



## East African Journal of Health and Science

[eajhs.eanso.org](http://eajhs.eanso.org)

Volume 7 Issue 2, 2024

Print ISSN: 2707-3912 | Online ISSN: 2707-3920

Title DOI: <https://doi.org/10.37284/2707-3920>



EAST AFRICAN  
NATURE &  
SCIENCE  
ORGANIZATION

Original Article

### Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania

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Article DOI: <https://doi.org/10.37284/eajhs.7.2.2383>

Date Published: **ABSTRACT**

07 November 2024

**Keywords:**

*Knowledge,  
Accessibility and Use.*

This study examines knowledge, accessibility, and use of female condoms in the Tabora region, particularly Tabora Municipality, Tanzania. Since the spread of the HIV epidemic and the rapid increase of population in the world and sub-Saharan Africa in particular, the use of a protective device such as condoms has been the major concern in overcoming the problems. The female condom has been considered as the women's protective measure against sexually transmitted diseases (STDs) and pregnancy, as women control it and give them power to negotiate protective sex. However, in many situations, women and men control sexual behaviour. It was for this reason that this study was meant to examine the extent of knowledge, accessibility and use of female condoms in Tabora Municipality. The study employs both qualitative and quantitative methods of data collection. A total of 384 men and women aged 15-49 were interviewed. Both primary and secondary data were utilized. Qualitative and quantitative methods of data collection were used to collect relevant information on the knowledge, accessibility and use of female condoms. The structured questionnaire was the main instrument of data collection in the field to collect relevant information on the knowledge, accessibility and use of female condoms. The questionnaire was administered by the researcher to respondents who were found in the selected saloons in Tabora Municipality. A total of 384 men and women were interviewed from selected venues. The study also used focus group discussion (FGD) to collect information about knowledge, accessibility and use of female condoms. Also, secondary information, such as that obtained from journals, official documents, books, and published and unpublished materials from governmental and non-governmental organizations. Both independent and dependent variables were coded in the computer and edited using SPSS. Frequency distribution and cross-tabulation tables were constructed. The chi-square test was also used to test the strength of the association between variables. This study reveals that knowledge about female condoms is very high (98 percent) but the use is very low. Only 22.1 percent of respondents admitted to having used a female condom. 46.6 percent report

having access to female condoms every time they want to use them. It is recommended that both governmental and non-governmental organizations should educate people on the use of female condoms throughout the country especially in rural areas and that deliberate efforts should be made to ensure accessibility and availability of female condoms near people settings.

#### APA CITATION

Kawiche, L. I. (2024). Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania. *East African Journal of Health and Science*, 7(2), 28-39. <https://doi.org/10.37284/eajhs.7.2.2383>.

#### CHICAGO CITATION

Kawiche, Luther Issawangu. 2024. "Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania". *East African Journal of Health and Science* 7 (2), 28-39. <https://doi.org/10.37284/eajhs.7.2.23783>

#### HARVARD CITATION

Kawiche, L. I. (2024) "Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania", *East African Journal of Health and Science*, 7(2), pp. 28-39. doi: 10.37284/eajhs.7.2.2383.

#### IEEE CITATION

L. I., Kawiche, "Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania", *EAJHS*, vol. 7, no. 2, pp. 28-39, Nov. 2024.

#### MLA CITATION

Kawiche, Luther Issawangu. "Knowledge, Accessibility and Use of Female Condoms in Tabora Region, Tabora Municipality, Tanzania". *East African Journal of Health and Science*, Vol. 7, no. 2, Nov. 2024, pp. 28-39, doi:10.37284/eajhs.7.2.2383.

## INTRODUCTION

In Africa, attempts to promote condom use have been faced with resistance from Christian and Muslim religions as well as from the traditional perspectives, though its use plays a huge role in family planning and prevention of the spread of sexually transmitted infections (STIs) including HIV/AIDS infection. When the female condom is used correctly it is as effective as the male condom in reducing HIV transmission (Wiyeh et al., 2020; Meekers, & Richter, 2005). One study involving 900 women provided with both male and female condoms at STI clinics in the United States revealed that after six months, 8 percent of respondents had used only the female condom, 73 percent had used both male and female condoms, and about three percent used 10 or more female condoms. It was concluded that women at risk of STIs find the female condom acceptable with many using either the male or female condom consistently over time (FHI, 2008).

In many situations, men play the dominant role in making decisions concerning the number of children a woman will bear and her use of family

planning methods. As a consequence, it is difficult for women to refuse sex or demand protective measures such as male or female condoms. The use of condoms is usually associated with a lack of trust or someone wanting to use a condom because she/he is already infected (Human Sciences Research Council (HSRC), 2024; Francis-Chizororo, 2003). In Tanzania the knowledge of contraceptives is high. About 96 percent of women and 97 percent of men know at least one modern method of family planning, (TRCHS, 1999) but among men, a condom is the method by 86 percent (TDHS, 2010; TDHS, 1997) and only 20 percent of married women are currently using a modern method (TDHS, 2004-05). Pills and condoms are the most commonly used methods among women with completed primary school and those with secondary or higher education (Lee, 2021; TDHS, 1994), while the proportion of women who have heard of condoms increased from 65 to 79 percent (Ngallaba et al., 1993). In 1998, Population Services International (PSI) introduced the female condom in Dar es Salaam to provide women with the language and tools to discuss and negotiate the use of female

condoms as a protective method against pregnancy and HIV (Jones, 1999).

As in most developing world, more women than men are infected with STIs and HIV/AIDS (Girum, 2018), as six out of ten HIV/AIDS infections account for women. Under this circumstance, women need to have a protective device that they can use to control and protect themselves in situations where the male partner refuses to use the male condom. However, the extent to which and how women will be able to achieve this depends on the involvement and attitude of men in negotiating safe sex, since the majority of women do not have the power to make decisions on the use of condoms with their male partners. This is usually attributable to the payment of bride price by men during or before marriage. As a result, men claim that they should get unrestricted and maximum satisfaction from sexual intercourse, and as a consequence, the use of condoms depends on the willingness of the men (Ismael, 2012; Francis-Chizororo, 2003). However, the introduction of female condoms in areas where the male condom is already available has increased protected sex (PSI, 2008). This is further elaborated and supported by a study conducted in Kenya and Brazil by AIDSCAP which proved that female condoms offer 97 percent of protection against STDs including HIV infection to those who use it correctly as it can be controlled by women (Beksinska, 2020; Marfatia, 2015; Soper et al., 1993).

Different programs such as the ICPD Program of Action urge all countries to provide men and women with reproductive health care that is “accessible, affordable, acceptable and convenient” (Ezeh, 1996). The ICPD Program of Action encourages reproductive health care programs to move away from considering men and women separately by adopting a holistic approach which will include both men and women. Recently, The National Population Policy of 2006 realized that the use of modern methods of family planning is still relatively low (only 20 percent) because there are

few community-based programs for family planning. The reasons why there is a low prevalence of modern contraceptives, particularly the female condom, in Tabora Municipality and Tanzania are not known. Few studies have been conducted and published so far on the knowledge, accessibility and use of female condoms in Tanzania. This study intends to shed more light on why the prevalence of female condoms is low in Tabora Municipality and Tanzania in general.

### **Objectives of the Study**

This study aimed to assess the knowledge, accessibility and use of female condoms. The findings of this study challenge the existing knowledge and practice of women and men on the use of female condoms. It is also useful to the Ministry of Health and Social Welfare, academicians and policymakers since it provides suggestions on the intervention of the problem, hence adding more information on, and contributing to the development of knowledge, accessibility and use of female condoms. The study also fills the gap in the Millennium Development Goal of 2030, target number 3.3 which explains that by 2030, the end of the epidemics of AIDS and target 3.7 aimed at ensuring universal access to sexual and reproductive healthcare services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes by 2030.

## **METHODOLOGY**

### **Study Design**

This study is cross-sectional; it analyses primary data on knowledge, accessibility and use of female condoms collected from January to June 2023. A total of 384 men and women aged 15-49 were interviewed. Data were analysed using simple descriptive statistics.

### **Description of the Study Area**

This study was conducted in the Tabora region, particularly Tabora Municipality. The name Tabora

then emerged from the ethnic Nyamwezi (the largest tribe in the region) word “MATOBOLWA” meaning dried boiled sweet potatoes. Tabora region is located in the western part of Tanzania. The region is divided into seven districts namely; Nzega, Tabora Municipality, Uyui, Sikonge, Igunga, Urambo and Kaliua. Tabora Municipality is the headquarters of the Tabora region, located in the western part of Tanzania. Tabora Municipality borders Uyui district in the east, north, and west and Sikonge district in the south and is 800 km west of Dar es Salaam, 320 km east of Kigoma port on the shores of Lake Tanganyika, and 360 km south of Mwanza City. The Municipality acquired a township council status in 1958 and was raised to Municipal Council in July 1988. Tabora Municipality accounts for about 4 percent of the total population of the region (NBS, 2022). Tabora Municipality has a higher population of about 308,741 and an annual growth rate of 3.1 (NBS, 2022), which acts as a market for the produced services.

Being the highest populated Municipality in the Tabora region, the municipality developed into a centre for administration and trade. It is also characterized by the low capacity for provision of social services such as water, health services and education. This is because most of the settlements are located in unplanned areas, which results in transportation problems and general misallocation of infrastructures. Tabora Municipality has mixed ethnicities due to rural-to-urban migration. Kiswahili and other vernacular languages are the most common languages used in the region.

The study has been carried out in the Tabora Municipality. Tabora Municipality was selected as the study area because female condoms are mostly used by educated persons most of whom are found in the Municipal centre. Furthermore, female condoms are sold mostly in Municipal and urban areas, (Meekers, & Richter, 2005). Another reason for selecting Tabora Municipality as the study area is that the Municipality has the highest literacy rate

(78.9 percent) with 2.8 percent of its people with a university education (URT, 2002). This means that it would be easy to collect appropriate information concerning female condoms.

The target population was all female and male of reproductive age, between 15 to 49 years who attend both male and female hair salons in Tabora Municipality whereby a total of 384 respondents were covered from selected salons found in the Municipality. Retailers found in pharmacies in the Municipality were also covered to collect information on the types of female condoms which are more marketable than the others and their opinions concerning the improvement of female condom distribution. To determine the optimal sample size, the following formula was used:

$$n = \left( \frac{NZ^2 \frac{pq}{2}}{(N-1)d^2 + Z^2 \frac{pq}{2}} \right)$$

Where:

N=total number of men and women aged 15-49

n=sample size of the target population

d=Absolute precision required

P= Anticipated population proportion

$\alpha$ =confidence level

Therefore, if we take N= total number of men and women aged 15-49, d=0.05, p=0.5, q=0.5. A total of 384 respondents aged 15-49 years in Tabora Municipality were covered in this study.

In this study, respondents were picked randomly as they came into the selected salons. The researcher interviewed one out of every three customers in male and female salons. Ten female salons with not less than 10 women in each saloon were covered by each municipality to meet the 80 percent target of the selected population to consist of women. This is due to the nature of the study which focuses on female condoms. The other 20 percent of the

selected population were men who were found in the selected male salons located in Tabora Municipality. Five male salons with not less than five men from each of the salons were picked randomly as stated above. In all these salons the researcher collected information about the knowledge of the respondents, accessibility and use of female condoms. In addition, a total of 5 retailers of female condoms found in selected pharmacies in Tabora Municipality were interviewed by using an interview guide since they were considered to help provide appropriate information about the price of female condoms and the type of female condoms which are preferable.

In this study two types of data were collected: primary and secondary data. Both qualitative and quantitative methods of data collection were used to collect relevant information on the knowledge, accessibility and use of female condoms. The qualitative approach provides data on the knowledge, accessibility and use of female condoms. The quantitative approach is important since it provides statistical data on demographic characteristics attributed to respondents' use of female condoms.

The structured questionnaire was the main instrument of data collection in the field to collect relevant information on the knowledge, accessibility and use of female condoms. The questionnaire was administered by the researcher to respondents who were found in the selected saloons in Tabora Municipality. The other questionnaire was for retailer sellers in pharmacies. A total of 5 retailers in the Municipality were covered. A total of 384 men and women were interviewed from selected venues. The questionnaire was translated from English to Kiswahili language, the official language and the most common language in Tanzania.

The study also used focus group discussion (FGD) to collect information about knowledge and use of female condoms. The group members consisted of

seven people of the same sex to foster freedom, flow and sharing of information between and among participants. Also, secondary information, such as that obtained from journals, official documents, books, and published and unpublished materials from governmental and non-governmental organizations.

Data analysis is a process that involves editing, coding, classifying and tabulating the collected data (Kothari, 2004). As indicated earlier, the study used both quantitative and qualitative methodologies which supplemented each other. Qualitative research is characterized by an emphasis on understanding and explaining complex phenomena. Thus, data analysis in qualitative research provides ways of discerning, examining, comparing, contrasting and interpreting meaningful patterns or themes in research results (Oakley, & Mardsen, 1984). In this study, the collected data was analysed using a multidisciplinary approach consisting of a combination of these two research methods. Compilation and processing of both quantitative and qualitative data started immediately after the fieldwork. This process consisted of the research team reviewing the data and identifying key ideas of the research questions. The data were coded and processed through the IBM SPSS statistical programme version 21. Frequency distributions and cross-tabulation were made to study the relationships between variables. In addition to that, various indices such as the chi-square analysis were employed. The resulting indices measure the extent of association between the variables being compared. Frequency tables and charts were used to present the findings. Qualitative data were sorted and arranged in thematic areas. The content was subjected to thematic analysis and presented using narrations.

### **Study Limitations**

Due to the nature of the study, getting genuine information was extremely difficult; people were not free to discuss issues regarding condom use, as some of the respondents thought that the study



touched their private lives. Another problem was that respondents were expecting to get financial rewards after participating in this study and regarded it as a source of income.

### Ethical Consideration

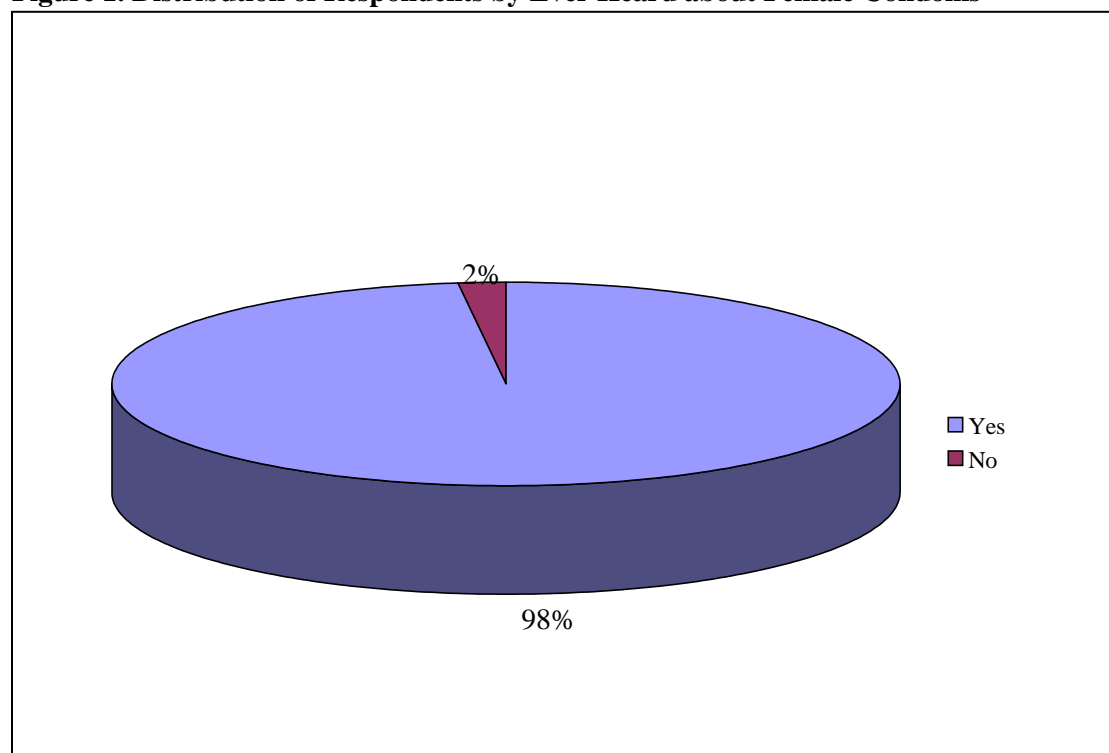
The aim of the study was explained to the participants. Additionally, participation was voluntary with maintained confidentiality and privacy. Respondents were also asked not to write their names on the questionnaire schedule.

### RESULTS

Regarding knowledge of female condoms findings indicate that 98 percent had ever heard about female condoms. These results reflect the high level of

awareness of issues related to condoms particularly female condoms (PSI, 2009). The study findings correlate with the study by Mtayangulwa et al. (2015) on the knowledge, attitude and use of female condoms among female undergraduate students University of Dar-es-Salaam whereby the study findings showed 96.6 percent of students had heard about female condoms. Of those who have ever used female condoms, 26.7 percent preferred female condoms as a means of HIV and STIs prevention. Of those who had heard of female condoms, 46 percent had a positive attitude towards the use of female condoms when compared to male condoms as a means of HIV and STIs prevention as well as prevention against unwanted pregnancy.

**Figure 1. Distribution of Respondents by Ever Heard about Female Condoms**



Demographic and Health Survey (DHS, 2004 and 2022), indicates that knowledge of female condoms in Tanzania is high, especially among the urban dwellers, where the majority are more likely to have attended school and to have remained in school for

a longer period than rural residents. A cross-tabulation was used to show the relationship between knowledge of female condoms and some of the socio-demographic characteristics of the respondents as shown in Table 4.1.

**Table 4.1: Distribution of Respondents who ever Heard about Female Condoms by Selected Socio-demographic Characteristics**

Demographic Characteristics		Ever heard about female condoms?							
Variable	Yes		No		Total		X <sup>2</sup>	df	P-value linear reg.
	Yes.	(%)	No.	(%)	No.	(%)			
Marital status									
Single	253	98.1	5	1.9	258	100	2.084	2	0.353
Married	108	99.1	1	0.9	109	100			
Not married	16	94.1	1	5.9	17	100			
Education									
No education	8	100	0	0	8	100	8.754	3	0.033
Primary education	123	95.3	6	4.7	129	100			
Secondary	191	99.5	1	0.5	192	100			
Higher level education	55	100	0	0	55	100			
Religion									
Christian	221	98.7	3	1.3	224	100	0.703	1	0.402
Muslim	156	97.5	4	2.5	160	100			
Age									
15-19	23	95.8	1	4.2	24	100	2.036	4	0.729
20-24	105	99.1	1	0.9	106	100			
25-29	148	98	3	2	151	100			
30-34	73	97.3	2	2.7	75	100			
35+	28	100	0	0	28	100			

About 99.1 percent of respondents aged 20-24 said that they have heard about female condoms: percentages for other age groups are shown in Table 4.1. In terms of religious affiliations, 98.7 percent of Christians and 97.5 percent of Muslims had heard about female condoms. Furthermore, singles are more likely to have knowledge of female condoms than others. The chi-square was used to test the association between those who have ever heard about female condoms and some socio-

demographic variables; for example, marital status, education, religion and age of respondents. As shown in Table, 4.1 only the education of respondents is significantly associated with respondents ever heard about female condoms at 0.033 significant levels. Regarding sexuality and the use of female condoms responses show that only 22.1 percent of respondents used female condoms and 77.9 percent did not.

**Table 4.2: Percentage Distribution of Respondents who had ever Used Female Condoms with their Partners**

Responses	Frequency	Percent
Yes	85	22.1
No	299	77.9
<b>Total</b>	<b>384</b>	<b>100</b>

This result seems to agree with other studies which found that there is low use of female condoms in Tabora, Kilimanjaro and Arusha regions (PSI, 2009) which is due to lack of knowledge on the use

of female condoms, unavailability of female condoms, hassles associated with use of female condoms, religious beliefs, negative perceptions towards female condoms, women's lack of

confidence, costs of female condoms, traditional and cultural influence. Also, a study conducted by Mnyika et al. (1995) “Condom awareness and use in the Arusha and Kilimanjaro regions, Tanzania: a population-based study”. The results of the study suggested that, while the majority of the respondents knew about female condoms and stated that female condoms were available in their localities; reported regular female condom use was low. Age, gender, marital status, occupation, and place of residence appeared to be significant determinants of female condom awareness and use, while educational status was not. Although barmaids and professional drivers have been shown to practice high-risk sexual behaviour, reported female condom use among them was low.

Likewise, the study by Uchendu et al. (2019) on the “Awareness and utilization of female condoms among street youths in Ibadan, an urban setting in

South-West Nigeria”. The study indicated that almost half 47.9 percent of the respondents have heard about female condoms. However, only 16.8 percent have ever seen while 4.3 percent have ever used a female condom. Age, education, current sexual activity and experience of rape attempt were predictors of female condom awareness. Awareness of female condoms was a significant predictor of utilization of female condoms. There is therefore a need for proper awareness and education on the effectiveness of female condoms.

One respondent echoed:

*“Many of us are aware of the female condoms. The problem is that we do not know how to use them, its shape is very complicated”*

Respondents who did not use female condoms the last time they had sex were asked to state their reasons for not using one.

**Table 4.3: Distribution of Respondents by Reasons for not Using Female Condoms**

Category Label	Responses	Percent
Uncomfortable	31	8.1
We use a male condom	186	48.4
Female condoms are not available	32	8.3
I do not have sex with a sex worker	14	3.6
Always have sex with my regular partner	70	18.2
Condom use is a sin	9	2.3
Female condom diminishes sexual pleasure	10	2.6
My partner does not like a female condom	14	3.6
Other	18	4.7
<b>Total</b>	<b>384</b>	<b>100</b>

Some of the reasons given by those who did not use a female condom the last time they had sexual intercourse were as follows: the majority of the respondents said that they did not use a female condom the last time they had sex because they used male condoms 48.4 percent or they had sex with their regular partners 18.2 percent. However, 8.1 percent reported that they were not comfortable with female condoms. Additional reasons for not using the female condom are shown in Table 4.3. Among the mentioned reasons for not using female condoms include; unavailability of female

condoms, religion, negative perceptions towards female condoms, men’s attitude towards female condoms, lack of confidence among women and costs of female condoms (PSI, 2009). The shape of the female condom is also part of the concern which discourages people from using the female condoms as was argued by one of the respondents.

*“I do not trust the female condom, especially the ring at the base, and I wonder how I am going to take it off after using it”.*

Another respondent pointed out that:



*“I really like female condoms but I am not comfortable with the covered oil as I always wash out before using it”.*

In this study the availability of female condoms is also part of the concern; findings indicated that female condoms were only available to 39.8 percent

and 26.8 percent show that female condoms were not available to them, as summarized in Table 4.4. Studies found that condom prices can be a barrier to their use (Agha 2001, PSI 2009) as the cost of any family planning method will determine its continued use or non-use (Francis-Chizororo, & Natshalaga, 2003).

**Table 4.4: Distribution by Availability of Female Condoms in the Place Where They Live**

Responses	Frequency	Percent
Yes	153	39.8
No	103	26.8
Do not know/ remember	128	33.3
<b>Total</b>	<b>384</b>	<b>100</b>

In this study, 93 percent of respondents show that female condoms cost less than 500/=, however, many people, especially commercial sex workers, opt for male condoms which are sometimes provided free of charge in guest houses (PSI, 2009). The study findings are also supported by Sarkar et al. (2008) on the “barriers to condom use”. Results of the study showed that several factors were associated with non-use of a female condom during sexual intercourse. Their cost often posed a barrier to condom use for the poor, even in developed countries. In many communities, moral values, and ethnic and religious factors also played a role. Among other social factors, gender inequality, lack

of a dialogue among partners about condom use, and the stigma attached to the condom could all lead to unprotected sexual intercourse. Personal factors such as aversion to the condom, consumption of alcohol or use of drugs before sexual intercourse, and anxiety and depression all were negatively associated with condom use.

In this study, respondents were also asked to state if they could get female condoms every time they wanted to use. As was noted earlier, the use of female condoms is found to be very low. In this case, respondents were asked to state if they have access to female condoms.

**Table 4.5: Distribution of respondents by accessibility of female condoms**

Can you get a female condom every time you want to use it	Frequency	Percent
Yes	179	46.6
No	69	18
Do not know	136	35.4
<b>Total</b>	<b>384</b>	<b>100</b>

Responses show that 46.6 percent get access to female condoms and 18 percent do not get access to female condoms. A similar study on female condoms noted that female condoms should be available in shops and pharmacies like male condoms where people can easily access them.

One respondent argued that:

*“Female condom is not very popular since the government does not put much emphasis on advertising it in the mass media like the male condom”.*

According to Uchendu et al. (2019), condoms are the only method available technologically that prevents several STIs including HIV and unwanted pregnancies. It is very effective compared to other forms of contraception. There are male and female condoms, however, knowledge and use of male condoms are higher than female condoms. Both female and male condoms need cooperation between both partners, however, the female condom can be used in situations of male refusal to use a condom.

## CONCLUSION AND RECOMMENDATIONS

Generally, respondents were very knowledgeable about female condoms. About 98 percent of respondents reported having heard of female condoms. Furthermore, the results show that there is a significant association between marital status, education and knowledge about female condoms. Despite the high knowledge of female condoms among the studied population use of female condoms seems to be very low (22.1 percent). Among 22.1 percent who reported using female condoms, only 10.9 percent used female condoms the last time they had sexual intercourse. A chi-square test shows that there is a significant association between the use of female condoms in last sexual intercourse and the occupation of respondents at 0.05 significant levels. The main reasons mentioned for not using female condoms were the use of male condoms, having sex with a regular partner and being uncomfortable using them. Efforts should be made by the government, individuals, and non-governmental organizations (NGOs) to educate both men and women on the use of female condoms throughout the country, especially in rural areas. Deliberate efforts should be made to ensure accessibility and availability of female condoms in shops, pharmacies, VCT centres, guest houses, bars and nightclubs at affordable prices. Further studies on female condoms are very important since the increase in population in sub-Saharan countries and the increase in the number of women infected with

HIV/AIDS is a big challenge. Since this study was conducted only in Tabora Municipality, another research which focuses on the attitude and perception of people towards female condoms should be carried out in other regions using a larger sample.

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