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High HIV test yield among older men testing for the first time in Zimbabwe:

Implications for reaching 90-90-90 and preventing incident infections in young women

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BACKGROUND

- Sexual partnering between young women and older men has been identified as a key feature of sexual networks driving HIV transmission in sub Saharan Africa.[1]
- Zimbabwe has an HIV prevalence of 14.6%.[2]
- Men report lower levels previous HIV testing and receipt of their results than women in Zimbabwe (62% vs.80%)[3]
- Reaching 90-90-90 in Zimbabwe will require supporting all adult men to know their status and initiate ART under new HIV test and treat ('Treat All') guidelines.

Figure 1. Treat All Campaign logo used by PEPFAR partners during Zimbabwe's Treat All Learning Phase

OBJECTIVE

To explore HIV testing rates and yields by age, sex and health service entry points at 29 health facilities in three Districts of Zimbabwe.

METHODS

- Retrospective cohort analysis of routine facility level data.
- De-identified age and sex-disaggregated characteristics of clients accessing HIV testing services at 29 purposively selected health facilities in Bulilima, Mangwe, Mutare Districts supported by the PEPFAR/USAID funded Families and Communities for Elimination of HIV (FACE HIV) Program.
- Selected health facilities prioritised by PEPFAR due to large numbers of clients on ART.
- All clients accessing HIV testing services from May-Aug 2016 were traced through multiple registers to document HIV test result and subsequent access to HIV Care and treatment services.
- Proportions were compared using Chi-squared tests in STATA V12.

RESULTS

HIV Testing Rates and Prevalence

- From May-Aug 2016, 7,027 HIV tests were conducted with a prevalence of 10.4% (95%CI:9.7-11.2).
- The majority of tests were conducted among women (67.3%; n=4,727), in antenatal care (28.3%; n=1,991).

Routine provider-initiated HIV testing in antenatal care results in high rates of HIV testing among women of child bearing age.

- 51.6% of individuals tested were documented as receiving HIV testing for the first time (n=3,617) vs. repeat testing (47.1%; 3,299). However, those testing for the first time had a significantly higher proportion of HIV positive results (12.2% vs. 8.4%, p<0.0001).

Age and sex disaggregated HIV positive test yields

- Due to higher absolute test rates, females accounted for the majority (57.7%; n=423; 95%CI:54.0-61.3) of new positives identified (Figure 2).
- Men aged 25 and above had significantly higher HIV test yields than women of the same age (15.8% vs. 9.7%, p< 0.0001).

RESULTS continued

Figure 2. HIV test rates and yields, disaggregated by age and sex (N=7, 027)

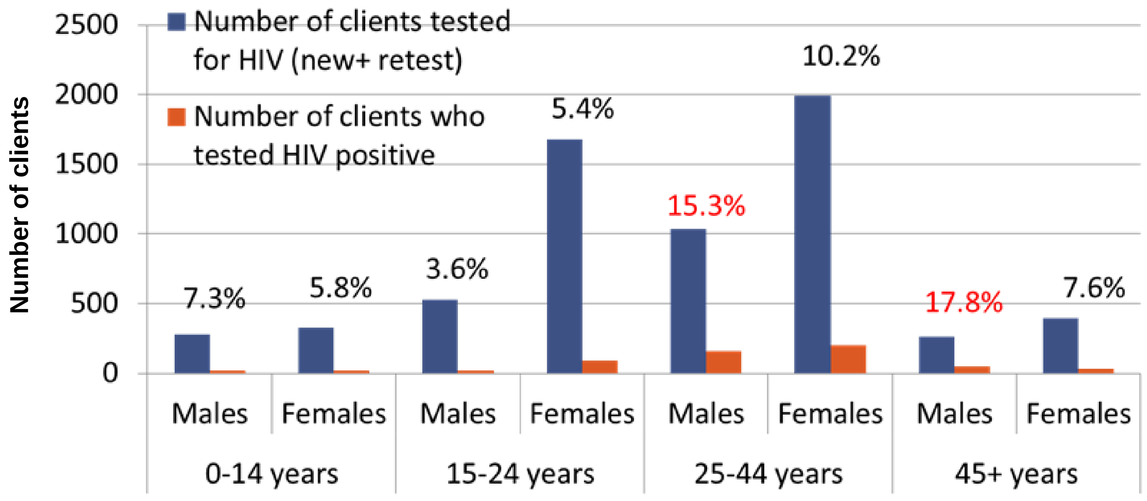

Table 1. HIV test rates and yields among adult men aged 25+yrs (N=1, 279)

	25-44 years		45+ years	
	HIV+ N (% yield)	HIV-	HIV+ N (% yield)	HIV-
First Test	100 (**20.2%**)	395	**29 (22.3%)**	101
Repeat Test	55 (10.4%)	471	16 (12.5%)	112

Older men (45+yrs) HIV testing for the first time had the highest test yield over any other age and sex disaggregated group (22%; 95%CI: 16-30%)

Characteristics of men testing HIV Positive

As compared to women, men testing HIV positive:

- Presented at older median [IQR] age (37[30-43] vs. 31[27-39]),
- Had significantly lower ART initiation rates (75% vs. 82%; p=0.05)
- Were less likely to have CD4 taken (M: 45% vs F:54%)
- Among those with CD4 taken, men had lower median CD4 cell count [IQR](186 cell/µL[101-316] vs. 334 cell/µL[186-519] than their female counterparts.
- A significantly greater proportion of men tested HIV positive while seeking care for other illnesses in outpatient departments (M: 59.2% vs. F: 45.3%; p=0.0003).

CONCLUSIONS

- We observed lower HIV test rates, higher HIV positive test yields and lower linkages to HIV care among adult men.
- Adult men were documented as being diagnosed more frequently while seeking care for other illness (OPD) as opposed to women, through routine HIV testing (ANC).
- Our findings support guidance to offer HIV testing to all individuals of unknown HIV status in all entry points in an effort to reach a 'realistic' 1st 90 in HIV endemic countries.
- Reaching 90-90-90 and preventing new HIV infections in Zimbabwe will require investment in evidence-based differentiated models of care to support timely uptake of HIV testing and treatment among adult men with unknown HIV status.

REFERENCES

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