Effectiveness of Using HIV Self-Tests as an Incentive for Testing within Assisted Partner Services

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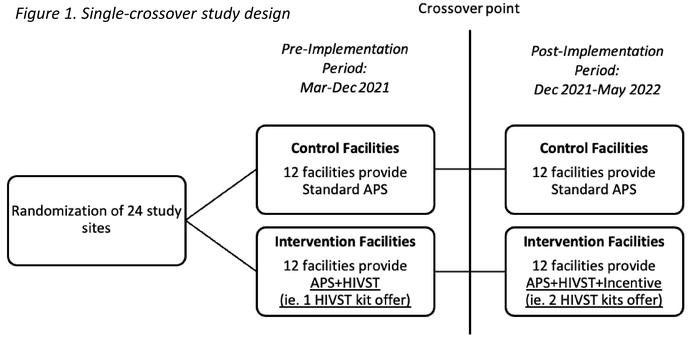
BACKGROUND

- Assisted partner services (APS) is an effective strategy for increasing HIV testing, diagnosis, and linkage to care among sexual partners of people living with HIV
- Incentives have shown mixed results in increasing HIV testing rates in low-resource settings
- We investigated the effectiveness of offering additional self-tests (HIVSTs) as an incentive to increase testing among partners receiving assisted partner services in Western Kenya

METHODS

- A single-crossover study nested within a parallel cluster-randomized controlled trial
- Index clients newly testing positive for HIV in 24 healthcare facilities in Kisumu and Homa Bay counties of Kenya were offered APS.
- Partners were traced and offered 1) standard APS, 2a) APS+HIVST, or 2b) APS+HIVST+Incentive according to their facility allocation
- 24 facilities were randomized 1:1 to
  1) control: provider-delivered testing, or
  2) intervention:
  a) offered one HIVST or provider-delivered testing for 6 months (pre-implementation),
  b) then switched to offering two HIVSTs (ie. Incentive) for 6 months (post-implementation)
- A difference-in-differences (DID) approach using generalized linear mixed models (GLMMs), accounting for facility clustering and adjusting for age, sex, and income, was used to estimate the effect of the incentive on HIV outcomes among partners in APS.

Figure 1. Single-crossover study design



Offering a second HIVST as an *incentive* within APS did *not* significantly impact HIV testing or first-time testing, although those opting for 2 kits reported it *incentivized* them to test.

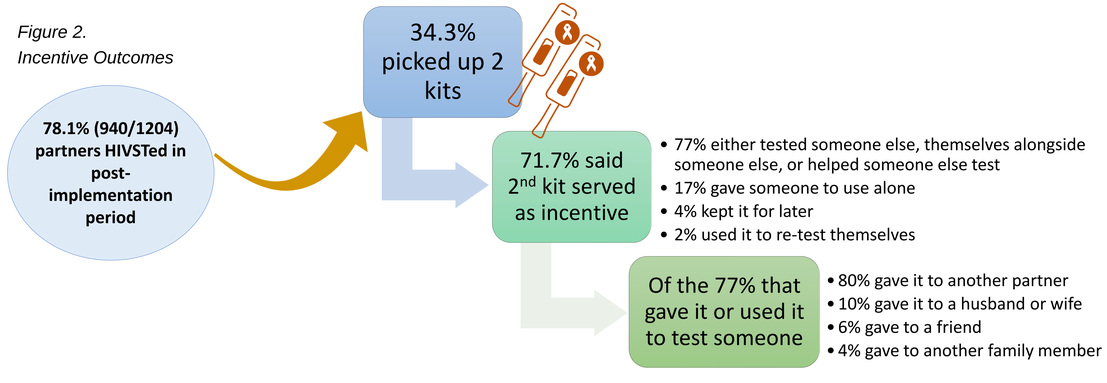
RESULTS

- March 2021-June 2022, 1127 index clients received APS and named 8155 partners, among whom 2333 reported a prior HIV diagnosis and were excluded from analyses.

Table 1. Average incentive intervention effects on all study outcomes (relative risk estimates of difference-of-differences)

		Pre-implementation of Incentive (3646, 63%)		Post-implementation of Incentive (2176, 37%)		
	N	APS+HIVST n/N (%)	Standard APS n/N (%)	APS+HIVST +Incentive n/N (%)	Standard APS n/N (%)	DID of RR (95% CI), p-value
HIV Tested (of named partners who were eligible for testing)	5822	2111/2157 (97.9)	1422/1489 (95.5)	1204/1361 (88.5)	699/815 (85.8)	1.01 (0.951, 1.07), p=0.734
First-time Tested (of partners eligible for testing)	5822	83/2157 (3.8)	210/1489 (14.1)	43/1361 (3.2)	66/815 (8.1)	1.23 (0.671, 2.24), p=0.508
New HIV diagnosis (of partners tested for HIV)	5436	357/2111 (16.9)	232/1422 (16.3)	187/1204 (15.5)	112/699 (16.0)	0.945 (0.692, 1.29), p=0.723
Linked to HIV Care (of partners newly diagnosed with HIV)	888	309/357 (86.6)	225/232 (97.0)	166/187 (88.8)	109/112 (97.3)	1.04 (0.918, 1.17), p=0.557

Figure 2. Incentive Outcomes



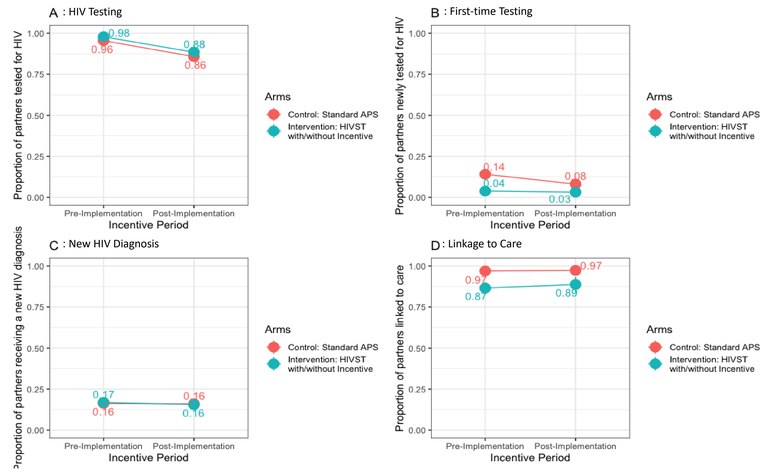


Figure 3. Differences between pre- and post-implementation periods for partners in the intervention and control arms for all outcomes

CONCLUSIONS

- While the incentive did not improve testing within an already highly successful APS program, it may have different effects in APS programs reaching fewer partners for testing or in other HIV testing service models.
- There may be opportunity to improve linkage to care outcomes when using remote testing methods like HIVST using alternate incentives.
- Over 76% of those that picked up a second HIVST reported testing someone else, testing themselves alongside someone else, or helping someone test using the second kit, indicating the second kit was helpful in facilitating another layer of testing beyond APS.
- Future work may explore alternate incentives that are appealing to partners and test the effectiveness of offering multiple kits to priority populations.

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