

## Acceptability of HIV Test and Treat among Women and Men Seeking Health Care at Monze Mission Hospital

Chilabi Kasongo

*MPH, in Public Health Texila American University, Guyana*

### Abstract

*The HIV test and treat strategy removes many barriers that interrupt HIV intervention. The Test and Treat campaign is an important strategy such that it promotes the general public access various promotive, preventive and treatment services. The aim of the study was to determine the acceptability of HIV Testing and Treatment and factors that influence acceptance among women and men seeking health care at Monze Mission Hospital. A cross-sectional study design was used at Monze Mission Hospital in Monze district. The findings from 171 patients showed that 72% (12) participants knew the meaning of HIV test and treat policy compared to 28% (48) that seemed not to know. The general distribution of HIV test acceptability among participants shows that the majority of the participants in this study had accepted to be tested for their HIV status. The study shows that 87% of the study participants accepted to be tested for HIV. The study shows that acceptability for HIV test and treat as per UNAIDS 2020 target i.e achieving 90/90/90 has not been achieved. This could be due to less sensitization as 28% of participants never knew the meaning of the policy. Other factors could be lacking awareness, 31% of the participants were not aware of care, treatment, and support services availability for HIV positive people at the hospital. To achieve acceptability of HIV test and treatment, we need to consider educational programs to strengthen or increase sensitization on the meaning and benefits of the program.*

**Keywords:** Acceptability to HIV; test; treat; men and women.

### Introduction

HIV / AIDS remain one of the world's biggest health problems, with sub-Saharan Africa being the most affected region [1]. Globally in 2018, approximately 37.9 million people were living with HIV / AIDS, of these, 28.5 million were living in sub-Saharan Africa, particularly in eastern and southern Africa [2]. Zambia is sub-Saharan African country which has been severely affected by the HIV epidemic since the late 1980s.

The HIV prevalence rate reached a peak of 28% in the late 1990s and declined to 13.5% in 2009 [3]. Zambia has HIV prevalence of 12.9% among adults aged 15 to 49 years and is among the top 10 countries with the highest HIV prevalence worldwide [4].

With a view to reducing high HIV prevalence rate, Zambia has been developing and implementing various programs for over 30 years to prevent new infections and improve HIV treatment for infected people [4]. The extension of the HIV testing service is an effective national strategy to halt the epidemic. HIV testing is a fundamental step in the HIV treatment cascade (diagnosis, linkage to care, engagement in care, retention in care, initiation of anti-retroviral therapy, and suppression of virus) for all key populations.

For example, the identification of HIV-infected women by HIV testing is the first step in preventing mother-to-child transmission of HIV (PMTCT) [5]. The HIV couple testing could facilitate disclosure of HIV status in a

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Corresponding Author: [Kasongo.chilabi@yahoo.com](mailto:Kasongo.chilabi@yahoo.com)

marital relationship, promote the onset of PMTCT and reduce the lost-to-follow up of women on treatment [6].

In view of this situation the government of Zambia announced a new measure in August 2017 that systematic and universal HIV testing, counselling, and treatment (HTCT) be conducted to end HIV by 2030 [7]. Following guidance on provider-initiated HIV testing and counselling (PITC) from the WHO and the Joint United Nations Programme on AIDS (UNAIDS) in 2007, screening was recommended for all those who visit health facilities in the event of a generalized epidemic, as well as those key populations that are disproportionately affected by HIV. In addition, with the new approach to care and treatment for HIV, Zambia will be able to continue with Campaigns 90, 90, 90 of the United Nations Joint Program on AIDS (UNAIDS) immediately after diagnosis., which is translated as 90% of people living with HIV should know their HIV status, 90% of HIV-positive people start treatment and 90% of those treated achieve undetectable virus suppression [8].

The test and treatment strategy removes many barriers that interrupt HIV intervention. The test and treat policy eliminate the need to determine the CD4 counts prior to initiation of treatment thereby avoiding hindrance of antiretroviral therapy in environments without CD4 tests.

Test and treat simplify treatment, facilitates the expansion of antiretroviral treatment, and generally improves the retention and support for people with HIV [2]. The principles of Test and Treat campaign are to promote the general public access various promotive, preventive and treatment services.

For test-and-treat to succeed early diagnosis coupled with linkage to and retention in ART care is required [2]. Yet in many settings, late and low rates of HIV testing, poor linkage and retention, and sub-optimal adherence to ART continue to impede optimal outcomes [9].

## **Statement of the Problem**

There is a knowledge gap on acceptability of HIV Testing and Treatment among women and men seeking health care at Monze Mission Hospital following the adoption of the “Test and Treat policy” of 2016. The gap in knowledge on the acceptability affects the scientific basis for interventions and policy formulation in order to attain the 90-90-90 strategy. Test and treat policy is an ambitious treatment target to help end the AIDS epidemic. It was stated that by the year 2020, 90% of all people living with HIV (PLHIV) will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; and 90% of all people receiving ART will have viral load suppression. In addition, Universal routine testing was launched in August 2017. However, acceptability of this approach among adult community members aged 15-59 is unknown. Lastly, according to a 2010 Randomize Control Trial (RCT) conducted in Zambia by USAID, individuals were four times more likely to use voluntary counselling and testing (VCT) as a testing option than PITC. This contributes to the gap between those tested positive and those on treatment under the PITC approach.

There have been reports indicating that 81% of people currently know their HIV status globally; of which 82% are on treatment and 88% of those on treatment are virally suppressed [10]. According to Zambia Population-based HIV Impact Assessment (2016), among HIV-positive adults aged 15-59 years 28.6% were unaware of their HIV positive status, including 30.8% of the males and 27.4 % of the females. Overall, 71.4 % of HIV-positive adults, including males (69.2 %) and females (72.5 %), reported awareness of their status, 87.1 % are on treatment with 89.2 % viral suppression.

A gap in knowledge of acceptability of Test and Treat and behaviour related to the policy among community members contributes to the gap in interventions for reaching and

diagnosing those infected with HIV, particularly the substantial proportion of men and young people who are unaware of their status. In addition, it affects formulation of strategies to close the gap among those tested positive and those treated under the said policy.

In view of this, there is a significant need to assess the acceptability of test and treat of HIV among men and women seeking medical health care at Monze Mission Hospital. The hospital has a bed capacity of 276 against a projected population of 224,680 [11].

It is hoped that the findings of the study may contribute to the already existing body of knowledge as far as acceptability of HIV Testing and Treatment approach is concerned.

Acceptability of Testing and Treatment approach is cardinal because HIV-testing among the adult population aged 15-59 is a critical step in the HIV treatment cascade for all populations. Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain disease free. Among those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, access treatment, and plan for the future. Therefore, it is important to state that this gap in knowledge affects the scientific basis for interventions and policy formulation in the fight against HIV and AIDS.

Therefore, for test-and-treat to succeed early diagnosis coupled with linkage to and retention in ART care is required. A gap in knowledge of acceptability of this approach affects the scientific basis for interventions and policy formulation.

Therefore, this study will determine acceptability, including predictors or facilitators to accept this approach among the community members accessing healthcare at Monze Hospital. The findings would be valuable in understanding the extent of the problem for the introduction of targeted interventions in health promotion to shift behaviour and could be

useful for informing prevention approaches to end HIV. Therefore, the information will be given and be used by Zambian Ministry of Health and other stakeholders of the health sector.

## **Materials and Methods**

### **Research Design**

This study was a quantitative, non-interventional, descriptive, and cross-sectional research design. Data was collected using a semi structured questionnaire. Descriptive and statistical analyses was computed using Statistical Package for Social Sciences (SPSS) version 21 to describe, summarize and analyze quantitative and qualitative data and assess relationship between rate of acceptability and various determinant factors.

### **Study Setting**

The research was carried out at Monze Mission Hospital. The hospital has a bed capacity of 276 and has a catchment population of about 163,578 [12].

The site was selected purposively based on accessibility, familiarity and being a first level hospital.

### **Study Population**

The study population includes all patients accessing treatment at Monze Mission hospital, should be 15 years and above. This study population was chosen because they could consent whether to participate or not.

### **Sampling Selection**

A convenient sampling method was used in which all the clients who visited the hospital for various services within the period of the study and met the inclusion criteria were recruited in the study.

### **Ethical Considerations**

Ethical clearance was obtained from the Texilla American University (TAU) before the study commenced. Written permission to conduct the study was also obtained from the

Medical Superintendent of Monze Mission Hospital. Permission to conduct the study was obtained from the University of Zambia board of research ethics committee prior to beginning the study. Personal consent was secured from the clients who participated in the study. Confidentiality and anonymity was assured. Participants' names were not written on the interview schedules and no other person apart

from the researcher was allowed access to the research data.

## Results

### Socio-demographic Data

In this section, the variables that were chosen are age, gender, designation, marital status, and occupation.

**Table 1.** Demographic Characteristics of the Respondents (171)

Variable		Frequency=N	Percentage%
Age	15-20	18	(11)
	21-30	96	(56)
	31-35	28	(16)
	>35	29	(17)
Gender	Male	85	(50)
	Female	86	(50)
Marital	Single	103	(60)
	Married	58	(34)
	Divorced	6	(4)
	Widowed	4	(3)
Religion	Christian	164	(96)
	Muslim	5	(3)
	Hindu	1	(1)
	Other	1	(1)
Education	Primary	25	(15)
	Secondary	51	(30)
	Tertiary	85	(50)
	Never gone	10	(6)
Occupation	Employed	46	(27)
	Unemployed	51	(57)
	Business	51	(87)
	Other	23	(14)
Hxt STI	Yes	29	(17)
	No	142	(83)
Awareness of TT	Yes	166	(98)
	No	4	(2)
Benefits	Yes	169	(99)
	No	2	(1)
Previous HIV-test	Yes	139	(81)
	No	31	(19)

From Table 1 above it shows that the age group distribution among participants was

much of a young population that sought for the HIV test and treat health services at Monze

district hospital. Most of the population fell in the age group between 21-30 years representing 96(56%) of the total population. According to gender females (86 /171) were more than male participants by one. The study also shows that the majority of the participants were single as there were 103(60%), followed by 58(34%) who were married. The study further shows that most participants were Christians represented 164(96%), followed by Muslims who were 5/171(3%). According to educational level half of the participants (50%) attained tertiary level education while the least (6%) did not attend any form of education. Those who had history of STIs were 29(17%) and the majority

142(83%) did not have history of STIs. Most participants of about 166/171(98%) reported to be aware of HIV test and treat services been offered at Monze hospital compared to 5/171(2%) who were not aware. Almost all, 99%, of the participants thought the programme was beneficial to them as compared to a few (1%) who did not see the programme to be beneficial to them. Among the participants the study reveals that 139 (81%) had previously tested for HIV and 32 (19%) had not previously tested for HIV.

Table 2 shows that 72% reported to have known what HIV test and treat means compared to 28% of the participants.

**Table 2.** Knowledge on Test and Treat policy

What is test and treat	Frequency = N	Percentage %
Correct	123	72
Wrong	48	28.

**Table 3.** HIV Test Acceptability

Participant acceptability	Frequency = N	Percentage %
Yes	149	87
No	22	13

The study shows that 87.13 % of the 171 study participants accepted to be tested for HIV while 12.87 % did not accept. This is contrary

to UNAIDS objective that states that by the year 2020, 90% of all people living with HIV (PLHIV) will know their HIV status [2].

**Table 4.** Chi-squared Table for Background and Clinical Characteristics

Variable		Acceptability	No acceptability	P-value
Gender	Male	70(47)	15(68)	0.06 <sup>c</sup>
	Female	79(53)	7(32)	
Age	15-20	14(9)	4(18)	0.26 <sup>f</sup>
	21-30	82(55)	14(64)	
	31-35	27(18)	1(5)	
	>35	26(18)	3(14)	
Marital	Single	87(58)	16(73)	0.21 <sup>f</sup>
	Married	54(36)	4(18)	
	Divorced	5(3)	1(5)	
	Widowed	3(2)	1(5)	
Denomination	Christian	145(97)	19(86)	0.01 <sup>f</sup>
	Muslim	4(3)	1(5)	
	Hindu	0(0)	1(5)	
	Other	0(0)	1(5)	

Education	Tertiary	71(48)	14(64)	0.34 <sup>f</sup>
	Secondary	47(32)	4(18)	
	Primary	23(18)	2(9)	
	Never	8(5)	2(9)	
Occupation	Employed	44(30)	2(9)	0.16 <sup>f</sup>
	Unemployed	44(30)	7(32)	
	Business	42(28)	9(41)	
	Other	19(13)	4(18)	

**Note:** c=chi-squared, f=fisher

Table 2: shows that demographic characteristics (gender, age, marital Status and education level and occupation) had no statistically significant association to acceptability of HIV test ( $p > 0.05$ ).

The table reveals that the Christians were significantly the majority religious grouping 145(97%) in the category of participants who

accepted to be tested as compared to other religious groupings. The differences across the religious groupings were statistically significant with the  $p$ -value=0.01. Meaning there were more Christians in the sample population. In this grouping the majority were Christians in the participants who both accepted and failed to accept to be treated at Monze hospital.

**Table 5.** Percentage Distribution of Participants by the Time they had their Last HIV Test

Variable		Frequency=N	Percentage%
When had their last HIV test	0-3 months	79	46
	4-7 months	55	32
	7-12 months	8	5
	More than 12 months	29	17

There were 46% of participants who tested for their HIV status in the past 0-3 months while 32% of the participants tested 4-7 months ago. A further 17 of participants tested for their HIV status in more than a year ago from the time the study was conducted. The study also

shows that 5% of the participants tested in the period between 7-12 months from the study was being conducted. These were just mere frequencies in absentia of checking for the significance of the differences across the categories.

**Table 6.** Acceptance of Test against Treatment Initiation

Variable		Frequency=N	Percentage%
Treatment initiation by acceptance	Initiated	22	15
	Not initiated	12	8
	N/A	115	77

Eighty-seven (87%) percent of the study participants accepted to be tested for HIV while 13% did not accept.

For those who accepted the testing of HIV status, 77% came out as not applicable to be initiated on HIV treatment as their results for HIV status were negative. As shown in table 6

there were 15% of participants who accepted to be tested for HIV status and had treatment initiation compared to 8% who accepted to be tested but were not initiated on HIV treatment. The graph further shows that among those who did not accept testing 68 % were not applicable in terms of initiating treatment though HIV

positive and 27% had already been on HIV treatment and 5% were not on HIV treatment

and had not accepted to be tested therefore did not know their status.

**Table 7.** Awareness of Care, Treatment and Support Services available for HIV Positive People

		Yes (%)	No (%)
Awareness of the HIV services available		69	31
Awareness of the HIV services available by gender	Males	67	33
	Females	72	28

The table above shows that 69% of participants were aware of care, treatment, and support services availability for HIV positive people at the hospital, while 31% did not know or were not aware.

Disaggregating awareness by gender 67% of males reported yes, they were aware of the services and 33% reported that no. For females 72% said yes, they were aware and 28% said no.

**Table 8.** Attitude toward HIV Test and Treat

No	Questions	Frequency=N	Percentage%
1	HIV testing is very beneficial		
	Strongly agree	143	84
	Agree	27	15
	Disagree	01	1
	Strongly disagree	0	0
	Do not know	0	0
	<b>Total</b>	<b>171</b>	<b>100</b>
2	Confidentiality is always provided		
	Strongly agree	72	42
	Agree	24	14
	Disagree	03	2
	Strongly disagree	70	41
	Do not know	02	1
	<b>Total</b>	<b>171</b>	<b>100</b>
3	HIV support services are easily accessible and available		
	Strongly agree	40	23
	Agree	77	45
	Disagree	41	24
	Strongly disagree	11	6
	Do not know	02	1
	<b>Total</b>	<b>171</b>	<b>100</b>
4	You are satisfied with the overall support you get from the health care providers		
	Strongly agree	17	10
	Agree	73	43
	Disagree	81	47
	Strongly disagree	0	0
	Do not know	0	0

	<b>Total</b>	<b>171</b>	<b>100</b>
5	It's important to encourage others to have their HIV status checked		
	Strongly agree	134	78
	Agree	37	22
	Disagree	0	0
	Strongly disagree	0	0
	Do not know	0	0
	<b>Total</b>	<b>171</b>	<b>100</b>
6	If HIV positive, its important start ART immediately		
	Strongly agree	41	24
	Agree	79	46
	Disagree	40	23
	Strongly disagree	08	5
	Do not know	03	2
	<b>Total</b>	<b>171</b>	<b>100</b>
7	You are well satisfied with the overall health care services delivered by the health facility		
	Strongly agree	17	10
	Agree	73	43
	Disagree	81	47
	Strongly disagree	0	0
	Do not know	0	0
	<b>Total</b>	<b>171</b>	<b>100</b>

Most (83.6%) of the respondents strongly agreed that HIV testing is very beneficial. The other questions the responded strongly agreed are as follows; Prompt response to HIV testing is essential in effective HIV treatment (81%), Abstinence, be faithful and condom use are effective in prevention of HIV transmission (87%), Regular HIV testing is essential in promoting positive living (85%), Couple counseling and testing is important in the preventing HIV transmission between partners (86%), It is easy for you to discuss problems related to your medication with the health care providers (69%), Adherence to prescribed ART is important to one's life (59%).

However, 47% of the participants disagreed with the questions stating, 'You are satisfied with the overall support you get from the health care providers' and 'You are well satisfied with the overall health care services delivered by the health facility'. HIV support services have not been easily accessible and available according

to the study. The majority of the respondents (47 %) disagreed to the statement saying that 'You are well satisfied with the overall health care services delivered by the health facility' while 43% agreed and 10% strongly agreed.

## Discussion

The socio-demographic characteristics of the study population are illustrated in table 1. Among the 171 respondents who answered the self-administered questionnaire, the study results showed that the age group distribution among participants was much of a young population that sought for health services at Monze mission hospital. The majority of the population fell in the age group between 21-30 years representing 96(56%) of the total participants. There were 28(16%) who were between 30-35 years. Furthermore, participants who belonged to the age group of above 35 years were 29(17%) and those who were in the age group of 15-20 years were 18(11%).



According to gender there were 86/171 females as compared to male participants who were 85/171, showing there were more females by one. This could be attributed to good health seeking behaviors of women as opposed to men hence the increase in the number of females seeking health attention at the hospital. Furthermore, culturally men are viewed as strong human beings hence if a man frequents the hospital, he is considered to be weak.

The study also shows that most of the participants were single as there were 103(60%), followed by 58(34%) who were married. There were 6(4%) who were divorced and 4(2%) were widowed. The study further shows that most participants were Christians represented 164(96%), followed by Muslims who were 5 (3%). Religions like Hindu were 1(1%) and other religions were 1(1%). At the educational level, there were 25(15%) who attended primary school, 51(30%) who attended secondary, 85(50%) attended tertiary education and 10(6%) did not attend any form of education. Showing the majority of the participants obtained tertiary level education.

### **Knowledge on Test and Treat Policy**

Table 2 shows that 71.93% reported to have known what HIV test and treat means compared to 28.07% of the participants. Knowledge is an understanding of information about a subject that you get by experience or study, either known by one person or by people generally [13]. The patient's knowledge about HIV test and treat influences their impetus greatly and makes them attach extreme importance to testing and treatment recommendations.

### **HIV Test Acceptability**

The results of this study in table 3 revealed that many of the participants accepted to be tested for their HIV status. The study shows that 87.13% of the study participants accepted to be tested for HIV while 12.87% did not accept.

This is contrary to UNAIDS objective that states that by the year 2020, 90% of all people living with HIV (PLHIV) will know their HIV status [2].

According to Boswell (2009), Acceptance of HIV testing is crucial in combating the spread of infection. Knowing your HIV status can only happen when you accept to be tested.

### **HIV Test Acceptability by Age Group**

Table 4: Shows that there are significant differences in terms of age group. 82 (55.03%) of participants who accepted the testing and treating were from the age group of 21-30 compared to other age groups. Those who were in the age group between 31-35 were 27(18.18 %), followed by those who were above 35 years and had accepted the test and treat program. Further 14 (9.38 %) of the participants who were between 15-20 years had accepted the campaign. This explains that the average peak age of understanding HIV and benefits of HIV testing is between 21-30 years. The majority of participants who did not accept the HIV test and treat policy were those who belonged to the age group of 21-30 with 63.63 % representation though the figure was small 14 out of 171 participants. Those who were in the age group of 15-20years were 17.45 % (4/171) followed by 13.64% (3/171) of those who belonged to the age group above 35years. Those who belonged to age of 31-35years were the minority as they were 4.55 % (1/171) of the participants who did not accept the test and treat program, this entails that sensitization should be highly reinforced on age group 15-30 years in order to attain 90/90/90 HIV campaign.

### **HIV Test Acceptability by Gender**

The study revealed that 82.35% males accepted to have an HIV test compared to 17.65% of males who did not accept to be tested for HIV status. While there were more females of about 91.86% who accepted to be tested for their HIV status compared to 8.14% of females who refused to be tested. There were

more females who accepted to be tested for HIV status as compared to men. However, these differences were not significant across gender groupings in the sample. However, females have surpassed 90% /90%/90% UNAIDS objective of knowing HIV status. This could be attributed to good health seeking behaviors of women as opposed to men hence the increase in the number of females accepting HIV testing policy. Furthermore, culturally men are viewed as strong human beings hence if a man frequents the hospital, he is considered to be weak.

### **HIV Test Acceptability by Education Level**

For the participants who accepted to be tested for their HIV status 71(48%) attended tertiary education, 47(32%) attended secondary education, 23(18%) attended primary education while 8(5%) did not attend any form of education.

Furthermore, among those who did not accept to be tested 14(64%) attended tertiary education, 4(18%) attended secondary education and 2(9%) did attend primary school and 2(9%) did not attend any education. These had no evidence of real differences across education categories given that the  $p$ -value=0.34 suggesting non-existence of support to the assertion against null hypothesis.

This finding is contrary to the study done by [14] in Zambia; found that those with higher education in his study had better knowledge of HIV transmission. This is important because educational attainment is one of the most influential factors affecting people's knowledge, attitudes and behaviors in various facets of life and has been shown to be an important determinant of health [15]. Contrary to the above findings, [16] in his study on Voluntary Counseling and Testing (VCT) for HIV in Nigeria showed higher levels of willingness to test for HIV among women without formal or only primary level education

(94.1%) and those with tertiary education (88.8%).

### **HIV Test Acceptability by Religion**

The Christians were significantly the majority religious grouping 145(97%) in the category of participants who accepted to be tested as compared to other religious groupings. Muslims were 4(3%) of the participants who accepted to tested at Monze hospital. For Hindus and other religious groups, they had 0(0%) in representation. For the category of those who did not accept to be tested Christians 19(86%) were significantly the majority religious grouping, while Hindus were 1(5%), Muslims were 1(5%) and other religions were 1(5%). The differences across the religious groupings were statistically significant with the  $p$ -value=0.011. Meaning there were more Christians in the sample population. In this grouping the majority were Christians in the participants who both accepted and failed to accept to be treated at Monze hospital.

However, the study done by [17], acceptance of HIV testing among women attending ante natal care in South- Western Uganda, religion was not associated with the acceptability of HIV testing.

### **Acceptance of the Test against Treatment Initiation**

For those who accepted the testing of HIV status, 77% came out as not applicable to be initiated on HIV treatment as their results for HIV status were negative. However, out of 24% who were HIV positive-; 15% had treatment initiated compared to 8% who were not initiated on HIV treatment. The study further shows that among those who did not accept testing 68% were not applicable in terms of initiating treatment and 27% had already been on HIV treatment and 5% were not on HIV treatment and had not been accepted to be tested.

The study did not bring out the reason for those who did not accept testing (68%) why were not applicable in terms of initiating

treatment. However, out of 23.49% who were positive 15.44% were initiated on ARVs. In line with UNAIDS objective which says that by the year 2020 90% of HIV-positive people should start treatment, the study revealed that 66% who were found positive were put on ART.

### **Awareness of Care, Treatment and Support Services Available for HIV+ People**

The results of this study in figure 6 shows that 69% of participants were aware of care, treatment, and support services availability for HIV positive people at the hospital, while 31% did not know or were not aware. This could be attributed to not achieving the 90%/90% /90% UNAIDS campaign. People become aware of the services when diagnosed and referred to these departments for further management.

### **Awareness of Care, Treatment, and Support Services by Gender**

The results of this study in table 7; disaggregating awareness by gender, 67% of males reported to be aware of the services while 33% reported not to be aware. Further, 72% females were aware while 28% were not aware of the services being available at Monze mission hospital. This could be attributed to good health seeking behaviors of women as opposed to men hence the increase in the number of females being aware of availability of care, treatment, and support services for HIV positive people at Monze hospital [18].

### **Attitude towards HIV Testing Benefits**

The majority of Participants responded that it was very beneficial to be tested. The results from Table 8 are as follows; those who strongly agreed were 81%, while 16% agreed, however, 1% disagreed and 1% strongly disagreed that HIV testing was very beneficial.

However, on the contrary, the study shows that 87 % of the study participants accepted to be tested for HIV while 96% agreed that HIV testing was beneficial.

HIV testing services remains low in risk groups around the world. Fear of stigmatization, discrimination, and breach of confidentiality results in low service usage among risk groups [19].

### **Satisfied with the Overall Support you Get from HCW**

Table 8 of this study showed that 41% strongly agreed of being satisfied with the overall support they get from health care providers, 49% agreed, 5% had no opinion while 4% disagreed and 1% strongly disagreed with the statement. Satisfaction of the clients from the support they get from health workers when seeking health management is key to accessibility and utilization of hospital services. This will favorably increase the acceptability to HIV test and treat. Patient satisfaction is an important and commonly used indicator for measuring the quality of health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care [20].

### **Importance of ART Adherence**

According to adherence Table 8 the participants who strongly agreed were 70%, and were the majority, followed by 25% who just agreed, while 4% had no opinion and 1% had disagreed that adherence to prescribed ART is important to one's life. People living with HIV and on ARVs their viral load can only be lowered when drug adherence is followed. This plays an important part in attaining 90/90/90 UNAIDS campaign.

### **Relationship between Acceptability to HIV Test and Treat with Other Variables**

Table 1 shows that demographic characteristics (gender, age, marital Status and education level and occupation) had no statistically significant association to acceptability of HIV test ( $p > 0.05$ ).

The table reveals that the Christians were significantly the majority religious grouping 145(97%) in the category of participants who accepted to be tested as compared to other religious groupings. The differences across the religious groupings were statistically significant with the  $p\text{-value}=0.011$ . Meaning there were more Christians in the sample population. In this grouping the majority were Christians in the participants who both accepted and failed to accept to be treated at Monze hospital.

### **Relationship between Acceptability to HIV Test and Treat with Attitude**

Most (83.6%) of the respondents strongly agreed that HIV testing is very beneficial. Knowing the benefits of HIV testing, most of the participants accepted to have an HIV test. The participants also strongly agreed (81%) to prompt response to HIV testing been essential in effective HIV treatment. Eighty seven percent (87%) participants strongly agreed to abstinence, be faithful and condom use been effective in prevention of HIV transmission, furthermore, 85% of participants strongly agreed to regular HIV testing been essential in promoting positive living. Couple counseling and testing is an important approach in the prevention of HIV transmission between partners, 86% of the participants strongly agreed to couple counseling and testing. About 69% of participants felt that it was easy to discuss problems related to medication with the health care providers as indicated on table 8. Lastly 59% of participants strongly agreed to the importance of adherence to prescribed ART.

However, 47% of the participants disagreed with the questions stating, 'You are satisfied with the overall support you get from the health care providers' and 'You are well satisfied with the overall health care services delivered by the health facility'.

HIV support services have not been easily accessible and available according to the study. The majority of the respondents (47 %) disagreed with the statement saying that 'You

are well satisfied with the overall health care services delivered by the health facility' while 43% agreed and 10% strongly agreed.

### **Limitations of the Study**

The following were the limitations of this study:

1. The structured interview schedule is a closed tool which could not be exhaustive in bringing out the required information from the patient, it might have had some gaps in eliciting the required information from the patient. Hence the need to use a semi structured questionnaire with a lot of open-ended questions.
2. The study was conducted on a limited sample size ( $n=171$ ) thus the results should be generalized with caution as it only represented views of participants from who accessed medical services from Monze Mission hospital at that time of research study.
3. The sample size comprised of patients from the rural and peri-urban settings hence the result may not be generalized for the rest of Zambia.

### **Significance of the Study to Nursing**

#### **Nursing Practice**

Nurses constitute the largest workforce in the health care system in Zambia. They play a leading role in the delivery of quality health care. The study shows that 87% of the study participants accepted to be tested for HIV while 13% did not accept, meaning that 87% knew their HIV status. Among the HIV positive participants 66% were put on ART but did not achieve the UNAIDS campaign (90%) objective. Further, various studies have reported that the rate of acceptability to HIV test and treat is still low. Many participants showed lack of knowledge on HIV test and treat policy. The disparity needs to be harmonized through health education among nurses, patients, and community members. This implies that there is a need to strengthen in-house workshops for

nurses to effectively disseminate information to patients, family members and the community at large. Health education, counseling and advocating for better health care services for patients must be on top of the HIV management plans in the medical clinic at Monze Mission hospital to improve the disease outcome. This entails that nurse working in the clinical areas must study widely to acquire new information and be able to impart that knowledge clearly to patients in order to prevent new HIV infection.

### **Nursing Administration**

HIV support services have not been easily accessible and available according to the study. Forty seven percent (47 %) disagreed to the statement saying that ‘You are well satisfied with the overall health care services delivered by the health facility’ while 43% agreed and 10% strongly agreed. This explains that most of the respondents disagreed about being satisfied with the overall health care services delivered by the health facility. This might be attributed to a shortage of staff, hence nurses in the medical clinics were overwhelmed with an ever-increasing patient workload. The nursing administrators should therefore advocate for improved staffing of nurses in the clinic to improve patient care. Further, they need to intensify training of nurses in the management of patients with HIV. They must also strengthen health education sessions given to patients, family members and the community to promote positive living and cut costs which come with poor adherence to treatment.

### **Nursing Education**

In the study, 97% of the participants had knowledge on perceived benefits of HIV Testing and Treatment. Eighty seven percent (87%) of participants were reported to have known the meaning of HIV test and treat. Therefore, there is need by the General Nursing Council of Zambia (GNC) to continue supporting HIV management in the curriculum for nurses and review of the curriculum. The

current curriculum does not cover new HIV trends.

Health promotion lessons can help to inculcate students with knowledge and competences they need to prevent new HIV infections.

### **Limitation**

Literature reviewed in this study showed that a lot of research has been conducted on HIV in the neighboring countries and overseas. Not much research has been conducted on acceptability of HIV test and treat in Zambia. It is therefore important that further research is carried out on a large scale to investigate effects of individual domains to the rate of acceptability of HIV test and treat. This will help to determine the most difficulty domain to manage. The studies will then help to attain 95%/95%/95% as per UNAIDS objective by 2025 and complete (100%) HIV free of new cases by 2030.

### **Conclusions**

The objective of the study was to determine acceptability of HIV Testing and Treatment and factors that influence acceptance among women and men seeking health care at Monze Mission Hospital. Specific objectives included to assess the knowledge and perceived benefits of HIV Testing and Treatment, to determine acceptability of the HIV Testing and Treatment policy, to establish the attitude towards HIV Testing and Treatment among women and men seeking health care at Monze Mission Hospital.

According to UNAIDS (90%/90%/90%) campaign which is translated as 90% of people living with HIV should know their HIV status, 90% of HIV-positive people start treatment and 90% of those treated achieve undetectable virus suppression by the year 2020 has not been achieved. The study shows that 87% of the study participants accepted to be tested for HIV while 13% did not accept, meaning that 87% knew their HIV status. Among the HIV positive participants 71% were put on ART but did not

achieve the UNAIDS campaign (90%) objective respectively.

In the study, 97% of the participants had knowledge on perceived benefits of HIV Testing and Treatment. Almost all (99%) the participants had positive attitude towards HIV testing and treatment. Positive attitude is a key to acceptability of HIV testing and treatment. [21] State that attitudes have been a focus of research because researchers assume that attitude influence behaviour. A positive attitude influences people to undergo HIV testing.

## Recommendations

Based on the study findings, in order to strengthen acceptability of HIV test and treat policy the following recommendations were made:

1. The Ministry of Health to improve funding sensitization programs at district level.
2. Health care providers should sensitize the communities on the benefit of HIV tests and treatment policy.
3. Health care providers should sensitize the communities on the availability of services at the hospital.
4. Health care providers should sensitize the communities on the test and treat policy in order to promote the general public access

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to various promotive, preventive and treatment services.

5. Support groups should be formed in the community in collaboration with the non-governmental organizations, health care providers and family members in order to sensitize the communities on the test and treat policy so that we can attain 90/90/90 UNAIDS objective.
6. To have this study replicated using a larger sample.

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## Competing Interests

The authors declare no competing interests for this manuscript.

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