SCALE-UP OF ASSISTED PARTNER SERVICES (APS) IN BOTSWANA

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BACKGROUND & OBJECTIVES

- Controlled studies have found that assisted partner services (APS) increases HIV testing among the sex partners of persons with HIV.
- 2016 World Health Organization Guidelines support widespread implementation of APS.
- Starting in 2018, the Government of Botswana Ministry of Health and Wellness (MOH) began implementing APS.
- We sought to define the APS continuum for clinics in Botswana, including program reach and APS indices.

METHODS

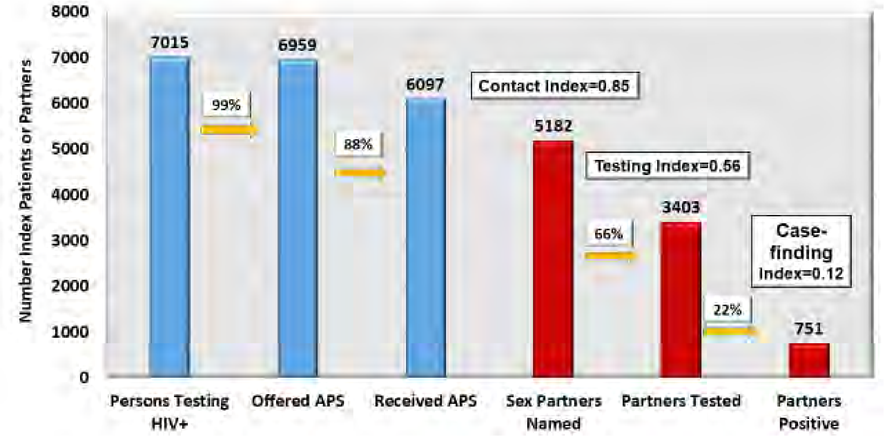
- **Population**: Persons testing HIV positive (index cases) in 52 Botswana MOH clinics supported by ITECH Botswana, October 2018-June 2019.
- **Intervention:** APS consisted of counseling to encourage index cases to notify partners themselves and counselors offering to notify partners jointly with index cases. (Counselors did not offer to directly notify partners.)
- **Data**: Paper registers used to record information about each index case and their sex partners. Aggregate outcomes from each clinic were entered into a database monthly.
- **Outcomes*:**
  - **Reach –** Proportion of persons with newly diagnosed HIV who receive APS
  - **Contact Index** = # Sex Partners Named ÷ # Index Cases
  - **Testing Index** = # Sex Partners Tested ÷ # Index Cases
  - **Case-finding Index** = # Sex Partners Newly Testing HIV+ ÷ # Index Cases

*Indices modified from Iskrant AP. Statistical indices used in the evaluation of syphilis contact investigations; J Venereal Disease Information 1948; 29:1-6

RESULTS

- 130,889 HIV tests performed.
- 7015 (5.4%) HIV+ tests.

FIGURE 1: Partner Services Continuum in 52 Clinics in Botswana, October 2018-June 2019

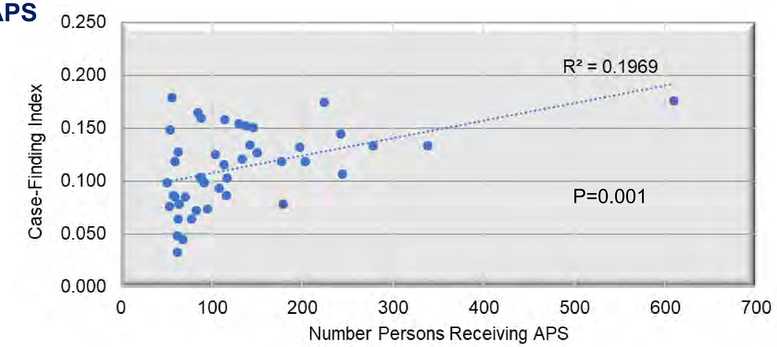


- 28% of index cases elected to notify partners jointly with counselors.

Table 1: Variability in APS Outcomes Among 45 Clinics with >50 Index Cases

	Median	Min	Max
Reach	0.87	0.78	0.95
Contact Index	0.85	0.71	0.95
Testing Index	0.53	0.31	0.69
Case-finding index	0.12	0.03	0.18

Figure 2: Association of Case-Finding Index with Number Persons Receiving APS



- Higher case-finding in clinics with larger numbers of index cases.

TABLE 2: Comparison of Botswana with Published African Studies and Selected U.S. and UK Data

	Country (years)	Number Receiving APS	Reach	Positivity in Partners	Case-Finding Index*
Controlled Studies	Malawi 2008-09	154	60%	56%	0.27
	Malawi 2014	100	52%	47%	0.26
	Kenya 2013-15	550	Unknown 65% Among those Offered	35%	0.25
	Mozambique 2014	206	18%	48%	0.40
Uncontrolled Program Evaluation	Cameroon 2007-2015	18,730	Unknown	52%	0.28
	Tanzania 2015	653	Unknown 60% Among those Offered	62%	0.38
	Zimbabwe 2016-18	25,704	Unknown 95% Among those Offered	46%	0.45
	UK 2016	2470	Unknown 87% Among those Offered	20%	0.12
	Seattle, USA 2010-13	789	76%	15%	0.12
	Botswana	**6097**	**88%**	**22%**	**0.12**

* Uncontrolled indices used from controlled studies presented for comparability

- Botswana's program had a high level of reach relative to other African programs.
- Case-finding index was lower than other African reports, but comparable to US and UK data.

SUMMARY & CONCLUSIONS

- APS can achieve high levels of reach.
- Case-finding in Botswana is lower than in published African studies. Factors that may contribute to lower case-finding include:
  - Program model – no direct notification by counselors – Botswana now rolling out more active notification options.
  - Suboptimal implementation (e.g. low contact index).
  - Low proportion of HIV cases in Botswana are undiagnosed.
  - Incomplete identification of partners at time of testing.
  - Selection bias in previously published studies.
- Limited ability to assess client-level and worker-level factors highlights the limitations of relying on aggregate case-registry data.
  - Individual case-records used in controlled studies and some program evaluations and are now being used in selected sites in Botswana.

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