video 2](#); [video 3](#); [video 4](#).

## **Video 2: Alice's story**

My name is Kyakyo Alice. I run my own businesses. I have done this and you too can do it. I am 42 years old and my husband left me with 5 children. When my husband died I went to Virika for HIV testing where I was found positive. I was sent to Buhinga hospital where I started on HIV drugs. I have consistently used them. I am a business woman, I sell clothes in different markets, I do labour for cash, I grow and sell crops. I keep animals like goats, pigs and cows I can sell these animals for school fees. I also have a retail shop.

The start is always hard. When my husband died, he left me with ailing health. He left me with no money, and I had to find means of survival. I started to prepare pancakes to ensure support for my children. They did not have well off relatives, I had to support them all alone through some baking and labour for cash and now I have taken all my children to school. I have bought land for my children, I have bought goats, cows and pigs for them. I have even built for my children. I decided to work hard to educate my children even when I was not educated myself.

Transportation is one major hindrance to marketing in the area, for instance when I have bananas or beans to sell I have to carry them to the market to get cash. When I started working, life changed for the better. My children are in school, my children can eat, and are not lacking. They have clothes, they are not like orphans, I thank God for this.

I encourage women to take the initiative to work and not just sit and watch. Even if they are widowed like me, they will be able to care for their families and their children.

## **Video 3: Jovia's story**

My name is Jovia Businge, I am 54 years old. What I have done, you too can do it, even better than me. My story started with women's groups, we were taught and encouraged to work hard because being widowed did not mean you were going to die soon after. We were told to be strong and look after our children and not to leave them alone because they would suffer and die. When we moved to this place, my husband died. I tried to do what I could and now I have managed to educate all my children. When my husband died I did not know he was HIV positive, I lived on and our last born is now in senior two. I look after cows, keep pigs, cultivate crops, grow beer bananas and brew local brew to get money. With the money that I got, I started a retail shop at Kicucu and now when I get some money from somewhere else, I add stock into the shop and my children are able to go to school and we also enjoy life. Buyers come to my home for pigs and cows because they know me. I do not have other sources of money. I get it from my projects to survive. I also grow some avocado fruits, I sell sacks at 40,000, 50,000. I

also have eucalyptus trees by the seasonal river. For me, I sell piglets for 50,000. If you buy a female pig within a year, you can make a lot of money. Imagine a pig can produce 9-12 piglets and for 50,000 each piglet, how much is that? With that money, could you fail to take your children to school, buy school uniforms?

Fellow women, I call upon you to work hard. I also started from Zero. I worked hard and cultivated. I buy and rear pigs, I look after chickens because from eggs alone you can buy books for your children. So, fellow women, join women's groups!

#### **Video 4: Mugenyi's story**

My name is Yayeri Mugenyi, I am 55 years old. I have managed to start and run a farm, pay school fees for my children. I am telling the rest of you, keep working! You will realize that you too can make it. Do not retreat.

Even when I was still sick I kept telling myself that if God helped me and I became better I had to start up something to make sure that I can take care of my family. Whoever came to see me and gave me money to buy milk, I would keep it and look for someone to dig for me. I would plant sweet potatoes and look after my plantation from which I would get food for my family. I take my yellow bananas to the market every Saturday and my customers for matoke, chicken and trees find me at home. For the trees, I go looking for them. Sometimes I split and collect firewood. I always sell the mature pigs and remain with the piglets. The chickens I never sell at once but keep selling some and replacing them. I am a widow. We never had a house. And myself, I never had the strength to get involved in tilling or to plant anything. I was HIV positive and a patient who could die at anytime. With God's plan I started improving greatly. Regaining my strength bit by bit and I started looking out for something I could do in order to look after my family. The start is always hard, but you just have to be patient as it's never easy. Let's say if you get a chance and you get fifty thousand it's not for buying meat and clothes or meat only. For us, we deal so much in farming, you get laborers, pay them off. They plant for you some sweet potatoes and when they mature you can take them to the market and sell them. You could get a hundred thousand. After investing the fifty thousand, this would give you something else to do. And that's how I started, working with my children. My advice to the people listening to me is that being HIV positive is not the end of the world. If you find yourself positive you can still live long into the future. My humble request to you is to take care of yourself, don't spread HIV to other people, remain with one strain of HIV and get medication. Doctors are available to help you.

## Appendix B

**Table B1: Poverty Incidence by region, 2015**

	Percentage	Number ( millions)
National Average	19.70	6.7
Central	4.7	0.4
Western	8.7	0.6
Eastern	24.5	2.5
Northern	43.7	3.1
Urban	9.1	0.7
Rural	27.2	6

**Table B2: Balance tests at baseline with correction for multiple hypothesis testing**

<b>Demographics</b>	<b>Mean Control</b>	<b>Mean Video</b>	<b>Difference</b>	<b>MHT P-value</b>
Age	39.25	37.97	1.28	0.40
Number of adults	1.35	1.26	0.09	0.89
Number of children	2.26	2.35	-0.09	0.98
Years diagnosed HIV	3.17	2.76	0.40	1.00
Years on ARV	5.63	5.55	0.09	0.55
No education	0.35	0.35	0.00	0.99
<b>Income and livelihoods</b>	<b>Mean Control</b>	<b>Mean Video</b>	<b>Difference</b>	<b>MHT P-value</b>
Self-employed	0.27	0.30	-0.03	0.97
Total personal income	69,464	59,210	10,254	0.26
Crop income	18,931	12,838	6,092	0.20
Livestock income	4,789	4,789	-0.47	0.99
Non-agricultural income	17,118	12,816	4,302	0.77
Wage income	21,953	24,199	-2,246	0.98
<b>Consumption, savings and credit</b>	<b>Mean Control</b>	<b>Mean Video</b>	<b>Difference</b>	<b>MHT P-value</b>
Food expenditure	21,035	19,549	1,486	0.90
Informal savings – amount	3,749	4,443	-694	0.99
Formal savings – amount	21,738	23,174	-1,435	1.00
Informal credit – amount	6,360	5,352	1,008	0.99
Formal credit – amount	21,456	22,501	-1,046	0.99
<b>Ambition and empowerment</b>	<b>Mean Control</b>	<b>Mean Video</b>	<b>Difference</b>	<b>MHT P-value</b>
Decisions on individual income	0.84	0.77	0.07	0.25

Note: MHT P-value refers to the p-value computed using the multiple hypothesis testing procedure developed by List et al. (2016).



**Table B4: Pattern of attrition and baseline characteristics**

	(1)	(2)	(3)	(4)
Videos	0.059 (0.087)	0.053 (0.086)	0.052 (0.080)	0.175 (0.224)
Age		-0.003 (0.002)	-0.003 (0.002)	-0.001 (0.003)
Number adults		-0.006 (0.011)	-0.011 (0.011)	-0.015 (0.018)
Number children		-0.014* (0.007)	-0.014* (0.007)	-0.015 (0.012)
Years on ARV		-0.004 (0.006)	-0.004 (0.006)	-0.005 (0.009)
Years diagnosed HIV		-0.011** (0.004)	-0.010** (0.004)	-0.005 (0.006)
No education		0.014 (0.032)	0.010 (0.028)	0.045 (0.032)
Total personal income			-0.011** (0.005)	-0.007 (0.005)
Crop income			0.005 (0.003)	0.008* (0.004)
Livestock income			-0.000 (0.003)	0.002 (0.005)
Non-agricultural income			0.002 (0.003)	0.008 (0.005)
Self employed			-0.046 (0.032)	-0.074 (0.043)
Food expenditure			0.020** (0.010)	0.008 (0.008)
Informal savings			-0.003 (0.004)	0.001 (0.005)
Formal savings			-0.008** (0.003)	-0.009* (0.005)
Informal credit			0.002 (0.005)	0.000 (0.008)
Formal credit			-0.001 (0.003)	-0.007*** (0.002)
Decisions on individual income			-0.051** (0.024)	-0.059 (0.042)
Age x T				-0.004 (0.003)
Number adults x T				0.004 (0.024)
Number children x T				0.001 (0.015)
Years on ARV x T				0.001 (0.011)
Years diagnosed HIV x T				-0.009 (0.008)
No education x T				-0.073 (0.051)
Total personal income x T				-0.007 (0.007)
Crop income x T				-0.007 (0.006)
Livestock income x T				-0.004 (0.007)
Non-agricultural income x T				-0.010 (0.006)
Self employed x T				0.042

Food expenditure x T				(0.061)
				0.018
Informal savings x T				(0.015)
				-0.006
Formal savings x T				(0.007)
				0.004
Informal credit x T				(0.006)
				0.002
Formal credit x T				(0.009)
				0.011*
Decisions on individual income x T				(0.005)
				0.004
Constant	0.392***	0.614***	0.575***	0.548***
	(0.067)	(0.070)	(0.113)	(0.112)
Observations	2,066	2,066	2,066	2,066
R-squared	0.004	0.025	0.042	0.053

The sample size is 2,066, slightly less than the original 2,121 women surveyed at baseline due to missing values on some of the variables. Robust standard errors (s.e.) clustered at the clinic level presented in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1

**Table B5: Results for intermediate specifications**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Operates an enterprise/ self-employed	Personal income	Crop income	Livestock income	Enterprise income	Wage income	Proportion income generated from own enterprises	Time working in own enterprises	Decisions on individual income	Poultry units
Video	0.139*	0.070	0.827	0.920***	0.975*	-0.991*	0.111**	0.524*	0.026	1.456**
s.e.	(0.067)	(0.123)	(0.781)	(0.270)	(0.523)	(0.543)	(0.040)	(0.272)	(0.037)	(0.622)
P-value WB	[0.048]**	[0.599]	[0.294]	[0.010]***	[0.088]*	[0.134]	[0.028]**	[0.088]*	[0.487]	[0.062]*
P-value RI	{0.018}**	{0.545}	{0.419}	{0.016}**	{0.058}**	{0.066}*	{0.018}**	{0.034}**	{0.560}	{0.004}***
P-value MHT	<0.013>**	<0.846>	<0.416>	<0.005>***	<0.713>	<0.150>	<0.111>	<0.695>	<0.930>	<0.379>
Observations	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	578	1,150
R-squared	0.195	0.024	0.053	0.036	0.139	0.176	0.130	0.190	0.002	0.175
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
	Cow unit	Goat units	Pig units	Retail	Food exp	Formal savings	Informal savings	Formal credit	Informal credit	
Video	0.220	0.453**	0.323***	0.060	-0.177	0.172	1.255*	-0.296	-0.138	
s.e.	(0.170)	(0.181)	(0.097)	(0.054)	(0.220)	(0.309)	(0.636)	(0.289)	(0.608)	
P-value WB	[0.270]	[0.034]**	[0.010]***	[0.312]	[0.473]	[0.627]	[0.094]*	[0.436]	[0.843]	
P-value RI	{0.045}	{0.011}**	{0.009}***	{0.191}	{0.373}	{0.599}	{0.074}*	{0.409}	{0.732}	
P-value MHT	<0.162>	<0.083>*	<0.000>***	<0.930>	<0.260>	<0.930>	<0.017>**	<0.4434>	<0.930>	
Observations	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	
R-squared	0.264	0.135	0.165	0.051	0.195	0.024	0.053	0.036	0.139	

Each specification includes the baseline outcome as a control variable. They do not include baseline covariates or region dummies. Results for the variables *ambition* are not presented as data on this outcome was not collected at baseline. Robust standard errors (s.e.) clustered at the clinic level presented in parenthesis. P-values for t-test of parameter significance using wild bootstrapped (WB) standard errors presented in brackets (Cameron et al., 2008). Randomization inference p-values (generated using the STATA command developed by Heß (2017)) are presented in braces (Young, 2017). P-values with Romano and Wolf's (2016) correction for multiple hypothesis testing based on the STATA command developed by Clarke (2016) are presented in angle brackets. Stars are presented for each p-value. The stars on the coefficient refer to the p-value computed using the clustered standard errors. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1.

**Table B6: Standardized effects for continuous outcome variables**

	Table 3 (3) Personal Income No controls	Table 3 (4) Personal Income With controls	Table 3 (5) Crop Income No controls	Table 3 (6) Crop Income With controls	Table 3 (7) Livestock Income No controls	Table 3 (8) Livestock Income With controls	Table 3 (9) Enterprise Income No controls	Table 3 (10) Enterprise Income With controls	Table 3 (11) Wage Income No controls	Table 3 (12) Wage Income With controls
Videos s.e.	0.014 (0.042)	0.033 (0.029)	0.152 (0.179)	0.198 (0.129)	0.266*** (0.088)	0.261*** (0.071)	0.242 (0.154)	0.190** (0.074)	-0.184 (0.168)	-0.187** (0.067)
	Table 6 (1) Poultry Units No controls	Table 6 (2) Poultry Units With controls	Table 6 (3) Cow Units No controls	Table 6 (4) Cow Units With controls	Table 6 (5) Goat Units No controls	Table 6 (6) Goat Units With controls	Table 6 (7) Pig Units No controls	Table 6 (8) Pig Units With controls		
Videos s.e.	0.200** (0.092)	0.155*** (0.033)	0.062 (0.052)	0.039 (0.024)	0.226** (0.104)	0.177*** (0.047)	0.391** (0.147)	0.329*** (0.076)		
	Table 8 (1) Food expenditure No controls	Table 8 (2) Food expenditure With controls	Table 8 (3) Formal savings No controls	Table 8 (4) Formal savings With controls	Table 8 (5) Informal savings No controls	Table 8 (6) Informal savings With controls	Table 8 (7) Formal credit No controls	Table 8 (8) Formal credit With controls	Table 8 (9) Informal credit No controls	Table 8 (10) Informal credit With controls
Videos s.e.	-0.117 (0.146)	-0.083 (0.083)	0.043 (0.079)	0.027 (0.063)	0.255* (0.133)	0.253** (0.093)	-0.097 (0.092)	-0.111 (0.079)	-0.042 (0.175)	0.014 (0.078)

Robust standard errors (s.e.) clustered at the clinic level presented in parenthesis. Continuous variables are standardized prior to estimating each specification. All specifications are otherwise identical to the specifications in the corresponding tables in the text. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1

**Table B7: Health and education**

	(1)	(2)	(3)	(4)	(5)	(6)
	Ill in last 30 days		Proportion of children in household ill in last 30 days		Proportion of children in household absent from school in last 30 days	
Video	-0.048	-0.056*	-0.029	-0.036***	-0.010	-0.030
s.e.	(0.048)	(0.031)	(0.017)	(0.012)	(0.043)	(0.041)
P-value WB	[0.410]	[0.172]	[0.128]	[0.012]**	[0.851]	[0.577]
P-value RI	{0.200 }	{0.160}	{0.096}*	{0.033}**	{0.819}	{0.622}
P-value MHT	<0.306>	<0.362>	<0.218>	<0.362>	<0.926>	<0.933>
Baseline outcome	No	Yes	No	Yes	No	Yes
Baseline covariates	No	Yes	No	Yes	No	Yes
Region dummies	No	Yes	No	Yes	No	Yes
Observations	1,148	1,144	984	907	860	744
R-squared	0.003	0.048	0.004	0.023	0.000	0.057
Baseline Mean Control		0.253		0.100		0.347
End-line Mean Control		0.300		0.117		0.470

Robust standard errors (s.e.) clustered at the clinic level presented in parenthesis. P-values for t-test of parameter significance using wild bootstrapped (WB) standard errors presented in brackets (Cameron et al., 2008). Randomization inference p-values (generated using the STATA command developed by Heß (2017)) are presented in braces (Young, 2017). P-values with Romano and Wolf's (2016) correction for multiple hypothesis testing based on the STATA command developed by Clarke (2016) are presented in angle brackets. Stars are presented for each p-value. The stars on the coefficient refer to the p-value computed using the clustered standard errors. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1. The ex-post Minimum Detectable Effect with 80% power and a 5% significance level based on the actual sample at end-line for the proportion of children in the household absent from school is 0.08.

**Table B8: Lee (2005) bounds for continuous income variables (with controls)**

	(1)	(2)	(3)
	Lower	Actual	Upper
Personal Income	-0.138 (0.079)	0.093 (0.080)	0.137 (0.091)
Crop Income	0.867 (0.648)	0.983 (0.641)	1.152* (0.649)
Livestock Income	0.895*** (0.253)	0.934** (0.252)	1.198*** (0.234)
Enterprise Income	0.813** (0.352)	0.887* (0.348)	1.062*** (0.338)
Wage Income	-1.100*** (0.349)	-0.977** (0.351)	-0.849** (0.373)

Each specification includes controls for baseline outcomes, baseline covariates and strata as described in equation (1). Robust standard errors clustered at the clinic level presented in parenthesis. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1