

Impact of the Kenya Cash Transfer for Orphans and Vulnerable Children Program on HIV Risk Behavior

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Study Question: Can a poverty targeted social cash transfer influence HIV risk behavior?

- Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC)
 - Ministry of Gender, Children & Social Development, GoK
 - Community based targeting + central verification
 - Ultra-poor with OVC (0-17 years of age)
 - Flat monthly transfer ~US\$20 per household
 - Largest social protection program in Kenya
 - 125,000 hhlds, 350,000 OVC (end 2011)



Study Design

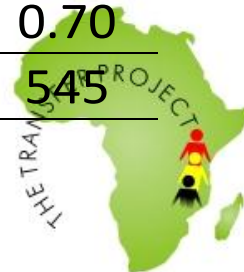
- Cluster randomized longitudinal design
 - Baseline (2007) and follow-up (2009) funded by UNICEF (7 districts across Kenya)
 - 2/3 T, 1/3 C, 1912 households followed in both rounds
 - 2011 follow-up funded by NIMH
 - Included individual interviews on sexual behavior with 2 residents aged 15-24 years (N=2218)
 - 1810 households (95% success rate)
 - KEMRI Ethics Committee Protocol #265



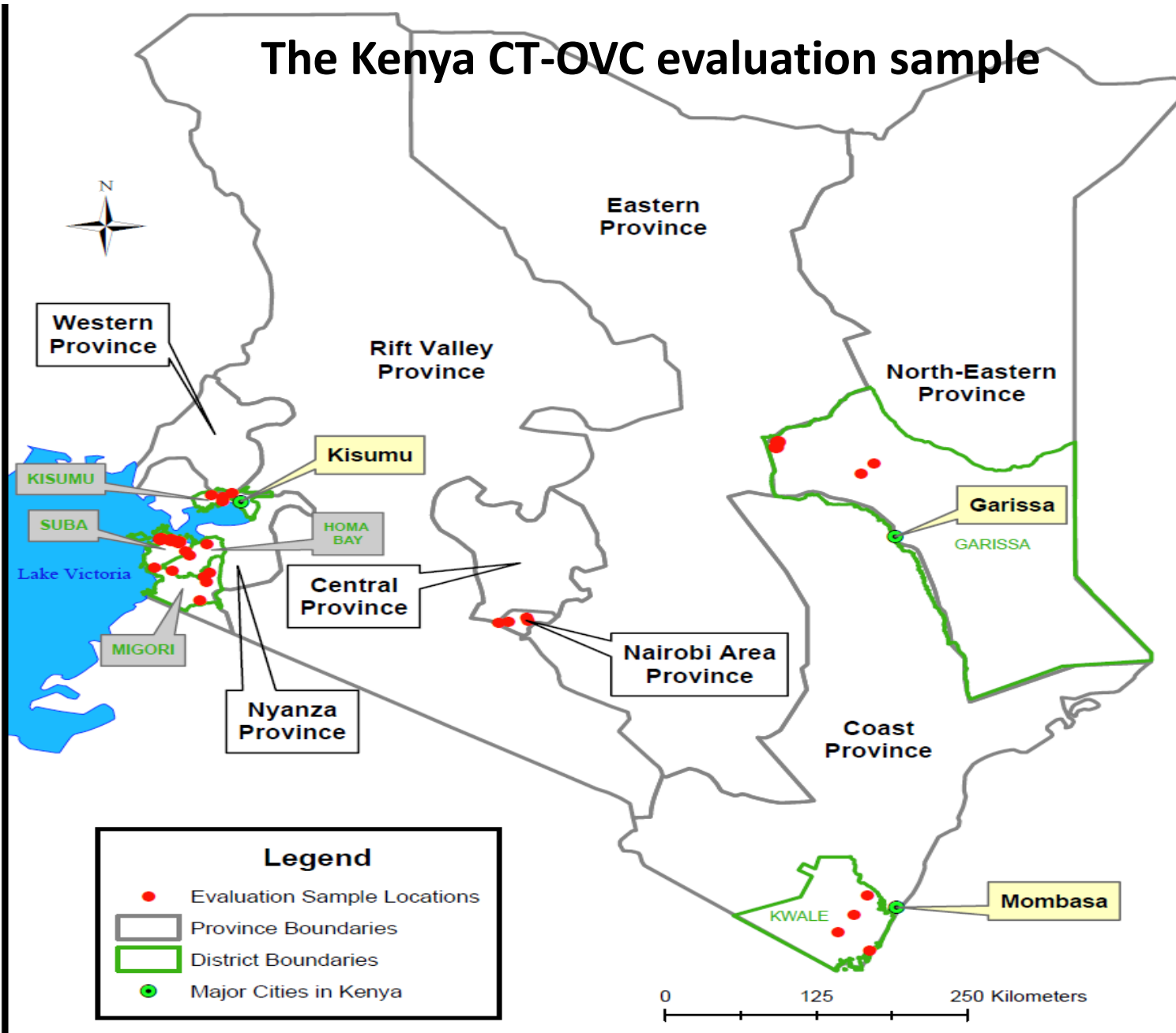
Two arms balanced on poverty, some differences in demographics

	Sample: <u>2007</u>		<u>2009</u>		<u>2011</u>	
	T	C	T	C	T	C
<u>Demographics</u>						
Household size	5.48	5.79	5.54	5.81	5.53	5.82
Female head	0.65	0.57	0.65	0.59	0.65	0.59
Age of head in years	62.3	56.1	62.2	56.2	62.6	56.6
Head < primary	0.53	0.38	0.53	0.38	0.53	0.38
<u>Poverty</u>						
Adult equiv. monthly exp. (Ks)	1533	1501	1541	1459	1550	1442
Walls of mud, dung, grass	0.75	0.84	0.75	0.86	0.74	0.87
Floor of mud, dung	0.66	0.74	0.65	0.77	0.66	0.79
No toilet	0.55	0.56	0.55	0.56	0.54	0.56
Unprotected water source	0.62	0.68	0.61	0.70	0.61	0.70
N	1540	754	1325	583	1266	545

Statistically significant differences between T and C in bold



The Kenya CT-OVC evaluation sample



Methods

- Restrict estimation to our ‘strongest sample’
 - 15-20 years old (11-16 at baseline)
 - in household at least two years
 - had sexual debut after 2007 (if debuted)
- Logistic analysis adjusting for head’s characteristics, relationship of respondent to head, Nairobi residence, age/sex of respondent
- Test for mediators to understand how program affects sexual debut



Impact of CT-OVC on Sexual Debut

[15-20 year olds who had not debuted at baseline]

Outcome	Intervention	(%)	Control	(%)	Adjusted OR (95%CI)	P-Value
Sexual Debut	323/920	35	166/387	43	0.712 (0.539 - 0.941)	0.0169
Condom at 1st Sex	159/321	50	87/165	53	0.940 (0.638 - 1.385)	0.755
Partner 10+ years Older	5/306	2	5/161	3	0.503 (0.127 - 1.999)	0.329

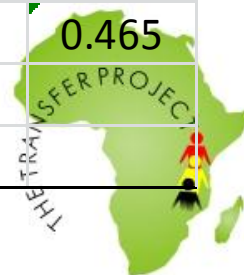
Odds Ratio adjusted for head's age, sex, schooling, Nairobi residence, and relationship of individual to head. Bold indicates significant at $p < 0.10$.



Impact of CT-OVC on Sexual Debut by Sex

[15-20 year olds who had not debuted at baseline]

FEMALES						
					Adjusted OR	
Outcome	Intervention	(%)	Control	(%)	(95%CI)	P-Value
Sexual Debut	112/352	32	66/154	43	0.683 (0.437 - 1.069)	0.0954
Condom at 1st Sex	59/112	53	35/66	53	1.137 (0.603 - 2.144)	0.693
Partner 10+ years Older	5/104	5	5/64	8	0.500 (0.129 - 1.937)	0.315
MALES						
					Adjusted OR	
Outcome	Intervention	(%)	Control	(%)	(95%CI)	P-Value
Sexual Debut	211/568	37	100/233	43	0.721 (0.505 - 1.028)	0.0709
Condom at 1st Sex	100/209	48	52/99	53	0.824 (0.491 - 1.384)	0.465
Partner 10+ years Older	-	-	-	-		



Impact of CT-OVC on other Sexual Outcomes

[15-20 year olds who had not debuted at baseline]

Outcome	Intervention	(%)	Control	(%)	Adjusted OR (95%CI)	P-Value
2+ Partners L12 Months	21/222	9	16/121	13	0.708 (0.318 - 1.576)	0.398
3+ Sex Acts L3 Months	29/203	14	15/107	14	0.979 (0.465 - 2.062)	0.955
3+ Unprotected Acts L3 Months	7/78	9	7/36	19	0.352 (0.104 - 1.199)	0.0950
Condom Last Sex	140/211	66	68/110	62	1.322 (0.785 - 2.225)	0.294
Received/Given Gifts	53/337	16	32/171	19	0.732 (0.417 - 1.284)	0.277

Odds Ratio adjusted for head's age, sex, schooling, Nairobi residence, and relationship of individual to head. Bold indicates significant at $p < 0.10$.



Impact of CT-OVC on other Sexual Outcomes: Females

[15-20 year olds who had not debuted at baseline]

	FEMALES					
					Adjusted OR	
Outcome	Intervention	(%)	Control	(%)	(95%CI)	P-Value
2+ Partners L12 Months	3/76	4	6/49	12	0.210 (0.0368 - 1.198)	0.0790
3+ Sex Acts L3 Months	9/68	13	6/43	14	0.979 (0.465 - 2.062)	0.955
3+ Unprotected Acts L3 Months	2/24	8	4/14	29	0.006 (0.000 - 0.737)	0.0370
Condom Last Sex	43/80	54	26/48	54	1.329 (0.592 - 2.982)	0.490
Received/Given Gifts	30/122	25	17/70	24	0.812 (0.377 - 1.749)	0.595

Odds Ratio adjusted for head's age, schooling, Nairobi residence, and relationship of individual to head. Bold indicates significant at $p < 0.10$.



Impact of CT-OVC on other Sexual Outcomes: Males

[15-20 year olds who had not debuted at baseline]

	MALES					
Outcome	Intervention	(%)	Control	(%)	Adjusted OR (95%CI)	P-Value
2+ Partners L12 Months	18/146	12	10/72	14	1.044 (0.425 - 2.565)	0.925
3+ Sex Acts L3 Months	20/135	15	9/46	14	0.979 (0.465 - 2.062)	0.955
3+ Unprotected Acts L3 Months	5/54	9	3/22	14	0.939 (0.209 - 4.221)	0.935
Condom Last Sex	97/131	74	42/62	68	1.321 (0.664 - 2.627)	0.428
Received/Given Gifts	23/215	11	15/101	15	0.677 (0.301 - 1.522)	0.345

Odds Ratio adjusted for head's age, schooling, Nairobi residence, and relationship of individual to head. Bold indicates significant at $p < 0.10$.



Testing for Mediators on Sexual Debut: Schooling, Mental Health, Peer Perceptions

[Individuals 15-20 who had not debuted at baseline]

VARIABLE	(1)	(2)	(3)	(4)
Treatment Group	0.712	0.723	0.714	0.741
	0.02	0.02	0.02	0.05
Currently in School		0.500		
		0.00		
Depressive Symptoms			1.089	
			0.51	
No Friends have had Sex				0.181
				0.00
Observations	1,307	1,304	1,307	1,298

All estimates adjusted for head's age, sex, schooling, Nairobi residence, and relationship of individual to head. Additional control, described in first column, added to each column. P-value below OR; bold indicates significant at $p < 0.10$.



Testing for Mediators by Sex

[Individuals 15-20 who had not debuted at baseline]

VARIABLE	FEMALES				MALES			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment Group	0.683	0.687	0.684	0.692	0.721	0.726	0.720	0.769
	0.10	0.11	0.10	0.12	0.07	0.08	0.07	0.18
Currently in School		0.340				0.662		
		0.00				0.04		
Depressive Symptoms			1.310				0.977	
			0.23				0.89	
No Friends have had Sex				0.261				0.141
				0.00				0.00
Observations	506	504	506	502	801	800	801	796

All estimates adjusted for head's age, schooling, Nairobi residence, and relationship of individual to head. Additional control, described in first column, added to each column. P-values below OR. bold indicates significant at $p < 0.10$.



Conclusions

- First evidence of whether a large scale national poverty program can reduce HIV-related risky behavior among young people
 - 30% lower chance of sexual debut; less chance of 3+ unprotected sex acts in last 3 months; among females, fewer partners in last year
- Among those who debuted, no difference in other risk-related behaviors (condom use)
 - Program affecting the least risky? Or only postpones debut but not other behaviors?

Conclusions

- Causal pathway still unclear
 - Schooling protective, but not a mediator
 - Perception of friends' behavior protective, but also not a mediator
 - Psycho-social status not protective
- Similar large scale national 'unconditional' or 'social' transfer programs exist in Zambia, Zimbabwe, Malawi, South Africa, Mozambique
 - Results from Kenya indicate poverty targeted transfer programs may help reduce HIV risk