



Original Article

## Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya

Alga Balla<sup>1\*</sup>, Dr. Charles Wafula, PhD<sup>1</sup>, Faith Chesire<sup>1</sup>, Kevin Oria<sup>1</sup>, Marlyn Ochieng<sup>1</sup>, Denis Odida<sup>1</sup>, Sharon Otieno<sup>1</sup> & Grace Ochola<sup>1</sup>

<sup>1</sup> Tropical Institute of Community Health and Development, P. O. Box 4074 - 40103 Kondele, Kenya.

\* Author for correspondence ORCID ID: <https://orcid.org/0000-0001-8495-0975>; email: [ballahalgah@gmail.com](mailto:ballahalgah@gmail.com).

Article DOI: <https://doi.org/10.37284/eajhs.5.1.690>

Date published: **ABSTRACT**

02 Jun 2022 Young people face a wide range of barriers to accessing SRHR services from structural barriers: - Cost of services, waiting times, distance from health facilities, lack of privacy and confidentiality and lack of necessary commodities among others; Sociocultural barriers: - such as restrictive norms and culture that surround young people's SRHR, inequitable gender norms among others; Individual barriers: - myths and misconceptions, limited knowledge on SRHR issues, limited knowledge on the SRH services and the sources of such services. Youth-friendly services are designed to address one of the main barriers mentioned above- Structural barriers. The youth-friendly services are tailored for young people to ensure their retention in the SRH seeking routine. TICH in the Get Up Speaks Out program, trained service providers in the various community link health facilities on youth-friendly services to ensure that the youth are attracted to access services at the health facilities. It is for this reason that TICH conducted a client satisfaction survey assessing the quality of services provided to the young people on the aspects of waiting time, availability of equipment and drugs, and satisfaction with service delivery among others. The study was conducted in 2019 among the young people aged 10 to 24 years (members of the TICH-GUSO youth groups) who had accessed the last SRHR services from the community health facilities. Semi-structured questionnaires were developed and administered to the respondents by the field officers. This study highlights the variance between services sought by young people and the ones they receive thereby demonstrating a gap in information among young people on SRH services available at the health facilities. Additionally, the study indicated secondary and primary school students utilise most SRH services among young people. Finally, the evidence indicated that young people appreciate short waiting times at the health facilities (of

below 30 minutes). The findings therefore call for strategies to address waiting times at the health facilities and information on SRH services among young people for improved access to YFS among the young people.

#### APA CITATION

Balla, A., Wafula, C., Chelagat, F., Oria, K., Ochieng, M., Odida, D., Otieno, S. & Ochola, G. (2022). Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya. *East African Journal of Health and Science*, 5(1), 143-153. <https://doi.org/10.37284/eajhs.5.1.690>.

#### CHICAGO CITATION

Balla, Alga, Charles Wafula, Faith Chesire, Kevin Oria, Marlyn Ochieng, Denis Odida, Sharon Otieno & Grace Ochola. 2022. "Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya." *East African Journal of Health and Science* 5 (1), 143-153. <https://doi.org/10.37284/eajhs.5.1.690>.

#### HARVARD CITATION

Balla, A., Wafula, C., Chelagat, F., Oria, K., Ochieng, M., Odida, D., Otieno, S. & Ochola, G. (2022) "Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya." *East African Journal of Health and Science*, 5(1), pp. 143-153. doi: 10.37284/eajhs.5.1.690.

#### IEEE CITATION

A. Balla, C. Wafula, F. Chelagat, k. Oria, M. Ochieng, D. Odida, S. Otieno & G. Ochola, "Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya." *EAJHS*, vol. 5, no. 1, pp. 143-153, Jun. 2022.

#### MLA CITATION

Balla, Alga, Charles Wafula, Faith Chesire, Kevin Oria, Marlyn Ochieng, Denis Odida, Sharon Otieno & Grace Ochola. "Status of Client Satisfaction for Sexual Reproductive Health Services: A Case Get Up Speak Out (GUSO) Program Implementation in Western Kenya." *East African Journal of Health and Science*, Vol. 5, no. 1, Jun. 2022, pp. 143-153, doi:10.37284/eajhs.5.1.690.

## INTRODUCTION

Young people face a wide range of barriers to accessing Sexual Reproductive health rights (SRHR) services from structural barriers: - Cost of services, waiting times, distance from health facilities, lack of privacy and confidentiality, and lack of necessary commodities among others; Sociocultural barriers: - such as restrictive norms and culture that surround young people's SRHR, inequitable gender norms among others; Individual barriers: - myths and misconceptions, limited knowledge on SRHR issues, limited knowledge on the SRH services and the sources of such services Godia et al., 2014. This has made SRH services not to be acceptable to young people hence affecting utilisation of SRH services, thus leading to poor health indicators as enumerated below;

Firstly, globally, more than 7 million adolescents and young people aged 10-24 years old are living with HIV. Between the years 2005 - 2016, the number of adolescents living with HIV rose by 30%. In 2016 alone, 260,000 became newly infected with the virus (UNAID, 2017; UNICEF, 2017).

Accordingly, 95% of the new HIV cases occurred in low- and middle-income countries, with sub-Saharan Africa by far the hardest-hit region. In 2016, a UNICEF report showed that approximately 73% of the reported infections occurred in Sub-Saharan Africa (UNICEF, 2017). While 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. Further, 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). An estimated three million young women ages 15-19 undergo unsafe abortions every year (WHO, 2012). Young women aged 15-24 in Eastern and Southern Africa account for over half of all unsafe abortions resulting in maternal deaths in the region of Southern Africa. 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 2014 World Health Statistics put the global adolescent birth rate at 49 per 1000 girls this age. Teen pregnancy is highest in Kenya (27%) compared to other countries in Africa. The Kenya demographic health survey (KDHS) 2009-14 shows that the levels of teenage childbearing are highest in Nyanza (22.2%) and Coast (20.8 %) provinces and lowest in Central province (10%). 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,14).

Fourthly, many health conditions have their onset in adolescence (WHO, 2017). For example, adolescence represents a period of vulnerability for mental health with nearly 50% of mental health conditions occurring by the age of 14 and 75% by the age of 24. Often overlooked by health providers, parents, or adolescents themselves due to stigma or lack of knowledge, this critical health issue often goes undetected (WHO, 2017, 2018). Adolescents and mental health among 15-19-year-olds emphasise that self-harm is one of the main causes of death and DALYs lost (WHO, 2017). Suicide is more common among adolescents and young people than adults, particularly in low and middle-income countries (LMICs)WHO, 2016).

Fifth, during the adolescence stage, the risk of interpersonal and sexual violence also increases, with a lasting impact on health and wellbeing through health-compromising behaviours, reduced participation in education, restricted access to services and increased risk of mental health problems, heart disease, sexually transmitted infections, and HIV (CDC, 2018). Gender differences are also critical, as gender-related

factors have a decisive influence on health-seeking behaviour, health status, and access to health services. Gender plays a particularly important role in the risk of violence: while girls are at higher risk of sexual violence, the risk of violence among boys is more often related to armed conflict, homicide, and gang activities. Lesbian, gay, bisexual, transsexual, intersex, and queer (LGBTIQ) adolescents and adolescents with disabilities are at a particularly higher risk for physical, sexual, or emotional violence, including from their families (UNICEF, 2014).

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 primary health care (PHC) incorporated child and adolescent health by prioritising disease prevention and health promotion. Kenya’s government is a commitment to Universal Health Care (UHC)and sustainable development goals 3 (SDG), which is to ensure healthy lives and promote wellbeing for all at all ages (UNAID 2020)

Strategies to reduce FP 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 25 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).

Ensuring that the young people enjoy their SRHR, the Tropical Institute of Community Health and Development (TICH) *in Africa* implemented a young people’s Sexual Reproductive Health and Rights (SRHR) program- Get Up Speak Out (GUSO) in the Western Kenya region (Kisumu, Homabay, Siaya, and Kakamega counties). The program provides education and information to the young people on the SRHR issues, facilitates access to SRHR services and creates an enabling environment for young people to meaningfully participate in the SRHR planning and implementation process in the community, sub-county, county and national levels. The youth-friendly services are tailored for the young people to ensure retention of young people in the SRH seeking routine. It is for this reason that TICH-GUSO has trained service providers in the various community link health facilities on youth-friendly services to ensure that the youth are attracted to access services at the health facilities.

TICH conducted a client satisfaction survey assessing the quality of services provided to the young people on the aspects of waiting time, availability of equipment and drugs, and satisfaction with service delivery among others

**MATERIALS AND METHODS**

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 population for this research are all the members (young people aged 10-24) of the 29 SRH youth groups (10 girls and 10 boys totalling 580) in the GUSO implementation sites (CHUs) in the stated Western Kenya sub-counties.

The study had the respondents meet the following criteria: - had to be young people aged 10 to 24 years, members of the TICH-GUSO youth groups, and had to have accessed the last SRHR services from the community health facilities.

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+ (0.1x236) n = 261 Young people

Of 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>

Semi-structured questionnaires were developed and administered to the respondents by the field officers. The respondents were able to enquire on issues they were not able to understand to improve the accuracy of the data collected.

Data entry was conducted on MS Excel 2010. Data cleaning and analysis were conducted on STATA Version 14 using a variety of techniques including means and chi-square tests to illustrate correlations. *Table 2*. The respondents of this study had a majority from Kakamega and Kisumu counties at

The data was presented in the form of graphs and tables.

## RESULTS

### Geographical Factors

As mentioned earlier, TICH-GUSO is implemented in four counties as shown in

33.49% and 31.58%, respectively, followed by Homabay at 22.49% and finally Siaya at 12.44%.

**Table 2: Summary of respondents by county and Sub-County**

Geographical Factors		n	%
County Name	Kisumu	66	31.58
	Siaya	26	12.44
	Kakamega	70	33.49
	Homabay	47	22.49
	<b>Total</b>	<b>209</b>	<b>100</b>
Sub County	Alego Usonga	26	12.44
	Butere	70	33.49
	Nyando	14	6.7
	Nyakach	54	25.84
	Rachuonyo East	45	21.53
	<b>Total</b>	<b>209</b>	<b>100</b>

Similarly, the following *Table 2* illustrates a breakdown of the number of respondents per sub-county. The highest number of respondents were from the Butere sub-county at 33.49%, while Nyando had the least number of respondents at 6.7%.

### Demographic Factors

The questionnaires were filled out by young people in the various youth groups in the TICH-GUSO areas of implementation. A majority of the young people who filled the questionnaire were aged 15-

19 at 57.89% (n = 121) with approximately a quarter of them aged 10-14 (26.79%, n = 56). Young people aged 20-24 were the minimum at 15.31% (n = 32) (see *Table 3*). A majority of the respondents were female (67.94%, n = 142), while a third of the respondents were male (32.06, n = 67) (see *Table 3*). Slightly more than half of the respondents were at the secondary level of education, 55.98% (n = 117), followed by the primary school level at 36.84%, n = 77. Only 1 respondent was at the university level (0.48%), while 6.7% of the respondents were at the college level (n = 14) (see *Table 3*).

**Table 3: Demographic Characteristics of the Respondents**

Demographic Factors		n	%
Age Category	10-14	56	26.79
	15-19	121	57.89
	20-24	32	15.31
	<b>Total</b>	<b>209</b>	<b>100</b>
Sex	Male	67	32.06
	Female	142	67.94

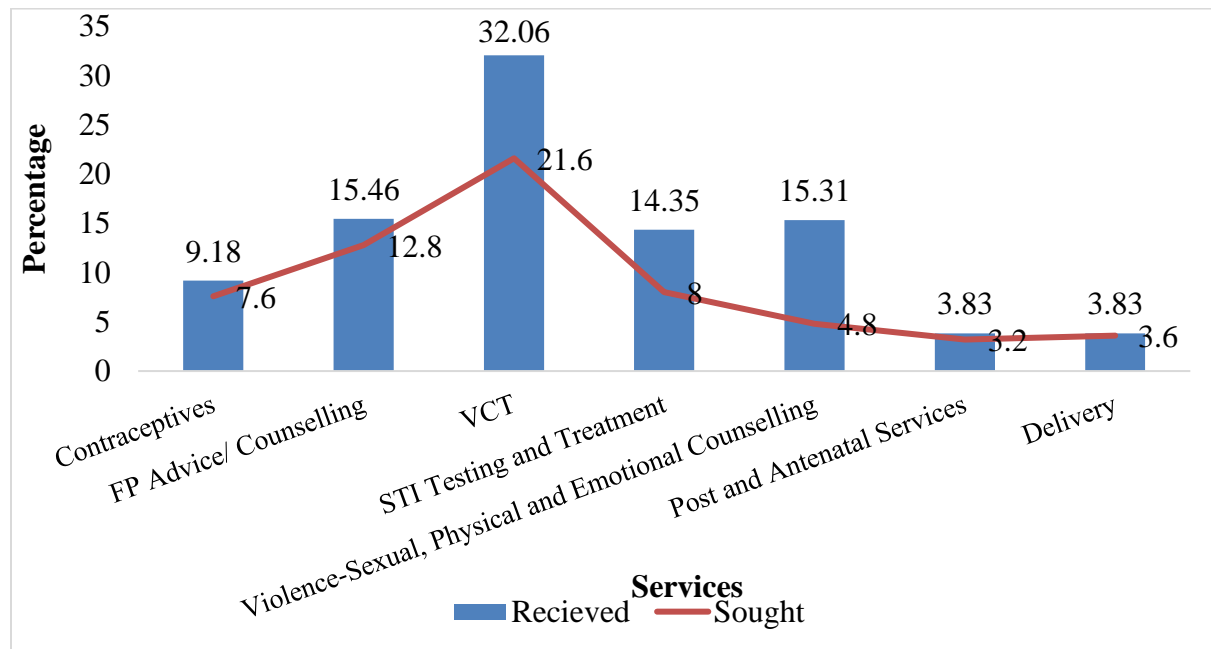
	<b>Total</b>	<b>209</b>	<b>100</b>
Education Level	Primary	77	36.84
	Secondary/'A' Level	117	55.98
	College/middle Level	14	6.7
	University	1	0.48
	<b>Total</b>	<b>209</b>	<b>100</b>

**Service Uptake**

Figure 1 indicates that 32.06% of the respondents received the VCT services, followed by 15.46% and 15.31% for FP counselling and Violence, Physical

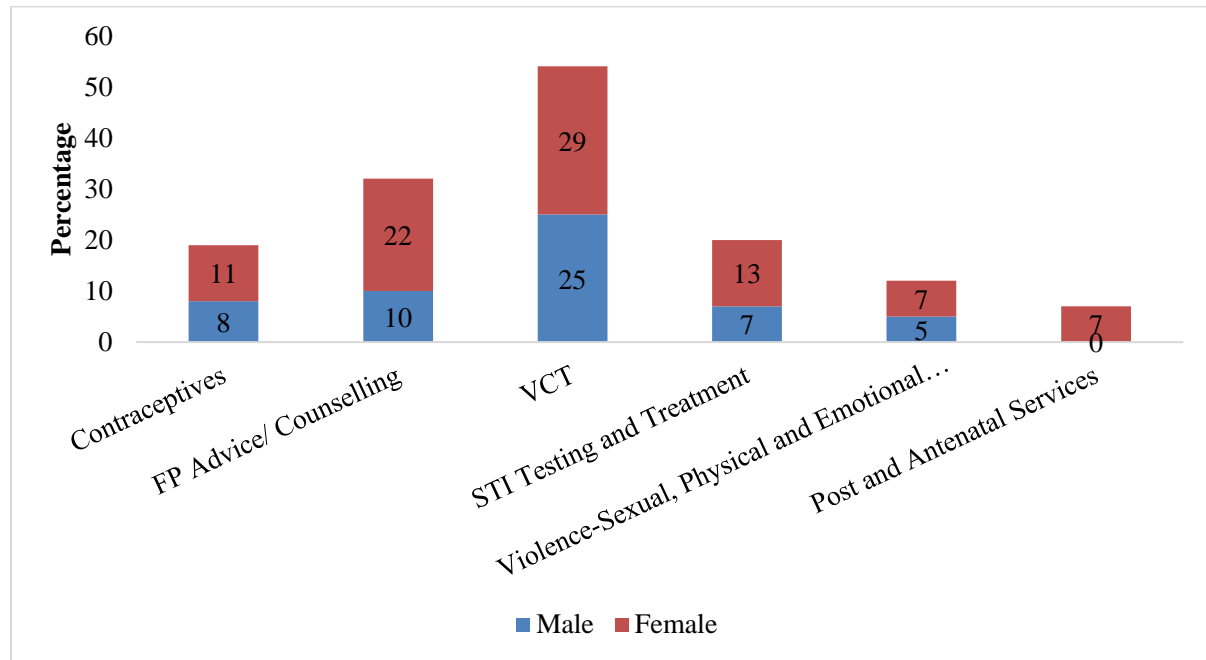
and Emotional counselling, respectively. 14.35% of the respondents received STI testing and treatment services, followed by Contraceptive services (9.18%) and Maternal and Delivery services at 3.83%, respectively.

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



As illustrated in it is evident that across all the SRH services, the females had the highest numbers of access to services. For instance, VCT had 29 females against 25 males, FP counselling – 22 females against 10 males, and Contraceptives 11 females against 8 males, among others.

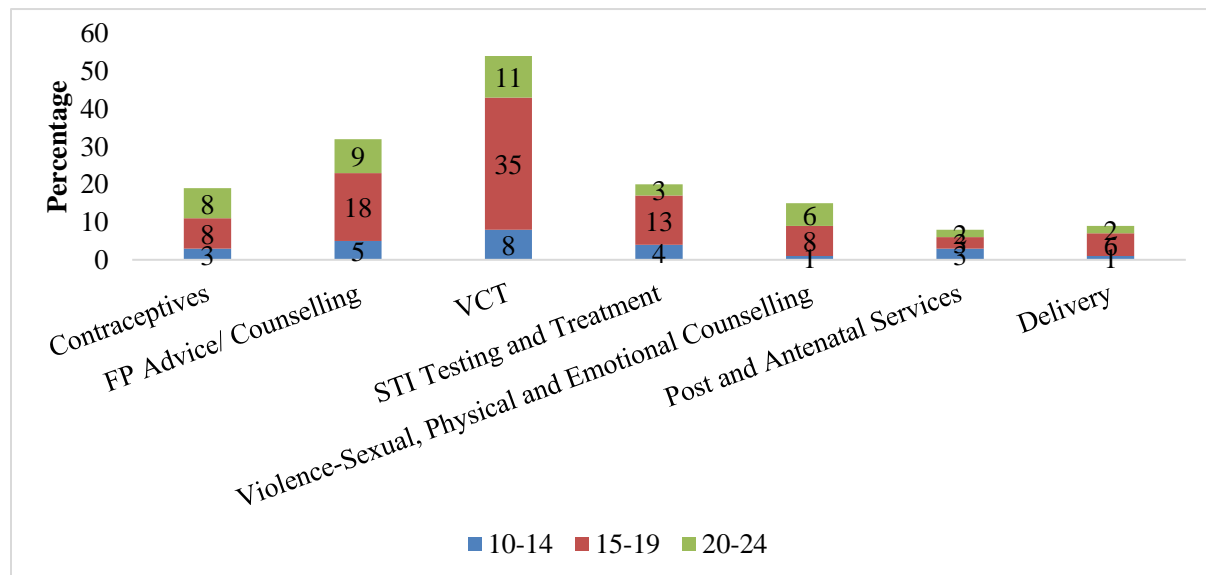
**Figure 2: Access to SRH service types by sex**



On the basis of age category, a majority of the services were accessed by young people aged between 15 – 19 years. The disparities are more pronounced in accessing services such as VCT (10-

14: n = 8, 15-19: 35, 20-24: 11), FP advice and Counselling (10-14: n = 5, 15-19: 18, 20-24: 19, and STI testing and treatment (10-14: n = 4, 15-19: 13, 20-24: 3) (see *Figure 3*).

**Figure 3: Access to SRH service types by age**



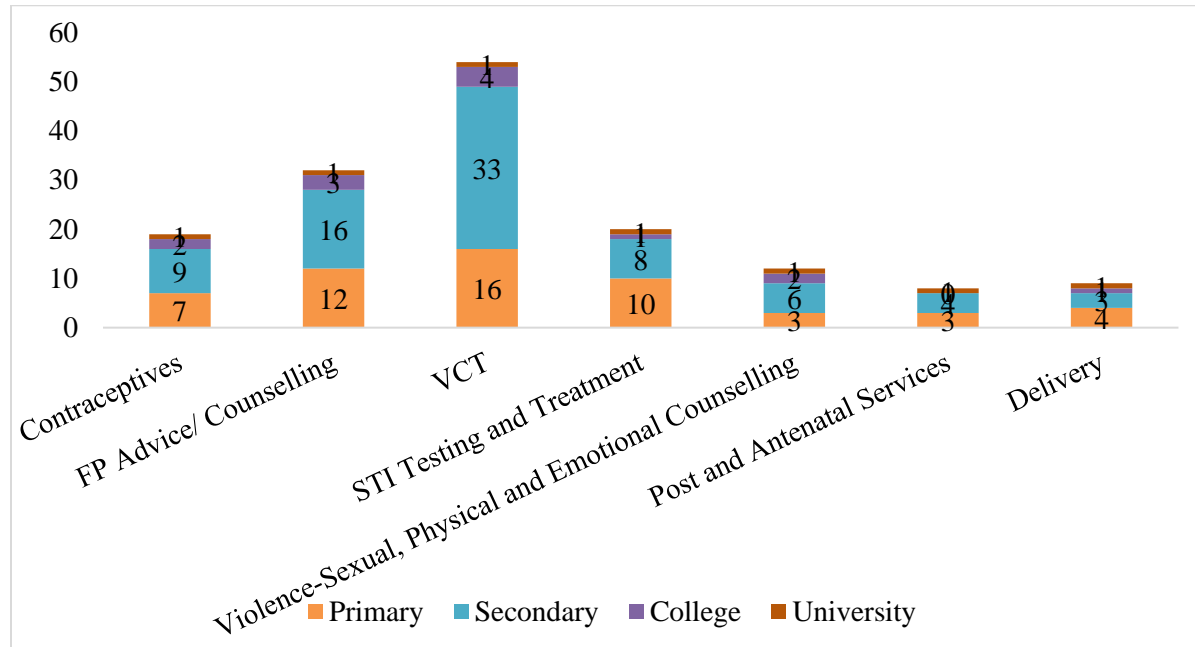
A majority of the services had the secondary school students as the majority education level of respondents accessing the services, as shown in *Figure 4* below. This could be due to the fact that

the secondary school students were a majority of the respondents. However, STI testing and treatments had the respondents of the Primary level accessing the services more (n = 10) compared to the

Secondary school respondents (n = 8), while university and college ranked lowest (n = 1) probably due to the fact that the respondents in these

levels of education were also quite a few (approximately 7% of the total respondents of the survey).

**Figure 4: Access to SRH service types by Education Level**



**Cost Assessment**

A majority of the respondents indicated that they did not pay for the services they accessed (74.27%).

However, a quarter of the respondents (25.73%) indicated that they paid for the services they received at the various health facilities

**Table 4: Cost Assessment**

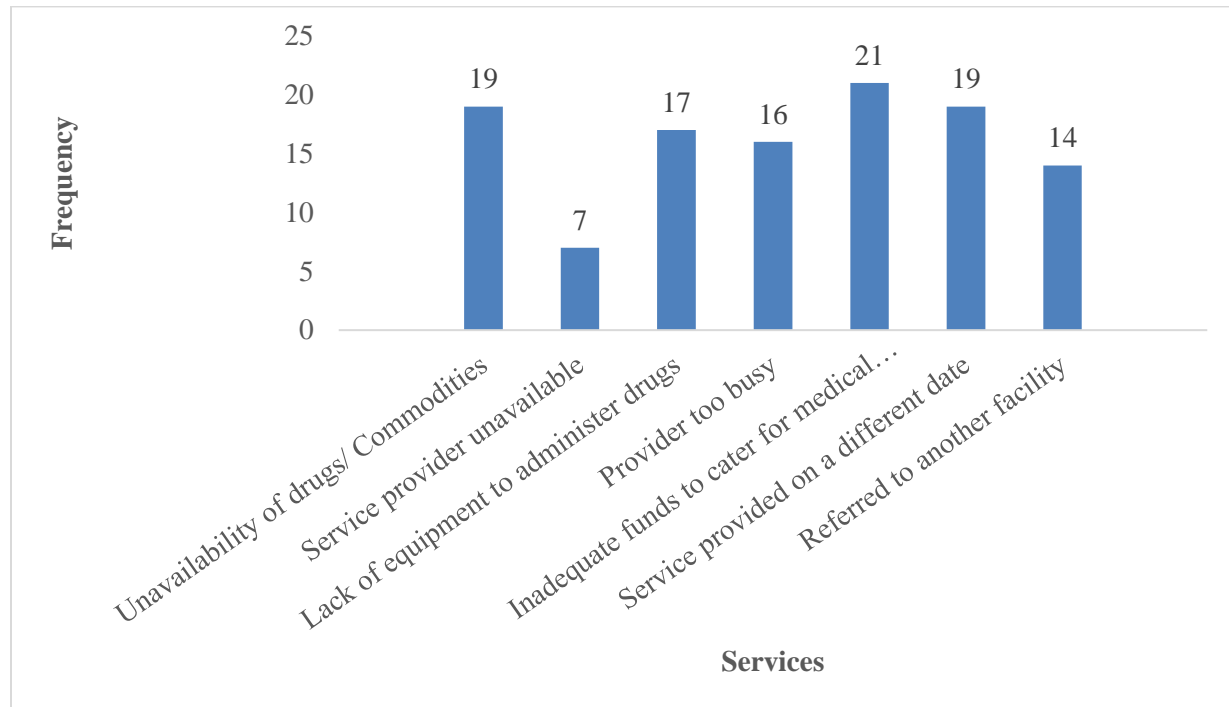
Did you pay for any service?	n	%
No	153	74.27
Yes	53	25.73
<b>Total</b>	<b>206</b>	<b>100</b>

**Reason for not Accessing SRH Services**

A number of times, young people are unable to access services from the health facilities from time due to a number of reasons that range from the availability of the service provider to and cost of accessing the service, among other reasons. In this case, the **Figure 5** below indicates that a majority of

the young people were not in apposition to access services due to: some just sought observation (n = 29), inadequate funds to cater for the medical Bills (n = 21), them not being ready to start treatment (n = 20), service provided on a different day/date (n = 19), the service providers being busy (n = 19), Lack of Equipment (n = 17) and Service Provider was too busy (n = 16).



**Figure 5: Reasons for not Accessing SRH services**

This study's findings reaffirm evidence from other studies indicating barriers such as long waiting times, limited staff (hence the available service providers are often busy), and personal biases of service providers as elements of service delivery that serve to dissuade young people from making use of the clinic services (Mayeye et al., 2010). Adolescents need a safe and supportive environment that offers information and skills to equip them youth on all aspects related to sexual and reproductive health issues (Mayeye et al., 2010). Additionally, study findings done in Uganda indicated that to improve uptake of SRH services among youth, it is recommended that awareness-raising must be made on available services at the health facilities on the charter and drug stock levels should be improved at the health facilities (Mutebi et al., 2017)

### Waiting Time

Waiting time at health facilities has been a factor affecting young people's access to SRH services over time. Studies have shown that long waiting durations discourage young people from seeking SRH services (Mazur et al., 2018). This study indicated that a majority of the respondents waited

for less than or equal to 30 minutes before being attended to (63.64%). However, over a third of the population waited for over 30 minutes before being attended to (11.96%- less than an hour, 24.4% waited for over an hour).

### Acceptability of Waiting Time

Overall, 66.33% of the respondents felt like the waiting time prior to accessing SRH services was unacceptable. The latter (33.67%) felt that the waiting time was acceptable. Pearson's Chi2 test was conducted to assess if there exists an association between the waiting time prior to accessing SRH services and the clients rating on the waiting time acceptability.

**Table 5** indicates that there exists a significant correlation between waiting time and acceptability of the waiting time while accessing SRH services. Further, *Table 4* indicates that the longer the waiting period, the more unacceptable the clients rated it. This emphasises the need to have short wait times at the health based on evidence from surveys conducted in Kenya and Zimbabwe (Mazur et al., 2018).

**Table 5: Acceptability of waiting time**

Waiting Time	Acceptability of the Waiting Time				Total	
	No		Yes		n	%
	n	%	n	%		
0 minutes- 30 minutes	15	12.10	109	87.90	124 (62.31%)	100.00
31 minutes- 1 hour	19	76.00	6	24.00	25(12.56%)	100.00
Over 1 hour	33	66.00	17	34.00	50(25.13%)	100.00
Total	67	33.67	132	66.33	199(100%)	100.00

Pearson  $\chi^2=11.5103$  Pr=0.003

## DISCUSSION

The study reported that young people are getting more services than they sought, an indication that young people have minimum knowledge of the services available at the health facilities. The majority of the services were accessed by secondary and primary school students. Young people disapprove of waiting time of over 30 minutes. The results highlight some important lessons towards improving SRHR for young people that young people do not have adequate information as to services available in health facilities. The majority of young people service seekers are secondary, followed by primary. The SRH service delivery system needs to align its YFS training and refresher in line with the majority of service seekers so as to achieve a client-centred service delivery approach, and the MOH will need to update and train service providers on strategies to realise service provision to young people within the first 30 minutes as a way of improving and sustaining satisfaction among the young people

## CONCLUSION

This study has highlighted the variance between services sought by young people and the once they receive thereby demonstrating a gap in information among young people on SRH services available at the health facilities. Additionally, the study indicated the important segments of young people that utilise services most as the secondary and primary students. Finally, it was evident that young people appreciate short waiting times at the health facilities (of below 30 minutes).

## Recommendation

Based on the key findings of this study, TICH recommends MOH develop and adopt robust information provision sessions or awareness creation sessions for the young people on the services available at the health facility. MOH should come up with customised service delivery approaches for Secondary and Primary school students. MOH should develop and roll out strategies that ensure waiting time at health facilities is less than 30 minutes.

## ACKNOWLEDGMENT

I take this opportunity to sincerely express my gratitude to SIMAVI for sponsoring TICH -GUSO program. I also thank my fellow colleagues for working tirelessly in the program and having met the objectives and goals of the program. Above all, thanks go back to God the Almighty.

## REFERENCES

- Manoti, L. M. (2015). *Factors influencing access to sexual reproductive health services: a case of the University of Nairobi main campus undergraduate students' institute of anthropology and African studies unit in Kenya* (Doctoral dissertation, University of Nairobi). <https://doi.org/10.1186/s12889-015-1502-2>
- Mayeye, F. B., Lewis, H. A., & Oguntibeju, O. O. (2010). An assessment of adolescent satisfaction with reproductive primary healthcare services in the Eastern Cape Province, South Africa. *The West Indian medical journal*, 59(3), 274-279.
- Ministry of Health (MOH). (2006). *National Guidelines for Provision of Youth-Friendly*

- Services (YFS) in Kenya*. Nairobi, Kenya. Ministry of Health, Ref Type
- Ministry of Health, Division of Reproductive (MOH, DRH): National Reproductive Health Strategy 2009–2015. Division of Reproductive Health: Nairobi, Kenya. 2013, Ref Type: Report
- Mutebi, A., Muhumuza Kananura, R., Ekirapa-Kiracho, E., Bua, J., Namusoke Kiwanuka, S., Nammazi, G. ... & Tetui, M. (2017). Characteristics of community savings groups in rural Eastern Uganda: opportunities for improving access to maternal health services. *Global health action*, 10(sup4), 1347363.
- National AIDS and STI Control Programme. 2013. "KENYA AIDS INDICATOR SURVEY 2013: Final Report." <http://www.nacc.or.ke/images/documents/KAIS-2012.pdf>
- National Economic Institute report 2010
- Neal Thomas and Donald B. Rubin 1996 Matching Using Estimated Propensity Scores: Relating Theory to Practice *Biometrics* Vol. 52, No. 1 (Mar., 1996), pp. 249-264 (16 pages) Published by: International Biometric Society
- Sustainable Development Solutions Network. About the SDGs New York: sustainable development solutions Network; [2019]. Available from: <http://unsdsn.org/what-we-do/sustainable-development-goals/about-the-sdgs/>.
- UNICEF 2014. *HIV/AIDS Global and Regional Trends*. Available at: <http://data.unicef.org/hiv-aids/global-trends.html>. Accessed September 14, 2017. [Google Scholar]
- UNICEF 2017. *HIV/AIDS Global and Regional Trends*. Available at: <http://data.unicef.org/hiv-aids/global-trends.html>. Accessed September 14, 2017. [Google Scholar]
- United Nations: about the sustainable development goals. <https://www.un.org/sustainabledevelopment/development-agenda/>. Accessed 20 May 2020.
- World Health Organisation. (WHO). (2014). Health for the world's adolescents: A second chance in the second decade. <http://apps.who.int/adolescent/second-decade/>
- World Health Organization (WHO). (2011). *The sexual and reproductive health of young adolescents in developing countries: Reviewing the evidence, identifying research gaps, and moving the agenda*. Report of a WHO technical consultation, Geneva, 4–5 November 2010. World Health Organization.
- World Health Organization (WHO). (2012). *Making health services adolescent friendly: Developing national quality standards for adolescent friendly health services*. Geneva, Switzerland: World Health Organization.
- World Health Organization (WHO). (2015). *Global Standard for Quality Health-Care Services for Adolescents*, volume 1.
- World Health Organization (WHO). (2017). *Adolescents: Health Risks and Solutions*, <http://www.who.int/mediacentre/factsheets/fs345/en/>.
- Yamane, Taro. 1967. *Statistics: An Introductory Analysis*, 2nd Ed., New York: Harper and Row.