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Factors Influencing Choice, Access And Utilization Of HIV Testing And Counseling Services In Suba District

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Abstract: ***Testing and Counseling for infection with HIV is an important strategy for prevention of the same. However national records show that number of people tested for HIV in Nyanza and Western Provinces relatively fell from 43071 to 37920 during 2007. Purpose was to assess factors influencing access and utilization of HTC services among clients aged 15-64 years. The cross-sectional study on 400 subjects adopted the quantitative and qualitative methods within three months of 2009. Descriptive and inferential statistics were generated and tested at p≤ 0.05. VCT service points had more clients (65%) than PITC model (35%). A larger proportion 168(42.0) of subjects provided with HTC services initially came for other issues. Men who had secondary level of education were 0.4 times more likely to utilize HIV testing and counseling services than other levels of education achievement (p=0.01, OR 95% CI: 0.4 (0.2-0.9). Among the females, skilled clients were six times more likely to utilize HTC services compared to other occupations (OR =5.5, P=0.002). Many subjects (59.5%) preferred integrated HTC services followed by Home Based Care at (19.8%). Majority (68.5%) preferred aware™ HIV 1 / 2 OMT Test Kit. High literacy levels and quality of service positively influenced utilization and access to HTC services. The gap on access and utilization of HTC services was wider at provider factors.***

Keywords: Kenya, HIV testing and counseling; test kit; access; utilization; factors influencing; provider factors.

I. INTRODUCTION

Human Immunodeficiency Virus (HIV) testing and counseling services are a gateway to HIV prevention, care and treatment. The benefits of knowledge of HIV status can be seen at the individual, community and the population levels. The World Health Organization (WHO) provided standards for running HIV Counseling and Testing (HTC) services. "Within these standards, countries use a range of services to meet their specific needs Client-initiated or self-referred counseling and testing (CITC) / VCT is requested by an individual" (Branson, *et al*, 2006).

According to World Health Organization (WHO) and United Nations Joint Program on AIDS (Weinreb, 2004) the world had 2.7million new infections with 2 million deaths due to HIV and AIDS with 33.4 million people living with HIV and AIDS. However, the report goes on to say that the rate of new infections had fallen by 17% in the past eight years. Globally, the percentage of women among people living with HIV has remained stable (50%) for several years although women's share of infections is increasing in several countries (Fisher, 1991). The same body (WHO) recommends that testing and counseling for HIV be offered whenever a patient shows signs or symptoms of HIV infection or AIDS, or wherever this will aid their clinical diagnosis and management (Othigo, 2008). Hence it would be prudent for the Government, partners and donors to parse VCT expansion efforts and assess achievements to date and strategize how to further implement the commitment to quality evidenced in various VCT policy and strategic planning documents.

The changing face of the HIV and AIDS epidemic has resulted in new opportunities to increase access to voluntary

HIV counseling and testing (VCT), especially during the past 7 years (2001–2007) (Ann, 2004). The extent of the AIDS crisis is only now becoming clear in many African countries as increasing number of people with HIV are becoming ill. In the absence of massively expanded prevention, treatment and care efforts, it is expected that the AIDS death toll in Sub-Saharan Africa will continue to rise (Kalichman, 2003), (O'Reilly, *et al,* 2008).

II. BACKGROUND

In Kenya as in other parts of the world, women and girls constitute a significantly higher number of people infected with HIV and AIDS (Bwambale, 2008) , the prevalence rate among women ages 15 to 49 is nearly double that of men in the same age group. It imperative, therefore, that essential HIV information and services are available for this group, and in particular to girls and young women, who are now known to be the most vulnerable sector of the population. The Kenya National AIDS and STD Control Program (NASCOP) report low levels of knowledge about HIV status that only 36% of Kenyan adults (15-64 years) have tested at-least once for HIV and received results while those who still did not know their HIV status were estimated at 80% (Ministry of Public Health and Sanitation, Kenya Aids Indicator Survey (KAIS), 2008).

Nyanza province is still home to a larger percentage of HIV positive individuals (Merlin, 2005). High HIV transmission rates are probable given the rapid increase in HIV prevalence among adolescence females (Craig, *et al*, 2009), (Kaseje, 2005). A drop in the utilization of HIV counseling and testing services was noticed in Nyanza province from 43071 to 37920 in the 3rd and 4th quota respectively (Republic of Kenya, Ministry of Public Health and Sanitation, 2007).

"Suba district still ranks highest 26%, in the province on the prevalence of HIV and AIDS" (Republic of Kenya, Ministry of Public Health and Sanitation, National Guidelines for HIV Testing and Counselling in Kenya, 2008). The pandemic still remains a daunting setback to the community in terms of reduced economic productivity, increased dependency ratio, rise in the number of orphans and widows, all these culminate from the relatively high rate of new infections (Ministry of State for Special Programmes, 2007), & (Republic of Kenya, Ministry of Public Health and Sanitation, National Guidelines for HIV Testing and Counselling in Kenya, 2008). In the District, a significant proportion of the population was not covered by the Voluntary Counseling Testing (VCT) services according to a Merlin Study (2005) which found that only 2.7% '*matatu*' crews and beach communities were covered. In the same study, Suba had a high (51.3%) perceived risk of HIV infection with only 2.6% saying the opposite.

The purpose for the study was to find out factors influencing access and utilization of HIV Counselling and Testing services in Suba District, Kenya so as to make appropriate recommendations for the government and other stakeholders. In this regard, the study went further to get the community's attitude by conducting parallel tests among the subjects using the aware™ HIV 1 / 2 OMT Test kit.

III. METHODOLOGY

The study targeted the productive age cohort (15-64) years within the target population of 103,014 drawn from 203,867 being the year 2008 population projection for the District (Republic of Kenya, 2002). Factors influencing access and utilization of HTC services were captured within 45 days between the months of June and July 2009 at the sampled health facilities and the exit interview targeted clients between the ages of 15-64 years.

The study was approved by Maseno University Post Graduate Research Committee, National Council for Science and Technology, Local leaders and partners in the field of HIV and AIDS. The researcher ensured that the clients' right to informed consent, privacy and confidentiality upheld throughout the study period. Consent from the subjects below 18 years was sought through parents or guardians. However the consent need not necessarily have to be written, as a group observed: "separate written consent for HIV testing should not be required; general consent for medical care should be considered sufficient to encompass consent for HIV testing" (Branson, *et al*., 2006).

After pre-testing the tools with primary stakeholders especially concerning language, policy guidelines, culture and age differentials, the final copy coded and serialized accordingly based on divisional administrative boundaries was produced. The Key Informant (KII) and Focus Group Discussion (FGD) information gathered was tape recorded and in writing (using A4 size loose-pad note book) –pages clearly labeled and ruled according to the themes of the study. Photographs taken where applicable after observing related ethical protocols. The researcher was the coordinator of the research exercise and the research assistants (HTC Councilors) who attended a one day training on the study supported the investigator at different levels in their respective health facilities as enumerators and supervisors. The researcher conducted seven FGDs, Interviewed 30 Key Informants and 400 HTC clients distributed evenly through selected sampling techniques. A review meeting was held by the divisional assistants/facility in-charges with the researcher immediately after the data collection exercise for to validate the used questionnaires and identify gaps and /or ambiguities to run in the subsequent Focus Group Discussions (FGDs).

Data processing and analysis included a number of steps to prepare data collected in the field for statistical interpretation. Questionnaires were checked for errors, consistencies, and gaps during the re-working stage after pre-testing by the trained HTC counselors at a local Sub-District Hospital. Before data entry, questionnaires for the various strata were marked with a unique code based on the five administrative divisions to facilitate data cleaning later in the process. Then followed transcription of recorded data for Focus Group

Discussions (FGDs) and Key Informant Interviews (KIIs).The quantitative data set was entered with backup through the Statistical Package for Social Sciences (SPSS) software by the researcher and validated. Descriptive and inferential statistics were generated and analyzed at $p \leq 0.05$.

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IV. RESULTS

The mean age of the female-led 221 (55.25%) population who sought HTC services was 32 years. More 175(43.8%) clients were between 15-24 years followed by cohort 25-34 at 136 (34.0%). Accumulative percentage for the first two out of five cohorts pulled 80% leaving only 20% share to be distributed among people above 35 years. The unskilled population visiting for HTC services were more than half 221 (55.3%) of the population while almost all (96%) had at-least primary level of education. Majority 219 (54.8%) of HTC clients were married with more males in the singles category utilizing the HTC services. Apart from the younger ages, the number visiting the HIV testing and counseling services in the district decreases with an increase in age. Interestingly, the number of females utilizing HTC services begin to nosedive from age 50s while that of men starts to climb.

Further analysis showed that widowers were seven times likely to go for HIV testing and counseling services than their counterpart females (p=0.006, OR 95% CI: 6.5 (1.4-35.1) Table 1. Men who had secondary level of education were 0.4 times more likely to utilize HIV testing and counseling services than other levels of education achievement (p=0.01, OR 95% CI: 0.4 (0.2-0.9). Among the females, skilled clients were six times more likely to utilize HTC services compared to other occupations (OR =5.5, P=0.002) while being unskilled male demanding HTC services was significant at p=0.02, OR 95% CI: 0.3(0.1 – 0.96).

Widows or widowers were seven times more likely to utilize HIV testing and counseling services than others in the marital status category at P=0.006, OR 95%: 6.5(1.4 – 35.1).

Factors	Male					Female				
	VCT n (%)	PITC n (%)	n	OR (95%CI)	p-value	VCT n (%)	PITC n (%)	n	OR (95%CI)	P-value
Age-group		179						221		
15-24	42(38.2)	18(26.1)	60	0.1(0 – 1.7)	0.06	56(45.9)	59(59.6)	115	1.1(0 – 41.2)	0.95
25-34	44(40.0)	25(36.2)	69	0.2(0 – 2.2)	0.12	45(36.9)	22(22.2)	67	0.5(0 – 18.9)	0.61
35-44	15(8.40)	22(32.4)	37	0.5(0 – 6.3)	0.54	14(11.5)	13(13.1)	27	0.9(0 – 38.7)	0.96
45-54	7(6.4)	2(2.9)	9	0.1(0 – 2.3)	0.07	5(2.3)	4(4.0)	9	0(0 – 43)	0.89
55-64	2(1.8)	3(4.3)	5	1.00	Ref	2(1.6)	1(1.0)	21.0	Ref	
Occupation				179					221	
Skilled	22(17.3)	11(21.2)	33	0.7(0.2 – 2.3)	0.51	11(8.2)	20(23.3)	31	5.5(1.6 – 20)	0.002*
Unskilled	62(48.8)	15(28.9)	77	0.3(0.1 – 0.96)	0.02*	94(69.6)	50(58.1)	144	1.6(0.6 – 4.5)	0.32
Professional	26(20.5)	14(26.9)	40	0.8(0.3 – 2.3)	0.59	9(6.7)	9(10.5)	18	3.0(0.7 – 12.9)	0.08
Student	17(13.4)	12(23.1)	29	1.0	Ref	21(15.6)	7(8.1)	28	Ref	
Level of education				179					221	
None	2(1.1)	1(0.6)	3	0.4(0 – 6.9)	0.50	6(2.7)	7(3.1)	13	1.2(0.3 – 5.4)	0.82
Primary	41(22.9)	23(12.9)	64	0.5(0.2 – 1.2)	0.07	78(35.3)	55(24.9)	133	0.7(0.2 – 1.8)	0.42
Secondary	46(25.7)	21(11.7)	67	0.4(0.2 – 0.9)	0.01*	25(11.3)	24(10.9)	49	0.9(0.3 – 0.7)	0.93
Post Secondary	21(11.7)	24(13.4)	45	1.0	Ref	13(5.9)	13(5.9)	26	Ref	
Marital status										
Single/un married	49(27.4)	20(11.2)	69	1.0	Ref	27(12.2)	23(12.8)	50	Ref	
Married	55(30.7)	41(22.9)	96	1.0(0.9 – 3.7)	0.07	69(31.2)	54(24.4)	123	0.9(0.5 – 1.9)	0.801
Widowed/	3(1.7)	8(4.5)	11	6.5(1.4 – 35.1)	0.006*	16(7.2)	16(7.2)	32	1.2(0.4 – 3.1)	0.72
Separated/divorced	3(1.7)	0 (0)	3	0.0	0.27	10(4.5)	6(2.7)	16	0.7(0.2 – 2.6)	0.55

*=Significant

Table1: Association between demographic characteristics and HTC utilization in Suba District

The study moved a step to parse the socio-demographic characteristics on choice, access and utilization of HTC services in Suba District based on the two models. Gender and occupation were found to be significantly associated with use of VCT than PITC with p-values of 0.04 and 0.03 respectively.

Concerning the proportion of HTC clients registered at the two model sites (VCT and PITC), the study found that most 260 (65.4%) clients were tested through VCT as compared to the number of people seeking PITC services 140 (34.6%).

Reports from Focus Group Discussions and Key informants with mothers/ care takers of children under five years' – a participant felt this about the PITC model: *"I feel uneasy talking about HIV … near my colleagues on the bench"*. We sought to asses which of the utilization variables have an association with the HTC service uptake (see Table 2 below).

Factors/Variables	Frequency And (%)	VCT n (%)	PITC n (%)	P-VALUE
Clients who specifically came for VCT services				
Yes	232(58.0)	204(77.9)	28(20.3)	**<0.0001**
No	168(42.0)	58(33.1)	110(79.7)	
Other reasons of visit				**<0.0001**
Attend drug abuse clinic	17(4.3)	7(12.1)	10(9.1)	
Take the child to MCH clinic	22(5.5)	5(8.6)	17(15.5)	
Brought sick child for Treatment	12(3.0)	8(13.8)	4(3.6)	
Attend Tuberculosis clinic	7(1.8)	5(8.6)	1(0.9)	
Personally Sick	52(13.1)	12(20.7)	43(39.1)	
Inpatient	22(5.5)	9(15.5)	13(11.8)	
Patient attendant	10(2.5)	4(6.9)	6(5.5)	
Staff at work	7(1.8)	6(10.3)	1(0.9)	
Attend FP Clinic	2(0.5)	0(0.0)	2(1.82)	
Ante natal clinic	7(1.8)	2(3.5)	13(11.8)	
Had enough time with the counselor				**0.76**
Yes	387(96.8)	254(97.0)	133(96.4)	
No	13(3.3)	8 (3.1)	5 (3.6)	
Clients who were tested for HIV				**0.22**
Yes	394(98.8)	260(99.2)	134(97.8)	
No	6(1.2)	2(0.8)	3(2.2)	
Model of counseling and testing the clients will prefer				**0.02**
Stand-alone HIV test	52(13.5)	39(15.0)	13(9.4)	
Integrated services for HTC	265(66.3)	160(61.5)	105(76.1)	
Home Based HTC	62(15.5)	45(17.3)	17(12.3)	
Mobile HTC	19(4.8)	16(6.2)	3(2.2)	
Test kit clients would recommend				**0.001**
Fluid based (oral) HIV test kit	270(68.5)	177(68.1)	112(83.6)	
Blood based HIV test kit	105(31.5)	83(31.9)	22(16.4)	
Reasons for supporting fluid based oral kit				**0.13**
Easy to use	96(35.6)	51(31.3)	45(42.1)	
Convenient	14(5.2)	10(6.1)	4(3.7)	
No pain	142(52.6)	89(54.6)	53(49.5)	
No blood drawn	8(3.0)	4(2.5)	4(3.7)	
Economical	10(3.7)	9(5.5)	1(0.9)	

Table 2: Service utilization of HTC care in Suba District

Rate of Utilization (per capita visits) of HTC program:

Since utilization refers to the degree to which the catchment population is coming to the facility to obtain

services, then: Per capita visits (Rate of Utilization) per year for the HTC services = Total attendance / catchment (target) population. The average attendance of clients at the 40 sampled health facilities in Suba District was 425 during the months of June, July and August, 2009.Therefore the rate of utilization of HTC services in Suba was 5%.

V. RESOURCES FOR HTC CARE

Thirty health facilities were visited and assessed as shown on Table 3. The table shows that working space in most 19(63%) of the HTC rooms /testing sites were adequate and all the testing sites had safety boxes. Only a lower 14 (47%) of the HTC sites ran their Lab services (including HTC kits) continuously without shortages while hand gloves was observed in almost all 27(90%) of the HTC sites visited. Concerning availability of Information Education and Communication IEC) materials at the HTC sites, majority 29(97%) had posters displayed while take- away brochures and pamphlets registered 25 (83%) and 11 (38%) respectively as only 3 (10%) had functioning television sets. Almost all 26 (86.7%) HTC sites had the penile model for demonstration of the usage of the male condom, however models for the female condom was unavailable in all the sites visited. All the sites were found with at least two test kits with majority 26(86.7%) using Determine HIV 1 / 2 as Uni-Gold HIV 1 / 2 and BioLine HIV 1 / 2 was found in (30%) and 23 (76.7%) of the HTC sites respectively.

Capacity for quality HTC services on human resources also came out as here below: This was recorded during one of the FGD sessions among youths aged 15-25years:

"Some trained HTC counselors openly discuss the test results of their clients within the neighborhood".

Basic conditions/ Standards	**Met minimum standards**	**Percent**	**Below standards**	**Percent**
HTC room	19	63.3	11	36.7
Lab Equipment	14	46.7	16	53.3
Safety boxes	30	100.0	0	0
Incinerator	5	16.7	25	83.3
Sanitary dustbin	22	73.3	8	26.7
Personal Protective Equipment	27	90.0	3	10.0
IEC materials	29	96.7	1	3.3
Written protocols	29	96.7	1	3.3
Poster	29	96.7	1	3.3
Brochure	25	83.3	4	13.3
Television	21	70.0	8	26.7
Pamphlets	29	96.7	1	3.3
Penile model	26	86.7	4	13.3
Model for female condom	30	100.0	0	0
Reception registers	29	96.7	1	3.3
Counselors reference tool	21	70.0	8	26.7
Availability of referral forms	29	96.7	1	3.3

Table 3: Suba District HTC Healthcare Status

VI. COMMUNITY'S ATTITUDE ON AWARE™ HIV 1/2 ORAL TEST KIT AND OTHER VARIABLES

An attempt was made to assess the community's perception on the fluid based aware™ HIV 1 / 2 oral Test kit after each undergoing both blood based and fluid based test processes. A larger proportion 270 (68.5%) supported the oral kit against 105 (26.6%) who liked blood based kit. Most HTC clients captured at the PITC model had gone to the health facilities for treatment while mothers attending MCH clinics followed in numbers.

The following was a reaction from one man during a FGD in Magunga after undergoing the oral testing in Gwassi: "with *this kind of convenience, one could still perform the HIV test in his bedroom!"*

VII. DISCUSSIONS

The results of the study are noteworthy because the observations seem to reflect the outcome of similar studies in Kenya, Uganda and other parts of Africa in terms of the HTC clientele profiles which could influence HTC uptake. Gender and occupation were found significantly associated with visits to VCT than PITC- a fact confirmed by (Othigo,*et al*, 2008), (Merlin, 2005).

Gender parity observed among the HTC clients appear to correspond with the findings of Kyulu (2001), (WHO, UNAIDS, UNICEF, 2009) and the Kenya AIDS Indicator Survey (KAIS) 2007 (Republic of Kenya, Ministry of Public Health and Sanitation, National Guidelines for HIV Testing and Counselling in Kenya, 2008) -where women led all the age cohorts on the uptake (utilization) of HTC services except at age 60 years when the number of men tends to overtake them. In comparison with these reports, this study also supports the idea that men are more likely than women to hold repressive attitudes especially individuals over the age of 50 and are more likely to believe in casual transmission than their younger counterparts (Bwambale, 2008). Another study ought to be done to explore the reason behind this phenomenon.

Still on the lower age bracket, these results are consistent with previous reports: (Irinoye, 1991), (Merlin, 2005), (Moth, Ayayo, & Kaseje, 2005) (Peltzer, 2009) who found that most users of HTC services were youth between ages 21-29 years. However, it deviates slightly with KAIS, 2007 study where the majority age cohort extended its peak at 30-34 years-perhaps due to the fact that KAIS, 2007 study covered a larger population and was house-hold based.

Males dominated HTC clientele upwards in the education ladder. The male dominance is noticed at the level when men (HTC clients) begin to outnumber women from secondary level upwards. These results confirm the fact that there could

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be a high dropout rate among girls before or just after primary eight.

Further still on the male / female participation in HTC services, it is recommended in the PMCTC Plus package that women involve their husbands even to the extent of the latter accompanying them to Maternal Child Health (MCH) and Family Planning (FP) clinics- a situation which may see HTC clients' gender ratio narrowing to one (Othigo,*et al*, 2008), (Mugenda O.M., 1999). At another level, high education and occupation status appeared to positively influence uptake of HTC services at the respective health facilities since a larger portion of HTC clients on the same were registered at VCT and PITC clinics.

Interestingly, the (Merlin, 2005), (Republic of Kenya, Ministry of Planning, Development and Vision 2030, 2002), (WHO, UNAIDS, UNICEF, 2009) study found that education status had not discriminated on visits made at either VCT or PITC although majority of the study subjects had passed primary level of education. The results do not clearly agree with those of findings that education greater than primary school was associated with "decreased odds of HIV infection in both men and women". One general limitation of these cross-sectional studies is that they are unable to control for the fact that individuals from richer households may survive longer either with or without HIV, and thus are more likely to be present in the population to be tested. This phenomenon was also revealed in our study when the two models (VCT and PITC) registered an almost equal number of skilled clients.

Does marital status influence utilization of HTC services? Marginal significance was noted especially on being single/unmarried or being in a monogamous relationship. Further, it was also found that widowers were seven times likely to go for HIV testing and counseling services than their counterpart female. The findings could be argued in two ways: one, that those in polygamous relationships do not consider themselves at risk of HIV infection or may be harboring the 'I don't care attitude' and two, that those married to one wife or the unmarried/singles feel most at risk of acquiring HIV and therefore uses any available opportunity to know their status or more importantly perhaps, members in this category quickly adapt to positive change (Mugenda O.M., 1999), (Republic of Kenya, Ministry of Planning, Development and Vision 2030, 2002), (WHO, UNAIDS, UNICEF, 2009) also reported a similar scenario where majority of married mothers attending Anti-natal Clinics at Nyanza provincial Hospital under the PMCT program benefited.

VIII. PROPORTION OF CLIENTS UTILIZING HTC SERVICES AT VCT AND PITC SITES

Although the Provider Initiated Testing and Counseling (PITC) model was progressively taking root in the 40 operating health facilities in the district against only seventeen VCT sites, the study found that the latter model was still popular in the community (Arthur, 2007), (Othigo,*et al*, 2008), (Merlin, 2005)-though few studies have been carried out to compare the utilization at the two models. In summary, the study found that rate of utilization of HTC services in Suba District was relatively low compared to a study in Mbeya Municipality, Tanzania which recorded 12% (UNAIDS/WHO and International HIV and AIDS Alliance, 2005). The low rate could be due to the fact that those who have known their zero-status rarely go for repeat tests or another section of the population takes longer time to make informed decisions.

The results notwithstanding, coupled with the fact that not all points of care under the PITC model were simultaneously covered, then the latter appears to be gaining ground and may soon topple VCT in HTC clientele output (Othigo,*et al*, 2008), (Mugenda,*et al*, 1999).

The integrated HTC service appears to net quite a number of clients probably due to the multiplicity of activities within the same premises. Many more would plan to go for HTC services during morning hours (F.O., 2007). However, visiting HTC clinics any time during the day was found significantly associated with VCT than PITC. This may imply the seriousness by which the people view HIV prognosis coupled with the high level of perceived risk of the same in Suba District (Craig,*et al*, 2009), (Mugenda,*et al*, 1999).

IX. RESOURCES EMPLOYED FOR HTC CARE

Provider factors were also assessed to know how they influence choice, access and utilization of HTC services. The study found that one of the hurdles which Provider Initiated Testing and Counseling (PITC) model currently face in the district was lack of adequate space and rooms to meet the approved standard of HIV testing and counseling at the existing health facilities (Othigo,*et al*, 2008), (Mugenda,*et al*, 1999), (Otele, 2003) .There was lack of privacy and hence confidentiality was compromised even if the provider kept mum. This concern was also raised by one of the postnatal mothers at a Maternal and Child Health (MCH) clinic:

"I feel uneasy talking about HIV … near my colleagues on the bench".

The same feeling was noticed among health providers who concurred that the PITC environment forced them to frequently *"thrush in"* or *"skip"* the HTC processes to the detriment of flouting the clients' human rights and the HTC principle of maintaining the 3Cs: consent, confidentiality and counseling (McCauly,2004), (Mugenda, *et al*,1999) and (Orago, 2002).

However, one FGD participant in Mfangano admitted having learnt:

"Yes… I now know how to prevent HIV at home… and to my Baby".

Another woman participant in Mbita also seems to support the PITC model when she said*:*

"The arrangement is like shopping in a supermarket…I get all the services I need under one roof".

One other notable observation from a health worker/VCT counselor on the negative side of HTC services was the "*un-equal HTC reporting tools".*

In view of the above, coupled with circumstances which govern nursing administration, staffing hitches and the long queues at some of our health facilities, counseling quality was likely to be affected and the boundaries between informed consent and coercion can become rather blurred for the PITC model. This revelation compares well with (Othigo,*et al*,2008)

who found that quality counseling was necessary especially among the adult population as quoted: '"people come in for the test…, but they value counseling"'. Logistics in supplies and commodities was wanting in areas of Laboratory reagents; female condoms and presence of television sets.

Concerning the other angle of access, access -to- care means the proportion of people that has been diagnosed with a disease or condition that is receiving care or a specific treatment (Republic of Kenya, Ministry of Public Health and Sanitation, National Guidelines for HIV Testing and Counselling in Kenya, 2008). An attempt was made to find out the extent to which HTC services in the district had opened up to some special population groups that are at greatest risk of acquiring HIV in our society.

First in the list was the youth. The youth form part of a special population in the country whose service programs need to be appropriately planned to be adaptable in their socio cultural environments (Megan, 2009). Access to HTC services by the youth was low with only two youth demonstration centers at Mbita namely TUUNGANE Youth Initiative Centre and Tuungane Drug Abuse and Rehabilitation Centre all managed by a Non-Governmental Organization (NGO). Most HTC services out there are not youth-friendly (Irinoye, 1991), (Megan, 2009). They target the general population and have no specific focus on provision of services to young people. This can be a barrier to services by youth. At another level, a study among youth in East Africa found that at times counseling in HTC was not mandatory "Quality counseling was also found to be a barrier to youth seeking testing. Although counseling is an integral part of the VCT process, HIV testing among Ugandan and Kenyan Youth was not always accompanied by counseling." (Megan, 2009).

The second group in the Lake region was uncircumcised men. The Voluntary Adult-Medically Assisted Male Circumcision (VMMC) fronted by Nyanza Reproductive Health Services (NRHS) targeting uncircumcised males in the area appears to have taken root. The VMMC provides synergy to HTC services at the respective health facilities as its clients who had not known their status also undergo HIV testing after the due process of counseling and informed consent (Auvert,*et al*, 2005), (Branson, *et al*, 2006), (Nuwaha,*et al*, 2002). One important revelation in this partnership is that the ripple – effect of VMMC was likely to increase the HIV testing and counseling output.

Access is a broad concept that measures three dimensions of key health sector interventions: availability, coverage and outcome and /or impact. The study attempted to answer the question by assessing 30 (75%) of health facilities in the district. In terms of personnel, equipment, pharmaceutical and non-pharmaceutical products, the Government of Kenya through the Ministry of Public Health and Sanitation ensures that basic standards pertaining to the implementation of HTC services are met. Most of HTC counselors were GoK employees who had received their basic training at Kenya Medical Training College (KMTC) and Community trained Counselors (CC) possessing diplomas and certificates from other recognized institutions. However, some of the community trained counselors had trained for only two weeks supported largely by Liverpool VCT in collaboration with the National AIDS and STD Control program (NASCOP). The short training time might be contributing to some of the provider gaps noted (Branson, *et al*, 2006), (Mugenda,*et al*, 1999). Quality of the HTC trainings came to the fore when the study discovered that some counselors flout ethical norms by openly discussing their clients' sero status with third parties. This was recorded during one of the FGD sessions among youths aged 15-25years:

"Some trained HTC counselors openly discuss the test results of their clients within the neighborhood".

This study suggests that future health center based VCT services should have highly trained counselors with interest in the job.

X. COMMUNITY'S ATTITUDE ON OTHER HIV 1 / 2 ANTIBODY TESTING OPTIONS

Concerning other HIV testing options, majority of the community tends to support the fluid based HIV anti-body test kit -the aware™ OMT HIV 1 / 2 Test Kit alongside the venous blood based kit. A male participant reacted about the oral kit during an FGD session:

"with *this kind of convenience, one could still perform the HIV test in his bedroom!"*

Most of the community supported the aware™ HIV 1 / 2 OMT test kit saying it was relatively convenient. On the economic scale, the study found that the Government would save US $2.572 (Ksh.193) for providing service to one HTC client by using the aware™ OMT HIV 1 / 2 Test Kit. That is about 60% of the current cost of attending to one new HTC client using the blood based kit (Calypte Biomedical Corporation, 2007).

Therefore the Kenyan Government would have saved about Ksh.3 billion since the first HIV test was performed as follows: using 36% of Kenyans who had known their sero-status (Republic of Kenya, 2008) out of the 40 million people projected in 2009, we have 14.4 million Kenyans who had successfully undergone the HTC processes. Then, computing we have: Ksh.193 x 14.4mil = Ksh. 2,779,200,000 or US$ 3,705,333 (the money the Kenyan Government would have saved to date).

XI. CONCLUSIONS

The major conclusion in this study was that more females than males utilize HTC services with the age bracket of 20-29 years leading the park. On the level of education, the study concludes that higher education alone may only be a contributing factor but not directly associated with visits either to PITC or VCT models. Gender and occupation do influence the utilization of HTC services more to the client initiated model than the provider initiated testing and counseling sites. The utilization of HTC services was low and the Client-initiated Testing and Counseling (CITC)/VCT were still preferred by most HTC clients to that of Provider Initiated Testing and Counseling (PITC). The study concludes that though the Government has elaborate measures and resources for the smooth running of HIV testing and counseling services, some gaps were identified in the area of physical

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facilities, supervision and coordination of personnel including commodities supply. The gap in the utilization and access could be attributed more to the provider factors than the clients'.

The Government should allow the oral HIV 1 / 2 Test Kit for use by the general public but put appropriate regulations to control access and data.

The importance of this research is not only in the findings of no significant difference in the dependent variables but in recommendations for future research and efficient coordination of HTC services. Secondly, the findings of the study have policy implications in the district and the country as a whole since successful implementation of Provider Initiated Testing and Counseling (PITC) and VCT will increase the WHO target of universal access to HIV Counseling and Testing services of 80% by 2010.

REFERENCES

[1] A., W. A. (2004). Convergence of Mortality Risks Across Socio-demographic Characteristics in Rural Nyanza Province Kenya. Hebrews University of Jerusalem, Department of Sociology and Anthropology.

[2] Ann, M. P. (2004). Equitable Access to HIV counselling and Testing for Youth in Developing Countries: A review of Current Practice. Horizons Report, Washington, DC: Population Council., 2-5.

[3] Arthur, G. N. (2007). Behavior change in Clients of health centre –based Voluntary HIV Counselling Testing services in Kenya. Camden Primary Care Trust and University College, London, UK;Centre for Respiratory Diseases Research; Kenya Medical Research Institute, Nairobi, Kenya.

[4] Auvert, B. T.-T. (2005). A Randomized, Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk. International AIDS Society 2005 Conference, The ANRS 1265 Trial. Rio de Janeiro, Brazil.

[5] Branson, B. M. (2006). Revised recommendation for HIV testing for adults, Adolescents and Pregnant women in Health-Care settings. Morbidity and Mortality Weekly Reports, I,II,III(14), 55.

[6] Bwambale, F. S. (2008). Voluntary HIV Counseling and Testing Among Men in Rural Western Uganda: Implications For HIV Prevention; Clinical Epidemiology Unit, Makerere University, Kampala, Uganda.

[7] Calypte Biomedical Corporation. (2007). Aware™ HIV-1 / 2 OMT, A simple economical rapid test for the detection of antibodies to HIV-1, HIV-2 in ORAL FLUID. Retrieved from http://www.calypte.com

[8] Chersich, F. M., S.M.F, L., Othigo, J., & Yard, M. E. (2008). HIV Testing and Counseling for Women attending Child Health Clinics: An opportunity for entry to Prevent Mother to Child Transmission and HIV Treatment; International Centre for Reproductive Health, Mombasa, Kenya,Department of Obstretrics and Gynaecology. International Journal of STD and AIDS 2008, 19, 42-46.

[9] Denison, O'Reilly, K., Schmid, G., & Kennedy, C. S. (2008). HIV Voluntary Counseling and Testing and Behavioural Risk Reduction in Developing Countries: A Meter Analysis: 1990-2005,AIDS Behav:. III(12), 363-373.

[10] F., N., D., K., M., M., & CC., W. (2002). East Africa Medical Journal. Factors influencing acceptability of voluntary counselling and testing for HIV in Bushenyi district of Uganda, 12(79), 626-632.

[11] F.O., O. (2007). Response to Population –based Voluntary Counseling and Testing for HIV in Rural Malawi. University of Pennsylvania.

[12] Fisher, A. L. (1991). A Handbook for Family Planning, Operations Research Design (Second ed.). New York: The Population Council, New York.

[13] Irinoye, O. (1991). Counseling People Affected by HIV and AIDS, The Continuing African HIV and AIDS Epidemic.

[14] Kalichman, S. L. (2003). HIV Testing Attitudes, AIDS Stigma and Voluntary Counseling and Testing in a Black Township in Cape Town,South Africa. Sex Transm Infect., 6(79), 442-447.

[15] Megan, J. H. (2009). The Association of HIV Counseling and Testing with HIV Risk Behaviors in a Random Population-based Survey in Kisumu, Kenya. Kisumu: Springerlink.

[16] Merlin. (2005). Beach Communities and Matatu Crew Baseline Research, HIV and AIDS/STI/TB Among Beach Communities and Matatu Crew in Bondo And Suba Districts. Merlin, Kisumu, Kenya.

[17] Michele, M., Rosemary, N., Elizabeth, A. B., & Craig, R. C. (2009). The Association of HIV Counseling and Testing with HIV Risk Behaviors in a Random Population-based Survey in Kisumu, Kenya; AIDS Behav, Springerlink. Springerlink.

[18] Ministry of Public Health and Sanitation, R. (2008). Kenya Aids Indicator Survey (KAIS). Preliminary Report, National AIDS/STI Control Programme (NASCOP), Nairobi (204), 15-18.

[19] Ministry of State for Special Programmes, R. (2007). HIV and AIDS Monitoring and Evaluation Report 2007, National AIDS Control Council (NACC), Nairobi. Morbidity and Mortality Weekly Report, 14(55), 1-3.

[20] 20. Moth, I., Ayayo, A., & Kaseje, M. O. (2005). Assessement of Utilization of PMCT services at Nyanza Provincial Hospital, Kenya. In Sahara J, 244-250.

[21] Mugenda O.M., M. A. (1999). Research Methods, Quantitative and Qualitative Approaches. Nairobi: American Centre for Technology Studies, Acts Press.

[22] Otele, K. J. (2003). Gender Disparities in the Utilization of VCT services for HIV in Nairobi Province –Kenya, MPH Thesis. Kenyatta University. Nairobi, Kenya: Kenyatta University Library.

[23] Peltzer, K. M. (2009). Determinants of Knowledge of HIV Status in South Africa: Results from a Population-based HIV Survey; BMC Public Health. University of the Free State, Human Sciences research Council, Department of Psychology, Bloemfontein, South Africa.

[24] Republic of Kenya, Ministry of Planning, Development and Vision 2030. (2002). Effective Management for

IJIRAS

Sustainable Economic Growth and Poverty Reduction, Suba District Development Plan 2002-2008. Nairobi.
[25] Republic of Kenya, Ministry of Public Health and Sanitation. (2007). AOP 4 Guidelines: Reversing the Trends. The Second National Health Sector Strategic Plan NASCOP, (p. 22). Nairobi, Kenya.
[26] Republic of Kenya, Ministry of Public Health and Sanitation. (2008). National Guidelines for HIV Testing and Counselling in Kenya. Nairobi, Kenya.
[27] UNAIDS/WHO and International HIV and AIDS Alliance. (2005). Scaling-Up HIV Testing and Counselling Services, A toolkit for Programme Managers.
[28] WHO, UNAIDS, UNICEF. (2009). TOWARDS UNIVERSIAL ACCESS, Scaling Up Priority HIV and AIDS Interventions in the Health Sector. Geneva Paris.

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