

# Counseling facilitates women's utilization of CD4 count testing in Lilongwe, Malawi

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## Background

Initiating antiretroviral treatment (ART) at lower CD4 levels is associated with poorer outcomes, including increased mortality, however individuals frequently wait to seek treatment until progression to an advanced disease stage. To increase early enrollment of HIV-positive women in ART programs, the UNC Project has introduced regular CD4 count testing up to 18 months postpartum through its prevention of mother-to-child transmission (PMTCT) clinics in Lilongwe, Malawi. Successful retention of women has proved challenging. This study examined factors influencing women's utilization of extended CD4 count testing offered through PMTCT clinics.

## Methods

**Study Setting:** Data collected at three antenatal clinics in Lilongwe, Malawi from June – August 2008.

**Population:** 19 in-depth interviews with pregnant HIV-positive women, CD4>250/ $\mu$ l  
9 in-depth interviews with HIV-positive women with CD4>250/ $\mu$ l at initial test, who returned for a follow-up test  
3 in-depth interview with social support persons identified by women who returned for a follow-up test  
17 in-depth interviews with CTA and government nurses  
5 in-depth interviews with government officials  
2 focus groups with community leaders

**Data analysis:** Coding and analysis conducted with NVivo 8. Produced text-based summaries for data reduction and synthesis.



## Results

### Demographic and Summary Information: Women

	HIV-positive Women (n=19)	HIV-positive Women, Returned for Follow-up Test (n=9)
<b>Average Age</b>	25 years (18-34)	28 years (18-38)
<b>Average Gestational Age</b>	25 weeks	N/A
<b>Marital Status</b>		
<b>Married, Living w/ Husband</b>	19	7
<b>Not married / Divorced</b>	0	2
<b>Educational Level</b>	None: 11% (2) Standard: 37% (7) Secondary: 42% (8) > Secondary: 11% (2)	None: 11% (1) Standard: 78% (7) Secondary: 11% (1)
<b>Literacy: Read &amp; Write Chichewa</b>	Not at all: 16% (3) Somewhat: 11% (2) Well: 11% (2) Very Well: 63% (12)	Not at all: 22% (2) Somewhat: 22% (2) Well: 33% (3) Very Well: 22% (2)

### Counseling: Information and Psychosocial Support

- Counseling was identified across groups as a critical factor in women's return for CD4 count test results & future tests, based on both information provision and emotional support.

*"The key is to make them understand the reason why you want them to come back... They have to see the importance of CD4 count testing in order for them to come back."* - CTA nurse

- Most women generally understood the purpose of CD4 count testing, and associated a high CD4 count with good health, but only a few understood the importance of early ART initiation.

*"You are able to know if your CD4 count is getting high and if it is then you are happy. You know that you are taking good care of your life."* - Woman who returned for a follow-up test

- Nurses and officials emphasized importance of treating patients with care and respect, and women appreciated warm and supportive interactions with staff.

*"We should also make sure we treat and care for them well, and show them that we value them so much – this is going to be very important for them."* - Government official

*"I am comfortable with them and I stay well with them... They welcome me well and I don't fear them and am comfortable with them."* - Woman who returned for follow-up test

- Nearly all women had disclosed their HIV-positive status to their husband and described his support as important to their ability to receive services

*"He would support [me] because I explained everything to him."* - Pregnant woman, Area 25

### Health Systems Barriers

- Proximity to services was valued, and transportation was identified as a possible barrier for women who did not live within walking distance.  
*"If you live far there is a problem."* – Pregnant woman, Area 25
- Reminders, including writing a return date in patients' passports, calling patients by phone and home visits, were perceived as helpful but were not widely employed.
- Staff identified challenges to tracking women and coordinating referrals from various sites on clinic or hospital grounds, including lack of awareness among non-CTA staff of CTA activities, challenges to identifying women and ensuring that women made it to CTA from other areas of the hospital.  
*"The problem is that most of us are not aware of the services that take place at the CTA."* - Outpatient nurse  
*"Unless we make all the services concerning children and mothers to be run under one roof so that these women can be easily tracked and referred."* - Outpatient nurse

## Conclusions and Recommendations

- Counseling is highly valued by women, and nurses appreciate the influence they have on their patients. Counseling should be taken as an opportunity to provide social support as well as education, with messages emphasizing the importance of starting ART soon after the CD4 count drops below 250/ $\mu$ l.
- Husbands are an important source of emotional and financial support. Clinics should focus on encouraging disclosure to husbands, increasing male partner involvement and expanding testing and counseling services to couples.
- Increased focus should be placed on case management, including exploring multiple mechanisms to provide reminders for return testing.
- Additional effort should be put into increasing awareness of CTA activities among non-CTA staff, encouraging positive staff interactions and to developing standardized hospital-wide referral procedures and ensuring the clear communication of those procedures to all staff.
- Follow-up CD4 count testing should be offered at multiple service points where pregnant and post-partum women are served.

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