

Who benefits from assisted partner services in Mozambique?

Results from a pilot program in a public, urban clinic

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BACKGROUND

Finding persons with undiagnosed HIV infection is a global priority. Notifying partners of persons newly diagnosed with HIV can help identify undiagnosed infections and link people to care. Assisted partner services (APS), in which designated staff contact the sex partners of persons with newly diagnosed HIV, are widely employed in many high income nations. However, APS are seldom available in sub-Saharan Africa, including Mozambique, where HIV prevalence is 10.8% and HIV testing rates are low: only 61% of women and 36% of men have ever been tested.

METHODS

- Collaboration between I-TECH Mozambique, Ariel Foundation, and Mozambique Ministry of Health: HRSA funded
- Single pilot project at Machava II Clinic: ~200 new HIV+ patients per month; APS provided by existing community health workers (CHWs)
- Pilot APS sample size: 200 index persons (new HIV diagnosis)
 - Phase 1: Encourage index patients (IPs) to notify their partners independently
 - Phase 2: CHWs attempt to notify and test those partners who were not reached through the passive phase

Outcomes and Data analysis:

- Outcomes compared at 4 and 8 weeks to estimate impact of APS: Percentage of sex partners notified, tested and newly diagnosed with HIV infection.
- Logistic regression models adjusted for multiple partners per APS recipient assessed the association of covariates with increased HIV testing and case-finding following APS.
- Factors that were significant at the p<0.05 level in univariate models were included in multivariate models.

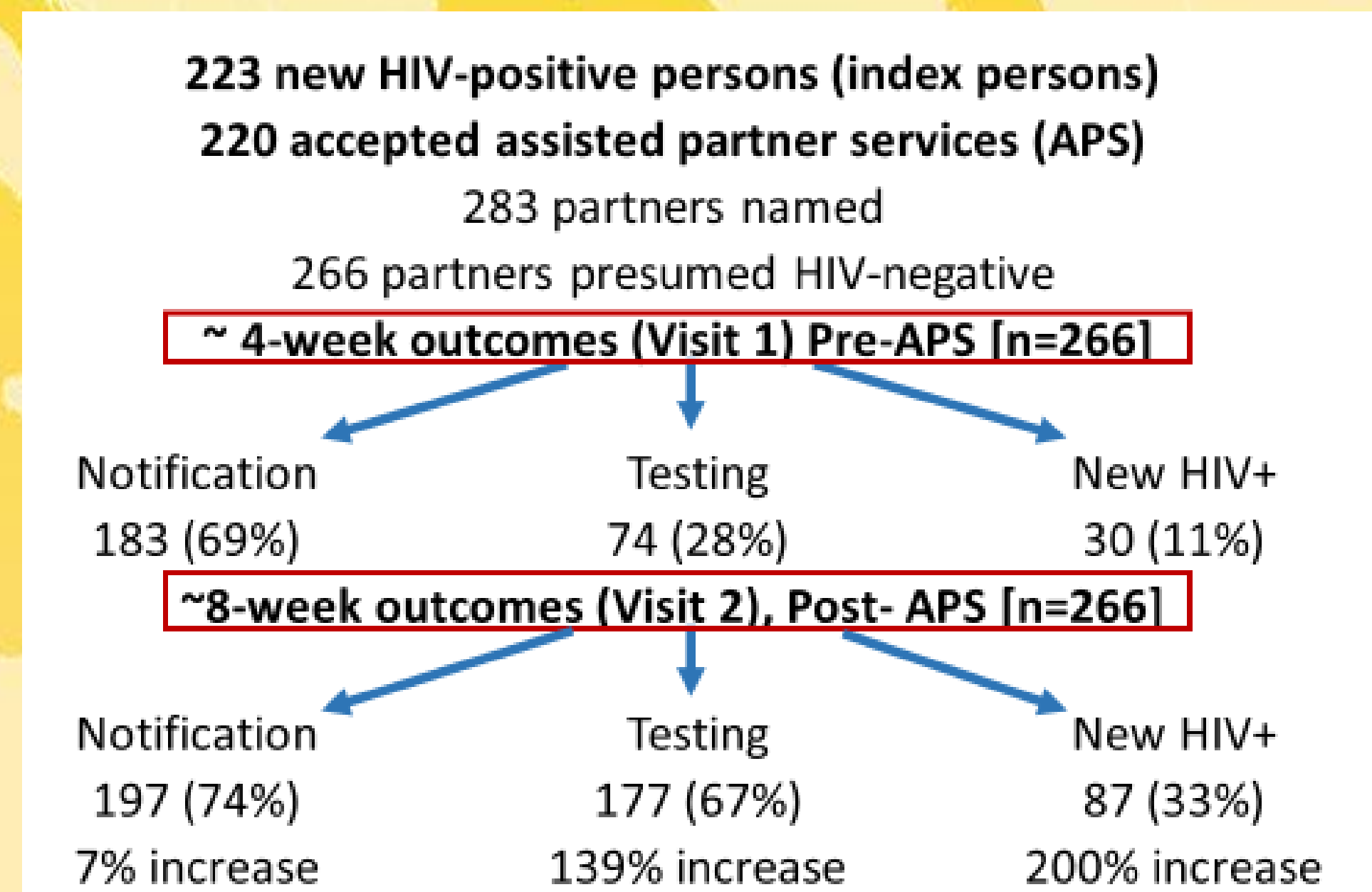


FIGURE 2: Key outcomes at 4 and 8 weeks from 206 IPs with complete data at 8 weeks.

N=266	Partners tested prior to APS # (%)	Total partners tested at 8 weeks # (%)	HIV+ prior to APS # (%)	Total HIV+ at 8 weeks # (%)
Partner gender				
	Female 23 (34.9)	43 (65.2)	7 (10.6)	17 (25.8)
	Male 51 (25.5)	134 (67.0)	23 (11.5)	70 (35.0)
IP age group				
	<25 19 (22.6)	59 (70.2)	6 (7.1)	27 (32.1)
	25-29 21 (30.4)	43 (62.3)	9 (13.0)	21 (30.4)
	30-34 12 (21.4)	36 (64.3)	6 (10.7)	20 (35.7)
	35+ 22 (38.6)	39 (68.4)	9 (15.8)	19 (33.3)
Partner age group				
	18-24 14 (34.2)	29 (70.7)	2 (4.9)	7 (17.1)
	25-29 17 (27.0)	40 (63.5)	6 (9.5)	22 (34.9)
	30-34 16 (25.0)	40 (62.5)	9 (14.1)	20 (31.3)
	35-39 13 (33.3)	26 (66.7)	6 (15.4)	15 (34.5)
	40+ 14 (23.7)	42 (71.2)	7 (11.9)	23 (39.0)
	Live together 56 (40.0)	112 (80.0)	23 (16.4)	59 (42.1)
	IP has >1 sex partner 28 (21.4)	65 (49.6)	10 (7.6)	24 (18.3)
	Has continuing sexual relations 68 (32.4)	160 (76.2)	29 (13.8)	81 (38.6)
	IP reason for HIV testing: symptoms 17 (21.3)	49 (61.3)	5 (6.3)	20 (25.0)
	IP reason for HIV testing: prenatal 42 (35.0)	94 (78.3)	17 (14.2)	52 (43.3)
	Total 74	177	30	87

TABLE 2: Partner characteristics: HIV testing uptake and new HIV diagnosis before and after APS. Cell proportions are % of each row category included in each column category.

N=266	Odds of HIV testing post APS	Odds of HIV+ case finding post APS
IP has >1 sex partner	0.52* (0.30-0.91)	0.35** (0.17-0.72)
Has continuing sexual relations	2.34* (1.13-4.86)	1.77 (0.61-5.20)
IP reason for HIV testing: prenatal		1.62 (0.87-3.01)

TABLE 3: Multivariate models of factors associated with APS to increase HIV testing and case finding. 95% CI presented in parentheses. *p<0.05; ** p<0.01; ***p<0.001. Partner gender, partner age group, living together, and IP testing due to symptoms were all tested in univariate models and found not significantly associated with either outcome. IP reason for HIV testing was not significantly associated with HIV testing in univariate models.

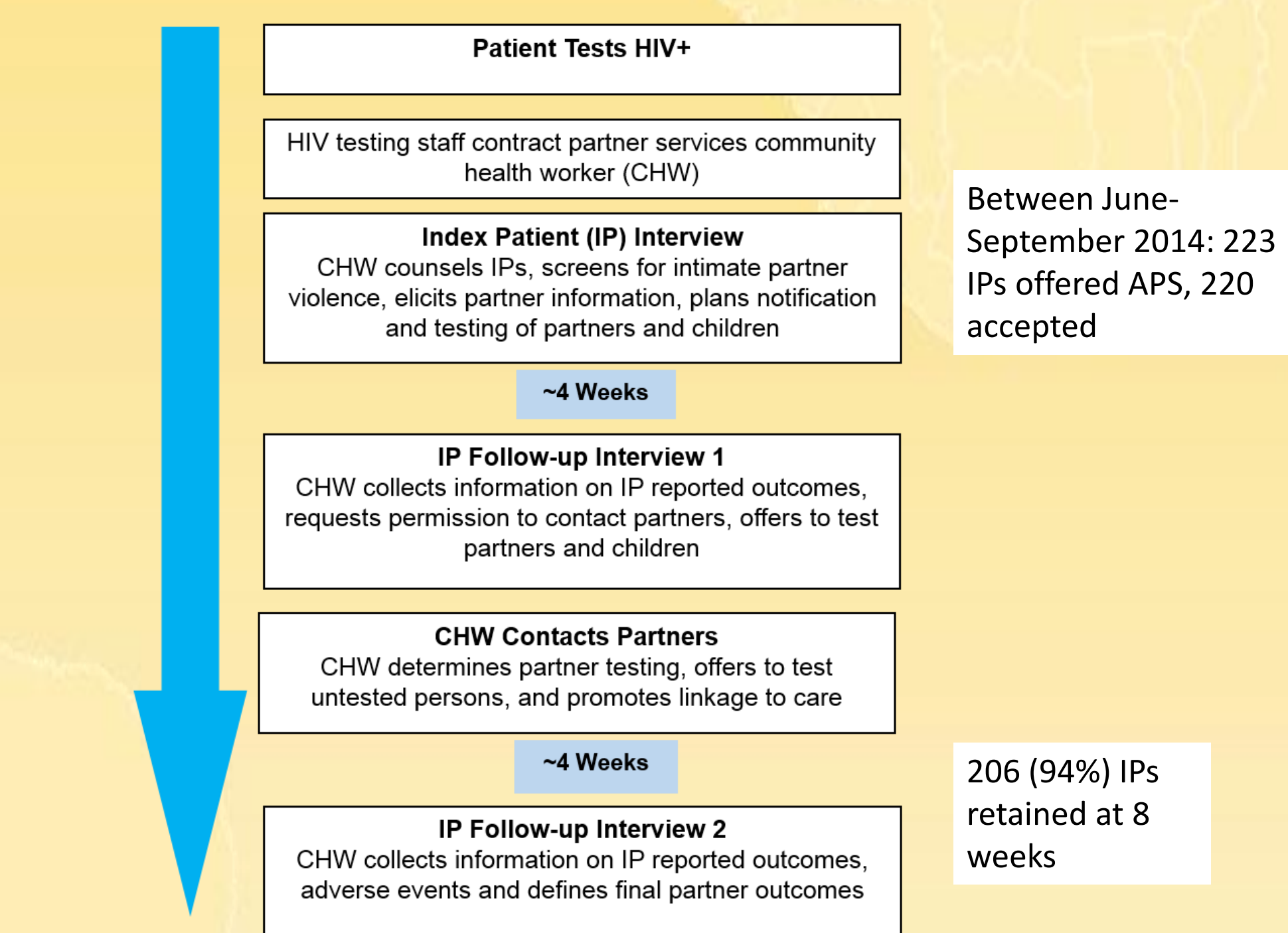


FIGURE 1: Program flow and data collection diagram

RESULTS

	Index patient (IP) N=206; # (%)	Partner N=266; # (%)
Gender		
Male	44 (21.4)	200 (75.2)
Female	162 (78.6)	66 (24.8)
Partners named		
1	206 (72.8)	
2	63 (22.2)	
3	13 (4.6)	
4	1 (0.4)	
Age group		
<25	63 (30.6)	41 (15.4)
≥25 - <30	51 (24.8)	63 (23.7)
≥30 - <35	46 (22.3)	64 (24.1)
≥35-39	46 (22.3)	39 (14.7)
40+		59 (22.2)
HIV test location		
Pre-natal	101 (49.0)	
VCT	102 (49.5)	
TB	3 (1.5)	
Current location		
Mozambique		234 (88.0)
South Africa		32 (12.0)
Marital status		
Single	48 (23.3)	
Married	152 (73.8)	
Other	6 (2.9)	
Relationship		
Spouse		154 (57.9)
Boy/girlfriend		74 (27.8)
Other		38 (13.3)
Employed	186 (90.3)	
Has children	163 (79.1)	

TABLE 1: Index patient and partner demographics

LIMITATIONS

- Some partners identified as newly diagnosed may have been previously diagnosed and not reported their prior diagnosis.
- Generalizability of findings to other settings is unknown.
- Although we attribute the increases in testing and HIV diagnosis to APS, some partners may have tested without intervention >4 weeks after the IP diagnosis.

CONCLUSIONS

- APS appears to significantly improve HIV testing uptake and case-finding over a passive approach that counsels newly diagnosed persons to refer partners for testing.
- APS may be particularly effective in increasing testing and case-finding in men.
- This partnership-focused approach could help reduce gender disparities in HIV diagnosis and treatment.

Acknowledgements: The authors would like to thank the clinic staff at Machava II and Florindo Mudender, I-TECH Mozambique Country Director, for their support for the APS pilot.

