Dissatisfaction with general health services is negatively associated with uptake of HIV testing among men in Malawi

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Objective

1. Understand factors affecting men's satisfaction with general health services, including sociodemographic, visit-related, and quality-associated factors
2. Assess the impact of previous negative experiences on future health service utilization, especially HIV testing

Background

- Across sub-Saharan Africa, men are less likely to know their HIV status, initiate treatment later, and have higher HIV-related morbidity and mortality than women[1,2]
- This disparity is important for men's health *and* their partners' risk of HIV infection
- Satisfaction with previous healthcare experience matters for future care-seeking:
  - Women's satisfaction affects future care choices[3]
  - Men's satisfaction with HIV services can affect future use of HIV services[4]
- But little is known about impact of *general* health service experience on HIV testing

Methods

- 2019 community-representative survey of men in Malawi included module on previous health care experiences
- **WNR experiences**: negative health service experiences defined as men reporting they "would not recommend" a facility to family or friends
- To understand general satisfaction:
  - Association between satisfaction and men's sociodemographic characteristics
  - Association between satisfaction and facility-level (private, public, mission) or visit-related characteristics (attending as clients or caregivers; primary service received)
  - Associations between overall satisfaction and specific quality characteristics
- To understand impact of dissatisfaction on health service utilization:
  - Univariable and multivariable logistic regressions to test association between WNR experiences 12-24 months prior to survey and HIV testing in 12 months prior to survey

Results

- Surveyed 1,098 men eligible for HIV testing in 12 months prior to the survey
- 102 men (9%) reported at least one WNR visit in preceding 24 months (Table 1)
- No significant differences in sociodemographic characteristics, gender norm beliefs, and HIV stigma beliefs between men who did and did not report a WNR visit

Table 1. Socio-demographic characteristics and gender norm beliefs of HIV-negative Malawian men with and without "Would Not Recommend" (WNR) experiences at health facilities in the last 24 months (n=1098)

	Total men with any visit in last 24 months n=1098 (100%)	Men with only acceptable visits n=996 (91%)	Men with least one WNR visit n=102 (9%)	p-value
Socio-demographics				
Age (years, median)	34	34	34	0.35
Married (monogamous or polygamous) (n, %)	821 (75%)	742 (74%)	79 (77%)	0.08
Distance from health facility (km, mean)	4.96	4.93	5.22	0.35
Economic Indicators				
Assets (index created by PCA; mean score)	1.89	1.89	1.89	0.95
Has savings (n, %)	355 (32%)	313 (31%)	42 (41%)	0.08
Attended secondary school (n, %)	226 (21%)	205 (21%)	21 (21%)	0.97
Health / HIV risk factors				
Number of sexual partners in last 12 months (mean)	1.46	1.45	1.54	0.27
Good/very good health (vs. poor/very poor) (n, %)	924 (84%)	843 (85%)	81 (79%)	0.17
Harmful gender norm beliefs (n in top 20%, %)				
Violence scale, high	266 (24%)	247 (25%)	19 (19%)	0.17
Dominance scale, high	225 (20%)	208 (21%)	17 (17%)	0.32
Women's roles scale, high	306 (28%)	285 (29%)	21 (21%)	0.09
Decision-making scale, high	308 (28%)	285 (29%)	23 (23%)	0.19
HIV stigma beliefs (n in top 20%, %)				
High HIV-related stigma	240 (22%)	217 (22%)	23 (23%)	0.86

- Rates of WNR visits varied by facility type (20% at private vs. 4% at government and mission) and service (6% at OPD vs. 1% for HIV-related and maternal/child health)

Table 2. Distribution of acceptable and "Would Not Recommend" (WNR) visits across facility type, visit type, and care recipient as reported by HIV-negative Malawian men (n=2999)

	All visits n=2999	Acceptable visit n=2852 (95%)	WNR visit n=147 (5%)	p-value
Facility type				<0.001
Public (government)	2366	2263 (96%)	103 (4%)	
Mission or NGO	498	480 (96%)	18 (4%)	
Private	132	106 (80%)	26 (20%)	
Doesn't remember	3	2 (67%)	1 (33%)	
Service received				<0.001
OPD (injury or illness)	2465	2328 (94%)	137 (6%)	
HIV-related †	314	310 (99%)	4 (1%)	
Maternal/child health ††	143	142 (99%)	1 (1%)	
Dentist	34	31 (91%)	3 (9%)	
Family planning	6	6 (100%)	0 (0%)	
Other or missing	37	36 (97%)	1 (3%)	
Primary service recipient				0.13
Self	1832	1751 (96%)	81 (4%)	
Other (caregiver)	1167	1101 (94%)	66 (6%)	

† Includes HIV testing and counseling (HTC) and antiretroviral therapy (ART) clinic
†† Includes antenatal, delivery, post-natal, and under-5 visits
Note: percentages are given by row to reflect proportion of visits reported as WNR.

- WNR visits more likely to have problems with **cost**, **cleanliness**, **wait times**, and **medicine availability** (stockouts) than acceptable visits (Table 3)

Table 3. Crude and adjusted association between specific facility problems and "Would Not Recommend" (WNR)

	Proportion of all visits (n=1018)	Prop. of acceptable visits (n=957)	Prop. of WNR visits (n=61)	OR (95% CI)	aOR (95% CI)
Major problem with…					
Cost	88 (9%)	68 (7%)	20 (33%)	6.37 (3.54-11.49) **	5.56 (2.96-10.44) **
Cleanliness	46 (5%)	33 (3%)	13 (21%)	7.58 (3.75-15.34) **	4.17 (1.87-9.33) **
Wait time	217 (21%)	186 (19%)	31 (51%)	4.28 (2.53-7.25) **	2.62 (1.44-4.79) **
Medicine availability	145 (14%)	121 (13%)	24 (39%)	4.48 (2.59-7.75) **	2.72 (1.47-5.04) **
Provider treatment	57 (6%)	46 (5%)	11 (18%)	4.36 (2.13-8.92) **	1.36 (0.57-3.29)
Days of service	54 (5%)	45 (5%)	9 (15%)	3.51 (1.62-7.56) **	1.15 (0.43-3.09)
Hours of service	98 (10%)	84 (9%)	14 (23%)	3.09 (1.64-5.86) **	1.14 (0.51-2.58)
Privacy of exam	16 (2%)	13 (1%)	3 (5%)	3.75 (1.04-13.55) **	0.76 (0.14-4.15)
Privacy of discussion	15 (1%)	13 (1%)	2 (3%)	2.46 (0.54-11.16)	
Ability to discuss concerns	46 (5%)	41 (4%)	5 (8%)	1.99 (0.76-5.25)	

* p<0.10; ** p<0.05; *** p<0.01

- Men reporting WNR visits 12 to 24 months ago were 59% less likely to get an HIV test in the last 12 months (Table 4)
- HIV testing was also independently associated with being married, having savings and more education, and having more sexual partners

Table 4. Crude and adjusted analysis of factors associated with receiving an HIV test in the last 12 months among men in need of testing in Malawi (n=1098)

	Odds ratio	Adjusted odds ratio
Healthcare experiences at facilities 12-24mo ago		
Acceptable visit	1	1
WNR visit	0.42 (0.19-0.97) **	0.41 (0.17-0.96) **
No visit 12-24 months ago	0.57 (0.43-0.76) ***	0.55 (0.41-0.75) ***
Incomplete data (4 visits in last 12 months so no data on visits 12-24 months ago)	3.40 (2.37-4.87) ***	3.24 (2.23-4.69) ***
Sociodemographic characteristics		
Age (years) †	1.01 (1.00-1.02)	0.99 (0.98-1.00)
Married (monogamous or polygamous)	1.93 (1.46-2.56) ***	1.88 (1.26-2.83) ***
Economic Indicators		
Assets (index created by PCA)	1.03 (0.95-1.11)	
Has savings	1.60 (1.24-2.07) ***	1.38 (1.04-1.82) **
Attended secondary school	1.49 (1.11-2.00) ***	1.31 (0.94-1.82)
Health / HIV risk factors		
Number of sexual partners (last 12 months)	1.16 (1.06-1.28) ***	1.13 (1.02-1.24) **
Good or very good health (vs. poor or very poor)	0.80 (0.58-1.10)	
Harmful gender norm beliefs (n in top 20%, %)		
Violence scale	1.04 (0.79-1.37)	
Dominance scale	1.25 (0.94-1.69)	
Women's roles scale	1.20 (0.92-1.56)	
Decision-making scale	1.29 (0.99-1.68)	
HIV stigma beliefs (n in top 20%, %)		
High HIV-related stigma	0.65 (0.49-0.87) ***	0.83 (0.60-1.17)

† Included as control regardless of significance in univariable analysis

* p<0.10; ** p<0.05; *** p<0.01

Conclusions

- Previous negative experiences with general health services are significantly associated with lower rates of HIV testing among men in Malawi
- Clients do not approach HIV services in a vacuum: quality of general services matters for uptake of HIV services
- Though overall negative experiences were rare, specific problems associated with negative experiences (e.g. wait time and stockouts) were common

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