

Original Article

## Determination of Predictors for Acceptance and Recommendation for Sexual Reproductive Health Services among Young People in the Western Region of Kenya

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Acceptability.*

Acceptability of Sexual Reproductive Health (SHR) services to young people is when all services are made available (availability factor), at an affordable cost (affordability factor), opening and closing hours are convenient for young people (8.00 am and after 5-00 pm and weekend), privacy and confidentiality are guaranteed, adequate time spent with services providers and availability of prescribed drugs (health facility factors). Availability, affordability, and health facility factors are tailored for young people to ensure their retention in the SRH services seeking routine and recommendation of these services to other young people to improve health outcomes. The contribution of these three factors to increase the acceptability and willingness of young people to recommend SRH services to others varies among young people and thus affect SRH service uptake. The purpose of this study is to determine among the three factors which one(s) predictors of acceptability and wiliness of young people to recommend SRH services to others. The study utilised an analytical cross-sectional study design in 29 sub-locations, five Sub counties in the Western Kenya region targeting young people aged 10-24 years. Descriptive statistics were used to describe participation by age, gender, and education level. Tests of association and correlation were used to test if the factors of availability, affordability and health facility factors affect acceptability and young people recommending the SRH services to others; binary logistic regression analysis was used to assess the magnitude of the relationship between availability, affordability, and Health facility factors on recommending SRH services to others. Ages 15-19, female and secondary school levels utilised more services than the rest. More than 3/4 of the young people received SRH without any payment. 91% who did not pay and 83% who paid said they would recommend the facility to a friend. The majority (62.31%) waited >less than or equal

to 30 minutes before being attended to. A majority (94%) were given adequate time to explain themselves. The majority (96%) noted that the satisfaction level of privacy and confidentiality was acceptable. The majority (98%) noted that the satisfaction level of opening and closing hours was acceptable and slightly more than a half (57%) noted drug availability to be acceptable. An ordered logistic regression was utilised to assess the influence of availability and affordability of health services received and health facility factors among young people. Overall, the model significantly explains 24.87% of the young people's acceptability level to SRH services at  $p=0.000$ . Of the three factors, availability of services and Health facility factors were the most significant ( $p=0.000$ ) influencers of young people's accepting SRH services sought and received. Conclusion health facility factors influence the acceptability and willingness of young people to recommend SRH services to other young people more than affordability and availability.

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## INTRODUCTION

According to the WHO (2009) guidelines, youth-friendly health services represent an approach that combines the qualities that young people demand with the recommended standards that have to be achieved in the best public health services. Such services should be equitable, accessible, acceptable, effective, and appropriate for adolescents. On average, only 10% of the facilities have youth-friendly services in Kenya. Homabay 25%, Kisumu 39%, Siaya 25% and Kakamega 12% (SARAM, 2013). These have affected SRH service utilisation and have led to poor health indicators, e.g., teenage pregnancies (Homa Bay 33% national tally 27%),

HIV/AIDS (Homa Bay, Kisumu, Siaya more than 9% national tally 4.9%), unsafe abortion (Nyanza and western contribute 25% of all cases)

Studies have shown that factors leading to high negative effects are; socio-cultural norms regarding sexual activity of youth, unavailability of services, costs of using the services, poor quality of SRH services, inadequate access to SRH information, and lack of voice in decision making (Godia et al., 2014). This has made SRH services not to be acceptable to young people (availability, affordability, health facility factors) hence not willing to recommend the services to other young people hence affecting utilisation of SRH services.

The youths affected are those of low economic status from slum communities, those who lack knowledge/education, those in abusive intimate relationships, of school adolescents (Godia et al., 2014). Young women are particularly vulnerable to abuse as they are socially and economically disadvantaged and have to deal with forced early marriage and gender-based violence with many of them engaging in transactional sex in order to survive, provide, and care for their families. In sub-Saharan Africa, youths are more affected than any youths around the world (Godia et al., 2014). KDHS (2014) shows that teenagers in Kenya from poorer households are more likely to have begun childbearing (26%) than teenagers from wealthier households (10%). Slightly more than three in 10 women aged 15-19 with no education have begun childbearing compared with only 12 per cent among those who have a secondary or higher level of education. More alarming is that 26 in every 100 girls in Kenya are married before they reach 18 years. These young marriages are highest in North Eastern Province, Coast Province, and Nyanza province (NCPD and UNFPA, 2013). Kenya contributes to this percentage by having 103 in every 1000 pregnancies being attributed to girls between 15 and 19 years. According to Foundation Scelles (2012), there are 40 to 42 million prostitutes in the world, Three-quarters of them are between the ages of 13 and 25, and 80% of them are female. In Kenya, young people constitute 40% of the total population, while youth unemployment constitutes 78% of the total unemployment (Muiya, 2014). In nearly all developing countries, the rate of unemployment in the 15-24 age group is at least double the rate of all other age groups (ECA, 2005).

Evidence shows that most young people are healthy, but there is still substantial premature death, illness, and injury among adolescents (WHO 2014). Generally, several SRHs challenges have been sighted by studies to affect young people, as enumerated below;

Firstly, globally, more than 7 million young people aged 10-24 years old are living with HIV. Between the years 2005 - 2016), 95% of the new HIV cases occurred in low- and middle-income countries, with sub-Saharan Africa by far the hardest-hit region (UNICEF 2017). In Kenya, the 2012 report mentioned that Nyanza in the Western region

accounted for the highest HIV prevalence rate among youth 15-19 old at 15.1%, against 3.8% nationally (girls 8%) prevalence rate nationally and the highest in the country (KAIS, 2012; NASCOP & MOH, 2013; National Economic Institute, 2010).

Secondly, an estimated 21.6 million unsafe abortions occurred globally in 2009, 98% of which took place in low- and middle-income countries (WHO, 2011). It is estimated that one-third of all unintended pregnancies in Africa end in induced abortion. Reports indicate that there are about 310,000 abortions every year in Kenya, which translates to 46 abortions for every 1,000 women of reproductive age; 16% are teenagers (East African Centre for Law & Justice, 2016).

Thirdly, about 16 million young women ages 15-19 give birth each year, with 95% of these births occurring in low- and middle-income countries. Each year, an estimated 2 million girls younger than 15 give birth globally (WHO, 2012). The KDHS 2014 shows that the levels of teenage childbearing are highest in Nyanza (22.2%) and Coast (20.8 %) provinces and lowest in Central province (10 percent). Western Kenya, including Kisumu, generally posts comparatively poorer reproductive health outcomes in Kenya citation. About 34% of women aged 15-19 years in Kisumu have already begun childbearing. The region has some of the highest rates of induced abortion, mainly among adolescents and young people (KDHS 214).

Efforts to attain quality sexual and reproductive health are constrained by inadequate access to and inequitable distribution of quality SRH services, especially in sub-Saharan African countries. The Youth SRH issue continues to be a major challenge to governments and programs in sub-Saharan Africa including Kenya (KSPA-2010). Kenya has made extensive efforts to align the reproductive health rights agenda of youths as deliberated at the International Conference on Population and Development (ICPD) in Cairo in 1994 and the Maputo Plan of Action (Manoti, 2015). That has stressed the need to address the sexual and reproductive health needs of adolescents and youth as a key Sexual reproductive health component. The Kenyan government facilitated the development of the Adolescent Reproductive Health and Development Policy (MOH, 2006). The policy

provides a framework for equitable, efficient, and effective delivery of adolescent/youth sexual and reproductive health. Which also aims at giving a guide to planning, standardisation, implementation, and monitoring and evaluation of reproductive health services provided by various stakeholders (MOH, 2006).

Globally, the Astana declaration 2018 on PHC incorporated child and adolescent health by prioritising disease prevention and health promotion. Kenya's government is a commitment to UHC and SDG 3, which is to ensure healthy lives and promote wellbeing for all of all ages.

Strategies to reduce family planning unmet needs; safe motherhood and child survival initiatives; promotion of adolescent and youth health; gender and reproductive rights; management of STIs/HIV/AIDs; management of infertility are included in the ICPD (2019), Kenya, in National health sector strategic plan NHSSP (2005-2010), in CHS 2007, in the Constitution 2010 and the Kenya health sector policy (2012-2030)

Reviews from the Kenya health sector indicate that key barriers to accessing SRH services cited to be health system-related are lack of care provider knowledge and skills and gaps in language or literacy. This includes services availability, affordability of services offered, and health facility factors such as waiting time, privacy, and confidentiality, among others. This has made young people in Kenya, western Kenya still are not getting the SRH services when and how they need them and this has led to high teenage pregnancies and high school dropouts leading to early marriages. Information regarding the effect of the efforts has also been scanty and inadequate with respect to young people's SRH services

## METHODS AND MATERIALS

The study utilised an analytical cross-sectional study design. It utilised data collected from a cross-sectional study to show the predictors for acceptance and recommendation of SRH service among young people. The study was conducted in August 2017 under an intervention program, the GetUp Speak Out (TICH-GUSO) program.

Study Area-29 sub-locations in the GUSO program sites in 4 counties, namely Kisumu, Homabay, Siaya, and Kakamega counties in 5 Subcounties (Nyando, Nyakach, Butere, Alego Usonga, and Rachuonyo East) in Western Kenya region.

The study focused on all the 29 youth groups within community health units where the TICH-GUSO program is implemented. Youth groups comprised of young people ages 10-24 years and all have established leadership structures that govern and manage group activities like mobilisation of young people to attend youth group training on SRH topics and outreaches. The study utilised the data collected from a Client Satisfaction survey among the SRH youth groups in the sub-locations. The study population for this research are all the members (young people aged 10-24) of the 29 SRH youth groups (10 girls and ten boys totalling 580) in the GUSO implementation sites (CHUs) in the stated Western Kenya sub-counties.

The study utilised the Yamane sample size calculation formula (1967) since the study population size was known.

$$n = \frac{N}{1+Ne^2}$$

Where: N is the study Population (580); n is the sample size; and e is the margin error (0.05 at 95% confidence interval)

$$\text{Therefore: } n = \frac{580}{1+580(0.05)^2}$$

$$n = 236 \text{ Young people}$$

Including 10% Non-response Rate (NRR):  $n = 236 + (0.1 \times 236)$   $n = 261$  Young people

From the total of 580 young people, and based on the eligibility criteria, 217 young people were eligible for the study, as shown in *Table 1* below. All the 217 were enrolled on the program thereby achieving 83% of the expected study participants. This is representative of the general population as it is above the threshold of 80% (Thomas, 1996).



**Table 1: Summary distribution of respondents by counties, sub-counties, and gender**

Counties	Sub-counties	Male	Female	Total
Kakamega	Butere	28	42	70
Siaya	Alego Usonga	8	20	26
Kisumu	Nyakach	18	38	56
	Nyando	3	15	18
Homabay	Rachuonyo East	14	31	45
<b>Total</b>				<b>217</b>

The census approach was used in recruiting and enrolling study participants. Based on the eligibility criteria, the young people must: be aged 10-24; and have sought SRH services in the local link health facility within the last 3 months. Based on this criterion, only 217 were eligible to participate in the study out of the 580 young people. All of these young people were recruited to participate in the study.

The data collection tools utilised were semi-structured questionnaires. The questionnaires were developed including options for additional feedback from the respondents which would later be coded and analysed as quantitative data. The questionnaires were self-administered, where the respondents were able to enquire on issues they were not able to understand to improve the accuracy of the data collected.

STATA Version 14 was used to conduct data analysis as follows: Descriptive statistics (percentages and frequencies) were employed to illustrate the effect of health facility factors, affordability, and availability of SRH services on acceptance and young people recommending health services to others. The results were presented in the form of tables. Pearson chi<sup>2</sup> test was used to test association and correlation. It was incorporated to test if the factors of health facility factors, affordability and availability affect acceptability and young people recommending the SRH services to others by the young people. Finally, an ordered regression analysis was used to assess the magnitude of the youth-friendly factors on SRH services acceptability and recommendation by young people to others to inform future programming around YFS.

Raw data was obtained from the respondents, cleaned then fed into the statistical analysis tool

STATA version 14.1. Principle component analysis was used to reduce the dimensionality of this data set as well as reduce multi-collinearity between X variables. Using principal component analysis, the following X variable was derived:

Availability; this included principal component analysis of all variables regarding availability of personnel, drugs, equipment, and services in question (201, 2012 and 312) in the annexe tool section.

Affordability; this included a principal component analysis of all variables regarding affordability (cost of services and drugs) in questions (203 (f) and 301) in the annexe tool section.

Health facility factors; this included principal component analysis of all variables regarding health facility factors on waiting time, adequate time with services providers, privacy and confidentiality, and opening and closing hours in question (302, 303, 304, 306, 307, 308, 310, 311 and 312) in the annexe tool section.

Hence the three variables were used to derive the regression model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Where; Y= Acceptability of SRHR Services, X<sub>1</sub>= Affordability, X<sub>2</sub>= Availability, X<sub>3</sub>= health facility factors,  $\beta_0$ =Constant,  $\beta_2, \beta_3, \beta_4, \beta_5$  and  $\beta_6$ = Regression Coefficients.

These methods had been successfully used by past researchers such as Chege (2012) and Karuri (2007). The frequencies examined the demographic factors of the respondents. The regression model took the below form;

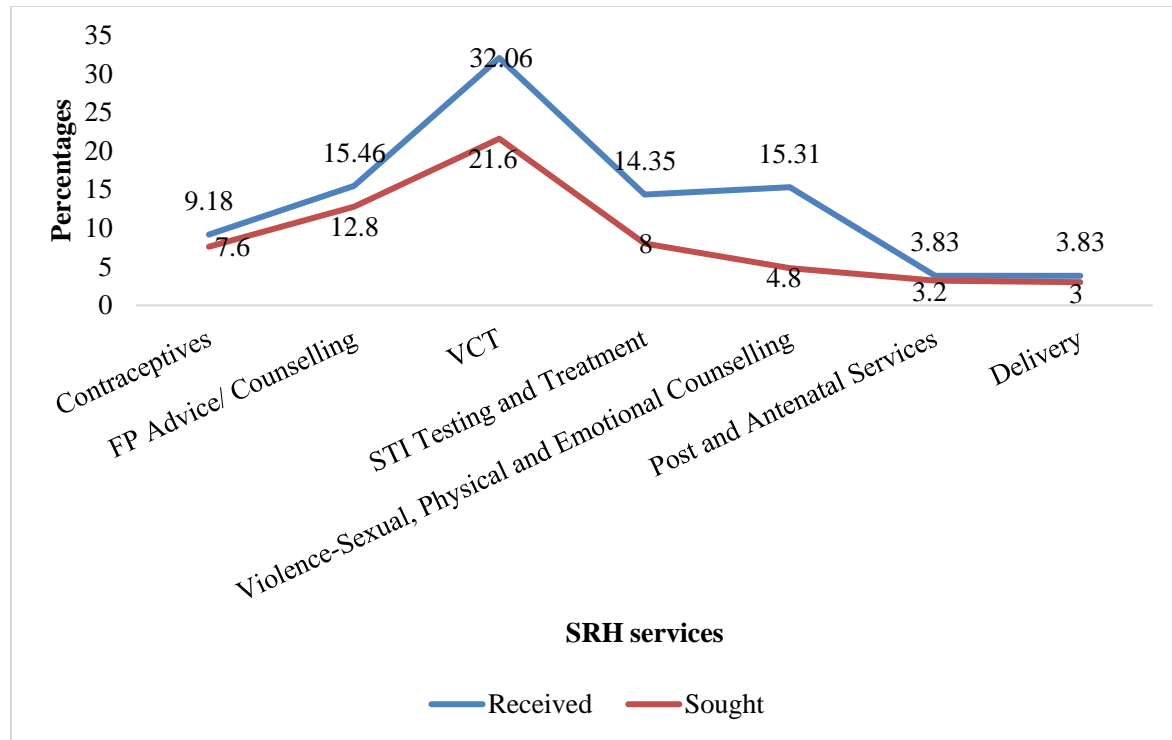
The collected data were tabulated and summarised for ease of analysis and for answering the research questions.

## RESULTS

### SRH Services Availability

Comparing the level of SRH services sought and SRH services received by young people

**Figure 1: SRH Services sought and received by young people**



The highly sought services comprised VCT at 21.6% and FP advice/counselling at 12.8%. The other five SRH services sought (STI testing and treatment, contraceptives, violence, sexual, physical, and emotional counselling, post and antenatal services, and delivery) recorded less than 10%, as shown in *Figure 1*.

SRH services that were mostly received by young people comprised VCT (32.06%), FP advice/counselling (15.46 %) and violence, sexual, physical and emotional counselling (15.31 %), while the other four types of services (STI testing and treatment, contraceptives, post and antenatal services and delivery) received were at less than 15% as shown in *Figure 1*.

Interestingly, young people received more SRH services in each type of service compared to the level of services sought. VCT, violence, sexual,

physical, and emotional counselling and STI testing and treatment recorded the widest difference between services sought and received (between 10.46%- 6.35%) compared to the FP advice/counselling and contraceptive that had differences ranging from (2.66%- 1.58%). Only post and antenatal services and delivery services appeared to have a more or less similar level for services sought and services received, as shown in *Figure 1*.

Furthermore, FP advice/counselling was both sought for and utilised by many young people compared to those seeking or using the contraceptive service, as shown in *Figure 1*. Cost Assessment

Determining the effect of cost on SRH service recommendation by young people to others

**Table 2: Acceptability of cost**

Cost of Service	Would you recommend a friend to this facility for SRH Services					
	Yes		No		Total	
	n	%	n	%	n	%
Did not pay for the services	77	90.59	8	9.41	73.9% (85)	
Paid for the services	25	83.33	5	16.7	26.0% (30)	
Total	102	88.7	13	11.3	115	100

*Pearson chi2(1) = 1.1640 p value= 0.281*

As high as ¾ of the young people who sought and received SRH services at the facilities received the services without any payment. Irrespective of whether they paid for the SRH services or not. The majority (89%) said they would recommend a friend to the facility. This is consistent with the expectation.

A high proportion (91%) of young people who did not pay for services indicated their willingness to recommend their friends to the facility for SRH services as compared to those young people who paid for the services (83%). However, the difference

in proportion is not statistically significant at a p-value of 0.281, as shown in *Table 2*.

The services that were paid for included: malaria 65%, and Services related to the experience of sexual, physical, or emotional (24%).

### Health Facility Factors

Determining the effect of Health facility factors on the willingness of young people SRH service users to recommend to others.

**Table 3: Waiting time**

Waiting Time	Acceptability of the Waiting Time				Total	
	Yes		No		n	%
	n	%	n	%		
0 minutes-30 minutes	109	87.9	15	12.1	124 (62.31%)	
31 minutes- 1 hour	6	24	19	76	25(12.56%)	
Over 1 hour	17	34	33	66	50(25.13%)	
Total	132	66.33	67	33.67	199(100%)	100

*Pearson chi2=11.5103 p value =0.003*

**Table 5: Acceptability of opening and closing hours**

Convenience of Opening Hour	Satisfaction Level with Privacy and Confidentiality Level					
	Acceptable		Less Than Acceptable		Total	
	n	%	n	%	n	%
Yes	154	98.09	3	1.91	157	100
No	32	86.49	5	13.51	37	100
Total	186	95.88	8	4.12	194	100

*Pearson chi2(1) = 10.1957, p value = 0.001*

**Table 6: Acceptability of drugs availability and recommendation to a friend**

Did you receive all the prescribed drugs at the facility	Acceptable to recommend a friend to come to this facility for SRH services					
	Yes		No		Total	
	n	%	n	%	n	%
Yes	107	94.69	6	5.31	113	100
No	69	82.14	15	17.86	84	100
Total	176	89.34	21	10.66	197	100

Pearson  $\chi^2(1) = 7.9653$ ; P value = 0.005

The majority of the respondents waited >less than or equal to 30 minutes before being attended to (62.31%). A majority were given adequate time to explain themselves (94%). The majority (96%) noted that the satisfaction level of privacy and confidentiality was acceptable. The majority (98%) noted that the satisfaction level of opening and closing hours was acceptable slightly more than a half (57%) noted acceptability for drugs

availability. All the variables had a significant correlation with the acceptability of less than 0.05, as shown in table 2, 3, 4 and 5

### Contribution of YFS Factors

Determining the magnitude of the contribution of YFS factors on SRH service recommendation to others.

**Table 7: Acceptability determinant (Ordered logistic regression)**

Acceptability	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Availability	0.2	0.09	-3.55	0	0.09	0.49
Affordability	1.4	0.64	0.74	0.461	0.57	3.45
HEALTH FACILITY factor	29.49	15.78	6.33	0	10.34	84.2

*Prob> Chi2= 0.000; Pseudo R2= 0.2487*

An ordered logistic regression was utilised to assess the magnitude of the relationship between availability, affordability, and HEALTH FACILITY factors on acceptability and recommendation of SRH services to others. Overall, the model significantly explains 24.87% of the young people's acceptability level to SRH services at  $p=0.000$ . Of the three factors, availability of services and Health facility factors were the most significant ( $p=0.000$ ) influencers of young people's accepting SRH services sought and received. A unit increase in health facility factors increases the odds of the young person accepting the service offered by 29.49 units. On the other hand, availability factors influence acceptability levels negatively as it reduces the odds of satisfaction by 0.8. Affordability had no significant influence on the acceptability of SRH services as shown in table 6.

### DISCUSSION

This study has found that differences exist in services received and sought by young people across the 7 studied services. Most services were utilised by ages 15-19, followed by 10-14 years. Females utilised services more than males as were the secondary school levels. This means that SRH services available at local public health facilities are more than what the young people are aware of. Studies have shown and are consistent with my results that this is attributed to causes of unawareness (Suneth et al., 2010; Krishtee et al., 2020; UNFPA, 2015; Kavanaugh et al.; 2013, Geary et al., 2015; Alli F et al., 2013; Godia et al., 2014; Mchome et al., 2015; Tilahun et al., 2012), shortage of educational materials (Rukunde et al., 2015).

Other causes for low utilisation have been noted to be due to age which is subject to the permission of parents (Pandey et al., 2019; Geary et al., 2014). Regarding gender, boys perceive SRH services as



designated for girls and that health facilities are more receptive to girls (Godia et al., 2014; Okoronkwo et al., 2014; Feleke et al., 2013). This need to be addressed. In cases of the study site services, charter exists as the first point of information but lacks expressly on SRH services.

Majority of the young people using SRH access the services at no cost. Approximately three quarters of the respondents who received the SRH services said they did not pay for the SRH services. However, irrespective of whether they paid for the SRH services or not a majority said they would still recommend a friend to the facility. There was no statistically significant difference between the groups. This means that still other SRH services are offered at a cost but despite that cost of SRH services is not a determining factor for young people recommending others for SRH services.

These findings differ from a majority of other studies that have shown the financial inaccessibility of young people to have influenced the willingness of young people to recommend other SRH services, especially in low- and medium-income countries (Azmat et al., 2015, Marrone et al., 2014). This implies that cost is no longer a factor in the study area and that young people do not value cost to influence willingness for SRH services. Further, this may imply that there are other factors that are important to young people for SRH services.

Findings show that Health facilities influence the willingness of young people to recommend SRH services to others. Of those who waited for 0-30, 86% said they were willing to recommend the SRH services to a friend. The time given by the health service providers to the patients to explain themselves was noted to be adequate. Opening and Closing hours were found to be convenient for the young people, and privacy and confidentiality were also noted to be acceptable to the young people who went to receive the SRH services. Slightly more than half of the young people who went to seek services were able to receive all the prescribed drugs at the facility. There was a statistically significant difference between the health facility factors and the willingness of young people to recommend SRH services to others. This means health facility factors are important determining factors for young people recommending others for SRH services. Studies

have shown inconsistency with my results in that little is indicated on health facility factors and their influence on young people's willingness to recommend the SRH services to others. The health facility factors have been cited to be used to make services adolescent-friendly, but little or no evidence has been provided to show which domain(s) when used are important determining factors for young people recommending others for SRH services. This implies that health facility factors are a factor in the study area that young people value.

## CONCLUSION

A difference exists in services received and sought by young people across the 7 studied services and across the different socio-demographic characteristics. The majority of the young people use SRH access at no cost. Findings show that HEALTH FACILITY factors influence the willingness of young people to recommend SRH services to others. HEALTH FACILITY factors have the most strength in explaining SRH services acceptance and willingness for young people to recommend SRH services to others

## Recommendation

MOH to develop and adopt robust information provision sessions or awareness creation sessions to the young people on the services available at the health facility (service charter and educational materials), come up with customised service delivery approaches for the Secondary and Primary school students that are, age-appropriate and gender-appropriate to meet the needs of boys.

Develop and roll-out strategies that ensure waiting times at health facilities are less than 30 minutes by improving the flow of service streamlining clinic flow/processes and improving provider-patient communication (e.g., use of signposts and services charter) to direct clients to correct queues.

The logistics of commodities and drug supplies should be strengthened to ensure that drugs are available to young people when they need them. Provide convenient opening and closing hours, which will also guarantee privacy and confidentiality.

Since the health facility factors contribute more to acceptability and willingness to recommend to others, then this research could inform administrators, managers, and policymakers on where to allocate more resources.

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