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Negotiating multiple barriers: health workers' access to counselling, testing and treatment in Malawi

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Abstract

Malawi is facing a severe HIV and AIDS epidemic with an estimated 12% of its population living with the virus. Health workers are on the front lines of the HIV epidemic and they face the risk of HIV infection in both their personal and professional lives. This mixed method study aimed to explore the enablers and barriers to HIV counselling and testing and antiretroviral therapy by health workers in Malawi. After qualitative data were collected through in-depth interviews with health workers in the Mchinji and Nsanje districts, a survey questionnaire was constructed and administered to 906 health workers in eight districts in Malawi.

A majority (76%) of health workers surveyed reported having undergone HIV testing and counselling, of whom 74% reported repeat testing. A striking result of the study is that 22% of health workers reported testing after occupational exposure to HIV. The proportions of respondents reporting that they tested after experiencing symptoms, or self-testing for HIV were 11% each. The in-depth interviews and the survey revealed multiple challenges that health workers face to accessing HIV testing, counselling and treatment, including fear of a positive result, fear of stigma and lack of confidentiality. Additional barriers included health workers' personal acquaintance with those conducting testing, along with their perception of being "role models" which could exacerbate their fears about confidentiality. Given health workers' critical role in HIV delivery in Malawi, there is need to develop solutions to help health workers overcome these barriers.

Keywords

health workers; Malawi; access; ART; counselling and testing

Introduction

Malawi is facing a severe HIV and AIDS epidemic with an estimated 12% of the adult population aged between 15 and 49 living with the virus (Ministry of Health [MoH], Malawi, 2008). The health system in Malawi is already weak and suffers from critical health worker shortages. According to estimates, vacancy rates hover around 50% for professional health workers across the sector (Babu Seshu, 2006). Reasons for the health care worker crisis include: the limited capacity of training institutions to produce adequate numbers of graduates, migration of health workers to countries within the region and to the west, poor working conditions, uncompetitive remuneration packages and poor long-term career opportunities (Martin-Staple, 2004; Palmer, 2006).

HIV and AIDS have exacerbated the weakness of the health system and the health worker shortage. Health workers are vulnerable to HIV infection through sexual exposure in their personal lives. In addition, the HIV epidemic has increased the work-load of already overburdened health workers and added the risk of occupational exposure to HIV infection, particularly in high endemic areas. While the HIV prevalence rate among health workers in Malawi is not known, studies conducted elsewhere suggest that AIDS is a major cause of death among health workers in high prevalence countries (World Health Organization [WHO], 2006). In South Africa a study conducted by Human Sciences Research Council (HSRC) found a prevalence rate of 15.7% amongst health workers and that between 1997 and 2001, 13% of the health workers had died from HIV- and AIDS-related illnesses including TB (Ncayiyana, 2004; Shisana et al., 2002).

Health workers are on the front lines of providing treatment and care to people living with HIV. Studies from other African countries indicate that in some settings, health workers' own use of HIV testing and treatment services is suboptimal, and health care workers face barriers to access even though they work at health facilities (Kiragu et al., 2007; Uebel, Nash, & Avalos, 2007). In response, several initiatives have been launched to promote the treatment of health workers, both at the global and national levels. For example, the World Health Organization launched the *Treat, Train, Retain programme* (WHO, 2006) which aims to promote health workers' access to HIV treatment. In Malawi, the antiretroviral therapy (ART) equity policy and the Care of Carer policy prioritise and promote health workers' access to ART and other HIV services (MoH Malawi, 2005; National AIDS Commission [NAC], 2005).

HIV testing and counselling is often referred to as the gateway to treatment. This study focuses on health workers' access to and utilisation of HIV testing in Malawi. We assess the extent to which health workers do in fact avail themselves of HIV testing services, whether and to whom they disclose test results, and the factors that motivate or discourage them. We also describe the experience of testing, the difficulties health workers encounter and the ways in which they overcome these difficulties. The analysis seeks to highlight ways in which the social context of HIV influences health workers' access to testing and treatment.

Methods

The study combined quantitative and qualitative methods, as there is an increasing recognition that this approach improves both the research process and the interpretation of results (Moffatt, White, Mackintosh, & Howel, 2006). Semi-structured, in-depth interviews were conducted with health workers as part of formative research, which fed into the development of a survey instrument designed to gather quantitative data.

The qualitative interviews were conducted in two districts of Malawi, namely: Nsanje in the southern region with a high HIV prevalence rate and Mchinji in the central region with a relatively lower HIV prevalence rate. Two interviewers, one male and one female conducted all the interviews with study participants of either sex. Respondents were selected at health facilities in these districts where HIV testing and counselling, post exposure prophylaxis (PEP) or ART were provided, and they included different cadres of health workers. Interviews were conducted in Chichewa or English, and the data were analysed with a framework analysis approach (Spencer, Ritchie, & O'Connor, 2003).

Researchers collected quantitative survey data in eight districts proportionately distributed across the three regions in Malawi to ensure generalisability. The selection strategy tried to balance representativeness and cost. Three districts in the centre and south and two in the northern region were randomly selected after stratifying by rural and urban districts: three health facilities were then randomly selected from each district after stratifying by whether services were provided by Government or the Christian Health Association. Individual respondents were selected after stratifying by cadre (i.e., type of health worker), namely: clinical care providers¹ (medical officers, clinical officers and medical assistants); nursing and midwifery providers, technical support staff (laboratory technicians, radiographers, dental assistants and pharmacists) and Health Surveillance Assistants (HSAs). The number of health workers selected for the survey was proportional to the number of health workers in that cadre by gender at that health facility. The number of health workers selected per facility was proportional to the number of health workers at the selected facilities with more staff sampled in district hospitals which contributed over 75% of the respondents.

Using standard sample calculations, the minimum sample size was set at 953, using the proportion of workers accessing testing and counselling services as a variable of interest.²

Clinical officers, medical assistants and medical officers all manage patients and give prescriptions, however, only medical officers have an MD qualification. Clinical officers and medical assistants have a diploma or certificate in clinical medicine from colleges, not universities. The HSAs are responsible for public health work such as counselling and testing, water and sanitation, vaccinations and health promotion in communities.

The minimum sample size for the national study was determined using the standard formula estimating sample size for a single proportion below:

$$n = \frac{K \times ((P(1 - P) \times Z^2))}{d^2}.$$

Given confidence level[notdef]95%, absolute width of confidence interval around the estimate [notdef]5%, proportion of the population having a particular characteristic of interest, in this case the proportion of health workers accessing HIV services. Since a single proportion was required, and the level of access to services was unknown, the study used a safety value of 0.5 or 50% to get the maximum sample size and design effect of 3.

A survey team of eight people comprised of six interviewers and two supervisors collected the survey data. All had a first degree from the University of Malawi and experience in conducting social research. The quantitative data were entered and analysed using EPI INFO v.6.04b and the Statistical Package Software for Social Science (SPSS). Bivariate analysis was used to explore the factors associated with utilisation of services, disclosure and reasons for HIV testing. An association was considered significant at $p < 0.05$.

To ensure quality and ethics, the research team arranged for stakeholder participation in the planning of the study, the analysis of the qualitative interviews and the interpretation of results. The stakeholder participation was ensured through a study advisory group whose role included advising and reviewing the study process. In addition, consultative meetings were conducted with policy makers, health providers and Civil Society Groups. The Malawian National Health Sciences Research Committee approved the study protocol.

Results

Sample characteristics

There were 47 respondents who participated in the in-depth interviews. These were nearly evenly divided between male and female, though the breakdown by type of health worker varied by sex: most HSAs were women, and of the eight clinicians, only one was a woman.

A total of 906 respondents were interviewed in the survey out of a target of 1020, based on estimated numbers of health workers at the selected facilities, for a response rate of 89%. As summarised in Table 1, 41% of respondents were male and 59%, were female, with an average age of 37.3 years. A majority (67%) of respondents were married; 38% had secondary school education level; 33% had a post secondary school certificate or diploma; and 5% had a university degree.

The majority of respondents (52%) were nurses, followed by HSAs (25%); less than 2% of the respondents were medical officers.

HIV testing and disclosure amongst health workers

In the survey (results shown in Table 2), 76% of health workers reported ever having taken an HIV test. Almost three-fourths of respondents who reported ever testing said they had tested more than once. About half of those ever tested (55%) reported being tested at the facility where they worked, while 45% had their last HIV test elsewhere. Reasons for choosing a testing site included: distance (68%), followed by perceived confidentiality (13%).

Among study participants who had been tested, just over one-third (35%) had been tested by an HSA. A slightly larger proportion (42%) had been tested by another type of health worker, and 11% reported self-testing. A substantial proportion of respondents (41%) reported the belief that their colleagues conducted self-testing for HIV.

Most (90%) of those who reported testing said they had disclosed their results to someone, most frequently (68%) a spouse or partner, followed by a friend (46%).

Reasons for testing or not

In response to an open-ended question about why they took an HIV test, nearly half (49%) of the health workers reported that they “just wanted to know”. The next two reported reasons for testing were more specific: possible occupational exposure (22%) and ill health (11%).

The most commonly reported reason for repeat testing was a provider’s recommendation (32%), followed by doubts about the results of a previous test (26%) and occupational exposure (19%). The most frequently reported reason for never having been tested were not feeling ready (32%) and fear of a positive result (22%).

Factors that influence testing and disclosure

The survey explored the possible influence of socio-demographic factors on the likelihood of testing and on the reasons for testing. There were no significant differences in the likelihood of testing by sex or cadre of health workers, but there was a significant association with age, with younger workers significantly more likely to report ever testing for HIV than older health workers ($p<0.001$) and a significantly lower likelihood of testing among widowed and divorced health workers ($p<0.02$).

There were considerable gender differences in reasons for testing: females were more likely to report having been tested because of their partner’s behaviour, illness or death, whereas men were more likely to report having tested because of their own behaviour; more women than men reported being referred for testing in connection with planning children; more men than women reported testing because of a blood transfusion. There was no difference by gender in being tested because of occupational exposure ($p<0.23$) (See Table 3).

Reasons for testing also varied significantly according to age group. Older respondents were more likely to report having tested because of their own ill health or that of a partner; not surprisingly, younger respondents were more likely to report testing because they were about to get married, have children or were just planning for the future.

There were differences in the reasons for testing and in the number of times tested among categories of health workers ($p<0.001$). For example, clinical staff were more likely than other cadres to report having been tested because of occupational exposure, while HSAs were more likely to report having tested because of a partner’s sickness or death as summarised in Table 4.

Divorced and widowed respondents were significantly less likely than other respondents to test and, if they did test, to report disclosing their test results to someone. Not surprisingly, widowed respondents were more likely to report testing because of their partner’s death or ill health.

Fears about and experiences of testing

The survey included a number of items designed to understand health workers’ fears about and experiences of testing. The qualitative interviews suggested that fear of a positive HIV test, the stigma attached to being positive and the possible loss of status that might follow a

positive result are important reasons why testing is difficult for health workers. For example, when asked why health workers don't get tested, typical quotes included:

They say that [they cannot go for testing because] they do not want to lose their peace of mind. [Most of us] ... health workers we have a problem ... I must tell you the truth us health workers, we are afraid. We had the testing week but very few health workers came forward for testing. (HSA)

... if other people get to know that they are positive what will the society say? They will tend to run away from them and they will lose dignity in the society. (Dentist)

Some respondents mentioned that health workers felt they were expected to be role models and were, therefore, particularly concerned about losing the respect of the community if it were to become known that they were HIV-positive:

... You know we are supposed to be role models. We think we are not supposed to be associated with that problem [of HIV and AIDS] ... So it's a challenge to go for the test. (Clinician)

Other respondents mentioned fear of psychological consequences of a positive result as another reason for not having an HIV test:

... knowing your [positive] status is a burden in itself because whatever illness you may have, you associate it with HIV. We know that one time or the other each one of us suffers from some kind of illness. But once you know that you are HIV positive you associate every illness to HIV. In so doing I think, eeh, you can [die] go faster (Laughs). (Clinician)

The qualitative data also suggest that health workers find it difficult to access testing and counselling at their own facility. Lack of confidentiality and fear of stigma were the most cited responses when respondents were asked about the barriers that health workers face in general. In the in-depth interviews, respondents cited fears about confidentiality as a reason for self-testing or not testing at all. For example:

The knowledge [about where to access HTC] is there but we are failing to implement it ... because we know the people who conduct the tests. They fear that when I go there they will reveal my status ... (Anaesthetist).

Even when they trusted colleagues not to breach confidentiality, in-depth interviews suggested that higher status health workers often did not want colleagues with a lower status, such as HSAs, to perform the test and thereby become the first person to know their HIV status. Most respondents in the qualitative interviews explained that they would prefer to test themselves or go to another facility than be tested by HSAs in their own facility. As one respondent explained:

The use of HSAs as counsellors is another problem. Sometimes when you work with juniors who have something which gives them powers they say, 'mun-gowawona awowo, atipeza' ('look at those people – referring to those of the higher cadres – they will one day come to me [for testing]'). They say this when they see that you are sick [with HIV-related illnesses]. So the junior uses the knowledge he/she has to flex his/her muscle. (Dental assistant)

During in-depth interviews, health workers who had self-tested described the process as fraught with fear and tension, as illustrated by the quotes below:

... before you take your blood ... so many things go through your mind ... You don't know whether or not you should really do that kind of thing. But all the same ... you just have to see what comes out. So you take your blood ... you lock your room of course, so that no one comes in and ... it is like you are thinking to hang yourself. (Clinician)

Before carrying out the self test finally, I had made three attempts. Sometimes I could even put the testing kit on the table, ready to test myself but could not go ahead ... self testing needs courage. You cannot test yourself if you are not courageous ... (Raises voice) Oh, getting tested is not a joke. And I tell patients [who have gone through HIV test] when they come here, that they are some of the most courageous people in this country. I tell them most of us don't know our status because we are afraid. (Clinician)

Access to treatment

Though the researchers did not explicitly ask respondents to disclose their HIV status, 41 survey respondents spontaneously disclosed that they were HIV-positive. Among HIV-positive survey respondents, 29 of 37 were on ART; and the rest were not yet eligible for treatment. Nineteen health care workers were receiving ART from the health facility where they worked, eight from a different public health facility, and two from a private facility. Short distance and perceived quality of services were the most cited factors for choosing where to access treatment.

Eleven of the respondents on treatment said they faced challenges accessing ART, including lack of confidentiality and long distances to treatment sites. In-depth interviews with health workers who were receiving treatment or were working in ART clinics described several informal strategies that HIV-positive health workers used to get ARV drugs in a confidential manner, including going to a clinic far away:

We have people coming from the district hospital to collect [ARV] drugs from here. When we ask them why they come here they say 'we are free here.' ... one time I visited the ARV clinic at the district hospital and checked in their register. I found a lot of people from here [Kapiri] in that register ... (Nurse)

Another strategy was to get ARV drugs from one specific health worker whom they trusted. However, some respondents noted that this was not always effective or feasible. For example:

Some health workers are open with only one person [at the ARV clinic] and not with others. This is a problem ... Imagine if that person goes away, what will happen? It's better for them to be open with everybody in the clinic. They don't want any other member to know that they are on ARVs ... I sometimes wonder what they think because we go through these files and we know [who is on ARVs]. (Clinician)

In other cases, respondents described how HIV-positive health workers try to protect their privacy by coming to the clinic late enough to avoid meeting other patients:

They [senior health workers] tend to conceal their identities ‘Amalandira mobisa’ [they collect the drugs in secret] they don’t queue and you cannot tell if they are receiving treatment or not. Sometimes they wait until everyone has received treatment then they come for their drugs. (Health worker [cadre concealed])

Despite the challenges, one health worker on treatment reported that her colleagues were supportive to other health workers on ART:

... what I can say is that health workers working at the ARV clinic, when they realise that you are on ART, they love you and relate with you in a special way than those who are not on ART. They become more interested to know how you are coping. They give moral support whenever possible. (Health worker [cadre concealed] on ART)

Discussion

This study found that three-fourth of health workers interviewed had utilised HIV testing, a higher proportion than found in other settings such as Rwanda and Zambia (Kiragu et al., 2007; Rahlenbeck, 2004). However, both the qualitative and quantitative findings confirm that health workers face challenges to accessing testing, counselling and treatment. A striking finding of the study is the extent to which health workers test after occupational exposure, which underscores the importance of guidelines, practices and resources designed to protect health workers and provide post-exposure prophylaxis. With the persistence of moral judgements which promote stigma about HIV and sexual contract, it is possible that health workers may find it easier to seek an HIV test after occupational exposure, despite evidence from Malawi showing that access to post exposure prophylaxis is low (Van Oosterhout et al., 2007). The other commonly reported reason for testing – ill health – underscores health workers’ vulnerability and the fact that even they sometimes delay testing until they experience symptoms. Gender differences in reasons for testing also highlight the additional vulnerability of women; in this and other studies in Africa and elsewhere, women were more likely than men to test because of their partners’ behaviour, illness or death (Paxton et al., 2005).

Health workers expressed concerns about HIV testing that were similar to those reported by the general population, including concerns about confidentiality and stigma. These findings echo those of other studies from Zimbabwe and Zambia (Corbett et al., 2006; Dieleman et al., 2007). However, health workers’ fears and internal and external experiences of stigma may be complicated or exacerbated by the belief that their professional status sets them up as role models, and the belief that colleagues and community members would feel “they should have known better” if they are seen accessing HIV services. This fear complicates and exacerbates concerns about stigma and confidentiality common among the general population.

The qualitative findings also suggest that hierarchy in the workplace may create special concerns among health workers who do not want to be tested by junior colleagues. Due to

shortages of trained health workers, HIV testing and counselling roll out in Malawi has mostly relied on HSAs – one of the lowest cadres in the health system. While this service delivery model may have been necessary for scaling up HIV services, this study suggests it makes testing more difficult for some health workers and is one reason why a non-negligible proportion of health workers resort to self-testing. There is clearly no counselling or support in “self-testing”, and little is known about the implications of this practice for access to treatment.

The World Health Organization’s *Treat, Train, and Retain Campaign* encourages strategies to reduce barriers to testing and counselling for health care workers (WHO, 2006). This and other studies provide encouraging evidence that health workers in Malawi are often able to overcome challenges to accessing ART (Makombe et al., 2007). There is still a need for action, however. Health workers arguably constitute a critical group as they play a pivotal part in the response to HIV and AIDS and may deal with HIV in both their professional and personal lives. Strategies to support their access to counselling, testing and treatment can be formulated based on experience in other settings. The Swaziland model of a specialised centre providing HIV services for health workers and their families (WHO, 2006) is currently being explored by the Nurses Association of Malawi. This model has been shown in South Africa and Botswana to provide greater confidentiality, to address stigma more effectively and to increase the willingness of health workers to discuss HIV and AIDS (Uebel et al., 2007). However, the relative size and geography of Malawi might make it difficult to deliver HIV services accessible to all health care workers. Other options could include a confidential and free “counselling” phone line for health workers to address their HIV related concerns, or subsidising health workers’ transportation costs so they can access services at other health facilities. Setting aside debates on the appropriateness of prioritising health workers compared to other population groups, it is clear that interventions to support the recruitment and retention of health workers need to take into account their perceptions of risks and their preferences regarding HIV testing. There is also a need to evaluate the impact of the new Malawi Government policy of paying an additional \$35 per month to any health worker and civil servants who tests positive and is willing to make themselves known to the authorities. Facilitating reporting of HIV among health workers is necessary to determine the risk of HIV infection amongst health workers.

HIV- and AIDS-related stigma and discrimination within the health setting and the community continues to be an issue for health workers. Given their “role model” status, health workers could play a critical role in reducing stigma, but they clearly need support. Ultimately, strategies to support quality and confidential HIV testing and counselling for all and ART for all in need should be prioritised as this will promote access of health workers and the Malawian population as a whole.

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Table 1Demographics of the survey respondents ($n = 906$).

	<i>n</i>	Percentage (%)
Gender		
Female	531	59
Male	375	41
Age group ^a		
21–30	287	32
31–40	311	34
41–50	195	22
51 and above	108	12
Marital status		
Never married	173	19
Married	605	67
Widowed	84	9
Separated	11	1
Divorced	33	4
Cadre of health worker ^a		
Nurse	471	52
HSA.	229	25
Clinician	116	13
Technician	85	9

^a Five respondents did not answer question about age or cadre.

Table 2

Reported HIV testing and disclosure by health workers.

	<i>n</i>	Percentage (%) ^a
Reported testing, ever (<i>n</i> = 906) ^a		
Yes	688	76
No	207	24
Circumstances of testing among those ever tested (<i>n</i> = 688)		
	<i>n</i>	Percentage (%)
Number of times tested		
Once	184	27
Twice	202	29
Thrice	127	19
More than three times	175	25
Who conducted HIV test ^a		
HAS	244	36
Other health care worker	289	42
Self-test	73	11
Don't know	75	11
Disclosed own test results to someone (<i>n</i> = 657)		
Yes	592	90
No	65	10
Person to whom disclosed results (<i>n</i> = 592) ^b		
Spouse/partner	404	68
Friend	273	46
Parent	69	12
Child	57	10
Supervisor/boss	26	4
Religious leader	2	>1
Other	14	2

^a Percentages do not add up to 100% because 11 respondents did not answer the question about whether they ever had an HIV test, and seven respondents did not answer the question about what type of health worker performed the test.

^b Percentages do not add up to 100% as respondents were able to give more than one response.

Table 3

Reasons for testing.

	Total (%) ^a	Male (%)	Female (%)	P-value
Reasons for testing, among those ever tested (n = 664)				
Just wanted to know serostatus	50	49	50	0.45
Occupational exposure	22	20	23	0.23
Ill health	11	8	13	0.054
Premarital testing/to have children	9	5	12	0.001
Partner's sexual behaviour	6	2	8	0.02
Partner sick or died	5	4	6	0.15
Referral/routine test	4	2	6	0.026
Planning for the future	6	8	5	0.1
Had a blood transfusion	8	14	5	0.001
To be a role model	5	7	4	0.045
Taking care of people with HIV or AIDS	1	1	2	0.471
Own sexual behaviour	3	6	1	0.001
Reasons for repeat testing (n =495)				
	n	Percentage (%)		
Advised to retest by provider	157	32		
Wanted to confirm original test results	128	26		
Occupational exposure	93	19		
Other	117	24		
Reasons for not testing, among those never tested (n = 200)				
Not ready	64	32		
Afraid of positive result	43	22		
Not necessary	27	14		
I am healthy	27	14		
Other	24	12		
Confidentiality not guaranteed	8	4		
Always busy	6	3		
Afraid of being a failed role model	1	>1		

^aPercentages do not add up to 100% as respondents were able to give more than one response.

Table 4

Socio-demographic factors and influence on likelihood of testing.

Reporting of testing among HCWs and their socio-demographics					
	Tested (%)		Not tested (%)		P-value
Gender					
Male	75.5		24.5		0.46
Female	77.8		22.2		
Age group					
21–30	84.3		15.7		0.0001
31–40	77.8		22.2		
41–50	71.5		28.5		
51 and above	64.8		35.2		
Marital status					
Never married	83.7		16.3		0.024
Married	75.8		24.2		
Widowed	72.3		27.7		
Separated	100.0		0.0		
Divorced	65.6		34.4		
Reason of testing and cadre of HCW (<i>n</i> = 664)					
	HSA (%)	Clinician (%)	Technician (%)	Nurse (%)	P-value
Just wanting to know serostatus	49.1	46.7	55.9	49.9	0.735
Occupational exposure	10.7	31.1	22.0	24.6	0.001
Ill health	11.3	6.7	6.8	12.0	0.361
Premarital testing to have children	9.4	4.4	5.1	10.9	0.182
Partners sexual behaviour	5.7	1.1	5.1	6.6	0.243
Partner sick or died	10.1	1.1	0.0	4.6	0.002
Referral test	2.5	3.3	3.4	5.4	0.443
Planning for the future	4.4	10.0	15.3	4.6	0.005
Had a blood transfusion	6.3	14.4	8.5	7.4	0.128
Want to be a role model	11.9	3.3	3.4	2.9	0.001
Taking care of people living with HIV	1.3	0	1.7	1.7	0.653
Your own sexual behaviour	3.1	5.6	5.1	1.4	0.101