

Assessment of utilisation of PMTCT services at Nyanza Provincial Hospital, Kenya



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ABSTRACT

The main objective of the study was to assess the utilisation of prevention of mother-to-child transmission (PMTCT) services among mothers registered for services at Nyanza Provincial Hospital in Kenya. A cross-sectional exploratory study was conducted, using both quantitative and qualitative approaches to collect primary and secondary data. The study population was 133 clients registered for PMTCT services. The study revealed that 52.4% of clients received PMTCT information at the health facility without prior knowledge about intervention, 96% waited for more than 90 minutes, and 89% took less than 10 minutes for post-test counselling. Knowledge of MTCT and PMTCT was inadequate even after counselling, as participants could not recall the information divulged during counselling. In addition, 80% of clients did not present for follow-up counselling irrespective of HIV status, and 95% did not disclose positive HIV status to spouses/relatives for fear of stigma, discrimination and violence. Inadequate counselling services delivered to clients affected service utilisation, in that significant dropout occurred at the stages of HIV result (31.5%), enrollment (53.6%), and delivery (80.7%). Reasons for dropout included fear of positive HIV result, chronic illness, stigma and discrimination, unsupportive spouse and inability to pay for the services.

Keywords: utilisation, PMTCT services, Nyanza Hospital, Kenya.

RÉSUMÉ

Le but principal de cette étude fut d'évaluer l'utilisation des services PMTCT parmi les mères inscrites aux services de l'hôpital provincial Nyanza. Une étude transversale et exploratoire a été faite durant laquelle les approches quantitatives et qualitatives furent utilisées afin de recueillir des données primaires et secondaires. La population d'étude furent 133 clients inscrits aux services PMTCT. Cette étude a montré que 52.4% de clients ont eu les informations sur le PMTCT au centre médical même sans avoir la connaissance préalable de l'intervention, 96% ont attendu plus de 90 minutes et 89% ont subi la consultation après le dépistage qui a duré moins que 10 minutes. La connaissance sur le MTCT et le PMTCT fut inadéquate même après la consultation, étant donné que les participants ne pouvaient plus se rappeler l'information qu'on leur a donné lors de la consultation. Ceci a aussi démontré 80% de manque de suivi après la consultation sans tenir compte du statut sérologique et 95% ne dévoilent pas leur statut sérologique positif à leur époux(se)/membres de famille de peur de stigmatisation, de discrimination et de violence. Les services de consultation inadéquats mis à la disposition de clients ont un effet sur l'utilisation de services, parce que un grand nombre de clients laissent tombé la consultation après les résultats du dépistage (31.5%), les inscriptions (53.6%) et le service rendu (80.7%). Les raisons de laisser tombé comprennent la peur de connaître son statut sérologique, les maladies chroniques, la stigmatisation et la discrimination, un(e) époux(se) qui n'offre pas de soutien et l'incapacité de payer pour les services.

Mots clés: utilisation, services PMTCT, hôpital Nyanza, le Kenya.

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Introduction

HIV/AIDS has had devastating effects and is currently a common complication of pregnancy worldwide with more than 600 000 children infected annually. Mother-to-child transmission (MTCT) of the virus is responsible for more than 90% of these cases in children under 15 years (UNAIDS, 2001). MTCT of HIV can occur during pregnancy, labour and delivery, or breastfeeding. During pregnancy about 5 - 8% of babies become infected through transmission across the placenta. Labour and delivery pose the greatest risk for transmission (10 - 20% of exposed infants). Breast-feeding also exposes the infant to HIV transmission particularly if prolonged (18 - 24 months). The additional risk of HIV infection when an infant is breastfed is around 15 - 25% (WHO, 2000). Feasible and affordable interventions now exist to reduce the rate of MTCT by 50% (Population Reports, 2000). The prevention of mother-to-child transmission (PMTCT) protocol begins at pre-test counselling, and continues through the HIV test, result, enrollment for the intervention and at hospital delivery. Hospital delivery ensures that both mother and baby receive the intervention (nevirapine) at the right time. Maternal nevirapine is administered at the beginning of labour, while the baby dose is given within 72 hours after delivery.

In Kenya the prevalence of HIV infection among pregnant mothers is estimated at 13% and is reversing the recent gains of child survival programmes, thereby increasing infant and child mortality rates (NASCO, 2001). In Kisumu previous sentinel reports have indicated high HIV prevalence (29%) among mothers attending antenatal clinics (ANC). An average of 5 000 mothers attend ANC annually at the Nyanza Provincial Hospital and are the beneficiaries of the PMTCT programme (Nyanza PGH records, 2002). Previous studies have indicated inadequate counselling and dropout at different service delivery points in the PMTCT protocol, posing the need for research to find reasons for such action (Chorba, 1999; Chopra, 1999; Mazhani, 1999; Moyo, 1999; Preble & Piwoz, 2000; UNAIDS, 2001). Citations used in this study are derived from published papers, grey literature, conference papers and reports from individual PMTCT programmes.

Coutsoudis, Pillay, Spooner, Kuhn and Coovadia (1999) found that MTCT knowledge was incomplete, as those interviewed stated that all mothers transmit HIV to

their babies through breastfeeding. Mothers lack information on the prevention of transmission of HIV from an infected mother to her child, as well as measures that exist to reduce the risk of transmission. Chopra (1999) concluded that health care workers needed additional MTCT training and support materials to enable them to provide counselling, appropriate information and advice to clients about HIV and breastfeeding options.

Literature on utilisation of PMTCT services is limited, and this study aimed to generate more information. The specific objectives of the study were therefore to assess the quality of counselling services delivered to PMTCT clients, and to identify possible causes of dropout at various service points in the PMTCT protocol.

Methodology

The study was conducted from February to May 2003 at Nyanza Provincial Hospital, which is a referral facility. The target population was mothers with information on PMTCT intervention. Participants were selected from counselling logbooks and ANC records. The idea was to select informants and documents that attempted to address the research objectives. Clients whose names did not appear in ANC logbooks were excluded from the study. Both quantitative and qualitative approaches were used to collect primary and secondary data. Data sources included review of logbooks, exit interviews, in-depth interviews, non-participant observations and testimonies on experiences. A total of 133 clients were interviewed based on informed consent, 103 of whom also participated in structured exit interviews on their experiences with counselling, to assess the quality of services delivered. An average of 10 clients were interviewed daily for 10 days based on the WHO recommendation of 100 clients when assessing drug use at health facility level (WHO, 1993). Systematic sampling was used depending on the counselling frame for each day, and every second client was interviewed on her experiences with counselling services. Interviews with health workers were not conducted due to time and financial limitations.

Semi-structured in-depth interviews based on informed consent were also conducted with 30 clients who dropped out at different service delivery points on their experiences that led to dropout at these points. Interviews were stopped once sufficient

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information was obtained and repetition ensued. Non-participant observation of ongoing activities enabled the researcher to confirm and verify information through triangulation.

Quantitative data were processed, tabulated, and analysed using SPSS version 11 to generate frequency tables and graphs. The results were presented as descriptive analysis and no attempt was made to arrive at statistical meaning. Qualitative analysis identified key ideas, differences and similarities, based on what was commonly mentioned in exit and in-depth interviews, and testimonies, and was supported by direct quotations.

The following definitions of terms were used:

- **Information source** was considered as the means by which clients receive PMTCT information and was measured by categorising different sources. The sources included health facility, radio, newspaper and others specified as schools, churches and *barazas*.
- **Waiting time** was considered as the time from when the client arrived at the hospital through the services until the exit. Standard waiting time is 90 minutes (NASCOP, 2002).
- **Service time** was considered as the time taken for all counselling sessions and other services the client is entitled to during her first ANC visit. It was difficult for clients to remember the time taken for each service delivered, thus post-test counselling time was considered as the last service that clients could remember easily. Standard counselling protocols prescribed an average of 25 - 30 minutes service time and a maximum of 5 clients per counsellor per day (NASCOP, 2002).
- **Privacy in counselling rooms** involves also maintaining confidentiality so that information regarding HIV status remains between the client and the counsellor. For adequate privacy in counselling rooms, the door and walls need to be closed to the roof. Only the counsellor and the client are expected in the room, and sessions may not be interrupted.
- **Dropout** is lack of compliance in the PMTCT protocol before reaching the intervention point when mother and baby receive nevirapine. The PMTCT protocol begins at pre-test counselling, and continues through HIV test, result, enrollment for the intervention and hospital delivery. Hospital delivery ensures that both mother and baby receive the intervention (nevirapine) at the right time.

Maternal nevirapine is administered at the beginning of labour while the baby dose is given within 72 hours of delivery.

Results

Information source

FIG. 1. DISTRIBUTION OF RESPONDENTS BY INFORMATION SOURCE (N = 103)

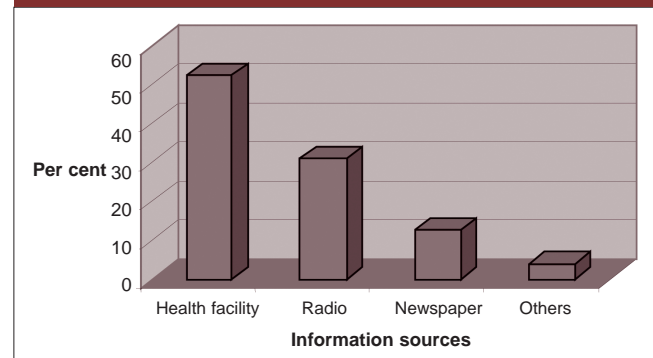


Fig. 1 shows the distribution of respondents by information source. More than half of the respondents (52.4%) obtained information from the health facility, 31.1% from radio, 12.6% from print media and 3.9% from other sources specified as schools and churches. In-depth interviews revealed limited information on the intervention even after counselling at the health facility.

Waiting time

FIG. 2. DISTRIBUTION OF RESPONDENTS BY WAITING TIME (N = 103)

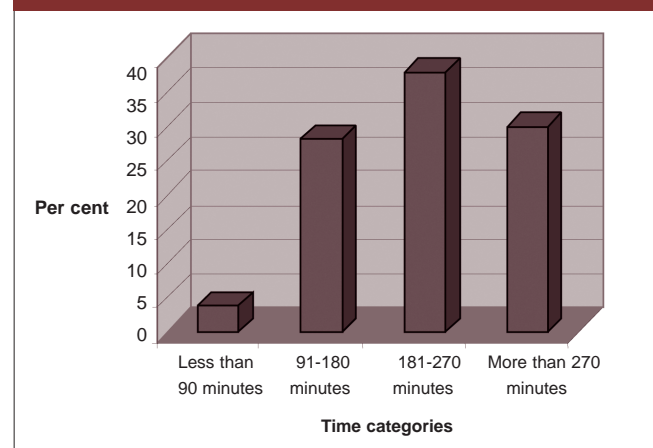


Fig. 2 shows the distribution of respondents by waiting time. Findings indicated that 30% of the respondents waited for more than 270 minutes, nearly half (38%) waited for more than 180 minutes, 28.1% waited between 91 and 180 minutes, and only 3.9% waited for

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less than 90 minutes. Average waiting time was 240 minutes. Non-participant observation revealed long queues at the ANC and services starting as late as 10 a.m. Clients were also seen leaving the facility late after receiving services.

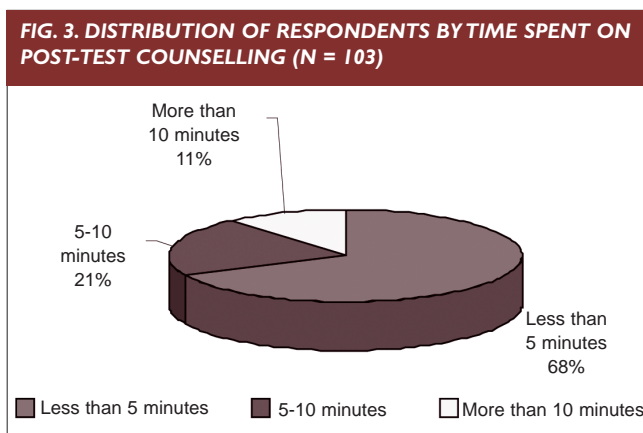
Service time

Fig. 3 shows the distribution of respondents by service time, for which post-test counselling was chosen as the time clients could easily remember, being the last service before exit. Findings indicated that 68% of the participants received less than 5 minutes of post-test counselling, 21% had 5 - 10 minutes, and only 10.7% had more than 10 minutes of post-test counselling. MTCT/PMTCT knowledge was inadequate as clients could not recall information given during counselling. It was also found that 95% did not disclose their positive HIV status: *'I cannot disclose my HIV status to my spouse because I fear for my life, physical beating and discrimination. He can even chase me from his home and if this happens where do I go at my age?'*

In addition, clients accessed counselling services only once during their first visit, and the vast majority (80%) did not return for follow-up counselling irrespective of positive HIV status. A client testified to not being helped: *'I went to the hospital for help because my husband is so hostile with me and does not want to hear anything to do with the hospital. I talked to one of the sisters and she told me to wait for matron who never turned up then I left without being helped.'* The review of counselling records also indicated that at times counsellors handled 6 times the recommended number of clients in a day.

Privacy in counselling rooms

Privacy in counselling rooms was considered good by most clients (97%), as indicated by a closed door and the presence of only 2 people in the room. However, non-participant observation revealed that health care workers periodically opened the door during counselling sessions and at times the door was only partially closed. Experiences of those with positive HIV results confirmed privacy and confidentiality were inadequate, as other clients knew the HIV results of their colleagues. A client disclosed that: *'I was lucky to have a non-reactive HIV result while other mothers were angry because HIV result turned out to be reactive.'*

Distribution by PMTCT service use and dropout rate

TABLE 1. PMTCT SERVICE USE AND DROPOUT BY SERVICE POINTS			
Variable	Category	Jan - Mar 2003	
		N	%
Registration	Service output	1 268	100
	Dropout	0	0
	Total	1 268	100
Pre-test counselling	Service output	1 129	89
	Dropout	139	11
	Total	1 268	100
HIV test	Service output	868	76.5
	Dropout	400	23.5
	Total	1 268	100
HIV result	HIV-positive	207	16.3
	HIV-negative	661	52.2
	Dropout (no results)	400	31.5
	Total	1 268	100
Enrolment	Service output	96	46.4
	Dropout	111	53.6
	Total	207	100
Delivery	Service output	40	19.3
	Dropout	56	80.7
	Total	96	100
Baby NVP	Service output	40	19.3
	Dropout	0	80.7
	Total	40	100

Table 1 shows PMTCT service use and dropout by service delivery points. Clients' dropout was 11% before pre-test counselling, 23.5% for the HIV test, 31.5% for the HIV result, 53.6% during enrollment

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and 80.7% at delivery. Data were obtained from log books and registers at the ANC.

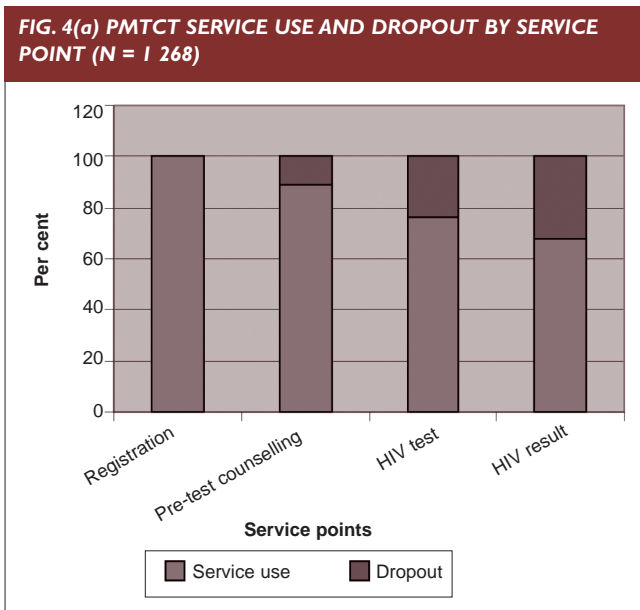


Fig. 4(a) shows service use and dropout from registration of clients to HIV result. Dropout was noted to increase from one service delivery point to the next, and reasons for the action included fear of a positive HIV result, unsupportive spouse, long queues and maternal illness.

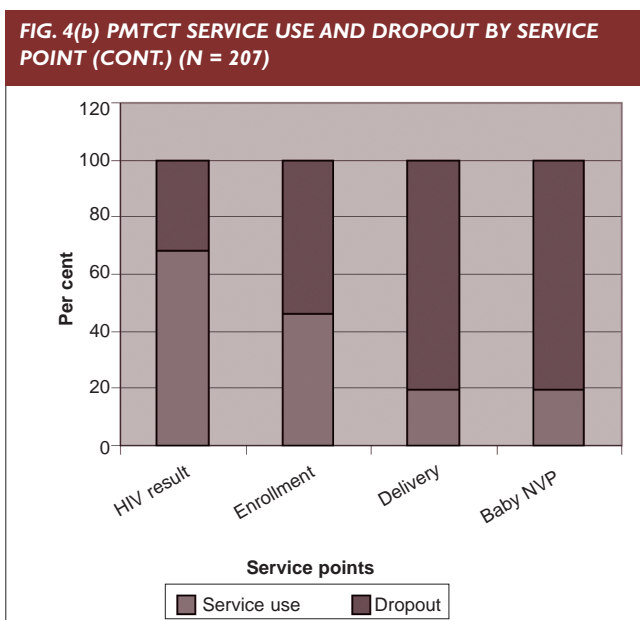


Fig. 4(b) shows that service use and dropout at enrollment for the intervention was 53.6%, at delivery 80.7% and at baby NVP 80.7%. Reasons for the action

included fear of a positive HIV result, illness, stigma and discrimination, and inability to pay for the services: *'I thought that all the investigations are done free so I did not ask my husband for money, thus I will come back another day.'* Review of hospital records revealed that 20% of the total waiver of services was for delivery charges from the maternity unit. Non-participant observation in maternity wards revealed that patients spent several days waiting to clear bills. The following quote captures a client's testimony on her experience of her HIV-positive status: *'My spouse became so hostile after I disclosed the HIV result to him, I have had problems at home from the time of testing my blood for HIV. At present I'm disturbed so much because he has put me on observations such that any time I leave home he asks whether I have gone back to the hospital for more information on HIV. He even took the tablets (NVP) I was given at the clinic for use when labour starts.'*

Discussion

Information source

Findings indicated that many clients (52.4%) received their first PMTCT information at the health facility, which indicates that community mobilisation is still inadequate in communicating PMTCT information. If clients got the information from the community, counsellors would spend less time conveying the message, thus reducing the cost of waiting time. Similar findings from a previous Kenya Demographic and Health Survey indicated that clients get information mainly at health facilities when they go for ANC services (KDHS, 1998).

Waiting time

Recall bias is a limitation of reporting on waiting time and could lead to misclassification bias. Almost all clients (96%) waited for services for longer than 90 minutes, which is regarded as the acceptable waiting time. The average waiting time in this study was 240 minutes, which is 150 minutes more than the acceptable waiting time. Non-participant observation revealed that services started as late as 10 a.m. and clients were kept waiting. This is likely to discourage potential clients from utilising services, resulting in low uptake because this initial experience negatively influences subsequent attendance, as explained by Bennett and Brown (1998). The long waiting time explains the cost of time lost when clients use PMTCT services, given that their household chores are not attended to when they leave their home or

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business. Client flow analysis conducted previously at the ANC Nyanza Provincial Hospital revealed that mothers spent 300 minutes waiting for the services (CDC, 2002). Skinner, Mfecane, Gumade, Henda and Dekenoo (2004) also indicated that a barrier to utilisation of services was the cost of services in terms of time and money. Raburu (2004) indicated that services started late and clients were kept waiting for long hours. These findings indicate that waiting time impacts negatively on the utilisation of PMTCT services, highlighting the need for policy makers to review strategies to reduce the length of waiting time.

Service time

Post-test counselling is meant to assist clients in disclosing positive HIV status. However the short time spent on this counselling for most clients confirms inadequate facilitation of this important task. During in-depth interviews clients could not recall information divulged on MTCT and PMTCT, even after counselling services. Findings indicated that inadequate information was passed to clients during counselling. A client confirmed this during interviews: *'There is nothing I was told, sister, it is only the drug that I was given to take when labour starts.'* Coutsooudis *et al.* (1999) and TICH-CARE (2002) also found that clients have inadequate information on PMTCT services, given that they could not recall the information communicated during counselling. Clients only made use of counselling services once during their first visit and not on subsequent visits irrespective of HIV status, suggesting limited rapport between providers and clients. Client flow analysis conducted at the ANC Nyanza Provincial Hospital revealed that mothers spent less than 60 minutes for all counselling sessions and other services (CDC, 2002). This finding is similar to that of Raburu (2004) and could be due to the fact that counsellors were overwhelmed with large numbers of clients, so that they ignored the prescribed counselling protocols. The standard requirement for counselling is a maximum of 5 clients per counsellor per day and a counselling time average of 25 - 30 minutes per session (NASCO 2002). Review of counselling records indicated that at times a counselor handled 6 times the recommended number of clients a day. Policy makers need to enforce adherence to counselling protocols to improve quality in utilisation of PMTCT services.

Privacy in counselling rooms

Privacy and confidentiality were inadequate in counselling rooms. Non-participant observation indicated partially closed doors and interruptions by other care providers during counselling sessions. This finding is also similar to that of Raburu (2004), where 92% of respondents lacked privacy in counselling rooms, as indicated by the presence of more than 2 people in the room. This violates client rights to confidentiality during counselling, in that counselling information should remain between the counsellor and counsellee only.

Dropout

Dropout was noted to increase through the different stages of the PMTCT protocol and was massive at HIV test, at enrollment and at delivery. During the initial stages (Fig. 4a) dropout reasons included long queues, fear of positive HIV status, an unsupportive spouse, and ill health. At later stages (Fig. 4b) dropout occurred due to inability to pay for services, stigma and discrimination. When a client has a positive HIV result she requires support from her spouse/family members to cope with the dilemmas and challenges experienced. Most clients (95%) did not disclose positive HIV results, thus making it difficult for relatives to support them.

Desmond and Boyce (undated) indicated that additional financing is required to meet the expenses needed for PMTCT utilisation at household level. In most cases spouses/relatives were unaware of the needs of HIV-positive clients who had not disclosed their status. A review of hospital records revealed that 20% of total waiver services were for delivery charges in the maternity unit. Non-participant observation in maternity wards indicated that clients spent several days waiting to clear bills. This was likely to create a negative impression of PMTCT utilisation, as a result of misinformation and rumours about high hospital charges. Raburu (2004) revealed that mothers often stay on after discharge from maternity wards waiting to clear bills. It is also not guaranteed that clients enrolling for ANC services automatically register for PMTCT services, thus 'the fact that clients use a preventive service does not translate into an equivalent benefit into programmes integrated alongside it or selected conditions' (Rodewald *et al.*, 1994, 33-39).

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A study documented by Kangwire (2002) in western Uganda showed high dropout rates through the PMTCT protocol. The PMTCT programme in Lusaka, Zambia also revealed high dropout along the route to the final intervention (Shiwale, 2003), as did a case study from Cameroon (Muko, Tchangwe, Ngwa & Njoya, 2004). Studies conducted in South Africa indicated that clients experienced stigma and discrimination through the PMTCT protocol (Skinner & Mfecane, 2004). Other studies of PMTCT programmes from developing countries have also reported increasing dropout trend in the PMTCT protocol and indicated that reasons for the action included fear of a positive HIV result, violence of spouses and inadequacy of counselling (Chorba, 1999; Kibuuka, 1999; Mazhani, 1999; Moyo, 1999). Reports from GTZ Kenya Migori PMTCT programme showed increasing dropout trend in utilisation of services (GTZ, 2003). CARE Siaya, Kenya PMTCT programme records also indicated low uptake of the services (CARE, 2002b).

Conclusion

Inadequate counselling services delivered to clients were found to affect service utilisation, as was indicated by long waiting times, short post-test counselling duration, lack of disclosure of positive HIV status, and lack of follow-up counselling for HIV-positive clients. Privacy was also inadequate in counselling rooms, exposing HIV-positive clients to stigma and discrimination. Substantial dropout occurred at the point of HIV result, enrollment and at delivery. Possible causes of dropout included fear of a positive HIV result, chronic illness, stigma and discrimination, an unsupportive spouse/guardian and inability to pay for services.

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