

TITLE

Economic evaluation of non-financial incentives to increase couples HIV testing and counselling uptake in Zimbabwe

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Background: Uptake of couples HIV testing and counselling (CHTC) in southern Africa remains low despite multiple HIV prevention and health benefits. Small incentives can increase CHTC uptake by offsetting real and perceived costs to couples. We estimate cost-effectiveness of providing non-financial incentives for CHTC in a cluster randomized controlled trial (RCT).

Methods: 34 communities in rural Zimbabwe received standard community mobilization for HIV testing at mobile clinics while in 34 randomly selected communities individuals seeking CHTC were offered in-kind incentives (choice between a laundry bar, petroleum jelly, or cooking oil) worth \$10,859.22. Costs for community mobilization, CHTC, and incentives were calculated from the program perspective (2015 US\$). Incremental cost-effectiveness ratios (ICERs) were estimated for the number tested, number tested with a partner, and number of HIV-positive individuals tested.

Results: In control communities, 1,062/10,580 (10.0%) individuals tested as couples compared to 7,852/14,099 (55.7%) in intervention communities. 530 additional HIV-positive persons were identified in intervention communities. Total incremental intervention cost was \$25,687.50, translating to an ICER of \$7.98 per couple tested (\$3.99 per individual client tested) and \$48.47 per HIV positive diagnosis. Mean costs per person tested in control and intervention communities were \$8.18 and \$7.96 respectively, with costs per HIV-positive person identified \$93.10 and \$128.10, respectively.

Conclusions: This RCT provides evidence that in addition to increasing HTC access, policymakers, implementers, and external donors should consider providing in-kind incentives as they are cost-effective at increasing CHTC uptake and identifying HIV-positive persons.

	Intervention Cost (\$)	% contribution	Control Cost (\$)
Capital costs			
Incentives	\$10,859.22	10%	\$0.00
Human resources	\$78,705.00	70%	\$69,423.75
Equipment	\$1,154.95	1%	\$1,154.95
Medical supplies	\$2,541.42	2%	\$1,919.76
HIV test kits	\$2,266.16	2%	\$1,537.96
Stationary and other supplies	\$16,753.95	15%	\$12,556.78
Total cost (\$)	\$112,280.70	100%	\$86,593.20
Mean cost/client	\$7.96		\$8.18
Cost per HIV + client	\$93.10		\$128.10
<i>[ECONOMIC COST (\$) CALCULATION]</i>			

Intervention incremental cost (Incentive arm - standard mobilization arm)	\$25,687.50
Intervention effect (incentive effects - non-incentive effects)	46%
Additional clients tested as a couple (14,099*46%)	6437
Additional clients tested individually	3519
Additional clients tested HIV positive	530
ICER per individual client tested HIV positive	\$48.47
ICER per individual client tested (\$25,687.50/6437)	\$3.99
ICER per couple tested (\$3.99x2)	\$7.98
<i>[Cost-effectiveness analyses]</i>	