MALE INVOLVEMENT IN THE PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV (PMTCT) PROGRAM IN KAYUNGA DISTRICT

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Acronyms

ANC  Ante-natal clinic
CCA  Community counselling aide
FSG  Family support group
HIV  Human Immune Virus
PHA  Person Living with HIV/AIDS
PMTCT  Prevention of mother-to-child transmission of HIV
PRECEDE  Predisposing, Reinforcing and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation
PROCEED  Policy, Regulatory and Organizational Constructs in Educational and Environmental Development
STIs  Sexually Transmitted Infections
TBA  Traditional Birth Attendant
UNAIDS  The Joint United Nations Programme on HIV/AIDS
VCT  Voluntary Counseling and Testing
**Operational definitions**

**Attitude:** The way male and female partners think feel or behave towards the involvement of males in PMTCT.

**Belief:** A commonly held understanding about male involvement in PMTCT and it’s consequences

**Behavior:** A specific, observable, often measurable and usually customary action.

**Environment:** The social, political or economic conditions that influences behavior.

**External policies:** Funders, principles or regulations that might influence an intervention.

**Internal policies:** Organizational principles or regulations regarding staff members, participants in the PMTCT program, specific procedures, methods, programs, collaborations, and professional ethics.

**Knowledge:** The information, understanding and skills that were gained through education or experience that supports or deters the involvement of males in PMTCT.

**Lifestyle:** A collection of related behaviors that go together to form a pattern of living.

**Involvement:** To take part in or to make somebody take part in the PMTCT program

**Reinforcing attitudes:** Feelings and behaviors of influential people that either support or deter the involvement of males in PMTCT.
Abstract

Male involvement in the prevention of mother-to-child transmission of HIV (PMTCT) Program in Kayunga District

Male involvement is an important recommendation in the implementation of the PMTCT program. It is measured by the number of male partners undertaking the HIV test in antenatal care (ANC) settings. This study hypothesized that it will be hard to achieve male involvement in PMTCT without a clear understanding of the men’s priorities, needs, beliefs and perceptions about HIV testing and PMTCT. Services which do not correspond to men’s own perceived needs are unlikely to attract men, and thus may not realize their desired involvement. This study therefore sought to evaluate and interpret the perceptions of a rural community towards the involvement of males in a PMTCT program. Focus group discussions, key informant interviews (KII) and in-depth interviews (IDI) were held with various categories of community members. The primary findings showed that the community were financially, physically and psychosocially involved in the support and care of pregnant partners. The male partners were aware of the HIV testing requirements at ANC, but competing priorities, lack of clear and direct benefits for men, availability of only woman-focussed facilities and services, multiple sexual partnerships and the presence of traditional healers influenced men’s perception about participation in ANC-based PMTCT programs. In order to improve on their involvement, male oriented health education program, infrastructural and staffing improvements to ANC facilities were suggested. Findings from this study indicate that for the recommended male involvement in PMTCT to occur reviews of the role of male partners in PMTCT, of the PMTCT communication strategy and of the systems in ANC settings will need to be conducted.
Introduction

Despite several decades of advocacy, awareness raising and investment in programmes to control the spread of HIV, the HIV global epidemic continues to grow-by 2008 an estimated 33.4 million people were infected, a threefold increase since 1990. With two thirds of the people living with HIV in Sub-Saharan Africa, the HIV epidemic in this region is outpacing the treatment and prevention response, which is partly explained by the lack of alignment between programmatic and financial HIV prevention needs and the prevailing prevention responses. Globally, prevention strategies have not addressed the key drivers of the epidemic and efforts aimed at addressing underlying social norms that hinder the capacity of individuals to prevent HIV infection remain weak thus a call to tailor HIV prevention responses to match the local needs[1-3].

In Uganda, UNAIDS estimated that there were 130 000 children aged 0 to 14 years, and 810 000 adults aged 15 and above living with HIV at the end of 2007; more than half of these adults were women[4]. Regional and gender variations in the prevalence of HIV have been observed in Uganda with a higher prevalence of HIV in urban areas (12.8%) in comparison to rural areas (6.5%) and a higher prevalence of HIV among women (8%) than among men(5%).Higher prevalence rates were also seen with increasing wealth quintiles[5]. Deterioration in behavioural indicators especially an increase in multiple concurrent partnerships is a cause for concern. In 2008, 37% of new infections were attributed to multiple partnerships while 35% were attributed to discordant monogamous couples. The Uganda AIDS Commission reports that, in spite of massive prevention efforts, social, economic, cultural and behavioral factors continue to drive women, men and adolescents into high risk sexual behavior-these factors include poverty and inequity. Poverty and inequity influence people to engage in commercial sex or transactional sex. Other factors that are mentioned are: gender and sex issues which increase the vulnerability of women to HIV; low condom use; polygamy; extramarital relationships; access to antiretroviral therapy; normalization of HIV/AIDS [6-7].

In addition to the factors driving the HIV/AIDS epidemic, UNAIDS reports that the sexual behavior and attitudes of men influence how quickly the epidemic spreads, because it is usually
the men, who determine when and how often to have sex, and whether a condom is used. Further, it is generally men who have multiple partners, and therefore more opportunity to transmit HIV to their partner [8].

Mother-to-child transmission of HIV resulted in 20,500 (18% of all new HIV infections) new infections in 2008[9]. Although increasing trends of PMTCT uptake have been observed since its introduction in 2000, high dropout rates still occur along the PMTCT cascade. PMTCT uptake according to the Ministry of Health in Uganda is hindered by several factors: socio-cultural gender norms that include low male involvement in reproductive health and multiple partnerships, poor referral networks and linkages, low community awareness, and prevailing stigma and discrimination in the community[9-10].

**Literature review**

**Male involvement in reproductive health**

In spite of men’s right to reproductive health[11], family planning and reproductive health programmes for many years focused on women. This was for the following reasons 1. Women were the ones who became pregnant, 2. Most contraceptive methods were designed for women- who were perceived to be more compliant patients and customers 3. Reproductive health services could be offered conveniently as part of maternal and child health services 4. Some family planning programs avoided serving men in the belief that many women needed privacy and autonomy in reproductive health matters; men were included mainly in vasectomy and condom distribution. Efforts to involve males in reproductive health begun in the early 1970s, by making women-oriented family planning clinics more inviting to men. These efforts were believed to be due to feminist movements. Feminist movements were concerned that although women were being blamed for excessive childbearing, anthropological literature showed that the locus of decision making resided in units larger than individual women- in couples, families and communities. Thus women’s use of contraception required social and cultural change. It was therefore thought important to involve men in reproductive health programs because:
1. Men’s health status and behavior affect women’s reproductive health. Involving them increases their awareness, acceptance and support to partners’ needs, choices, rights. In terms of HIV prevention all methods except for the female condom are male controlled, therefore there is a need to involve men in this domain.

2. Many of the decisions regarding reproductive health for example condom use are made within a set of gender relations that affect the decision or its implementation. Therefore it is necessary to involve both male and female partners in decision making.

3. Male involvement provides a positive climate to address emerging issues in sexual and reproductive health.

4. Involving men gives the opportunity for communication on the issue of equality between men and women. The process of empowering men, regarding reproductive health issues will help them to be more sensitive to women’s needs and therefore supportive of participating in efforts of enhancing women’s status.

5. Men have their own sexual and reproductive health concerns and needs which are not always met. The focus on male involvement only as a means to improve women’s reproductive health may cause an oversight of men’s own reproductive health needs[12-14]

More recently the rising global concern over the rapid spread of HIV/AIDS has opened discussion on male involvement with regard to sexual behaviour, partnerships and gender roles[15-16]. Programmes seeking to incorporate male involvement however have been criticised for limiting male involvement in reproductive health to male methods of family planning, focussing on males only ignoring the gender relations, decision making and related contexts; the negative premise that men are irresponsible, and the view of men as a route for women’s wellbeing, thus failing to address men’s needs[13, 17].

In view of these arguments the Cairo International Conference on Population and Development Programme of Action to male involvement and responsibility called upon understanding of men’s and women’s joint responsibilities in order that they become equal partners in public and private life and to encourage and enable men to take responsibility for their sexual and
reproductive behaviour. Actions to achieve this included the emphasis of men’s shared responsibility and the promotion of their active involvement in responsible parenthood, sexual and reproductive behaviour including family planning, prenatal, maternal and child health; prevention of sexually transmitted diseases including HIV; prevention of unwanted and high-risk pregnancies; shared control and contribution of family income, children’s education, health and nutrition; and recognition and promotion of the equal value of children of both sexes[13, 17].

Inspite of the call to for men to take responsibility for their sexual and reproductive health, the sexual and reproductive health needs of men remains poorly understood- In South Asia, men have been found to be concerned with psychosexual disorders[18] in the UK, men in a sexual health clinic expressed preference for confidential and quick services over medical expertise, rapid access or patient-centered services[19], while young men sought sexual health services primarily to remedy crisis situations such as symptoms of STIs, and to obtain condoms[20].

**Male involvement in prevention of STIs and HIV**

In 2008, the number of people living with HIV worldwide reached an estimated 33.4 million; and heterosexual transmission was the leading cause of HIV transmission in Sub-Saharan Africa [1]. Heterosexual men have been regarded as active transmitters of HIV and not active agents in prevention, conversely heterosexual women have been portrayed as especially vulnerable to HIV infection because of biological susceptibility and men’s sexual power and privilege[1, 21]. However there is a call to review this paradigm, and consider men’s own sexual health concerns in HIV/AIDS Programming[21]. A systematic review to determine the most effective methods of preventing the spread of HIV and other STIs in heterosexual men found that heterosexual men are rarely targeted separately in intervention efforts to prevent the spread of STIs/HIV; however where there were interventions in the workplace, military and STI clinics these were found to be more effective in reducing the incidence of STIs/HIV. Multiple methods were used such as onsite-counselling, HIV testing with individual sessions, mass communication approaches to risk reduction and multi-component motivation and skills
approaches in STI clinics some of the approaches that had been used in Africa to involve men in reproductive health programmes were formation of men’s clubs, running of male clinics, public sensitizations and workshops, group counselling for men with their pregnant partners, and development of policy guidelines. The challenges to male involvement were that men were at risk of reproductive health problems linked to puberty, substance abuse, sexual and domestic violence and infection with HIV and STI; men did not possess sufficient information and knowledge with regard to sexual and reproductive health; men in the region generally lacked interest in their partners' reproductive health; men were marginalized by the sexual and reproductive health services; most men do not actually accompany their partners to family planning or antenatal care consultations and during labor or delivery; and partner notification and treatment of STIs was difficult due to poor inter-partner communication and unequal balance of power relationships between men and women[14]. Men’s use of STI and HIV/AIDS services has also been influenced by their interpretation of the cause of illness for example in Zimbabwe men interpreted sexual-health concerns as due to either natural (disease, psychological stress) or supernatural (displeased ancestral and religious spirits, witchcraft) causes. These interpretations influenced their choice of treatment and health service provider. In addition dominant gender norms of resilience and self-reliance, together with shyness and embarrassment, were found to delay men's treatment-seeking, and HIV-related stigma was found to hinder men's help-seeking for sexual-health concerns particularly for sexually transmitted infections[22].
Male involvement in prevention of mother-to-child transmission of HIV

In 2008 mother-to-child transmission of HIV accounted for 390,000 new infections among children below 15 years of age in Sub-Saharan Africa. According to the Inter-Agency Task Team, male involvement is a critical component of the PMTCT program. Male involvement is necessary for improving women’s uptake of core PMTCT services; it is a key contributor to community acceptance and support of PMTCT. It has been linked to greater uptake of testing, greater uptake of antiretrovirals, increased condom use, increased communication and support for infant feeding choices. Male involvement is critical for primary prevention of HIV and for avoiding unintended pregnancy[10, 23-24]

Inspite of the acknowledged contribution of male involvement in increased uptake of PMTCT services, actual involvement of male partners in PMTCT programs in several counties of Sub-Saharan Africa is low and programs report difficulties in attracting the involvement of male partners.[10] [23, 25-32]. The involvement of male partners in PMTCT programs has been extensively studied and attributed to a wide range of factors: In Zambia, male involvement in PMTCT was influenced positively by increasing age of the male partner, and increasing level of knowledge of PMTCT [33]; the participation of men in carrying out sustainable HIV/AIDS interventions in rural Uganda was influenced by socio-economic, cultural and limited access to accurate information [34]. In DRC, male participation in ANC is considered a women’s domain[27]. In Malawi attendance of VCT services is hindered by lack of benefits when healthy, poor communication with partners, fear of stigmatisation, loss of hope among those unable to afford ART [29]. Attitudes of health workers and ANC clients did not favour male partner participation in ANC services in Mozambique [30]. Failure to recognise the community leadership of men, men as channels of information for other men, involving men from initiation of PMTCT program, woman centred services, leaving men with in adequate services hindered male involvement in program in Tanzania[26]. Elsewhere in Tanzania, lack of information/knowledge, lack of time, neglected importance of services, that services represented a female responsibility and fear of HIV test results hindered male involvement in ANC/PMTCT services[31]. In Botswana, the involvement of males in HIV prevention programmes is hindered by patriarchy, gender dynamics and the dual legal system of the
country which perpetuates male exposure, vulnerability and risk to HIV/AIDS and dictates their identity, health culture, health seeking / health preserving behavior. Intersections with structural, political, cultural, ethnic, racial, spatial and socioeconomic factors contribute to the current state[32].

To address these challenges PMTCT programs have devised various strategies of addressing low male involvement, however mixed results have been obtained. Increased participation in ANC and HIV testing was observed for group and individual counselling [27]. Letters of invitation to partners and also through employers [28, 35], verbal invitations through community health workers[35]. Saturday clinics for male partners[28], VCT education in men’s worksites, market places and provision of printed materials (flyers) [29]. Verbal invitations to male partners of HIV positive women [30] did not yield the expected increase in male involvement.

Although there are benefits of involving male partners in PMTCT programs, and male partners support PMTCT services[31, 36] the involvement of male partners has been low, and strategies to improve on their involvement have achieved mixed responses. This may be attributed to a disparity in the understanding of the definition of male involvement between programmers and targeted program recipients, for example while in ANC clinics in Durban, men were expected to accompany their partners to clinics for appointments, however less than a quarter of women were accompanied as required, but over half of the women described other support they received from their partners before and after delivery[24].

There is a need therefore for PMTCT programs to understand the prevailing perceptions towards the involvement of males in PMTCT in their communities; this understanding should enable programs to appropriately define and measure male involvement in PMTCT.
**Problem Statement**

In Uganda, the Ministry of Health policy advocates for HIV counseling and testing of male partners in ANC settings[37]. In spite of this policy, the proportion of male partners of ANC attendees testing for HIV in these settings is low; for example in Entebbe hospital one of the first hospitals to implement the PMTCT program in Uganda, from May 2002 to January 2006 only 1.8% of ANC attendees had male partners accepting the HIV test[38]. In Tororo hospital, a rural hospital in Eastern Uganda between December 2004 and September 2005 only 2.8% of the male partners attending ANC accepted the HIV test[39]. Such low male partner involvement at ANC, is thought to contribute to poor PMTCT uptake [10].

Inspite of the low male involvement, data on the beliefs, needs, priorities, and roles of males in the PMTCT program are limited and not fully documented. This paucity of information limits the development of appropriate strategies that may enhance male involvement in PMTCT programs, with a potential to increase the safety of both their female spouses and their unborn babies.

**Justification**

Male involvement is an important determinant of PMTCT uptake. However male involvement in PMTCT is influenced by socio-cultural norms, beliefs, attitudes and perceptions of the various communities. In order to improve male involvement in PMTCT in a given community, it is important to understand the perceptions, attitudes and beliefs towards the involvement of male partners in PMTCT, the cultural norms influencing male involvement in PMTCT, and the culturally acceptable strategies that can be adopted in order to improve male involvement in PMTCT. This study will inform the design of strategies that will seek to improve male involvement in the ongoing PMTCT program in Kayunga and similar neighbouring districts.

**Research objectives**

**General objective**

To understand the community perceptions towards the involvement of males in the PMTCT program in Kayunga district.
Specific objectives

1. To determine the role of males in PMTCT as perceived by community members, health workers and PMTCT service providers.

2. To determine the factors that hinder or encourage the involvement of males in the PMTCT program.

3. To determine the culturally appropriate strategies or policy regulations which if promoted may encourage male involvement in the PMTCT program.

Conceptual framework
In order to understand the community perceptions towards the involvement of males in PMTCT, the PRECEDE-PROCEED Model [40] was utilised. PRECEDE is the Predisposing, Reinforcing and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation and leads up to the intervention; PROCEED defines how to proceed a defined intervention; it spells out Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development. This model focuses on the community as the wellspring of health promotion, and is based on the premise that the change process should focus initially on the outcome, not on the activity. This model assumes that since the health promoting behaviours and activities that individuals engage in are almost always voluntary, carrying out health promotion has to involve those whose behaviour or actions one wants to change. Thus its application is a participatory process involving all stakeholders, those affected by the issue in question. The model assumes that health is by nature a community issue; that health is influenced by community attitudes, shaped by the community environment (physical, social, political and economic) and colored by community history. It also assumes that health is an integral part of a larger context, probably most clearly defined as quality of life, and it’s within that context that it must be considered and also that health is more than physical well-being or than the absence of disease, illness or injury. It is a constellation of factors-economic, social, political, ecological and physical—that add up to healthy, high quality lives for individuals and communities.
To understand the community perceptions towards the involvement of males in PMTCT, the four assessment phases of PRECEDE were undertaken as follows:

Phase 1: Identification of the ultimate desired outcome: this comprised a community’s definition of male involvement.

Phase 2: Identifying the issues and factors that might influence the outcome: this comprised a community’s assessment of the behavioural, lifestyle or environmental supports for and barriers to male involvement.

Phase 3: Identifying the predisposing, enabling and reinforcing factors that affect the behaviours, attitudes, and environmental factors identified in Phase 3 previously.

Phase 4: Identifying the administrative and policy factors that influence what can be implemented

PROCEED on the other hand focuses on implementation and evaluation of a designed intervention.
Precede model [40]

Phase 4 Administrative and policy assessment and intervention alignment
Phase 3 Educational and ecological assessment
Phase 2 Epidemiological assessment
Phase 1 Social assessment

Health Program
Educational strategies
Policy regulation organization

Predisposing
Reinforcing
Enabling
Environment

Male involvement

Phase 5 Implementation
Phase 6 Process evaluation
Phase 7 Impact evaluation
Phase 8 Outcome evaluation
Methodology

Study area
The study to define male involvement in PMTCT was conducted in Kayunga district in Central Uganda.

Study population
The study involved PHA groups, community members, community and facility based health workers, opinion leaders, PMTCT program staff, district staff and academia.

Selection criteria
1. Community members: Males and females in the community were stratified by age as follows: 18-34 years, and 35 years and older. These individuals who had ever been married and had experience a pregnancy and birth.

2. Health workers: These were medical personnel (nurses, nursing assistants, midwives, medical officers and medical doctors) and community health workers referred to as community counselling aides. They were all involved in education, promotion and delivery of PMTCT services in their communities.

3. Opinion leaders: These were elderly men, gatekeepers in the community.

4. PMTCT program staff: These were PMTCT program staff who are involved in management of the facility based and community based program.

5. Academia: These were individuals with research experience in health promotion from a public health and reproductive health departments.

6. District staff: These were the HIV/AIDS (PMTCT) focal person, and the health information management focal person.

7. HIV/AIDS groups: These were HIV positive individuals who were members of post-test clubs in their community.
**Study design**
A community-based exploratory study comprising qualitative methods of data collection.

**Sample size**

Fifteen focus (15) group discussions and twenty-two (22) key informant interviews and two (2) in-depth interviews were conducted with various categories of respondents as shown in the table below:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Data collection method</th>
<th>Number of groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly men (35+ years)</td>
<td>Focus groups</td>
<td>2</td>
</tr>
<tr>
<td>Elderly women (35+ years)</td>
<td>Focus groups</td>
<td>2</td>
</tr>
<tr>
<td>Younger men (18-34 years)</td>
<td>Focus groups</td>
<td>2</td>
</tr>
<tr>
<td>Younger women (18-34 years)</td>
<td>Focus groups</td>
<td>2</td>
</tr>
<tr>
<td>Opinion leaders</td>
<td>Focus groups</td>
<td>4</td>
</tr>
<tr>
<td>HIV/AIDS (post test) groups</td>
<td>Focus groups</td>
<td>2</td>
</tr>
<tr>
<td>Community health workers</td>
<td>Focus group</td>
<td>1</td>
</tr>
<tr>
<td>Health workers</td>
<td>Key informant Interviews</td>
<td>7</td>
</tr>
<tr>
<td>Community health workers</td>
<td>Key informant interviews</td>
<td>10</td>
</tr>
<tr>
<td>PMTCT program staff</td>
<td>Key informant interviews</td>
<td>3</td>
</tr>
<tr>
<td>District leadership</td>
<td>Key informant interviews</td>
<td>2</td>
</tr>
<tr>
<td>Academia</td>
<td>In-depth interviews</td>
<td>2</td>
</tr>
</tbody>
</table>
**Sampling procedure**
A purposive sampling method was utilised.

**Study variables**
The study examined the following aspects of male involvement:

1. The communities’ understanding of male involvement in a PMTCT program.
2. The behavioural, lifestyle, environmental (socio, political, economic) factors that hinder or encourage male involvement in the PMTCT program.
3. The predisposing and reinforcing factors (knowledge, attitudes, beliefs) that hinder or encourage male involvement in the PMTCT program.
4. The enabling factors (resources, services, laws, policies) that encourage male involvement in the PMTCT program.
5. The culturally appropriate strategies or policy regulations that may encourage male involvement in the PMTCT program.

**Data collection methods**
Focus group discussions, key informant interviews and in-depth interviews were utilized.

**Tools**
In-depth interview guides, focus group discussions guides and key informant guides were used.

All discussions from the key informant interviews and focus groups were audio recorded, interviewers made notes at the same time.

Once the discussions and interviews were completed, the data was transcribed and collated with the written notes.

**Data management and analysis**
The audio-recordings from the in-depth interviews and focus group discussions were transcribed and where necessary first translated from the local language into English.
Transcripts were entered in EZ text software. Transcripts were grouped by themes based on the PRECEDE-PROCEED model.

Results

Communities’ understanding of male involvement in PMTCT

Male partner involvement in PMTCT was interpreted to mean couple counselling and testing at ANC to enable support of PMTCT related decisions such as disclosure, risk reduction (reduction in the number of sexual partners, and condom use), family planning and infant feeding.

“To go with them to the health centres such that we, the men understand what problems the women go through and the support they need”, male respondent FSG.

“But me, I see it is good for a man and a woman to go for a blood test, and after knowing their status they will trust each other and this man will also be told about the things that are needed for a woman when she is about to give birth” elderly man, FGD.

“I have to be involved as a man to see how I can keep my child free, if we can stop our child from being breastfed so that we can keep the child alive. I think me as a man, if I do not come in, my child will be HIV-positive” younger man, FGD.

“In case my wife is pregnant, I should escort her to the health centre and we are all tested, and I should take the responsibility to look for money so as to assist this lady during delivery,” CCA, FGD.

“It is when the husband and wife go and test themselves before bearing a child,” Opinion leader, FGD.

However an equally strong perception was held that male involvement did not require couple counselling and HIV testing at ANC but male partners providing physical, psychosocial, and financial support to the pregnant partners in order to attain a healthy pregnancy and delivery. Some respondents (men) felt that they only needed to provide money for necessities such as delivery materials, food and transport to health facilities for ANC and delivery; and that in so doing they did not need to appear at the health facility with their pregnant partners. Others felt that physical support such as helping with household chores or providing a maid so as not to physically exhaust the pregnant partner comprised male involvement.
“According to me, it is not necessary moving with my wife to go and test, but to facilitate her financially to go and test herself from the health facility” elderly man, FGD

“As a man, to be involved in this program, it means the man helping his wife by taking her to the health centre and helping her with the household chores such that at the time of birth, she is not exhausted with work” younger man, FGD.

Health facility based and community based health workers (CCAs) emphasized that male partners were involved in PMTCT if they participated in every stage of the PMTCT program. This participation would have to start from attending health education talks and understanding pregnancy needs of their partners, to couple counselling HIV testing and mutual disclosure. These would then be followed by taking the lead in making relevant PMTCT decisions and supporting the female partner to successfully implement these decisions.

“…The men are involved in making the woman pregnant, after that at any stage of the pregnancy, the man must be involved; when the woman says I must begin at this stage to go to the health unit, the man must be there-when it comes to giving the health education talks, counselling the man must be there, the testing, giving results, to get results, accept them and own the results, to giving treatment; we are talking of infant feeding options, referral of cases that can’t be managed at the health unit-the men must be involved,” health worker 4.

“It means the man going for community sensitization meetings with their wives which helps to inform them of their respective responsibilities at home” CCA 4.

“For me I would say that it is that kind of support this man is providing to make sure that this woman accesses services, counselling, testing, delivering in a safe environment, access those drugs, in addition has he taken responsibility to know his status” respondent 40.
The academia felt that male involvement meant ensuring the participation of both the male and female partner in promotion of health; this participation could be physical, financial or moral.

“It’s a straight forward aspect where you want the men to participate in promoting health alongside their spouses and be advocates for things that affect health for both men and women...with participation it does not have to be physical, participation can be financial it can be moral support it is a broader thing”, academia1.

“to involve somebody is to make them to be part of the process, to be part of whatever you are doing.. the ideal would be to do couple counseling and testing so that both the man and woman know their status,” academia 2

Factors influencing involvement of male partners in the PMTCT program

Behavioural factors
According to the respondents, the community members preferred seeking care from traditional healers, traditional birth attendants and private midwives. At these facilities, clients were not required to carry a list of requirements, and the payments terms were more favourable in comparison to government run health facilities. Also HIV testing was not routine, thus male partners were unaware of their need to be involved in HIV/AIDS programs such as PMTCT.

“The presence of the TBA’s and clinics; these have diverted people’s minds instead of mothers going to health centre ... The men who don’t want to be tested for HIV opt for these; because at the hospital, testing is now a condition for would-be fathers to test for HIV /hospitals, they have resorted to going to deliver at the clinics and in the homes of Traditional Birth Attendants (TBA’s)”, elderly man, FGD

“Me I attribute this to the large number of traditional healers in the community. The traditional healers tell most of their clients that they have been bewitched, and yet someone could be suffering from HIV/AIDS. They don’t test their patients to know their status,” elderly man, FGD.
Men were perceived as negligent and sometimes stubborn, considering that they claimed to always be busy, yet would rather engage in leisure activities than participate in seeking services with their partners. It was mentioned that others would drop their wives at the health centre and ride away.

“The low involvement is simply out of negligence among the men. They claim to be so busy, and having no time for such” elderly man, FGD.

“Men are fisher men and their life style is that when they leave the water, they are stubborn and they just come back home to sleep, some of them during the day they prepare their nets, sell their fish although this is usually at the landing site, after they go to play "matatu”,” health worker 2.

“After making you pregnant and he helps and gives money for a book for first anti-natal the transport is your issue he will have played his part of making you pregnant. So you have to look after yourself until you deliver” younger woman, FGD.

“Okay now like us the married people men are a problem, the way you tell him that today you escort me, you tell him that, ‘today so and so’s father I want us to go to the health center’, he will refuse, and yet he sincerely knows that you are pregnant and you have been given a letter”, older woman FGD.

Lifestyles

A lifestyle of multiple sexual partnerships in the community was identified as a hindrance to male involvement in PMTCT, to the extent that men were afraid of being seen with either one or another of their sexual partners at the health facility; according to the respondents being seen with any one particular partner would stir up disgruntlement and accusations of favouritism; also if one female partner was known to be HIV infected this would ruin the man’s chances of maintaining several other relationships. It was known that some men were in illicit relationships and did not want to expose these relationships by being seen with their partner especially those men who had married under-aged girls.

“male involvement in the PMTCT program is very poor because men have many women /wives so when he escorts wife number one ,wife number two will get annoyed ,that’s why man have not got involved in the PMTCT program,” CCA, FGD.
“All I know is, since I also sit with men, what hinders men is that they have very many wives, and if he goes with one wife the co-wives will become jealous and begin to think that this particular one is loved more than them”, elderly man, FGD.

“another reason why men are not involved in PMTCT program most of these women are not properly married to them so they fear to be seen moving with them; when the parents of the girl see you moving with her they confirm that you are the one with their daughter,” CCA, FGD.

“some men fear to escort their women because they are not the same age. A man of 60 marries a girl of 16, he can be arrested at the health centre, and be penalized,” CCA, FGD.

Environmental factors

The requirement for couple counselling and testing and mutual disclosure at ANC, the fear of a positive HIV test result and possible subsequent stigma from the community deters male involvement in the program. Respondents perceived that male partners would normally rather wait for advanced AIDS disease than submit themselves to a ‘premature’ HIV test.

“The men fear stigma, in case he is tested and he is HIV-positive” elderly man, FGD.

“Infact some of them even have the time to come but they fear to be told that they are positive; they have that thing that they will wait for the hair to start falling off their heads”, health worker 2

The financial implications of participating in recommended PMTCT programs are a barrier to male involvement in PMTCT programs. Traditionally male partners are the bread winners in the home, and therefore any work- hours lost in a day, are likely to cost the family much needed income. Also according to the male partners because of the long distances to health facilities, and the elevated cost of transporting the couple to the health facility, male partners prefer to provide transport for the pregnant mother, or the mother and child alone.

“Some people say, ‘I have managed to get money to transport one person, then you tell me to escort my wife’... so the cost of living becomes a problem” health worker 4

“The type of employment that people have definitely matters a lot for example if someone is a taxi driver has woken up at 5am and you are going to... accompany your wife to be there and be able to work as
well and bring milk, and you know the type of work men do is sometimes different from the work that women do. The affluent become probably much more flexible than a worker at a construction site,“ academia 1.

Some men lacked the confidence to appear at the health facility with their pregnant partners because they felt that they would be singled out and despised because of their partner’s substandard poor dress-code. Others felt that the health facility demands for gloves and polythene sheets for examination of the pregnant partner, presented financial encumbrances.

"I am poor I cannot dress my wife as expected- so you find him saying if I go to the Facility, I will be singled out, they will look at my wife who is not dressed well and then they will try to know the husband of this woman,” health worker 4.

“They tend to say when they are there we tell them to buy things which are not at the facility,” health worker 4.

Predisposing factors

Attitudes
Respondents felt that pregnant women were a burden to their male partners, and their demand for accompaniment to seek services was familiarisation, an infringement of the male partner’s rights, and that it showed a lack of respect for their men; the sight of a male partner escorting his wife to the facility or being in the labour suite was stigmatising, it symbolised being under a woman’s control.

“Another thing I see is that their man feel as if it infringes on their human rights because if you tell him to escort his wife say on a bicycle he feels over burdened,” CCA, FGD.

“Men these days do not want their women to get used to them, with that talk of going with them to the health centre; they say it is lack of respect,” older woman, FGD.
“the man who is willing to participate will shy away because his fellow men are going to laugh at him that, ‘this one they put him in a bottle, imagine he is escorting the woman up to the labour, how can a whole man begin entering in the labour suite”, PMTCT program staff.

Fatalistic attitudes of some men were a hinderance to male involvement in PMTCT; for example some men claimed to be sure of their positive HIV sero-status and did not see any need to participate in health facility services with their wives.

“According to the research I did most men think they are already dead so they shall not accept to be tested...even if you counsel him now, he will say you're wasting your time...they can even say that they already have a line of four dead people do you think am still fine, even if you counsel how they won’t accept,” CCA, FGD.

Knowledge
Knowledge was both a deterrent and a support for male involvement. Conflicting views of how knowledge deterred male involvement were held in the community; some respondents felt that men’s knowledge of health facility procedures was a deterrent but other respondents felt that poor awareness of the PMTCT program was the deterrent to male involvement,

“Men don’t come, they don’t want to come stubbornly because they are aware and they know what is taking place; when a mother comes and you ask where is your partner she will say he dropped me there and he has gone to town; we tried to talk to some and they said, ‘we are tired of that . ...HIV is now normal we are tired of HIV everywhere’ ” health worker 1.

“Men avoid so much to escort women because they know that the health workers educate women” CCA, FGD.

“Then another thing, the lack of awareness, much as we have done these meetings, many people are not attending them, and many people are not interested/ many don’t really understand what we are talking about - so there is lack of awareness” health worker 3.
Knowledge of the benefits of male involvement in PMTCT was a support for male involvement. Respondents cited benefits such as: men learning about how to help their pregnant partners especially to have HIV free infants; improved knowledge and practice of risk reduction strategies e.g reduced sexual partners and condom use; improved disclosure and consequent reduced stigma resulting in ease of antiretroviral use; improved contribution of male partners towards material and financial needs of women; improved birth preparedness; improved financial, psychosocial support towards safe infant feeding practices; and secured marriages.

“Men participating in this program learn about helping their women, they understand the problem their wives go through. If we don’t participate in that program we shall not know. Our wives get problems in most cases when they are pregnant say, 8 months, at this time they should not overwork” respondent FSG, FGD

“We are now able to have HIV-free baby, even though the mother has HIV”, respondent FSG, FGD.

Beliefs
Some cultural beliefs deter male involvement, because they emphasize gender roles in such a way that men are not expected to help women.

“Like for us in Bukedi men normally don’t help their wives; so because most men here are from Bukedi they do not assist their wives. It’s not easy for them to reach here and change to behave like the Baganda” older women, FGD.

The belief that a positive HIV result for either partner implied promiscuity and would lead to a marriage or family breakdown deterred male partner involvement in PMTCT.

“The truth is, we try our best to see that we request them to go with us for testing, but the men are resistant. The men can decide to tell you that, ‘the moment I hear that you went to test for HIV that will mark the end of our relationship’, now really what are we going to do? FSG member FGD

“The difficulty is caused by we ourselves; assume I have tested HIV+ and the husband is negative (case of discordance) the home/family is likely to separate, and if it’s the man who is HIV negative he may even
strangle the woman to death, accusing her of promiscuity. These all lead to breaking up of families,” FSG member, FGD.

The belief that issues of sexuality, pregnancy and ANC are traditionally a woman’s domain was thought to deter male involvement in PMTCT.

“Well I could say that the issues of sexuality have been traditionally taken to be issues of women”, Academia 1.

“Pregnancy is a private issue...people do not talk about pregnancy openly in our culture, I do not know why but people don’t,” Academia 2.

“The ANC is traditionally not a place for men,” PMTCT program staff 3.

“these programs come targeting only women in most cases”, opinion leader, FGD.

Respondents held the belief that apart from testing for HIV, there were no benefits for men in ANC; for this reason it was suggested that men felt that they could test for HIV in VCT centres which provided a more private, user friendly atmosphere for HIV testing for men and men preferred to deal with the results first before disclosing to other people.

“No other benefits are actually given to these men when they come so they can’t sell the program...then we have the VCT centres and they are more user friendly,” PMTCT staff 3.

“I say it is there because a man may go for a test and there may be someone who will see that person”, younger men, FGD.

Reinforcing attitudes

The attitudes of health workers, community members and female partners deter male involvement for example women in labour and delivery are known not to want their male partners in the vicinity.

“I don’t think it is really cultural but I can say, many women they say during delivery, they cannot stand their husbands looking at them”, health worker 3.

“Then they say the language, the relationship with health workers- some say they use language which scares,” health worker 4.
“The most difficult is the original view of the Health workers and the men with regard to maternal health; for many years it was not an issue for a man. People were also interested in the woman coming for antenatal and the man would be outside,” health worker 3.

The protective effect of circumcision against HIV acquisition causes circumcised men to assume that they are not infected with HIV, thus that HIV testing and related activities are not relevant.

“Normally we have people who do circumcision and they are told that it reduces the risk of HIV infection and most of the community people are muslims, others are Bagishu by tribe, you know they do circumcision so I don’t know why maybe it refuses them. It can make them confident some come some don’t,” health worker 3.

Enabling factors

Health facility procedures which are often marked by delays or long waiting times hinder male involvement.

“They say we take long- those who come escorting their wives say we take long at the health facilities, they feel like staying for 10 minutes and they are out and they are right,” health worker 4

“Many people some are even doctors saying ‘me I cannot come sitting/lining there a whole day when I have other things to do!’... So many men think they cannot offer that time, they would rather go” health worker 3

Lack of customer care and attention for the male partners deterred male involvement in the facilities. Although men accompanied their partners to facilities, attention was given to the women, the men were left waiting without any responsibilities or service to keep them busy, so they felt left out of the program and chose to stop going to health facilities with their partners.

“Then in the health units there are some unfriendly practices for the men because even the few who come, you can see really only one man escorting his wife and when he reaches and he is the only man it becomes complex for him unless the health worker looks for him and comfort him,” health worker 3

“They used to say if they come they would come and sit there is nothing to keep men busy at the facility once we come with our wives, for them they are interested in our wives, for us they forget about us,” health worker 4.
The fact that the PMTCT program is delivered in health centres, where women and not men are more likely to go hinders male involvement in PMTCT. Similarly that the health facility structures were previously designed to accommodate females only, hinders the male partners from involvement in the PMTCT program.

“Most programs are found in the health centres where men rarely go. The women are common there because they usually take the children for treatment, vaccination (T.T) and attend antenatal clinics. But the men are usually busy with other issues, so when they receive education about the program back in the villages they get informed and involve those selves,” Opinion leaders, FGD.

“They used to be a say that men are not allowed beyond this point, that ended long time because some people may be having this in their mind and you find man saying for us there is a painting they tell us not to jump,” FSG member, FGD.

Policies

HIV testing has previously focussed on the individual knowing his/her status, and not on couple counseling and testing; this history of HIV testing was thought play a role in deterring male involvement in PMTCT. The presence of VCT centres also provides the opportunity for male partners to test on their own.

“Remember in the past when someone had to do family planning they both (partners) had to endorse it (decision), but these days I think to some extent because the wife or lady can decide on their own, the men can say after all she can do her own thing. Come to HIV you are not supposed to test as partners, for STDs it’s you alone and you are actually only requested if your partner should be told and you are consented as spouses”, health worker 7.

“Then we have so many VCT centers and they are more user friendly. They are not usually crowded, more confidential, you come in one way and go the other way, not to many people see your face, so men are more confident that way, they spend a shorter time”, PMTCT program staff 3.

The current PMTCT program utilises women as messengers of the invitation to men, this was thought to be a deterrent to male involvement because men do not wish to receive instructions from women.
“the programmers would encourage the men to come with their women how they will do it they will know but they come together instead of giving the woman to go and tell the husband. Culturally we know that the woman does not order the man, in some families the man will not do anything that the woman has suggested so what makes you a programmer tell a pregnant woman to tell her husband that the health worker wants to see you?” academia 2

Strategies to improve male involvement

Educational strategies
The following educational strategies were suggested for improvement of male involvement in PMTCT:

Health education for men in their communities at venues and times male partner feel appropriate.

“there should also be men activities targeting only men because at times they are difficult to capture there should be activities where men normally meet. The component of targeting men is really very important at health center, verandahs, Kibanda, trading center one can target them there. We are allowed sometime to talk to them, there should be interventions targeting men, when you give information targeting men then others will follow”, opinion leader, FGD.

“Timing–because many of them tend to be busy in the morning if the timing is in a way when they are not busy–When they come take shorter times; Places–some of them would wish to talk when they are alone, not with ladies, just like the women,” health worker 4.

“I would think that the government should put programs that sensitize the men. In order for the men to participate, they need to know the benefits of the program, through sensitization. That’s the only way I see to overcome that problem because we cannot say, put them in prison or beat them”, elderly man, FGD

Health education at health facility level that utilises men to address the needs of other men, for example use of men to reach men i.e. male counsellors, male champions, male PMTCT expert clients, local and religious leaders, respectable and well educated community health workers.
“What I am saying is that when you reach hospital the health workers are very busy taking care of those women who are sick, those due for antenatal and those who are delivering. So what should be done is to get a male CCA who would sensitize the men on all the components of PMTCT”, older women, FGD

“We have tried it in some places where we have trained male counsellors and it helps so if we could train more I think it would help,” health worker 3.

“Recruit more educated CCA’s we have CCAs some are not educated or better educated so when they reach the villages some people do not give them respect they know them from the ground. So when you send another CCA from another area and that CCA spoke to the couple, the next day that couple comes,” health worker 5.

“More sensitization of the local leadership who in turn inform the men; the men listen to leaders more than us…sensitization of the religious leaders such that they can inform the men in churches during days of prayers,” CCA 7.

“I think one thing should be: we should have messages directly to the men, you know there are many messages about HIV but they are not specifically for men, only for women but these men need to really be addressed,” opinion leaders, FGD.

“It can be improved if the male partners are sensitized. This is because when they attend the lessons concerning their responsibilities they can change their ways,” CCA 4.

It was suggested that outreach services organised at pre-designated locations, and that provide a wide range of services including couple counselling and testing, pregnancy checks, family planning counselling could encourage male involvement.

“Testing in the communities we get one site/spot where we can mobilise people on a mega phone and they come and then they are given information”, health worker 2

“I think I would be taking/organizing outreaches - antenatal outreaches in the community- many people / some may say that they don’t have the time but they can attend the community antenatal where they can come and have their tests done and have some information. Because in some place where we have had outreaches people come and really test,” health worker 3.
Home-to-home HIV testing for couples had previously been conducted in the community, with much success, for this reason it was envisaged that a similar program would result in increased male involvement.

“Improvement can be made when the man accepts couple testing of HIV so the men should be sensitized and educated about the program,” CCA 4.

“These men have been encouraged by this program that has just gone of the CIFF program home to home men used to come, men health workers used to find these people at home. They were both tested and they encouraged them to come and by that time we used to have many mothers and fathers,”

health worker 5

Regulation
Respondents suggested that a regulation mandating an HIV test for male partners presenting with female pregnant partners be put in place; this regulation would be applicable in all types of health facilities, private or public.

“I think these hospitals which are not for the governments should be stopped because there do not test blood, the law should be put that punishes those private clinics that don't mind about testing the couple for HIV at the time of pregnancy; so that when a man goes there it's a must he has to test blood,” FSG member, FGD.

Respondents felt that marriage counselling and school education curriculum needed to incorporate male roles and responsibilities towards a pregnant partner.

“Generally this program should also be talked about in schools so that people are brought up knowing that they have responsibility; people counsel people for marriages yet these things are not there, they are not reminded of they think it is a matter of getting a wife and she does everything”, opinion leaders, FGD.

“We need to look at our education institutions very carefully and eventually look at them as options for delivering our health issues; our education institutions must be exploited,” academia 1.

Respondents felt that male involvement could be improved if health facility procedures and regulations were made more accommodative for male partners.
“Making more friendly services at the facility first priority be allowed to enter where the wife has entered and if the woman doesn’t refuse allow him to have access to whatever the woman is going through,”

PMTCT staff 1.

“I think a man should be free to come into the room where his wife is going to give birth from, other than being ordered not to go beyond certain points in the labor room/ ward,” younger women, FGD.

Discussion
There is a need to re-examine what PMTCT programs want men to do, which they are not doing at the moment, and if there is a role for men, to clearly define it, otherwise within their traditional contexts men feel that they are doing much already to support a healthy pregnancy and a healthy child.

Some of the men in the study related male involvement in PMTCT to HIV testing and health education during ANC, while other men felt that male involvement related to the physical, psychosocial and financial support a man offered his pregnant partner and not necessarily to involvement in ANC procedures. Some men did not feel obligated to participate in ANC based procedures with their pregnant partners because pregnancy traditionally is a woman’s sphere of influence[41], ANC a woman’s domain [27], and the role of carers in healthcare is that of a woman[34]; thus men may seem detached from a woman’s pregnancy. Although such men are perceived as negligent and stubborn, the breadwinning role of men is a deterrent to their availability at health facilities[34]. Demanding therefore that men spend hours at facilities waiting for their partners to be examined, means that they will do so at the expense of the day’s income. The communities’ understanding of male involvement therefore is broader than the conventional PMTCT program definition that focuses on HIV testing for the male partner at antenatal clinics. This disparity in the definition and measurement of male involvement results in the poor results observed by PMTCT programs[10]. Therefore as earlier proposed by S. Maman et al, ‘the lens through which we recognize and measure male involvement in PMTCT needs to be broadened’[24].
The need to preserve masculinity and authority is a deterrent to male involvement in PMTCT [32]; men do not want to be seen walking with their partners to the health facility, because the community perceives that such men are under their partner’s control.

Hostile attitudes of health workers are a deterrent to male involvement [30]; traditionally nurses have barred men from coming near the labour rooms and delivery beds in a bid to protect the privacy of the women. As a result men who are aware of these restrictions prefer to keep away from their partners during pregnancy and birth related procedures in order not to conflict with health workers.

Although increasing levels of knowledge of PMTCT has shown a positive influence on male involvement[33], male involvement in PMTCT in this study was deterred by community awareness of procedures at the health facilities. Men knew that presenting at antenatal clinics with their partners for a routine pregnancy check also meant having an HIV test and this presented the following challenges: Firstly, the decision to undertake an HIV test is difficult for many men because in case of an HIV positive result there is no assurance of immediate treatment, care or other benefits. Non-male focussed ANC programs that leave men with inadequate services have resulted in low male involvement in PMTCT [26]. Thus, men feel that there is no reason for a premature investigation of their HIV status, at least not until they are very ill and AIDS is suspected. Even when AIDS is suspected the first line of resort is the traditional healer. It is estimated that 70% of the population in Sub-Saharan African accesses traditional healers as their first choice of health care. Traditional healers are held in high esteem as they are thought to provide the spiritual interventions required to bring about health improvements[42]. Although it has been demonstrated that traditional healers are able to incorporate HIV prevention in their clinical practice[43], there are challenges to successful collaborations between traditional and biomedical sectors [44].

Secondly a man accompanying his wife for ANC raises curiosity in the community about the results of the HIV tests, whether or not the tests were taken. This curiosity is raised because of the multiple sexual partnerships, results of one individual are a proxy indicator of the HIV sero-status of another sexual partner. Multiple concurrent sexual partners have been identified as
one of the drivers fuelling the HIV epidemic in Uganda[9] and the UDHS 2006 reported that in central regions of Uganda, men were likely to have more than eight sexual partners in their lifetime; the number of sexual partners increased with increasing wealth quintiles[5]. These partnerships are an impediment to male participation in HIV prevention services, as observed in this study; and as previously noted there has been insignificant funding for interventions that address underlying social norms[2]. Thirdly the fact that the male partner has tested with the wife will mean that he has to disclose to the wife, yet men traditionally disclose to their fellow men. Fourthly, fear of stigmatization in case of positive HIV test result is a deterrent for both men and women alike [29, 45]. Fifthly, although disclosure has resulted in partner support of adherence to PMTCT recommendations elsewhere[36, 45] from experience women know that disclosure of an HIV test result raises further questions on the reasons why they decided to take the test, and often has led to disruption of marriages; therefore women are reluctant to request their partners to participate in programs that require HIV testing, or even to present letters of invitation from the health facility because they would have to explain how they got to the facility, and what they shared with the health workers, leading to the invitation. Previous studies have also found that men are uncomfortable with reversed role of women as bringers of health information to the home and would prefer other men to provide such information[26]. The decision to take an HIV test is therefore one that is thought over very carefully and cannot be made instantly in a setting where no clear benefit for the man is at hand. Therefore as long as male involvement in PMTCT simply means that men accompany their partners and undertake an HIV test, then men will continue to resist participating in this program since it disrupts their social networks.

**Recommendations and conclusions for the PMTCT program**

A disparity in the definition of male involvement was observed between the community under study and the PMTCT programs, for this reason the definition of male involvement needs to be further discussed in order to accurately and appropriately measure the actual involvement of males in the PMTCT program.
A PMTCT communication strategy that clearly defines the roles of male partners, and benefits therein, and that uses culturally acceptable channels of communication is necessary for improved delivery of PMTCT information to the male population.

In order to improve partner relationships and communication, a concerted effort by HIV/AIDS programs, reproductive health programs and the educational sector is needed to address communication in families, behaviour change in prevention of STIs including HIV/AIDS and gender roles in health care.

Health facility systems i.e. procedures, infrastructure and organograms will require adjustments inorder to be more accommodative for male partners.

**Ethical considerations**

Participation in this research study was voluntary; participants were not induced to participate through offer of material items or money; participants will be permitted to withdraw from the study at any point in time.

Participants of the focus group discussions were offered refreshments. The benefit of the study was information of the PMTCT program which was provided to all participants; participants were encouraged to participate in PMTCT activities in their communities.

Confidentiality of all respondents was maintained through use of unique identifiers; personal identifying information, such as name, telephone or address was not recorded.

Oral consent was obtained from respondents of the in-depth interviews and focus group discussions.

Approval to conduct this study was obtained from PREFA, the Makerere University Institute of Public Health Higher Degrees, Research and Ethics Committee; the Uganda National Council of Science and Technology.
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