

# Rewards and challenges of providing HIV testing and counselling services: health worker perspectives from Burkina Faso, Kenya and Uganda

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The rapid scale-up of human immunodeficiency virus (HIV) testing, counselling and treatment throughout sub-Saharan Africa has raised questions about how to protect patients' rights to consent, confidentiality, counselling and care in resource-constrained settings. The Multi-country African Testing and Counselling for HIV (MATCH) study investigated client and provider experiences with different modes of testing in sub-Saharan Africa. One component of that study was a survey of 275 HIV service providers in Burkina Faso, Kenya and Uganda that gathered quantifiable indicators and qualitative descriptions using a standardized instrument. This article presents provider perspectives on the challenges of obtaining consent, protecting confidentiality, providing counselling and helping clients manage disclosure. It also explores health workers' fear of infection within the workplace and their reports on discrimination against HIV clients within health facilities. HIV care providers in Burkina Faso, Kenya and Uganda experienced substantial rewards from their work, including satisfaction from saving lives and gaining professional skills. They also faced serious resource constraints, including staff shortages, high workloads, lack of supplies and inadequate infrastructure, and they expressed concerns about accidental exposure. Health workers described heavy emotional demands from observing clients suffer emotional, social and health consequences of being diagnosed with HIV, and also from difficult ethical dilemmas related to clients who do not disclose their HIV status to those around them, including partners. These findings suggest that providers of HIV testing and counselling need more resources and support, including better protections against HIV exposure in the workplace. The findings also suggest that health facilities could improve care by increasing attention to consent, privacy and confidentiality and that health policy makers and ethicists need to address some unresolved ethical dilemmas related to confidentiality and non-disclosure, and translate those discussions into better guidance for health workers.

**Keywords** Attitude of health personnel, Burkina Faso, confidentiality, consent, counselling, delivery of health care/standards, disclosure, HIV/AIDS, HIV infections/diagnosis, Kenya, Uganda

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## KEY MESSAGES

- Health workers who provide HIV testing and counselling in Burkina Faso, Kenya and Uganda face challenges related to material and human resources and need support to deal with emotional demands, ethical dilemmas and protection against HIV exposure in the workplace.
- HIV testing and care at health facilities can be improved by increasing attention to consent, privacy and confidentiality.
- Health policy makers and ethicists still need to address some important unresolved ethical dilemmas related to confidentiality and non-disclosure and to translate those discussions into better guidance for health workers.

## Introduction

The dramatic scale-up of human immunodeficiency virus (HIV) testing, counselling, treatment and care throughout sub-Saharan Africa in the past decade [World Health Organization (WHO) 2011a,b] raised questions about whether resource constrained health systems would be able to ensure patients' right to consent, confidentiality, counselling and quality of care (April 2010). A limited but growing evidence base has included research on how closely service providers follow HIV testing guidelines in high-income (Burke *et al.* 2007; Jain *et al.* 2009) and low-income settings (Sheikh *et al.* 2005; Datye *et al.* 2006; Angotti 2010; Sheikh and Porter 2011), but researchers have called for more attention to perspectives of HIV service providers to improve care and strengthen protections for human rights (Obermeyer and Osborn 2007; Maman *et al.* 2008; Deblonde *et al.* 2010; Sheikh and Porter 2010; Winestone *et al.* 2012).

The Multi-country African Testing and Counselling for HIV (MATCH) study investigated client and provider experiences with HIV testing and counselling in sub-Saharan Africa. This article presents the findings of one component of the MATCH study, a survey of 275 HIV service providers in Burkina Faso, Kenya and Uganda, which gathered qualitative and quantitative data about the perceptions, attitudes and practices of health workers in the three countries, with a particular focus on consent, confidentiality, counselling and helping clients manage disclosure. In addition, the study explored provider perceptions about the challenges of their work, fears of infection within the workplace and discrimination against clients living with HIV—all of which have implications for staff morale and the quality of care provided to clients.

### Health policy context

Burkina Faso, Kenya and Uganda have generalized HIV epidemics, with 2012 HIV prevalence estimates among adults aged 15–49 ranging from 1.0% in Burkina Faso to 6.1% in Kenya and 7.2% in Uganda (WHO n.d.). Before HIV treatment became widely available, most HIV testing occurred through client-initiated 'voluntary testing and counselling' (VCT), and the use of testing was low relative to the proportion who said they wanted to know their status (Matovu and Makumbi 2007; Mitchell *et al.* 2010). Over the past decade, testing and counselling expanded through various modalities in these countries, including VCT centres, national and regional testing campaigns, home-based testing and mobile services (Alsop 2010; Grabbe *et al.* 2010; Lugada *et al.* 2010; Menzies *et al.* 2009; Tumwesigye *et al.* 2010; UNAIDS 2012). However, much

expansion occurred through the introduction of routine provider-initiated testing and counselling (PITC).

Policies around HIV testing in these three countries have evolved differently (Obermeyer *et al.* 2013), but all three have national guidelines calling for routine PITC within clinical settings, including antenatal care (ANC), tuberculosis services and hospital inpatient settings. In Kenya and Uganda, scaled-up PITC began even before 2007 WHO guidelines recommended PITC in all clinical encounters (WHO and UNAIDS 2007); PITC scale-up occurred somewhat later in Burkina Faso, beginning around 2007, though it was available earlier in some health facilities (Bassett and Walensky 2010; UNAIDS 2012). While Kenya and Uganda benefited from substantial US President's Emergency Plan for AIDS Relief (PEPFAR) funding (PEPFAR 2011), Burkina Faso expanded HIV services through a unique network of community-based organizations, partnered with government and international Organizations (Some 2003). As a result of these efforts, the number of health facilities offering testing in these countries rose rapidly (WHO 2011a,b). For example, between 2000 and 2009, the number of testing sites in Kenya increased from 3 to more than 4000, and the percentage of health facilities offering routine PITC increased from zero to an estimated 73% of facilities (Kenya National AIDS Control Council 2010).

Evolving guidelines, laws and policies accompanied the expansion of HIV testing and counselling. In all three countries, policies emphasize the importance of medical confidentiality but include provisions for involuntary partner notification. One provision of the 2008 national guidelines for HIV testing and counselling in Kenya (issued around the time this study was conducted) states that written consent is required before a health care provider can reveal a client's HIV status to a third party, but another provision of the same guidelines states that health workers may disclose without consent if a risk of HIV transmission exists. In 2008, the National Assembly in Burkina Faso passed legislation that changed the rules governing medical confidentiality, mandating disclosure of HIV positive status to sex partners, and criminalizing non-disclosure under certain circumstances—prompting concerns about human rights (Sanon *et al.* 2009). Uganda has considered similar legislation. These changing policies sometimes translate into guidelines for health workers that are somewhat unclear or contradictory (Maman *et al.* 2008).

This article examines providers' experiences in the context of the rapid expansion of HIV testing and counselling, limited funding, infrastructure and human resources for health services and changing policy and service environments. We focus on the extent to which health providers' practices are consistent with

the principles behind the '3-Cs', which refer to the need to ensure consent, protect confidentiality and provide appropriate counselling along with HIV testing. The 3-Cs framework is central to HIV testing guidelines and was used in the analysis of client data from the same MATCH study (Obermeyer *et al.* 2012). In addition, we explored provider perceptions about the challenges of their work, how they help clients manage disclosure, their fears of infection in the workplace and observed discrimination against clients by colleagues. These findings are used to highlight key issues and ethical dilemmas that policy makers and health systems should address in the region.

## Methods

In 2008–09, researchers gathered data for this study among providers working in the same health facilities included in the client MATCH study.

As described elsewhere (Obermeyer *et al.* 2012), in each country (Burkina Faso, Kenya and Uganda), a MATCH research team with local knowledge of HIV services available in that country drew up a list of the main health facilities providing HIV testing services in the capital city and in one rural province or district. These purposive lists included dedicated VCT centres as well as facilities that integrated HIV testing into other health services, such as ANC, tuberculosis treatment and inpatient medical care, henceforth called integrated sites.

The distinction between integrated sites and VCT centres was not always clear-cut, because some VCT centres were located on hospital grounds and offered both provider- and client-initiated testing. The questionnaire included more detailed questions for respondents in integrated services, including questions about the challenges of providing HIV testing and counselling and levels of observed discrimination, based on the premise that the experience of offering PITC in integrated sites involves distinct challenges related to obtaining consent and balancing HIV testing with responsibility for other types of health services. Overall, participating facilities included 32 facilities with integrated services and 12 VCT centres.

Virtually all facilities were understaffed, and health workers could not always take time to participate in research, so it was not possible to conduct a systematic sample. Initially, researchers contacted those in charge of each facility to explain the study and request approval. To ensure that interviews would not disrupt service provision, those in charge at the facility helped with recruitment and researchers interviewed all available providers who were willing to participate. This was, therefore, a sample of convenience, but an effort was made to include as many providers as possible from the selected facilities, including male as well as female providers, and all cadres involved in testing.

A total of 111 providers in Burkina Faso, 60 in Kenya and 104 in Uganda participated in the survey, for an overall total of 275 respondents.

Research staff not associated with the facilities interviewed providers in French in Burkina Faso and in English in Kenya and Uganda. The standardized questionnaire included closed and open-ended questions and lasted an average of 1 h 20 min. Data were collected on respondents' socio-demographic

characteristics and their perspectives about providing HIV services. Data on quantifiable indicators were recorded in pre-coded categories. Open-ended questions gathered more details about providers' experience with HIV testing in their own words, often eliciting reasons for or examples to illustrate previous responses to closed-ended questions (see supplementary Table 2 indicating which key questions were open-ended). To explore discrimination against HIV+ clients, researchers asked respondents about their colleagues' behaviour to overcome respondents' likely hesitation to disclose their own discriminatory actions. Similar approaches have been used by previous studies on this topic (Jean-Baptiste 2008) and by research on other sensitive issues (Yeatman and Trinitapoli 2011).

Because of resource constraints and the large numbers of interviews, researchers determined that recording the interviews was not feasible, so interviewers were trained to transcribe responses during the interview as close to verbatim as possible. Informed consent was obtained from all respondents. The study was cleared by institutional review boards in each country and by the WHO ethics review committee.

Responses to open-ended questions were analysed and categorized by theme. All textual responses from Burkina Faso were analysed in French, but quotes were translated into English in this article. The themes that emerged from health worker narratives were recorded by the lead author (S.B.) and discussed with the corresponding author (C.M.O.). A descriptive analysis was carried out on the qualitative data generated by the open-ended questions. Where feasible, textual responses were quantified and tabulated, using simple frequencies. In addition to regrouping textual responses by theme, the texts were also repeatedly reviewed, and illustrative quotes were selected to show provider perspectives on key issues.

## Results

In this study, 70% of respondents reported working in an integrated site, 30% in VCT centres. Most (75%) were female; the average age was 35–37 years, with male respondents generally younger; 53% were nurses or midwives, 36% were counsellors and about one-tenth had another job title, such as clinical officer or community agent. Overall, respondents had worked at their facility for a median duration of 3–5 years (see supplementary Table 1).

### Providers' views on testing and counselling

Respondents at integrated facilities were asked an open-ended question about what challenges they faced in their work. Many cited resource constraints, including: heavy workloads and understaffing (44%), lack of space/privacy (20%), shortages of test kits (19%) and shortages of other supplies (14%). Some (17%) cited clients' refusal to believe/accept results. Less frequently, respondents mentioned language barriers, lack of male involvement and ethical dilemmas related to discordant couples.

When asked whether their job presented non-financial rewards, the vast majority (80%) of respondents at all facilities said yes (88% in Burkina Faso, 97% in Kenya and 58% in

**Table 1.** HIV service provider perceptions about the difficulty and length of HIV counselling

	Burkina Faso N = 111		Kenya N = 58		Uganda N = 98		Total N = 267	
	n	%	n	%	n	%	n	%
Do you feel well prepared to provide counselling?								
No	17	15.3	2	3.4	16	16.3	35	13.1
Yes	94	84.7	56	96.6	81	82.7	231	86.5
Difficulty of providing counselling								
Very easy	1	0.9	4	6.9	3	3.1	8	3.0
Quite easy	44	39.6	26	44.8	55	56.1	125	46.8
Quite difficult	61	55.0	25	43.1	40	40.8	126	47.2
Very difficult	2	1.8	3	5.2	0	0.0	5	1.9
Refuse/don't know	3	2.7	0	0.0	0	0.0	3	1.1
Duration of pre-test counselling								
Too long	14	12.6	4	6.9	2	2.0	20	7.5
Just right	72	64.9	43	74.1	66	67.3	181	67.8
Too short	22	19.8	5	8.6	25	25.5	52	19.5
Refuse/don't know	3	2.7	6	10.3	5	5.1	14	5.2
Duration of post-test counselling								
Too long	15	13.5	3	5.2	15	15.3	33	12.4
Just right	85	76.6	45	77.6	67	68.4	197	73.8
Too short	9	8.1	4	6.9	10	10.2	23	8.6
Refuse/don't know/missing	2	1.8	6	10.3	6	6.1	14	5.2

Uganda). When asked for an example of these rewards, some mentioned gaining additional skills and work experience. Many spoke about the emotional satisfaction of helping people, as did a female counsellor from Uganda: "I feel happy when the clients get their results and they are helped to get the service they require", and a male clinical officer from an integrated site in Kenya: "when I see clients test and started on ARVs and looking healthy, that makes me satisfied." Some described patients who thanked them for saving their lives by helping them learn their HIV status.

Virtually all providers reported having received training on HIV/AIDS (except for five respondents in Burkina Faso and one each in Uganda and Kenya). Nearly all (265 of 275) respondents were personally involved in HIV counselling, and most (87%) of those who were said they felt 'well prepared' to provide HIV counselling (Table 1). Nonetheless, 49% said it was 'quite' or 'very' difficult. Most said the time devoted to counselling was 'just right', including 68% in regards to pre-test counselling and 74% in regards to post-test counselling.

### Attitudes and practices related to consent

#### Descriptions of the consent process

Health workers were asked whether consent for HIV testing was obtained verbally or in writing (Table 2). In Burkina Faso, virtually all respondents obtained verbal consent. Written consent was more common in Kenya (about one-half of providers) and in Uganda (two-thirds). There were large variations in the amount of time providers gave clients to decide: most health workers reported giving clients less than 15 minutes, and large proportions gave less than five minutes, including 46% in Burkina Faso, 53% in Kenya and 69% in

Uganda. On the other hand, health workers in Burkina Faso frequently reported giving their clients 'as long as required', in some cases up to several days.

Across all countries, just under half (45%) of all respondents reported having written guidelines for obtaining consent, including 29% in Burkina Faso, 53% in Kenya and 60% in Uganda. In Burkina Faso, however, about one-third of those who had guidelines said they were 'not very useful', compared with just one respondent in both Kenya and Uganda.

#### Challenges of obtaining consent

Health workers were asked whether they were 'always able to obtain' consent. Nearly two-thirds (63%) of respondents in Burkina Faso said they sometimes had difficulty obtaining consent, as did 14% in Kenya and 2% in Uganda. When asked why consent was sometimes difficult to obtain, providers mentioned patients who were too sick to consent, language barriers, women who felt they could not consent without consulting husbands or families, or patients who were afraid of finding out their status. In all countries, some providers described situations in which partners or family members brought someone to the facility for testing who was not ready or willing to test.

#### Obtaining consent in the context of provider-initiated testing

When researchers asked respondents in integrated sites: 'How do clients respond to your offer of HIV testing and counselling?', most described positive responses. As a female nurse/midwife stated, "most accept to be tested since we explain the importance of [the] test". Providers in Uganda described an

**Table 2.** Practices related to obtaining consent reported by providers who personally obtained consent as part of their work<sup>a</sup>

	Burkina Faso N = 111		Kenya N = 58		Uganda N = 83		Total N = 252	
	n	%	n	%	n	%	n	%
How is consent usually obtained?								
In writing	1	0.9	26	44.8	52	62.7	79	31.3
Verbally	110	99.1	32	55.2	31	37.3	173	68.7
How much time are clients given to consent?								
Less than 5 min	51	45.9	31	53.4	57	68.7	139	55.2
5–14 min	31	27.9	18	31.0	15	18.1	64	25.4
15–30 min	8	7.2	4	6.9	7	8.4	19	7.5
31–60 minutes,	0	0.0	0	0.0	3	3.6	3	1.2
More than 1 h	21	18.9	0	0.0	1	1.2	22	8.7
Are there guidelines for obtaining consent?								
No	79	71.2	27	46.6	31	37.3	137	54.4
Yes	32	28.8	31	53.4	50	60.2	113	44.8
How useful are the guidelines in practice?								
Very useful	11	9.9	24	41.4	31	37.3	66	26.2
Quite useful	10	9.0	5	8.6	17	20.5	32	12.7
Not very useful	11	9.9	1	1.7	1	1.2	13	5.2
No guidelines available	79	71.2	27	46.6	31	37.3	137	54.4

<sup>a</sup>All respondents in Burkina Faso said they personally obtained consent as part of their work. One respondent in Kenya and 20 respondents from Uganda said they did not. In addition, one missing value from Kenya and Uganda are not included in the denominator.

overwhelmingly positive, even “appreciative” response. As a female Ugandan nurse/midwife described, “They accept to be tested willingly and freely, to them testing is no longer a big deal”. Health workers described particularly positive reactions from symptomatic clients, “because most of them have [had] unexplained illness for a long time” (male clinical officer, Kenya). Several providers in Burkina Faso noted that women were particularly responsive when they understood that testing would benefit their child, as did a female counsellor saying: “when we speak of saving their baby, they readily accept”. A few providers in Uganda suggested that while women almost always responded positively, men were more resistant.

No respondents reported testing clients who refused or were not given the opportunity to accept, but when answering the question about how patients respond to the offer of HIV testing, a few described pressuring clients to test. One female clinical officer in Kenya explained, “Some are willing and others require a lot of convincing”. A few providers in Kenya and Uganda acknowledged that some clients felt “forced”, and one female counsellor in Kenya described telling clients that testing was mandatory: “they accept once you explain to them that the test is mandatory at ANC”.

When asked to describe a situation in which it was difficult to obtain consent, several providers in Burkina Faso described having long discussions (sometimes over many hours or days) with patients with symptoms of AIDS who were reluctant to test:

*“I knew a patient who [...] always returned ill [from tuberculosis]. I suggested that he take the HIV test. He told me that even if the good lord descended, he wasn't going to take the test. It was*

*after several hours of discussion he finally accepted because he had understood that I only wanted what was good for him.”* (Female counsellor, Burkina Faso)

In addition, a majority (63%) of respondents in Burkina Faso, 8% in Kenya and more than one-third (35%) in Uganda said that clients do not always receive their test results. When asked why clients do not receive their results, some providers described delays in generating test results, but in most cases, providers suggested that some clients did not really want to test, despite having consented. As a female counsellor in Uganda explained, some women “accept to test in order to receive other services, but after the blood is drawn they run away because they do not want to know their results”.

#### Attitudes about consent and mandatory testing

Over half (56%) of respondents in both facility types said ‘yes’ when asked whether there were circumstances in which someone other than the patient could consent on their behalf, most commonly when the client was a child, unconscious, sick or disabled. Overall, 63% said ‘yes’, when asked whether some people should have mandatory HIV testing. When asked who should have mandatory testing, respondents most frequently mentioned pregnant women, sex workers, the very ill, those about to be married, rapists and—in some cases—everyone.

When asked why these groups should have mandatory testing, respondents cited the need to protect others from HIV transmission: “to protect the life of the unborn” (male counsellor, Kenya), “to prevent further spread [among...] couples” (female nurse/midwife, Uganda), or in a few cases, to ensure that health workers knew to use additional precautions. But many

**Table 3.** Perceptions about disclosure and confidentiality of HIV test results

	Burkina Faso N = 111		Kenya N = 60		Uganda N = 104		Total N = 275	
	n	%	n	%	n	%	n	%
If someone has HIV, do you think there are people who should be told? <sup>a</sup>								
No	4	3.6	26	43.3	17	16.3	47	17.1
Yes	107	96.4	33	55.0	87	83.7	227	82.5
Are there circumstances when it is okay to tell people that someone is HIV+ against their will? <sup>b</sup>								
No	65	58.6	44	73.3	64	61.5	173	62.9
Yes	43	38.7	15	25.0	38	36.5	96	34.9

Notes: <sup>a</sup>One missing response in Kenya. <sup>b</sup>Two 'don't know' responses in Uganda.

respondents said that people should be tested for their own benefit, to ensure that they received appropriate care, as in: "so they can be...helped" (female nurse/midwife, Kenya) or "So that those found positive can be put on care and those [not] positive be told how to remain negative" (male nurse, Uganda).

### Attitudes and practices related to disclosure and confidentiality

Overall, a majority (83%) of all health workers said 'yes' when asked: 'If someone is HIV+, do you think there are people who should be told?', without specifying how disclosure should be done or by whom (Table 3). When those who said yes were asked who should be told (with pre-coded options, multiple answers allowed), 77% said sexual partners, 57% said close family and 21% said friends.

When asked to describe the barriers clients faced in disclosing their status, providers mentioned fear of stigma, rejection, abandonment, job loss, divorce and violence, particularly against women. A female nurse/midwife from Burkina Faso explained: "All the positive cases that we have had here are women who have refused to share their results because their husband will drive them away if they find out that they are HIV positive." A female counsellor from Uganda noted that as a result of disclosure: "some of the women are beaten and chased away from home". A few providers suggested that disclosure could be life threatening. One female nurse/midwife from Kenya explained: "some women fear their husbands can kill them, after accusing them of being unfaithful".

When asked about support for third party, involuntary disclosure, just over one-third (35%) of health workers agreed that there are circumstances when it is 'okay to tell people that someone has HIV even if that person does not want them to be told'. When those who agreed were asked why others should be told, some mentioned the need to help partners, family members, or unborn babies avoid infection, but the most common reason (spontaneously reported by about half) was to help HIV+ clients receive the care and support they needed from those around them.

While respondents were not specifically asked whether they had ever breached confidentiality, some respondents in all three countries spontaneously described having done so when asked why they agreed with involuntary disclosure in some

circumstances. Many of these narratives emphasized the need to inform family members to ensure that HIV+ clients received care, support or medical treatment such as: "When a client is in denial, the close people if disclosed to can help her to accept the status and start the treatment early enough" (female nurse/midwife, Uganda). Usually providers described telling family members, but one female Ugandan counsellor said she sometimes revealed patients' HIV status to local church leaders when a very ill patient was economically vulnerable because: "these people can give help if it arises".

A few respondents described breaching confidentiality to protect serodiscordant partners from HIV transmission. A female counsellor from Uganda explained: "If a positive person wants to marry a negative person, I go ahead and inform the negative person about the other's status". Some respondents described breaching confidentiality when there were other risks of harm to the clients or to others, including clients who appeared to be suicidal or at risk of physical violence by a partner who accused them of infecting them with HIV.

In contrast, many other providers described protecting confidentiality despite their belief that non-disclosure placed partners, children or clients themselves at risk. In fact, when asked about the main challenges to maintaining confidentiality, ethical dilemmas resulting from non-disclosure were the most commonly reported challenge in Burkina Faso, cited by nearly one in five respondents. Health workers sometimes described extreme levels of stress and 'internal suffering' (*une souffrance interne*) as a result. One respondent explained:

"I have two or three cases where one [partner] is positive and does not want to inform the partner they want to marry. [In this case] you cannot say anything because it is confidential; really it hurts because it is as if it was a crime you saw committed but you could not help prevent it." (Female nurse/midwife, Burkina Faso)

Some narratives acknowledged that the consequences of complying with strict confidentiality could be lethal:

"There are times when you don't sleep because of certain couples who do not share results. For example, I also do home visits and there is a married man whom I followed in the home. He kept his HIV status secret without informing his wife so that she too could

*be tested. It was only when his wife fell gravely ill that he brought her to do the test. But it was too late. She is dead. Therefore, such cases give you nightmares.*" (Male counsellor, Burkina Faso)

In Burkina Faso, a male nurse mentioned the changing rules governing medical confidentiality, saying: *"According to ethical principle [déontologie], we do not have the right to divulge the status of someone, otherwise one can be sued. But a law is in force today voted by the National Assembly to allow us to notify a partner"*.

### **Challenges of protecting confidentiality**

When asked: 'What are the main challenges you face in maintaining confidentiality', 41% of health workers said there were none, while others cited a wide range of issues. The most commonly mentioned challenge in both VCT centres and integrated sites was lack of private physical space for delivering results (31% of providers in Uganda and one-tenth in Burkina Faso and Kenya). In all three countries, some health workers described having to deliver HIV test results in places where they could be overheard by other patients, staff or relatives. In Uganda, providers said they sometimes deliver results where *"beds are too squeezed in the ward"* (female nurse/midwife) or *"the place is crowded"* (female counsellor). In Burkina Faso, providers rarely mentioned lack of individual counselling space, but often described counselling rooms that could not be locked, that were frequently entered by other staff looking for supplies, or that could be overheard from outside because high temperatures made it uncomfortable to close the door.

Respondents described lack of visual privacy as a challenge in all three countries, particularly when patients lost their composure when receiving results. As one female Ugandan nurse/midwife described, *"...the patient reacts by crying, people in the ward just know that she is positive"*. Some providers in Uganda noted that confidentiality may be compromised by giving negative results in public wards, and delivering positive results in separate areas. They also said confidentiality was sometimes undermined when patients were seen coming for services for HIV+ clients.

In all three countries, health workers described record keeping systems that made it difficult to maintain confidentiality, as noted by a female nurse/midwife in Uganda: *"some clients have gotten to understand the codes that we use and are busy reading others' cards and talking about them"*. On the other hand, some respondents in Burkina Faso said that they protected confidentiality by delivering results verbally, throwing away tests and making no written documentation of the results in patients' medical records. Without documentation however, patients sometimes did not receive the care they needed:

*"Here the real problem is that because of confidentiality, the results are not noted in the medical chart, it is difficult to know. The woman is thus discharged without her infant receiving nevirapine. We have often received remarks about this, but it is not our fault."* (Female nurse/midwife, Burkina Faso)

In all three countries, some health workers reported that colleagues were careless or inadequately trained in confidentiality, as did a female senior nursing officer from Uganda: *"Doctors do not mind about files...they take files and show to the*

*relatives...sometimes they just leave files on bed"*. Some respondents described co-workers gossiping about clients' status or trying to find out the status of clients whom they knew personally. Others mentioned that they themselves sometimes knew clients who came for testing, which raised confidentiality challenges.

Other commonly mentioned challenges included having to take special steps when clients did not disclose their status to family members, e.g. when health workers had to time home visits to ensure that a spouse was away:

*"It is the home visits, the weaning of the child. If the woman is doing well, it is fine. If she is ill, it is difficult. We have to [time the] visit when the husband is not at home, because she has not been able to share her results with her husband."* (Female counsellor, Burkina Faso)

Some respondents (most notably in Kenya and Uganda) described being pressured to breach confidentiality by husbands or other relatives *"demanding"* or *"insisting"* on knowing results of their clients. In some cases, partners or relatives even used threats or bribes. Reports of pressure from partners or relatives were (spontaneously) reported as challenges by 1 in 6 respondents from Kenya, 1 in 10 respondents from Uganda, and 3 of 111 respondents in Burkina Faso. Even when pressure to disclose a partner's status was not threatening, however, providers described complex challenges related to non-disclosure, such as:

*"When, say, a women tests alone, and the husband comes and wants to know her status, it becomes difficult because if you fail to tell him the results he may assume she is positive and this may cause problems in their marriage."* (Female peer counsellor, Uganda)

### **Fear of infection and discrimination against those living with HIV**

When asked whether they were concerned about getting infected with HIV in their workplace, a majority (60%) of health workers said yes, and 30% of all providers estimated that risk as moderate or high (Table 4). In each country, small but substantial percentages (5–11%) of providers said yes when asked whether they had been accidentally exposed to HIV at work in the past six months, and a majority (80%) said yes when asked whether they were concerned about getting other infections at work as well. When asked what infections they were concerned about, the most common response was tuberculosis.

Health workers in integrated facilities were asked whether they had observed colleagues engage in five specific forms of discrimination against HIV+ clients, namely: (a) abusing or treating a client with disrespect; (b) gossiping about a client's status; (c) ignoring or providing less care; (d) denying care and (e) using excessive precautions, such as latex gloves for non-invasive procedures. A minority (23%) of respondents reported having observed any of these discriminatory behaviours by colleagues (Table 5). In Burkina Faso and Uganda, the most commonly reported behaviour was excessive precautions, whereas in Kenya, it was gossip about a client's status. Reports of disrespect, abuse, denial of care or provision of less

**Table 4.** Percentage and number of health workers who said they were concerned about getting HIV or other infections in the course of their work

	Burkina Faso		Kenya		Uganda		Total	
	<i>N</i> = 111		<i>N</i> = 60		<i>N</i> = 104		<i>N</i> = 275	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Concerned about getting HIV in the course of their work								
No	52	46.8	18	30.0	38	36.5	108	39.3
Yes	59	53.2	42	70.0	65	62.5	166	60.4
Perceived risk of getting HIV from work								
Not concerned	52	46.8	18	30.0	38	36.5	108	39.3
Low risk	17	15.3	28	46.7	37	35.6	82	29.8
Moderate risk	33	29.7	7	11.7	14	13.5	54	19.6
High risk	9	8.1	7	11.7	12	11.5	28	10.2
Accidentally exposed to HIV past 6 months								
No	99	89.2	57	95.0	95	91.3	251	91.3
Yes	12	10.8	3	5.0	8	7.7	23	8.4
Concerned about getting another infection at work								
No	38	34.2	8	13.3	7	6.7	53	19.3
Yes	73	65.8	51	85.0	97	93.3	221	80.4

**Table 5.** Percentage and number of health workers at integrated testing sites<sup>a</sup> who reported specific forms of discrimination by colleagues against patients known or assumed to be HIV+

	Burkina Faso		Kenya		Uganda		Total	
	<i>N</i> = 72		<i>N</i> = 42		<i>N</i> = 78		<i>N</i> = 192	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Specific forms of discrimination								
Used excessive precautions	9	12.5	11	26.2	10	12.8	30	15.6
Gossiped about client's status	4	5.6	12	28.6	7	9.0	23	12.0
Ignored or provided less care	1	1.4	3	7.1	3	3.8	7	3.6
Denied care	0	0.0	2	4.8	1	1.3	3	1.6
Disrespected or abused client	1	1.4	3	7.1	4	5.1	8	4.2
Saw any of these behaviours								
None	63	87.5	25	59.5	59	75.6	147	76.6
Any	9	12.5	17	40.5	19	24.4	45	23.4

<sup>a</sup>These are facilities where HIV testing is integrated into the provision of other medical services. Only health workers who self-reported working at an integrated site (rather than a VCT centre) were included in the denominators, because those working at a VCT centre were not asked the question. One missing value for Kenya is not included in the denominators.

care were rare, reported by between 0 and 4 respondents in each country.

## Discussion

MATCH study findings suggest that HIV care providers in Burkina Faso, Kenya and Uganda experience substantial rewards from their work, including satisfaction from saving lives and gaining professional skills. Providers also face serious resource constraints, including staff shortages, heavy workloads, lack of supplies and inadequate infrastructure, though resources varied by site. These findings echo other studies from the region, including from Kenya (Turan *et al.* 2008; Mutemwa *et al.* 2013), Swaziland (Mkhabela *et al.* 2008), Uganda (Medley and Kennedy 2010) and a five-country study of the human

resources challenges of achieving universal access to HIV/AIDS services (WHO 2010a).

Accounts by providers suggested that testing clients without consent was rare, and most exceptions were limited to specific situations such as very ill patients and children. Providers' reports were consistent with the client interviews in the same settings, which found that the near totality consented to testing (Obermeyer *et al.* 2012). On the other hand, health worker narratives suggest that pressure to test and de facto mandatory testing occur in at least some facilities, and health workers' support for mandatory testing of specific groups, including pregnant women, appears to be widespread—reported by about two-thirds of respondents.

Health worker narratives suggest that many health facilities do not provide adequate physical, auditory or visual privacy for counselling and delivering results. Lack of privacy results not



only from deficiencies in the physical infrastructure of health facilities but also from overcrowding, staff shortages and patient flow policies. On the other hand, concern about confidentiality sometimes led providers to keep results out of medical records altogether, as reported in Burkina Faso, with the consequence that some patients received substandard care, and with possible implications for health planning systems that require estimates of resource needs to avoid drug shortages.

Fear of infection emerged as a challenge, with a majority (60%) of health providers concerned about workplace HIV exposure and nearly one-third perceiving their risk as moderate or high. The fact that more than 8% reported accidental exposure highlights the need to ensure universal protection in all facilities. These findings echo studies in Kenya (Turan *et al.* 2008) and Rwanda (Jean-Baptiste 2008), and emphasize the importance of ensuring support and supplies so that providers feel safe in their workplaces. Levels of observed discrimination against HIV+ clients in these settings were lower than those reported by older studies from Rwanda (Jean-Baptiste 2008) and Nigeria (Reis *et al.* 2005), but similar to a more recent study from Madagascar (Andrianasolo *et al.* 2011) and consistent with analyses of client interviews in the MATCH study (Neuman and Obermeyer 2013).

The majority (87%) of health workers felt 'well prepared' to carry out HIV counselling, a finding that reflects the perceived usefulness of training they received. One area that could have been explored in more depth was how training affected the experience of health workers in different settings, including the difference between formal vs on the job training, and how training could better anticipate the challenges that providers face.

Despite their perceived preparedness, health workers described many challenges, such as heavy emotional demands from their work or insoluble ethical dilemmas. Reports of anguish were particularly common in Burkina Faso, but were present across all countries. In addition to observing clients suffer emotional, social and health consequences of an HIV+ diagnosis, health workers regularly struggle with ethical dilemmas related to non-disclosure. On the one hand, they know that many clients (particularly women) have good reason to fear rejection, abandonment, divorce or violence if they disclose their status. On the other hand, when clients choose not to disclose, health workers must decide how to balance patient confidentiality with a duty to protect sexual partners and children from HIV transmission and to ensure potentially life-saving diagnosis and care for those who need it. Respondent narratives suggest a range of responses to these dilemmas: some providers choose to inform partners, family members or others (e.g. local church leaders) of clients' status even without their consent when they feel it is necessary to prevent transmission or to ensure care for patients. Others adhere to strict principles of confidentiality, even when they believe lives are at risk. These dilemmas have been described in other studies from the region, including from Cameroon (Njosing *et al.* 2011), Kenya (Turan *et al.* 2008) and Uganda (Nuwagaba-Biribonwoha *et al.* 2007). Angotti (2010, 2012) described how health workers in Malawi struggle with guidelines calling for strict adherence to confidentiality that conflict with local norms and values.

In some cases, contrasting responses to non-disclosure may reflect a lack of clear or useful written guidelines for consent or

counselling. This problem was more commonly reported in Burkina Faso (where nearly 80% of providers said they had no written guidelines or did not find them useful) than the other two countries, consistent with the fact that when this study was conducted, scaled up testing was still fairly recent in that country, testing guidelines did not include some key items from international guidelines (Obermeyer *et al.* 2012), and laws related to disclosure and medical confidentiality were in flux. Nonetheless, providers described ethical dilemmas related to non-disclosure in all three countries.

This study had certain limitations. Because samples were not representative of facilities or providers in each country, frequencies should be considered illustrative of health worker experiences, rather than generalizable estimates of the magnitude of specific attitudes and practices. The study was designed to combine qualitative and quantitative data in order to gain an understanding of the challenges faced by health providers. There are trade-offs to this approach: the relatively small sample size precluded more sophisticated statistical analyses, while the survey design did not provide the in-depth advantages of a purely qualitative study. Still, there is value in combining quantifiable indicators related to the 3-Cs, with narratives in respondents' own words, and we believe the results provide insights into the experiences of health workers.

Another limitation is that the situation on the ground is changing rapidly. The continuing expansion of HIV services and fluctuating levels of national and international funding are transforming service delivery (Nankumbi *et al.* 2011). New policies designed to address resource constraints are shifting certain testing and counselling tasks to lower level health professionals or lay workers, as documented in Kenya (Taegtmeier *et al.* 2011), Malawi (Bemelmans *et al.* 2010; Rasschaert *et al.* 2011), South Africa (Zachariah *et al.* 2009) and Zambia (Sanjana *et al.* 2009). As a result, the health care work environment is changing rapidly, and these data may not necessarily reflect the situation currently or in the near future.

## Conclusion

Clearly, resource constraints in sub-Saharan African settings present challenges for providers of HIV testing and counselling services, particularly in facilities where routine testing has been integrated into other medical services. These challenges have implications for consent, privacy, confidentiality, and the quality of care, as well as for providers' protection from infection. Health systems could do more to improve the physical infrastructure, human resources and care protocols/guidelines. Beyond increasing funding for health services in these settings, however, these findings suggest that quality of care and human rights protections could be improved by targeting specific concerns of health providers, including: better care protocols; patient flow and staff training that maximize consent, privacy, confidentiality and quality care; and record keeping systems that balance confidentiality with the need to document HIV test results. Better policies and supplies to protect providers from HIV exposure in the workplace, including universal precautions, are also essential.

Another implication of this study is the complexity of HIV counselling in resource limited settings. Policy makers and

ethicists need to give more attention to the ethical dilemmas that HIV service providers face, particularly in regards to non-disclosure. As others have noted, international and national guidelines have yet to resolve important ethical issues related to confidentiality, disclosure, serodiscordant couples and involuntary third party partner notification, particularly in low resource settings (Maman *et al.* 2008; Masiye and Ssekubugu 2008; Angotti 2012; Obermeyer *et al.* 2013). Some dilemmas may ease over time if treatment availability reduces HIV stigma and lowers barriers to testing and disclosure. In the meantime, however, health workers may need more nuanced guidance for helping clients manage disclosure. Health services need to ensure supportive environments for disclosure, to increase outreach to partners of women tested in ANC, and to provide counselling and psychosocial support for those who feel they cannot safely disclose. A recent WHO publication notes that “standards that define ‘good’ [HIV] counselling” are more difficult to regulate than those for HIV testing (WHO 2010), and the complexity of challenges that providers in this study describe illustrate why that may be.

In recent years, health care organizations have begun to develop and test ways to address the challenges of expanding HIV services in the context of severe resource constraints, using strategies such as task shifting, expanding the use of lower level health cadres and lay workers, reinforcing pre-service and on-the-job training, and improving health staff remuneration, as in Ethiopia and Malawi (Rasschaert *et al.* 2011); or improving standardized clinical guideline and training (Schull *et al.* 2010). In addition to these promising efforts, this study suggests that quality of HIV care could be improved by being more responsive to the perspectives of both providers and clients. While the ultimate aim is to benefit clients, quality of care is not possible without adequate support for providers, as acknowledged in the 2010 WHO publication that defined quality HIV testing and counselling (in part) as those services that “...meet the needs of clients and providers...” (WHO 2010b). Finally, as others have argued, addressing work environment factors that affect health worker retention, motivation, and job satisfaction is essential in settings where severe shortages of doctors, nurses and midwives pose serious challenges for achieving universal access to HIV/AIDS care (WHO 2010a).

## Supplementary Data

Supplementary data are available at *HEAPOL* Online.

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