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Mak, J; Mayhew, SH; von Maercker, A; Integra Research Team, IR; Colombini, M (2016) Mens use of sexual health and HIV services in Swaziland: a mixed methods study. *Sexual health*, 13 (3). pp. 265-74. ISSN 1448-5028 DOI: <https://doi.org/10.1071/SH15244>

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## Men's use of sexual health and HIV services in Swaziland: a mixed methods study

Joelle Mak<sup>A,C</sup>, Susannah H. Mayhew<sup>A</sup>, Ariane von Maercker<sup>A</sup>, Integra Research Team<sup>B</sup> and Manuela Colombini<sup>A</sup>

<sup>A</sup>London School of Hygiene & Tropical Medicine, Faculty of Public Health & Policy, Department of Global Health & Development, 15–17 Tavistock Place, London WC1H 9SH, UK.

<sup>B</sup>The Integra research team includes staff from the London School of Hygiene & Tropical Medicine, Population Council and International Planned Parenthood Federation.

<sup>C</sup>Corresponding author. Email: joelle.mak@lshtm.ac.uk

**Abstract.** *Background:* Over one-quarter of the adult population in Swaziland is estimated to be HIV positive. Men's use of sexual health (SH) services has significant implications for HIV prevention. This study aimed to understand Swazi men's health-seeking behaviours in relation to SH and HIV services. *Methods:* A household survey was conducted in Manzini ( $n = 503$ ), complemented by 23 semi-structured interviews and two focus group discussions (with a total of 10 participants). *Results:* One-third of male survey participants used SH services in the past year, most commonly HIV testing (28%). Service users were more likely to be sexually active (aOR 3.21, 95% CI: 1.81–5.68 for those with one partner; and aOR 2.35, 95% CI: 1.25–4.41 for those with multiple partners) compared with service non-users. Service users were less likely to prefer HIV services to be separated from other healthcare services (aOR 0.50, 95% CI: 0.35–0.71), or to agree with travelling further for their HIV test (aOR 0.52, 95% CI: 0.33–0.82) compared with non-users, after controlling for age-group and education. Men avoided SH services because they feared being stigmatised by STI/HIV testing, are uncomfortable disclosing SH problems to female healthcare providers, and avoided HIV testing by relying on their wife's results as a proxy for their own status. Informal providers, such as traditional healers, were often preferred because practitioners were more often male, physical exams were not required and appointments and payment options were flexible. *Conclusion:* To improve men's uptake of SH services, providers and services need to be more sensitive to men's privacy concerns, time restrictions and the potential stigma associated with STI/HIV testing.

**Additional keywords:** health services, health-seeking behaviours, HIV testing, men, STIs.

Received 18 December 2015, accepted 10 February 2016, published online 31 March 2016

### Introduction

In Swaziland, over one-quarter (27%) of the adult population (age 15–49 years) is estimated to be HIV positive.<sup>1</sup> Despite near universal awareness of HIV, only half of the adult population has comprehensive knowledge of HIV prevention, and both HIV testing and condom use remain low; 36% of women and 17% of men reported ever being tested and 55% of women and 68% of men used a condom at the most recent sex act with a non-marital, non-cohabiting partner.<sup>2</sup> In Sub-Saharan Africa, far more women test for HIV compared with men, even after accounting for testing during antenatal care (ANC), and men, when tested, do so at an older age.<sup>3</sup>

It remains socially acceptable for Swazi men to have multiple, concurrent partnerships, including those outside marriage.<sup>4</sup> Swazi men often migrate to South Africa for employment, which can lead to use of sex workers, increasing the risk of contracting sexually transmissible infections (STIs), including HIV.<sup>5</sup>

Men's access to and use of sexual health (SH) services are particularly important in settings with a generalised HIV

epidemic. However, men use such services far less than women.<sup>6–8</sup> This may be due to men's desire to portray themselves as strong and healthy, or their perception that healthcare facilities are for women and children.<sup>8–11</sup> This study aimed to understand Swazi men's health-seeking behaviours in relation to SH and HIV services.

### Methods

We use quantitative and qualitative data collected as part of the Integra Initiative, an evaluation of different models of providing integrated SH and HIV services in Kenya, Swaziland and Malawi.<sup>12</sup> This analysis of the quantitative data focuses on the male participants only ( $n = 503$ ) and a subsample of those participants interviewed qualitatively.

#### Study setting

The study setting is a 10 km catchment area of the Integra study facilities in Manzini, the economic centre and largest urban setting of Swaziland, and the location of most formal healthcare facilities.<sup>12</sup>

### *Household survey*

A three-stage clustered household survey was conducted between November and December 2011 to gather data on need, demand for and use of SH services.<sup>12</sup> The primary sampling unit was the census enumeration area, selected randomly using probability proportional to size sampling. Households were then sampled randomly, within which one participant aged between 15 and 49 years was selected using a systematic approach to achieve a proportional mix of male, female and youth (aged 15–24) participants. Youth were oversampled by 20%, as approximately half of new HIV infections occur with this group.<sup>2</sup> The survey methods have been described in detail elsewhere.<sup>12,13</sup>

We collected data on participants' sexual behaviours, contraceptive and condom use and use of five SH services: (i) family planning (FP); (ii) HIV counselling & testing (HCT); (iii) STI screening and treatment (STI); (iv) HIV comprehensive treatment and care (CTC); and (v) male circumcision (MC) in the past 12 months.

For each sexual partner reported, participants were asked whether they were 'doing something or using any method to avoid getting pregnant' at the most recent sex act and if so, to specify the method(s).

To assess facility preferences, participants rated 11 facility characteristics as 'not important', 'somewhat important' or 'very important'. Three additional items assessed HIV services: (i) preference for HIV services to be separated from other healthcare services; (ii) preference to travel further away for a HIV test; and (iii) whether participants are bothered if clients in the waiting room know their HIV status.

Interviews were conducted in the participants' homes using a structured questionnaire translated into SiSwati and programmed into personal digital assistants.

### *Measures*

For this analysis, the following measures were defined:

- Service users are participants who used any of the five SH services in the past 12 months;
- Sexually active refers to having one or more sexual partner(s) in the past 12 months; and
- Consistent contraceptive use refers to usage of any form of contraceptive, including condoms, at the most recent sex act, with all reported sexual partners.

### *Qualitative interviews*

To understand men's experiences and perceptions of SH services, semi-structured interviews ( $n = 23$ ) and two focus group discussions (FGD) (with a total of 10 participants) were conducted among a subsample of male survey participants, between July and October 2012. Topic guides were developed to elicit participants' views on SH, including HIV testing, experiences, barriers and preferences for services. Men were purposively sampled based on their reported sexual behaviours, SH service use and potential need for FP or HIV/STI services.<sup>13</sup>

Three male Swazi research assistants conducted the interviews. Participants chose the location of the individual interviews, while the FGDs were held at the Family Life

Association of Swaziland. Interviews took approximately 1 h, while FGDs took approximately 2 h. Qualitative data were audio-recorded with permission, then transcribed and translated into English.

### *Ethics*

Ethical approvals were obtained from the Swaziland Scientific Review Board (MH/599B) and the London School of Hygiene & Tropical Medicine (5426). Participants provided written informed consent before data collection. The Integra Initiative is registered with Clinical Trials #NCT01694862.

### *Data analysis*

Survey data were analysed using Stata 12/SE (Stata Corporation, East College Station, TX, USA), adjusting for survey design using the 'svy' suite commands and weighting to account for the oversampling. Descriptive statistics summarised demographics, SH and HIV service use and sexual behaviours (number of sexual partners, condom and contraceptive use) in the past 12 months. Univariate logistic regressions explored the relationships between demographics (such as age-groups, marital status, education) and sexual behaviours, demographics and service use, and facility preferences and service use. Demographic factors were used as explanatory variables due to their potential influence in individuals' sexual behaviours and service use, and were retained in the multivariable models. Statistical significance was defined at  $P < 0.05$  and confidence intervals presented are at 95%.

For qualitative data, the first few interviews were open-coded in Nvivo 10.0 (QSR International, Melbourne, Australia) to develop an initial coding scheme. Codes were refined, expanded or collapsed to arrive at a final scheme, and were then used to code the remaining interviews. A matrix was then developed with the coded data and thematic analysis conducted to explore relationships across and within themes and sub-themes.

## **Results**

### *Description of study sample*

The participants' characteristics are presented in Table 1. Nearly half of the survey participants were under the age of 25 years (46%), almost two-thirds attended some secondary education and 43% were in a married or cohabiting relationship. The majority of participants were sexually active (60%) and 15% reported multiple partners in the past year. The majority of the qualitative participants were aged 25–34 years and in non-cohabiting relationship, with a larger proportion reporting multiple partners.

### *Quantitative findings*

#### *Past year use of SH services*

Approximately one-third of the survey participants used a SH service in the past year, of which the most common was HCT (28%), followed by MC (7%). Service users were more likely to be sexually active, which remained significant after adjusting for age-groups, marital status, education and whether participants have children (adjusted odds ratio (aOR) 3.21

**Table 1. Characteristics of study participants (survey  $n=503$ ; interviews  $n=23$ ; FGD  $n=10$ )**  
FGD, focus group discussions; IQR, interquartile range. Results are presented as  $n$  (%)

|  | Survey sample<br>( $n=503$ ) | Semi-structured<br>interviews<br>( $n=23$ ) | Focus group<br>discussions<br>( $n=10$ ) |
|--|------------------------------|---|--|
| <b>Age groups (years)</b>                            |                              |   |  |
| 15–24  | 254 (45.9)                   | 5 (21.7)                                    | 4 (40.0)                                 |
| 25–34  | 166 (36.0)                   | 14 (60.9)                                   | 5 (50.0)                                 |
| 35–44  | 73 (15.9)                    | 3 (13.0)                                    | 1 (10.0)                                 |
| 45–49  | 10 (2.2)                     | 1 (4.3)                                     | 0  |
| Median (IQR)   | 24 (20–30)                   | 27 (24–31)                                  | 26.5 (21–31)                             |
| <b>Education</b>                                     |                              |   |  |
| None/Primary   | 95 (18.9)                    | 1 (4.3)                                     | 1 (10.0)                                 |
| Secondary  | 310 (61.4)                   | 21 (91.3)                                   | 7 (70.0)                                 |
| Tertiary   | 98 (19.7)                    | 1 (4.3)                                     | 2 (20.0)                                 |
| <b>Marital status</b>                                |                              |   |  |
| Single   | 162 (30.4)                   | 5 (21.7)                                    | 1 (10.0)                                 |
| Non-cohabiting partner                               | 114 (24.5)                   | 11 (47.8)                                   | 8 (80.0)                                 |
| Married/Cohabiting partner                           | 218 (43.3)                   | 6 (26.1)                                    | 1 (10.0)                                 |
| Divorced/Separated/Widowed                           | 9 (1.9)                      | 1 (4.3)                                     | 0  |
| <b>Religion</b>                                      |                              |   |  |
| Zionist  | 130 (26.2)                   | 6 (26.1)                                    | 3 (30.0)                                 |
| Protestant   | 92 (18.1)                    | 7 (30.4)                                    | 2 (20.0)                                 |
| Charismatic  | 80 (15.6)                    | 3 (13.0)                                    | 1 (10.0)                                 |
| Roman Catholic                                       | 60 (11.8)                    | 1 (4.3)                                     | 1 (10.0)                                 |
| Pentecostal  | 55 (10.9)                    | 4 (17.4)                                    | 2 (20.0)                                 |
| None   | 57 (11.6)                    | 1 (4.3)                                     | 1 (10.0)                                 |
| Other  | 29 (5.8)                     | 1 (4.3)                                     | 0  |
| <b>No. of past year sexual partners</b>              |                              |   |  |
| 0  | 210 (39.8)                   | 5 (21.7)                                    | 1 (10.0)                                 |
| 1  | 219 (45.6)                   | 13 (56.5)                                   | 6 (60.0)                                 |
| ≥2   | 73 (14.6)                    | 5 (21.7)                                    | 3 (30.0)                                 |
| <b>No. of living children</b>                        |                              |   |  |
| 0  | 302 (57.3)                   | 11 (47.8)                                   | 6 (60.0)                                 |
| 1  | 85 (17.7)                    | 5 (21.7)                                    | 4 (40.0)                                 |
| 2–4  | 88 (18.9)                    | 6 (26.1)                                    | 0  |
| ≥5   | 28 (6.0)                     | 1 (4.3)                                     | 0  |
| <b>Type of service used in past year<sup>A</sup></b> |                              |   |  |
| Family planning (FP)                                 | 2 (0.4)                      | 0   | 0  |
| HIV counselling & testing (HCT)                      | 139 (28.0)                   | 6 (26.1)                                    | 4 (40.0)                                 |
| Sexually transmissible infections (STI)              | 13 (2.7)                     | 2 (8.7)                                     | 0  |
| HIV comprehensive treatment & care (CTC)             | 19 (4.2)                     | 6 (26.1)                                    | 0  |
| Male circumcision (MC)                               | 29 (6.8)                     | 2 (8.7)                                     | 1 (10.0)                                 |
| Use of at least one of the above services            | 167 (33.4)                   | 11 (47.8)                                   | 4 (40.0)                                 |

<sup>A</sup>Respondents who reported a visit for each service in the past year are included and may be represented more than once.

(95% CI: 1.81–5.68) for those with one partner; and aOR 2.35 (95% CI: 1.25–4.41) for those with multiple partners) compared with service non-users Table 2.

### Self-reported sexual behaviours

Participants who reported multiple partners in the past year were more likely to be under the age of 25 years compared with those aged 25–34 years (aOR 0.42 (95% CI: 0.23–0.75)) and those over 34 years (aOR 0.27 (95% CI: 0.11–0.68)) after adjusting for marital status and education (Table 3). Sexually

active men over the age of 35 years were more likely to report consistent contraceptive use compared with younger men, after adjusting for marital status and education (aOR 2.41 (95% CI: 1.08–5.40)).

Among men who used contraceptives, the most common method was male condoms (78%). The next most common method was injectables, but this only represented 8%. The most common reasons cited for not using contraceptives were: their partner was pregnant (18%); opposition from the participant, their partner or their religion (18%); and health concerns (16%). For condoms, non-use was because: another

**Table 2. Factors associated with past year sexual health service use (*n* = 503)**

Results are presented as *n* (%). cOR, crude odds ratio; aOR, adjusted odds ratio, adjusted for all other variables in the table; Ref, reference group. Bold numbers represent statistical significance

|                                    | Service non-user ( <i>n</i> = 336) | Service user ( <i>n</i> = 167) | cOR                     | <i>P</i> -value  | aOR                     | <i>P</i> -value  |
|------------------------------------|------------------------------------|--------------------------------|-------------------------|------------------|-------------------------|------------------|
| Age groups (years)                 |                                    |                                |                         |                  |                         |                  |
| <25                                | 176 (47.8)                         | 78 (42.2)                      | Ref                     |                  | Ref                     |                  |
| 25–34                              | 111 (36.2)                         | 55 (35.7)                      | 1.12 (0.70–1.79)        | 0.635            | 0.73 (0.42–1.28)        | 0.263            |
| ≥35                                | 49 (16.0)                          | 34 (22.1)                      | 1.57 (0.83–2.94)        | 0.158            | 1.00 (0.38–2.61)        | 0.999            |
| Marital status                     |                                    |                                |                         |                  |                         |                  |
| Non-partnered                      | 122 (34.4)                         | 49 (28.0)                      | Ref                     |                  | Ref                     |                  |
| Partnered                          | 214 (65.6)                         | 118 (72.0)                     | 1.35 (0.89–2.04)        | 0.157            | 0.67 (0.37–1.22)        | 0.187            |
| Education                          |                                    |                                |                         |                  |                         |                  |
| None/primary                       | 65 (19.4)                          | 30 (18.0)                      | Ref                     |                  | Ref                     |                  |
| Secondary                          | 209 (62.1)                         | 101 (60.1)                     | 1.05 (0.51–2.14)        | 0.901            | 1.05 (0.53–2.08)        | 0.877            |
| Tertiary                           | 62 (18.5)                          | 36 (22.0)                      | 1.28 (0.67–2.45)        | 0.445            | 1.17 (0.62–2.19)        | 0.625            |
| Have children                      |                                    |                                |                         |                  |                         |                  |
| No                                 | 211 (60.2)                         | 91 (51.6)                      | Ref                     |                  | Ref                     |                  |
| Yes                                | 215 (39.8)                         | 76 (48.4)                      | <b>1.42 (1.06–1.90)</b> | <b>0.021</b>     | 1.10 (0.59–2.03)        | 0.765            |
| No. of past year sexual partner(s) |                                    |                                |                         |                  |                         |                  |
| 0                                  | 161 (45.9)                         | 49 (27.6)                      | Ref                     |                  | Ref                     |                  |
| 1                                  | 127 (39.9)                         | 92 (57.0)                      | <b>2.38 (1.54–3.66)</b> | <b>&lt;0.001</b> | <b>3.21 (1.81–5.68)</b> | <b>&lt;0.001</b> |
| ≥2                                 | 47 (14.2)                          | 26 (15.4)                      | <b>1.80 (1.02–3.17)</b> | <b>0.043</b>     | <b>2.35 (1.25–4.41)</b> | <b>0.009</b>     |

**Table 3. Self-reported sexual behaviours by demographic characteristics among sexually active men (*n* = 298)**

Results are presented as *n* (%). aOR, adjusted odds ratio, adjusted for all other variables in the table.

|                             | >1 past year sexual partner<br>( <i>n</i> = 292) |                 | Consistent contraceptive user <sup>A</sup><br>( <i>n</i> = 293) |                 |
|-----------------------------|--|-----------------|---|-----------------|
|                             | aOR  | <i>P</i> -value | aOR   | <i>P</i> -value |
| Age groups (years)          |  |                 |   |                 |
| <25                         | Ref  |                 | Ref   |                 |
| 25–34                       | <b>0.42 (0.23–0.75)</b>                          | <b>0.005</b>    | 1.42 (0.68–2.96)  | 0.343           |
| ≥35                         | <b>0.27 (0.11–0.68)</b>                          | <b>0.006</b>    | <b>2.41 (1.08–5.40)</b>   | <b>0.033</b>    |
| Marital status <sup>B</sup> |  |                 |   |                 |
| Non-partnered               | Ref  |                 | Ref   |                 |
| Partnered                   | 0.63 (0.29–1.39)                                 | 0.246           | 0.90 (0.36–2.27)  | 0.816           |
| Education                   |  |                 |   |                 |
| None/primary                | Ref  |                 | Ref   |                 |
| Secondary                   | 1.21 (0.56–2.64)                                 | 0.623           | 1.34 (0.67–2.69)  | 0.393           |
| Tertiary                    | 1.09 (0.44–2.71)                                 | 0.854           | 1.22 (0.59–2.51)  | 0.583           |

<sup>A</sup>Consistent contraceptive user = any form of contraceptive use (including condoms) at most recent sex act with all sexual partners.

<sup>B</sup>Non-partnered = single, separated/divorced/widowed; Partnered = non-cohabiting partner or married/cohabiting partner.

contraceptive was used (21%); they were unavailable at the time (18%); lack of enjoyment (17%); and desire for children (17%) (data not presented).

#### Facility preferences

Over half of the survey participants rated all 11 facility characteristics as ‘very important’ (Table 4). Four characteristics were rated as ‘very important’ by over 80% of the participants: (i) modern; (ii) nearby; (iii) short waiting times; and (iv) availability of other services. Significant differences

were found between service users and non-users in terms of two characteristics: more service users rated specialised services as ‘very important’ (*P* = 0.01); and more non-users rated friendly providers as ‘very important’ (*P* = 0.04).

For HIV services, service users were less likely to prefer HIV services to be separated from other services (aOR 0.50 (95% CI: 0.35–0.71)) or agree to travel further for their HIV test (aOR 0.52 (95% CI: 0.33–0.82)) compared with non-users; these were significant after controlling for age-groups and education (Table 5).

**Table 4. Facility preferences (n = 503)**  
Results are presented as n (%)

|  | Service non-user<br>(n = 336) | Service user<br>(n = 167) | Total<br>(n = 503) | P-value       |
|--|-------------------------------|---------------------------|--------------------|---------------|
| Facility is high tech and modern             |                               |                           |                    |               |
| Not/Somewhat important                       | 42 (12.7)                     | 13 (7.8)                  | 55 (11.0)          | 0.1069        |
| Very important                               | 290 (87.4)                    | 153 (92.2)                | 443 (89.0)         |               |
| Distance                                     |                               |                           |                    |               |
| Not/Somewhat important                       | 42 (12.9)                     | 18 (10.8)                 | 60 (12.2)          | 0.5473        |
| Very important                               | 287 (87.1)                    | 149 (89.2)                | 436 (87.8)         |               |
| Waiting times                                |                               |                           |                    |               |
| Not/Somewhat important                       | 47 (13.8)                     | 28 (17.2)                 | 75 (14.9)          | 0.3603        |
| Very important                               | 285 (86.3)                    | 138 (82.8)                | 423 (85.1)         |               |
| Other services can be provided at same visit |                               |                           |                    |               |
| Not/Somewhat important                       | 63 (18.9)                     | 33 (19.8)                 | 96 (19.2)          | 0.8062        |
| Very important                               | 266 (81.1)                    | 134 (80.2)                | 400 (80.8)         |               |
| Availability of doctor                       |                               |                           |                    |               |
| Not/Somewhat important                       | 88 (26.8)                     | 50 (30.0)                 | 138 (27.9)         | 0.4404        |
| Very important                               | 241 (73.2)                    | 116 (70.0)                | 357 (72.2)         |               |
| Facility offers specialised services         |                               |                           |                    |               |
| Not/Somewhat important                       | 120 (36.2)                    | 42 (25.9)                 | 162 (32.8)         | <b>0.0144</b> |
| Very important                               | 214 (63.8)                    | 124 (74.1)                | 338 (67.3)         |               |
| Friendliness of providers                    |                               |                           |                    |               |
| Not/Somewhat important                       | 124 (37.6)                    | 78 (46.9)                 | 202 (40.7)         | <b>0.0416</b> |
| Very important                               | 203 (62.4)                    | 88 (53.1)                 | 291 (59.3)         |               |
| Cost of services                             |                               |                           |                    |               |
| Not/Somewhat important                       | 132 (40.1)                    | 80 (48.5)                 | 212 (42.9)         | 0.1180        |
| Very important                               | 198 (59.9)                    | 85 (51.5)                 | 283 (57.1)         |               |
| Opening hours                                |                               |                           |                    |               |
| Not/Somewhat important                       | 141 (42.7)                    | 72 (44.0)                 | 213 (43.1)         | 0.7865        |
| Very important                               | 186 (57.3)                    | 93 (56.0)                 | 279 (56.9)         |               |
| Availability of drugs or supplies            |                               |                           |                    |               |
| Not/Somewhat important                       | 152 (45.5)                    | 70 (42.8)                 | 222 (44.6)         | 0.5867        |
| Very important                               | 182 (54.5)                    | 94 (57.2)                 | 276 (55.4)         |               |
| Confidentiality and privacy                  |                               |                           |                    |               |
| Not/Somewhat important                       | 144 (43.7)                    | 78 (46.5)                 | 222 (44.6)         | 0.4891        |
| Very important                               | 188 (56.3)                    | 88 (53.5)                 | 276 (55.4)         |               |

### Qualitative findings

#### Facilitators to use of formal healthcare services

Men who described positive experiences with formal healthcare services highlight providers' professionalism and friendliness, which allowed men to discuss their concerns without feeling judged. For example, one explained:

*'[...] it was not difficult as they asked me if I was using a condom and I had to tell them the truth that I sometimes don't use it. They gave me the medication and gave me condoms to use and said that I should use a condom every time I have sex. So they treated me fairly well.'*  
[Interview 20254, age 25 years, non-cohabiting partner]

Confidentiality was highly valued, particularly for counselling services, as noted by another participant:

*'I think the treatment you get in the counselling room is marvellous, whatever you discuss is between you and the nurse or doctor.'*  
[Interview 80218, age 33 years, married/cohabiting]

#### Barriers to use of formal healthcare services

Men discussed the lack of confidentiality in the set-up at some formal healthcare facilities. For example, men in the FGD described needing to inform the reception staff of the reason for their visit and then join the queue for that specific issue. Men who do not want others to know the reason for their visit may report a different ailment to the reception staff or leave the facility when told to join the STI queue. As discussed in the FGD:

*'[...] it cannot be right to be seen by my brother or friend standing in the line for those with STIs;*



**Table 5. Preferences for HIV testing facilities (n=456<sup>A</sup>)**

Results are presented as n (%). cOR, crude odds ratio; aOR, adjusted odds ratio; adjusted for age-group and education. Bold numbers represent statistical significance

|  | Non-user<br>(n = 293) | Service user<br>(n = 163) | cOR                     | P-value          | aOR                     | P-value          |
|--|-----------------------|---------------------------|-------------------------|------------------|-------------------------|------------------|
| Preference to separate HIV testing services              |                       |                           |                         |                  |                         |                  |
| Strongly disagree/disagree                               | 120 (41.4)            | 97 (59.7)                 | Ref                     |                  | Ref                     |                  |
| Strongly agree/agree                                     | 170 (58.6)            | 66 (40.3)                 | <b>0.48 (0.34–0.67)</b> | <b>&lt;0.001</b> | <b>0.50 (0.35–0.71)</b> | <b>&lt;0.001</b> |
| Prefer to travel further for HIV test                    |                       |                           |                         |                  |                         |                  |
| Strongly disagree/disagree                               | 114 (38.8)            | 89 (54.7)                 | Ref                     |                  | Ref                     |                  |
| Strongly agree/agree                                     | 179 (61.2)            | 73 (45.3)                 | <b>0.53 (0.34–0.82)</b> | <b>0.006</b>     | <b>0.52 (0.33–0.82)</b> | <b>0.006</b>     |
| Bothered that others in waiting room will know my status |                       |                           |                         |                  |                         |                  |
| Strongly disagree/disagree                               | 109 (40.8)            | 54 (36.4)                 | Ref                     |                  | Ref                     |                  |
| Strongly agree/agree                                     | 160 (59.2)            | 95 (63.6)                 | 1.20 (0.79–1.82)        | 0.373            | 1.19 (0.79–1.79)        | 0.386            |

<sup>A</sup>Participants who selected 'N/A' as a response were excluded from this analysis.

*I will be misjudged. I wish there can be a way we cannot be seen [...] if I have a STI and there is a facility in the community, I won't use it because they are going to laugh at me [...] You would go then to another facility [...].'* [FGD/Men2]

Among younger participants, some worried that providers might judge them for being sexually active at a 'young' age:

*'Like for instance you have a drop [STI] and then you are afraid to tell her because you feel she is going to judge you because you are still young, and then you end up telling her about something else and not the real problem.'* [FGD/Men1]

Additionally, participants voiced concerns about providers' poor treatment and judgemental attitudes, which deterred them from seeking care. One participant thought a positive STI diagnosis would mean he has to bring his partner in for testing, which would expose his infidelity.

Male clients expressed dissatisfaction due to unavailable and seemingly unmotivated staff. Some men reported waiting for hours without seeing a provider, or not obtaining the required drugs after the consultation. These were particularly problematic for working men, who may have taken time off work to seek care, as one explained:

*'[...] You sometimes stay until 11 o'clock without being attended to and even when you are close to the help desk, nurses claim to be going out for their lunch. They come back on their own time and when you have finished and find that the one to give the pills is not there. [...] Sometimes you leave without taking the tablets because the nurse is still not available and you want to catch transport.'* [Interview 20211, aged 43 years, married/cohabiting]

#### The role of gender

Many men described themselves as 'not a sickly person' with little need for healthcare services. When discussing SH issues,

men expressed embarrassment at the possibility of needing to have a physical exam, particularly where the providers are young, female nurses. In some cases, this has resulted in men not disclosing the true reason for their visit. As described by several men:

*'[...] going to hospital would be a problem looking at the nurses scrutinising my penis as old as I am.'* [Interview 90344, age 39 years, married/cohabiting]

*'[...] it is like a disgrace as a man when you find a female nurse. There is also the fear of being naked in the presence of the nurse and which is why you then tell yourself you will come back another time yet the illness is also going on [...].'* [FGD/Men1]

#### Informal healthcare providers

Many men expressed a preference for informal providers, particularly traditional healers, for STI-related issues, as healers tend to be male, the setting offers greater privacy, the hours are more flexible and physical examinations are rare.

*'[...] it is good to use traditional medicine especially for us males because if I need help I go to someone I know and someone I'll be able to talk to freely and I will go to someone who is a male.'* [Interview 90320, age 38 years, married/cohabiting]

In addition, informal providers may offer flexible payment options including delayed payment, which may be incentives for men to seek care earlier.

*'[...] you can get the medication on credit [...] you can even say you don't have money and promise to pay some other time and the traditional healer will agree.'* [Interview 90370, age 46 years, married/cohabiting]

Participants' views on whether to use informal services instead of, or in conjunction with, formal services differed depending on

the symptoms, illness, the perceived effectiveness of their first choice of treatment, or recommendations and experiences by family and friends.

*'I started using traditional medicine and after realising that it does not help me I went to the hospital on my uncle's advice. I went to the clinic and they treated the STI.'* [Interview 10278, age 30 years, non-cohabiting]

*'[...] you can use traditional medicine but then you should also go to the clinic where they are going to give you medication and you shouldn't stop taking the traditional medicine at the same time [...] the traditional medicine will cleanse your system [...] you also need the traditional medicine.'* [Interview 70400, age 26 years, non-cohabiting]

#### HIV testing services

For HIV testing, some men reported making the decision to test themselves, usually when they are in a relationship that may lead to marriage:

*'I think I was at a stage where I was ready to take a wife and we have been using condoms all along and when I decided to take a wife, I thought I should test.'* [Interview 110202, age 26 years, single]

In some cases, men were prompted by their partner, often due to the latter's testing during ANC visits:

*'What made me to test is that she [partner] was pregnant. She went to the clinic and she told me she had tested and they said they needed me as well [...] and then we went there together and the results came back positive.'* [Interview 80218, age 33 years, married/cohabiting]

Many men, however, reported substantial barriers to HIV testing because they fear a positive diagnosis, which many believe is equivalent to a death sentence. Many discuss delaying testing until they are ill:

*'I can go when I know I am no longer fit [...] but I would have to think twice, as my brother here mentioned earlier, it is like fetching your death warrant.'* [FDG/Men2]

*'I sometimes want to go there to test for HIV but [...] if maybe I'm found to be living with the virus then how am I going to feel after that [...] I then feel it is better not to know.'* [Interview 60333, age 31 years, single]

Such fears may be the reason during FGDs men discussed relying on their partner's test result as proxy for their own status rather than having a test themselves:

*'[...] when it comes to testing I told myself that my wife is the one who is going to do it for me because as you know that women are tested*

*when they are pregnant, and so I used her to see how are things.'* [FDG/Men1]

#### Discussion

We explored Swazi men's health-seeking behaviours for SH using quantitative and qualitative data. Service use among men is of particular importance in Swaziland because of the high HIV prevalence. Yet, findings from our survey indicate that only one-third of male survey participants reported using SH services, mostly HCT, in the past year.

Participants who used formal healthcare services described barriers such as poor and disrespectful treatment by providers in the qualitative interviews, and long distance and waiting times in the survey, which are consistent with other studies.<sup>11,14,15</sup> Confidentiality and privacy, although not among the highest ranked facility characteristic by our survey participants, were recurring themes in the qualitative data. However, concerns with waiting time may be related to privacy, even when not reported as such, as being seen quickly and not waiting in line reduce men's chances of being seen by others.<sup>11</sup>

Men in the qualitative interviews with a history of STI symptoms had sought care primarily from traditional healers. How and from whom individuals seek care is culturally and socially constructed and will be based on their belief on the underlying meaning of symptoms experienced. Men have expressed a preference for male providers for SH issues or those involving physical exams. The important role of traditional healers whose services were described as more accessible, private and comfortable for men with flexible payment options have also been identified in a systematic review of informal healthcare providers in developing countries.<sup>11,16</sup>

Formal healthcare services can be improved to address men's needs. At the facility level, the reception area and queuing system could be restructured to offer greater privacy when discussing men's reason for their visit. Extending clinic hours would reduce waiting time and allow working men to attend. Additionally, health promotion campaigns can de-stigmatise men's use of healthcare services and sensitise providers to men's needs and concerns about privacy and stigma, which might help men feel comfortable to access care.

Men feel more comfortable to discuss SH issues with male healthcare providers. Studies have found that male providers saw more male clients. For example, a Peruvian study that surveyed midwives found that male midwives saw twice as many male patients, compared with female midwives (8 vs 4,  $P < 0.005$ ), and that male providers saw a higher number of male STI cases per month (2 vs 0 by female midwives,  $P < 0.005$ ), despite the fact that most of the midwives are female.<sup>17</sup> Other studies have found that providers are less able to anticipate the SH needs of male clients, which suggests the need for greater training about men's healthcare needs. For example, a study of rural healthcare providers found a pattern of provider (male and female) bias in what they think male clients want and need from SH services.<sup>18</sup> Furthermore, a SH clinic for men staffed by male providers in rural Bangladesh found that men accessed services and discussed concerns including impotence and premature ejaculation, which were unexpected.<sup>19</sup>



Feminisation of healthcare facilities appears to be fairly widespread, which seems to impact the way services are delivered, including how providers and facilities operate. A study in Brazil assessing a men's health policy interviewed healthcare providers and carried out observations in clinics. The study found that although men attended clinics alone (not accompanying a partner), providers consistently failed to notice them as service users.<sup>20</sup>

Recruiting and training more men into the healthcare profession may be a longer-term strategy to improve men's use of, and satisfaction with, healthcare services. However, this would require a substantial shift in what constitutes as men's work, as well as investments to train more male providers. In the meantime, better training of existing providers about men's needs, sensitivities and service preferences for SH should be implemented. Providers who already deliver high-quality, professional services could be engaged to train and support others. Greater outreach to men could also be conducted, which may improve the perceptions of male healthcare staff, potentially attracting more men to enter the healthcare profession.

Given Swazi men's current preference for informal care, collaboration between formal and informal providers should be explored and strengthened, as informal providers can share culturally appropriate practices and help address the shortage of formal providers, particularly in the rural areas.<sup>21–23</sup> Working together might improve referrals, home-based care, and emotional or spiritual support, which can contribute to better identification of men in need of clinical care. Traditional healers in Swaziland have reported a desire to be involved in HIV prevention and follow-up care, while nursing students also recognise the potential benefits of collaborating, particularly as healers are often older and male; these are both well-respected characteristics in Swazi culture.<sup>24</sup> Greater dialogue should be held between the two groups to identify mutually beneficial ways to work together.

Many men in our study still consider a positive HIV diagnosis as fatal and prefer not to be tested, a finding that is consistent with other studies.<sup>8,15,25</sup> This perception may be due to poor awareness about treatment availability and effectiveness or because many men delay testing until they are seriously ill and survival rates are therefore poorer.<sup>26</sup> To avoid testing, men reported using their wife's HIV test results as a proxy for their own status. Therefore, much work is still needed to raise awareness about the importance of being tested and positive living with HIV. Although testing early will enable men to receive timely education and treatment, if we cannot overcome men's reluctance to be tested, it is unlikely they will achieve the full benefits of treatment.

Our study did not collect data on sexuality, but studies among men who have sex with men in sub-Saharan Africa, including Swaziland, found high levels of fear associated with seeking healthcare, particularly with regards to STI symptoms. This is unsurprising as homosexuality is still illegal in many African countries and may be an important aspect to explore when trying to improve men's use of SH services.<sup>27–29</sup>

Other methods of providing services to men, such as couples counselling, mobile services, non-clinic venues or evening

clinics run just for men, ideally by male providers or peers,<sup>11,30–32</sup> may be effective in Swaziland. A randomised control trial in the Democratic Republic of Congo recruited women attending ANC in order to invite their partner to attend HCT and couples counselling after hours at either: (i) a neighbourhood health centre; (ii) a church; or (iii) a bar. The study found that 22% of the invited men attended and that participation was highest at the bar, (OR 1.50 (95% CI: 1.19–1.89)), followed by the church, compared with the health centre. For couples counselling, those randomised to the church were most likely to present (OR 3.37 (95% CI: 2.07–5.48)), followed by the bar (OR 2.48 (95% CI: 1.54–3.98)) compared with the health centre.<sup>33</sup> Parenting classes at ANC could also be explored as an outreach for men, which could raise awareness on both fatherhood and STI/HIV.

### Limitations

Our study uses self-reported data on men's sexual behaviours and SH service utilisation. Common to other studies inquiring about sexual behaviours, social desirability may have resulted in men under-reporting risky sexual behaviours and over-reporting condom use and HIV testing, particularly in Swaziland given the high generalised HIV epidemic and the resulting focus on HIV prevention and awareness.

Many of the men interviewed qualitatively expressed that they were rarely sick or needed healthcare services much. The Swazi concepts of masculinities and traditional gender role where men should be healthy and strong may have influenced what men viewed as suitable behaviours to express, which may have affected their health-seeking behaviours.<sup>15,34,35</sup>

### Conclusions

Men's limited use of SH services is problematic due to facility and provider-level issues and many prefer informal providers. Better tailored messages and other outreach options to deliver healthcare should be designed to emphasise the importance for men to access healthcare services, especially HIV testing, for both themselves and their family. Such efforts may also harness the male Swazi role as a protector of his family. Addressing the barriers to men's use of SH services could lead to improved uptake of SH and HIV services, which would ultimately benefit men and women alike.

### Conflicts of interests

None declared.

### Acknowledgements

The authors would like to acknowledge the contributions of our fieldwork coordinators Joshua Kikvi and Phelele Fakudze, the interviewers and participants who gave their time and shared their experiences. The Integra Initiative team members are: At the London School of Hygiene & Tropical Medicine: Susannah Mayhew (PI), Anna Vassall (co-PI), Isolde Birdthistle, Kathryn Church, Manuela Colombini, Martine Collumbien, Natalie Friend-Dupreez, Natasha Howard, Joelle Mak, Richard Mutemwa, Dayo Obure, Sedona Sweeney, Charlotte Watts. At the Population Council: Charlotte Warren (PI), Timothy Abuya, Ian Askew, Joshua Kikvi, James Kimani, Jackline Kivunaga, Brian Mdwida, Charity Ndwiga, Erick Oweya. At the International Planned Parenthood Federation:

Jonathan Hopkins (PI), Lawrence Oteba, Lucy Stackpool-Moore, Ale Trossero; at FLAS: Zeldi Nhlabatsi, Dudu Simelane; at FHOK: Esther Muketo; at FPAM: Mathias Chatulukua. The Integra Initiative is supported by the Bill and Melinda Gates Foundation.

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