



**African Population and
Health Research Center**

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EVALUATION OF THE IN THEIR HANDS (ITH) PROGRAM IN KENYA

Endline Evaluation Report

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ACKNOWLEDGEMENTS

We are grateful to the study participants: adolescents, parents and the community health volunteers, who provided critical information while responding to the survey questions and participating in the qualitative interviews. We would like to appreciate the support of community leaders – chiefs and village elders – who were the first point of contact for the study areas. The field team, including data collectors, team managers and supervisors deserve especial thanks for they worked hard together to ensure data collected were of high quality. We also acknowledge the contribution of Mr. Albert Otieno for supporting with the data analysis for the study.

ACRONYMS

APHRC	African Population and Health Research Center
CHV	Community Health Volunteers
FGD	Focus Group Discussion
FHOK	Family Health Options Kenya
IDI	In-depth interviews
ITH	In Their Hands
IUD	Intra-uterine Device
KDHS	Kenya Demographic and Health Survey
MSK	Marie Stopes Kenya
ODK	Open Data Kit
PPE	Personal Protective Equipment
PSK	Population Services Kenya
SMS	Short Message Service
SRH	Sexual and Reproductive Health
SRHR	Sexual and Reproductive Health and Rights
STI	Sexual Transmitted Infection
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

The *In Their Hands* (ITH)—t-safe—program in Kenya that was implemented between April 2017 and March 2020 aimed to increase adolescents' use of high-quality sexual and reproductive health (SRH) services through targeted interventions. The program provided information, products and services on adolescent girls' terms; promoted adolescents' use of contraception and other SRH services; and promoted community support for girls' access to SRH services. The ITH program used a digital platform (t-safe) that linked girls to services. Girls enrolled on the platform in three ways: 1) community mobilization, which was conducted by community health volunteers (CHVs) who registered girls through phones or cards from the program, 2) self-enrolment, where girls used their phones to enroll in the program via SMS (short messaging service); 3) peer-to-peer enrolment, where girls enrolled other girls and received rewards for successful referrals. Girls who were enrolled could then access free services in ITH-participating facilities, which are accredited youth friendly facilities franchised under Marie Stopes Kenya (Amua Clinics), Population Services Kenya (Tunza Clinics), and Family Health Options Kenya

The ITH program was implemented in eighteen counties in Kenya prioritized on the basis of high level of adolescent pregnancy and high unmet need for contraception among adolescents. In this report, we share the findings of the evaluation of the program that was undertaken by the African Population and Health Research Center (APHRC).

Methods

APHRC conducted a mixed-methods evaluation study involving a quantitative survey with adolescent girls aged 15-19 years and qualitative interviews with adolescents, community members, community health volunteers at baseline and endline. To assess the quality of care for adolescent SRH services and to systematically assess the delivery of the program, we also conducted qualitative in-depth interviews (IDIs) with providers, adolescent ITH service users and mobilizers; and analyzed routine program monitoring data at midline. At baseline (September 2018) data were collected in Homa Bay and Narok counties. Midline and endline data were collected in Homa Bay, Nairobi and Nakuru counties. However, the endline survey, conducted only in Homa Bay county, included a total of 1,514 adolescent girls aged 15-19 years. Six focus group discussions (FGDs) were conducted with parents and CHVs and 17 IDIs were conducted with adolescent girls. In the selected sub-counties, samples were drawn from wards and villages close to health facilities selected for the ITH intervention. Data were collected by trained female interviewers. Data were analyzed using STATA to provide descriptive statistics on key study questions. Analysis of the qualitative data entailed a synthesis of transcripts using a thematic analysis approach.

Key findings

- The sample of adolescents included in the endline survey differed from the baseline sample in a number of key characteristics. The mean age of respondents at baseline was 16.9 (\pm 1.5) years, with about 56.6% of the respondents aged 15-17 years. About

46.5% of the baseline study participants had some secondary or above education while 65.8% of them were attending school. Moreover, 17.5% of the adolescents participants were married at baseline. The endline sample was comparatively younger (63.3% were aged 15-17 years), had a higher educational attainment (70.3% had some secondary or higher education.), were more likely to be in school (84.4% attending school.), and to be unmarried (only 4% were married) than the baseline sample. These differences are likely to cause important differences in their sexual and reproductive health behaviour.

- A lower proportion of adolescents reported sexual activity and pregnancy history at endline compared to the baseline survey. This is partly attributed to the differences in the two study samples – the endline sample being younger, unmarried, school going and more educated compared to the baseline sample. The use of modern contraception methods (excluding male condom) has also not changed significantly between baseline and endline surveys. The use of modern methods (other than condom) increased only by 0.8% from 35.4% at baseline to 36.2% at endline and the difference was not statistically significant.
- Among adolescents who had ever had sex but were not using contraception, the major reason for not using contraception was because sex was often unplanned. Other major reasons include not wanting to seem too eager for sex with their partners; fear of side effects; infrequent sex; lack of knowledge of sources of contraception.
- About 42% of adolescents who participated in the endline survey reported that they had heard about the t-safe or ITH program. However, only 15% were exposed to any of the three major t-safe information, communication and mobilization activities: 10% received information from mobilizers or through community meetings and public events organized by t-safe mobilizers; 6% received information through the internet/Facebook and 5% through mobile phone service like SMS and WhatsApp. Sixteen percent of sexually active adolescents indicated that they had received contraceptives, contraception counselling or HIV testing through the ITH program.
- A greater proportion of adolescents interviewed at endline knew about key contraceptive methods, including long-acting and reversible methods (e.g., implants), female condoms and emergency contraception compared to those interviewed at baseline. A greater proportion of those exposed to the t-safe program knew modern contraceptives than those who were not exposed. However, negative perceptions about the contraceptive methods remained common.
- Adolescents exposed to the t-safe program had higher contraceptive use, improved method mix, better informed choice and higher satisfaction with the services compared to those who were not exposed to the t-safe program. Nearly 67.6% of adolescents who were exposed to the t-safe program were using contraception at the time of the endline survey as compared to 30.4% of those who were not exposed to the program. The program provided adolescent friendly services through trained health providers from private clinics and hence might have improved quality of care for adolescents.

- Overall, the modern contraceptive method mix (excluding male condom) improved significantly between the baseline and endline surveys. Other than male condom, Implant is the most commonly used methods with over 60% of the modern contraceptive method mix. The increase in the use of IUDs, emergency contraception and Pills contributed to the changes in contraceptive method mix between the baseline and endline surveys.
- Data from the surveys show that the proportion of adolescent contraceptive users who depended on private sources (clinics, hospitals) and pharmacies increased from 29% and 1% to 45% and 9%, respectively. The differences in the sources of contraceptive methods at baseline and endline may reflect the role played by t-safe in diversifying the sources of contraception for adolescents by increasing access to AMUA, FHOK and Tunza clinics, as well as pharmacies. The t-safe program also promoted adolescent friendly services through the private facilities which had been very uncommon.
- Findings suggest that the quality of SRH services improved between the baseline and endline surveys. At endline, more than 60% of contraceptive users who received their methods from clinics and hospitals reported that they were informed about other contraceptive methods; about the side effects of the methods they received; and what to do if they experienced side effects. Moreover, over 95% of users who had visited health facilities for contraceptives said they obtained the method of their choice; they would return to the facility and would refer a friend to that facility indicating a high level of satisfaction with the services they received. An examination of variations in informed choice by exposure to the program shows that a greater proportion of adolescents who had heard about t-safe or were exposed to t-safe mobilization activities were satisfied with the services received compared to their counter parts who were not exposed to the program.
- Both the adolescent survey and FGDs with parents showed that there is little parental support of adolescent SRH issues. Between the baseline and endline surveys, there was a decrease in the proportion of adolescents who disagreed with the statement “parents in my community support unmarried adolescent girls using contraception”.

Implications and lesson learned

The t-safe program has reached adolescents in several counties in Kenya with adolescent friendly SRH services. As the program intervention focused on private clinics and pharmacies, the proportion of adolescents who received contraception services from private clinics and pharmacies increased between the baseline and endline implying that adolescents are ready and willing to access contraception services if the service environment is friendly. The quality of SRH services also improved as indicated by measures of informed choice (majority were informed about other contraceptive methods; about the side effects of the methods they received; and what to do if they experienced side effects). Evaluation findings also underscore the need for future programs to:

- 1. Provide more tailored information to improve acceptability of contraception among adolescents**

Given the perception of being at low risk for pregnancy due to infrequent sexual activity, adolescents need accurate information about the risk of becoming pregnant, whether they are married or not. Some adolescents believe that they are not at risk of getting pregnant due to sporadic sexual relationships, others fear exposing that they are sexually active. Thus, information and education about the risk of becoming pregnant even when they have infrequent sexual relations is important. Providing more tailored information, education and communication on the risk of pregnancy and the benefits of using contraception and SRH services is essential to reduce unwanted pregnancy among adolescents.

2. Address negative perceptions about contraception and providing a range of contraceptive methods

The study findings show that negative perceptions about modern contraception are persistent among adolescents and parents. Such negative perceptions are among the major reasons for contraceptive non-use. Counselling on contraceptive methods is therefore key to providing accurate information on how contraceptive methods work, side effects of each method and benefits associated with them. In addition, it is important to provide a range of contraceptive methods that meet the needs of adolescents in different relationship types and different personal circumstances. Whenever appropriate, they should be encouraged to switch methods.

3. Promote parental involvement and communication on adolescent sexual and reproductive health rights (SRHR) issues

Despite some encouraging signs from parents who were involved in the program, parental involvement and support for adolescent SRHR issues remains low. Programs should support parents to enable them to communicate effectively with their adolescents about sexuality, relationships and contraceptive use. Based on the World Health Organization (WHO) recommendations on parental involvement, it is important to start from their own knowledge, misconceptions, hopes and fears.

4. Sustain and scale up adolescent friendly programs such as the t-safe

Evidence from this program shows that the uptake of contraception improves if adolescents are exposed to adolescent friendly sexual and reproductive health services. The quality of the services also improved as indicated by measures of informed choice. Thus, sustaining and or scaling up such adolescent friendly programs will play an important role in reducing early and unintended pregnancy among adolescents in Kenya and beyond.

1. BACKGROUND

Pregnancy and child birth complications are major causes of death among adolescent girls aged 15-19 years in developing countries [1]. Adolescent pregnancy also interrupts girls' schooling, thus endangering their future economic opportunities [2]. An estimated 21 million girls aged 15–19 years in developing regions become pregnant and approximately 12 million of them give birth every year [3]. In Kenya, nearly one in five (18%) of adolescents aged 15-19 become mothers before the age of 18 years [4]. While improving adolescents' health and well-being requires multi-sectoral interventions, improved access to and use of contraception and sexual and reproductive health (SRH) services can help reduce early and unplanned pregnancy among adolescents [5].

Despite increases in contraceptive use among married and sexually active young women in Kenya in the last few decades, a high unmet need for contraception still remains. According to the 2014 Kenya Demographic and Health Survey (KDHS), six out of ten married adolescents in Kenya are in need of a family planning method, out of which 23% have an unmet need [4]. Sexually active unmarried adolescents have the highest unmet need for contraception and only about half of the total demand for contraception is met by modern methods [4].

The reasons for low contraceptive uptake among adolescents are complex and include lack of agency and control over their lives, lack of access to reliable sources of contraception information and services. Socio-cultural and gender norms that promote early marriage and childbearing, as well as norms that stigmatize pre-marital sex also inhibit unmarried girls from seeking contraception services [6, 7]. Moreover, young people, particularly girls encounter significant barriers to accessing quality healthcare, including provider bias, age restrictions or stigmatization when seeking services in addition to concerns about confidentiality [8]. Young people often find mainstream primary care services unacceptable because of perceived lack of respect, privacy and confidentiality, fear of stigma and discrimination and imposition of the moral values of healthcare providers [9, 10].

1.1 Description of the *In Their Hands* program

The *In Their Hands* (ITH)—t-safe—program, which was supported by the Children Investment Fund Foundation (CIFF), aimed to increase adolescents' use of high-quality SRH services through targeted interventions. The program was implemented for three years in 18 counties with high adolescent pregnancy and unmet need for contraception. The program objectives were threefold; to get adolescents to want contraception and to know whether they have sexually transmitted infections (STIs) including HIV or are pregnant; to provide information, products and services on adolescent girls' terms and; to get communities to support girls' and boys' access to SRH services.

The ITH program used a digital platform (tiko) that linked girls to services. Girls enrolled on the platform in three ways: 1) community mobilization, which was conducted by community health volunteers (CHVs) who registered girls through phones or cards from the program, 2) self-enrolment, where girls used their phones to enroll in the program via SMS (short

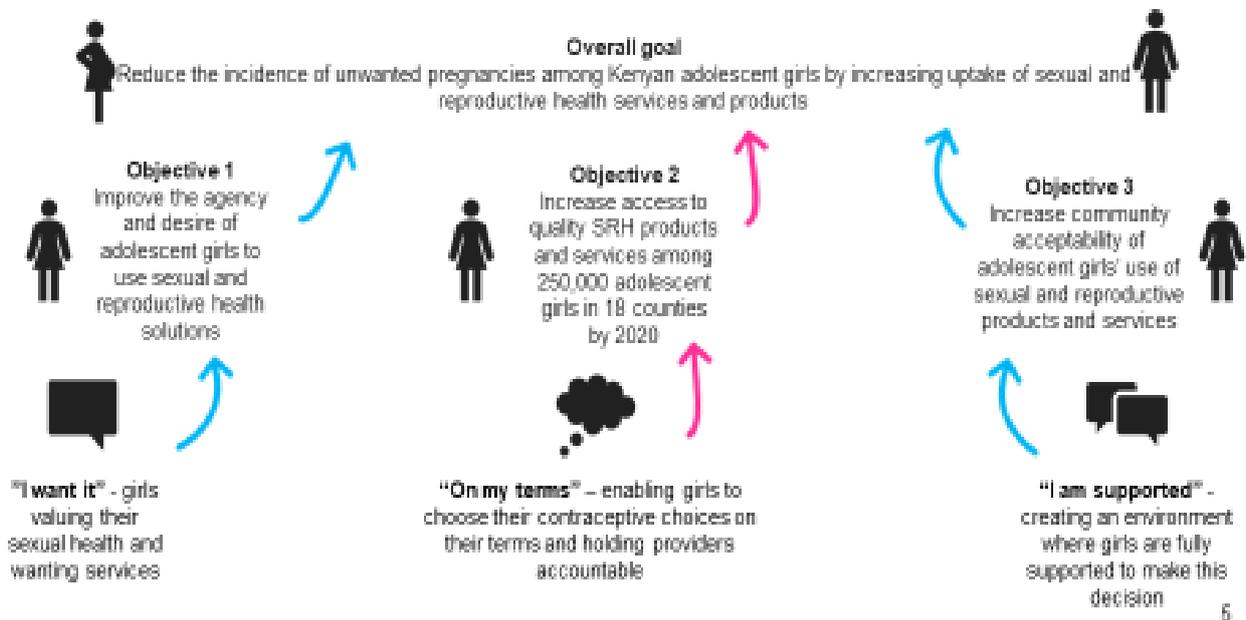
messaging service); 3) peer-to-peer enrolment, where girls enrolled other girls and received rewards for successful referrals. Girls who were enrolled could then access free services in ITH-participating facilities, which are accredited youth friendly facilities franchised under Marie Stopes Kenya (Amua Clinics), Population Services Kenya (Tunza Clinics), and Family Health Options Kenya. The services included counseling for contraception and HIV self-testing, contraceptives, and pregnancy testing. Users were asked to rate the counseling session or services received and then received points (Tiko miles) that they could redeem for products such as sanitary towels from select retailers (Tiko Traders).

The program was implemented by three partners (see www.intheihrhands.org): **Well Told Story (now Shujaaz Inc.)** - a network of social ventures that connects young people with information, skills and resources They run a national multi-media platform 'Shujaaz' that focuses on generating demand and changing social norms, attitudes and behaviors that influence SRH. Under the ITH program, Well Told Story expanded and tailored the work of Shujaaz media and other social media options to increase adolescent motivation for SRH service use. **Marie Stopes Kenya (MSK)** provided adolescent friendly SRH services through MSK clinics and pharmacies and its social franchise network of Amua clinics. **Triggerise**, an innovator in mobile based incentives, makes subsidized and youth friendly SRH services accessible to adolescent girls and also rewards positive behaviors. Triggerise created a user-defined ITH ecosystem and platform to link girls with a network of subsidized and discreet SRH services provided by MSK and its Amua social franchise network of private clinics, Population Services Kenya (PSK) and its Tunza social franchise network of private clinics, Family Health Options Kenya (FHOK), private pharmacies, and drug shops.

The ITH ecosystem or platform was a national network of youth-friendly service providers as defined by adolescent girls and included an ITH digital platform (web, media and hotline) where adolescents, service providers and connectors (mobilizers) were able to register. Adolescent girls accessed information on contraception and services as well as free SRH service at nearby registered providers via the T-safe platform. They were also able to rate providers on the services they received. Registered providers (clinics and pharmacies) offered services free for adolescents, opening a new market and incentivizing them to provide youth friendly services [11].

1.2 ITH program theory of change

The ITH program assumed that adolescent pregnancy will be prevented by increasing access to quality SRH products and services among adolescent girls 15-19 and by improving community support for adolescent SRH. The theory of change assumed that by creating demand for and awareness of the mechanisms to prevent adolescent pregnancy, by providing adolescent friendly and discrete SRH services and mobilizing community support for adolescent SRH, sexually active adolescents would use SRH services that will ultimately reduce adolescent pregnancy. Figure 1 below shows the ITH theory of change (ToC).



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Figure 1. In Their Hands theory of change

1.3 Objectives of the evaluation study

The African Population and Health Research Center (APHRC) conducted an independent evaluation of the program to assess if and how the ITH partnership model and integrated system of delivery met its intended objectives and the needs of adolescents. The evaluation study aimed to assess; a) adolescent user experience across key quality dimensions and outcomes; b) how the ITH program influenced adolescent decision-making autonomy, power dynamics and provider accountability and; c) how community support for adolescent SRH initiatives changed as a result of this program.

2. METHODS

2.1 Study design

We conducted a cross-sectional mixed-methods evaluation study involving a quantitative survey with adolescent girls aged 15-19 years; qualitative interviews with adolescents, community members and community health volunteers; qualitative interviews with providers, mobilizers and adolescent ITH beneficiaries; mystery client survey and analysis of routine ITH program monitoring data to systematically assess the delivery, effectiveness and effects of the program. Primary data were collected at baseline (September 1, 2018 to October 12, 2018), midline (May 6 -July 20, 2019) and endline (August 25 to October 16, 2020). Reports

from the baseline, midline qualitative study and routine monitoring data analysis were produced and shared separately but the baseline findings are used to examine changes in key indicators in this report.

2.2 Study sites

The ITH program was implemented in eighteen counties (although three counties were dropped later on) in Kenya prioritized on the basis of high level of adolescent pregnancy and high unmet need for contraception among adolescents. Most of the counties were concentrated in Nyanza, Rift Valley and Western regions. During baseline study, we purposively selected Homa Bay and Narok counties from Nyanza and Rift Valley regions where ITH intervention had not begun at the time of the baseline. The endline quantitative survey was only conducted in Homa Bay as Narok county was later dropped as an intervention site. However, we collected qualitative data in Homa Bay, Nakuru and Nairobi counties.

2.3 Sampling

2.3.1 Quantitative sampling

The baseline survey involved a sample size of 1,885 adolescents from the two counties originally selected for the evaluation of which a sample of 1085 were estimated for Homa Bay county. At endline, we estimated a sample size of 1,918 to detect a five percentage-point difference in the use of long term methods between baseline and endline time points at 80% power. As baseline, 23% of the adolescent girls reported that they were using long term methods in Homa Bay county.

We sampled three sub counties—Ndhiwa, Homa Bay town and Kasipul for the endline survey. However, as fieldwork was interrupted due to the COVID-19 pandemic, we added one sub county—Karachuonyo sub county—when data collection resumed in September 2020. Sub counties and wards were purposively selected from sub counties that had been prioritized for the ITH program based on availability of ITH affiliated health facilities. The purposive selection of sub counties based on presence of ITH intervention affiliated health facilities meant that urban and peri-urban areas were oversampled due to the concentration of the health facilities in urban/peri-urban areas.

In each ward, eight villages that formed the immediate catchment area for each ITH program affiliated health facilities were then selected for the study. We conducted a household listing of all households in each sampled village to identify households with an adolescent girl who met the study's inclusion criteria. Households were then randomly sampled from the list of households with eligible adolescents of age 15-19 years.

To be eligible, an adolescent girl had to be aged 15-19 years, resident in the study area for at least six months preceding the study. Accordingly, students who stayed in boarding schools away from their parents were excluded from the study.

Prior to the suspension of data collection, we had completed a total 420 adolescent girls in Ndhwa Sub County. On resumption of data collection, we completed a total of 1514 interviews with adolescent girls living in the remaining three sub counties.

2.3.2 Qualitative Sampling

The qualitative component involved in-depth interviews (IDIs) with adolescent girls ages 15-19 years and focus group discussions (FGDs) with parents/adults and CHVs. We conducted IDIs with adolescent girls who had enrolled in the program but dropped out for various reasons, as well as girls who were enrolled and still using t-safe services. In addition, we conducted FGDs with CHVs and parents/adult caretakers of adolescents aged 15-19 years from the program areas. Participants were purposively selected from the villages included in the evaluation study. For the endline study, we conducted 17 IDIs with adolescents who had been enrolled in the ITH program and were receiving services or had dropped from the program. We also conducted two FGDs with CHVs and four FGDs with parents/adult caretakers of adolescents aged 15-19 years.

2.4 Study tools

2.4.1 Quantitative tools

An interviewer-administered questionnaire was used to collect data from adolescent girls. The questionnaire included questions on socio-demographic and household characteristics; SRH knowledge and sources of information; sexual activity and relationships; contraceptive knowledge, access, choice and use; and exposure to family planning messages and contraceptive decision making. To assess adolescents' exposure to the t-safe program we included a series of questions drawn from similar project evaluation surveys as well as t-safe project program monitoring indicators. The questions assessed whether adolescents had ever heard the t-safe program, whether they have ever been contacted by mobilizers, whether they participated in any community event organized by the t-safe mobilizers, whether they received information about SRH through t-safe affiliated organizations Facebook or website, and whether they received SMS or WhatsApp messages focused on SRH from t-safe. For those who responded positively, the survey asked further questions on the sources; 'from which site on internet or Facebook' or 'which person or organization sent you these messages' and 'how many times have you received information'. Adolescents were also asked whether they had ever registered to a t-safe or Triggerise platform using a mobile phone after discussing with a mobilizer, after discussing with their peers or family members or by themselves after hearing from some other places.

The questionnaire was developed in English and then translated into Kiswahili. Data were collected on android tablets programmed using the Open Data Kit (ODK)-based SurveyCTO platform.

2.4.2 Qualitative tools

Semi-structured interview guides were developed by experienced researchers in consultation with the program partners for the qualitative interviews (with adolescent girls) and FGDs (with parents/adult caretakers of adolescents and CHVs). The guides included probes to explore

adolescents' exposure to the ITH program; their experiences with program's SRH services; their perceptions on quality of services; as well as challenges and barriers to access of SRH services. The guides also included probes on the community's "support" for adolescents' sexual and reproductive health services and; their perspectives on the effects of the program. The guides were developed in English and then translated into Kiswahili for data collection. The guides were pre-tested during the pilot study.

2.5 Procedures for data collection

2.5.1 Selection and training of research assistants

Data were collected by a team of research assistants selected based on level of education, prior experience working on similar surveys, knowledge of study area, fluency in English and Kiswahili and knowledge of Dholuo (local language in Homa Bay county). We trained a team of 19 research assistants (17 quantitative and two qualitative). The team initially comprised 16 field interviewers and three team leaders. After resumption of data collection in September 2020, the team was reduced to 13 (10 interviewers, 2 team leaders and a field coordinator) in line with the Kenyan government's COVID-19 containment and prevention regulations on the maximum number of people who could gather together.

In March 2020, the research assistants participated in a 5-day training workshop consisting of: 1) facilitated sessions on the ITH program, the evaluation study, the study tools, research ethics; 2) hands-on sessions on the use of tablets for data collection and; 3) role play sessions. Following the resumption of data collection, the team underwent a 3-day refresher training. In addition to the earlier sessions, we included a session on the study's COVID-19 prevention protocol. The training was facilitated by researchers with vast field work experience drawn from APHRC. The trainees were objectively assessed on both theoretical and practical knowledge.

2.5.2 Pilot test

A one-day field-based pilot test was conducted in a non-study village in Korogocho informal settlement, Nairobi City county. The study tools were piloted to check for consistency; appropriateness of question formulation; difficult or sensitive questions and how to best administer them. We also used the pilot test to assess the data collection platform and to inform study planning and organization. A debrief meeting was held after the pilot to share experiences and challenges that the data collectors identified. Data from the pilot were then assessed to help identify areas that needed to be addressed prior to the main study.

2.5.3 Data collection

Data collection for the endline survey initially started on March 12, 2020 but was temporarily suspended on March 21 as part of adherence to the regulations announced by the government on containment and prevention of COVID-19 infections in Kenya. Data collection later resumed on August 25, 2020 and was completed on October 16, 2020.

2.6 Data management and quality control

Data quality control activities included; i) review of each questionnaire by the field interviewers before leaving the household to be sure that every applicable question had been asked and that responses recorded were clear and reasonable; ii) spot checks by team leaders to verify that the interviewers asked questions correctly and visited the right households; iii) review of all completed interviews by the team leaders to ensure internal consistency and completeness; iv) daily debriefs between the field team and the study management team to clarify data collection issues and concerns from the previous day's work; v) in-built internal consistency checks embedded in the SurveyCTO platform, which triggered error messages and caution notices whenever implausible data were entered; vi) inconsistency check reports based on pre-designed data quality check scripts generated by the data manager and shared with the data collectors for validation and correction as was necessary; vii) listening to a sample of completed qualitative interviews to verify consistency with the interview guides and; viii) validation of transcripts against the audio files to ensure consistency and completeness.

Once quantitative data were confirmed to be complete, the data was approved for synchronization. Data were electronically transmitted to a secure password protected SurveyCTO server at the APHRC office. Backup versions of the data remained in the encrypted and password-protected tablets until the end of field activities when all the data were considered to have been synchronized. Subsequently, tablet was securely and permanently cleaned. Data on the server were retrieved by the data manager and then downloaded for use.

For qualitative data, audio recordings from qualitative interviews were transcribed and saved in MS Word format. The transcripts were stored electronically in password protected computers and were only accessible to the evaluation team working on the project.

2.7 Challenges during endline fieldwork and how they were mitigated

The primary challenges experienced related to the outbreak of the COVID-19 pandemic. The reporting of the first case in Kenya on March 13, 2020 resulted in suspension of the endline data collection that remained in force until September when the government's containment and prevention regulations were eased. Since most research assistants were from Homa Bay county and its environs we were able to reconstitute the data collection team. However, we had to provide refresher training. The COVID-19 pandemic remained a great concern both to the local community and its leadership as well as the study team. We engaged with the relevant county authorities, including the Office of the County Commissioner and County Health Directorate to ensure that we understood the local context regarding the pandemic so as to make the necessary arrangements for adhering to the MOH guidelines on COVID-19 pandemic prevention and containment. We also provided personal protective equipment (PPEs)—face masks and hand sanitizers—to the field team and the participants. Further, we

obtained ethical approval to use digital recording of informed consent or assent rather than paper-based consent to reduce the risk of transmission.

2.8 Data analysis

Data analysis for quantitative data was performed using STATA 14. Relevant descriptive statistics such as percentages, mean, median and standard deviations as well as chi-squared P-values were computed based on the objectives of the study. We also examined the extent to which adolescents were exposed to any of the t-safe information, communication or mobilization activities were different from those who were not exposed to the program. Because the survey used a multi-stage clustered design, we used Survey set (SVY) to adjust for standard errors for clustering effects. The results are presented in the form of graphs and tables. Descriptive analysis of adolescent's contraceptive use and logit regression analysis were done to examine whether adolescents exposed to the t-safe program were more likely to use the services.

We used a qualitative software analysis program (NVivo) for coding and analyzing the qualitative data. A thematic analysis approach was used to organize and analyze the data, and to assist in the development of a codebook and coding scheme. Data was analyzed by first reading the full IDI transcripts, becoming familiar with the data and noting the themes and concepts that emerged. A thematic framework was developed from the identified themes and sub-themes. This was then used to create codes for coding the raw data.

2.9 Ethical considerations

The study protocol was reviewed by APHRC's internal scientific and ethics committee and adjudged to be scientifically sound. Thereafter, the protocol and data collection instruments were reviewed for adherence to ethical standards by the AMREF Health Africa's Ethics and Scientific Review Committee. Research clearance for the study was granted by Kenya's National Commission for Science, Technology and Innovation (NACOSTI). Additional approvals were obtained from county and sub county commissioners, ministries of health and education in the respective study counties; and other local administrators including chiefs, assistant chiefs and village elders. Field interviewers adequately informed potential participants about the purpose of the study and methods to be used; institutional affiliation of the research; any possible benefits and risks associated with their participation; right to decline to participate in the study, or to withdraw from it at any time notwithstanding their initial consent without any reprisal whatsoever; and measures to ensure privacy, and confidentiality of information they would provide before they were consented. For adolescents who were 18-19 years old or emancipated minors, individual consent was sought. Otherwise, both parental/guardian consent and adolescents' assent were obtained before starting interviews. Data collectors were trained on research ethics to ensure that guidance on ethical conduct was clearly understood and implemented throughout data collection.

3. RESULTS

3.1 Characteristics of respondents

3.1.1 Quantitative survey

Table 1 below presents the socio-demographic characteristics of adolescents at baseline and endline. The endline survey included a total of 1514 adolescent girls, excluding the 420 interviews completed prior to the suspension of the endline data collection in March 2020. At endline, the majority (63%) of the participants were younger adolescents aged 15-17 years while older adolescents (aged 18-19 years) constituted 37% of the sample. The mean age of the respondents was 16.9 years (standard deviation \pm 1.4). Fifty-six percent of adolescents were residing in either peri-urban or rural areas. Majority (97.4%) of the participants were Luos by ethnicity. Regarding religion, majority (70.5%) were Protestants. Seventy percent of adolescents had attained some or completed secondary education. Moreover, 86.4% of the adolescents reported that they were currently attending school. Since the majority of the adolescents were still in school, a relatively small proportion of adolescents (14.3% in baseline survey; 14.2% in endline survey) were engaged in income generating activities.

Table 1: Sociodemographic characteristics of survey participants at baseline and endline

Characteristic	Baseline N = 1061 n (%)	Endline N = 1514 n (%)	P-value
Current age in years			
15-17	600 (56.6)	958 (63.3)	0.001**
18-19	461 (42.5)	556 (36.7)	
Mean age (standard deviation)	16.9 (\pm 1.5)	16.9 (\pm 1.4)	
Residence			
Urban	441 (41.6)	660 (43.6)	0.299
Rural	620 (58.4)	853 (56.4)	
Highest level of education			
Never attended school	3 (-)	0 (-)	0.001**
Some /completed primary	565 (53.3)	399 (26.4)	
Some/completed secondary	477 (45.0)	1064 (70.3)	
Beyond secondary/vocational	16 (1.5)	51 (3.4)	
School attendance			
Attending	696 (65.8)	1308 (86.4)	0.001**
Not attending	362 (34.2)	206 (13.6)	
Marital status/relationship			
Currently married/in union	185 (17.4)	61 (4.0)	0.001**
Separated but not currently in any union	3 (-)	1 (-)	
Currently in a romantic relationship	429 (40.4)	667 (44.1)	
Single and not in a romantic relationship	442 (41.6)	784 (51.8)	
Other (Specify)	2 (-)	1 (-)	
Ethnicity			
Luo	1034 (97.5)	1475 (97.4)	0.055
Kisii	10 (0.9)	10 (0.7)	
Other	17 (1.6)	10 (0.7)	
Religion			
Roman Catholic	213 (20.1)	247 (16.3)	0.001**
Protestant/other Christian	825 (77.8)	1068 (70.5)	
Islam	11 (1.0)	11 (0.7)	
Other	12 (1.1)	188 (12.4)	

(-) Percentages not calculated for fewer cases (frequencies less than 10).

Figure 2 below shows that the major reasons given for not attending school included having completed secondary education (30% vs 11%), family's inability to pay school fees (25% vs 47%) and pregnancy or having a child (22% vs 41%) during endline and baseline, respectively.

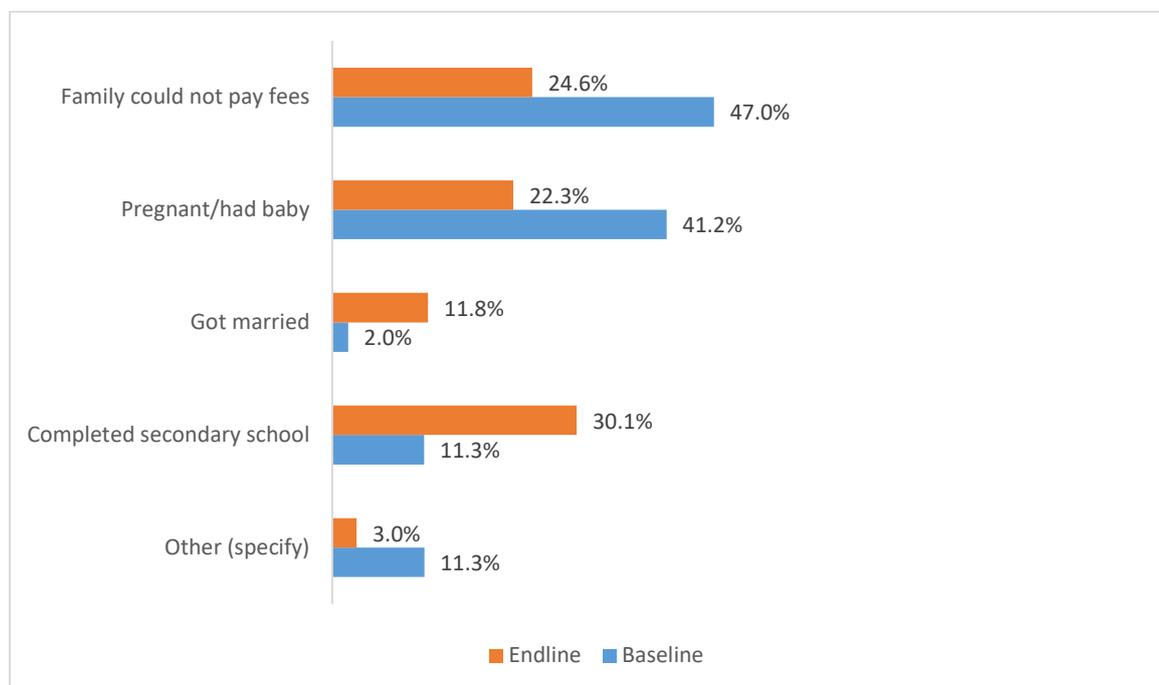


Figure 2: Reasons for not attending school currently among adolescents who are not attending school

Comparison of the endline and the baseline samples showed that adolescents sampled for the endline were different from those in the baseline in a number of socio-demographic characteristics, including age, educational attainment and current school attendance. The respondents at endline were comparatively younger, had a higher educational attainment and current school attendance. A lower proportion of adolescent girls interviewed at endline were married or involved in romantic relationships than those at the baseline. These differences would have implications in their SRH indicators.

3.1.2 Qualitative study

Most of the IDI participants were older adolescents aged 18-19 years. All had attended school. Most of them, 12, had attended secondary as their highest level of education. Out of the 17 participants, 16 were single while only one was married. Eleven of the 17 had a child. In terms of occupation, some eight of them reported being involved in some form of employment. Table 2 below presents the demographics of the IDI participants.

Table 2: Sociodemographic characteristics of adolescent IDI participants

Characteristic	# of Adolescents
Age group	
Under 18 years	3
18-19	14
Ever attended school	
Yes	17
No	0
Highest level of school attended	
Primary	2
Secondary	12
Middle level College	2
University	1
Marital Status	
Married	1
Single/Never married	16
Child Bearing	
At least has a child	11
No child	6
Occupation	
In school	5
Unemployed	4
Employed	
Formal employment	1
Informal employment	7
Total sample (N)	17

For the FGDs, 22 of the 30 parents/caretakers were younger than 40 years with only four being 50 years or older. Similarly, majority of the CHVs (13 out of 21) were younger than 40 years and only five being 50 years or older. Nearly all of parents had ever attended school, with majority (16) having attended up to secondary level. Ten parents/caretakers had attended up to primary level. For the CHVs, all of them had ever attended school and majority of them attended either secondary (10) or post primary (7) levels, respectively. Majority of the parents/caretakers (23) and CHVs (16) were in informal employment. Table 3 below shows the sociodemographic characteristics of the FGDs participants.

Table 3: Sociodemographic characteristics of FGD participants

Characteristic	# of Parents/ caretakers	# of Community health volunteers
Age group		
20-24	5	4
25-29	5	5
30-34	7	2
35-39	5	2

40-44	3	1
45-49	1	2
50 years and above	4	5
Ever attended school		
Yes	29	21
No	1	0
Highest level of school attended		
Primary	10	2
Post primary/vocational	2	7
Secondary	16	10
Middle level College	1	2
University	0	0
Occupation		
Unemployed	4	0
Employed		
Formal employment	3	5
Informal employment	23	16
Total sample (N)	30	21

3.2 Access to SRH information and services

Figure 3 below presents data on adolescents' access to SRH information during endline surveys. At endline 95.2%, 94.2% and 86%, reported that they had received information on STIs, including HIV/AIDS, unintended pregnancy and SRH services, respectively, in the past one year preceding the endline survey. These represent significant changes from baseline at 75.6%, 63.1% and 57.9%, respectively, for unintended pregnancy and STIs, including HIV/AIDS, unintended pregnancy and SRH services. However, adolescent's sources of information did not differ significantly between those exposed to the t-safe and those not exposed (Figure 4).

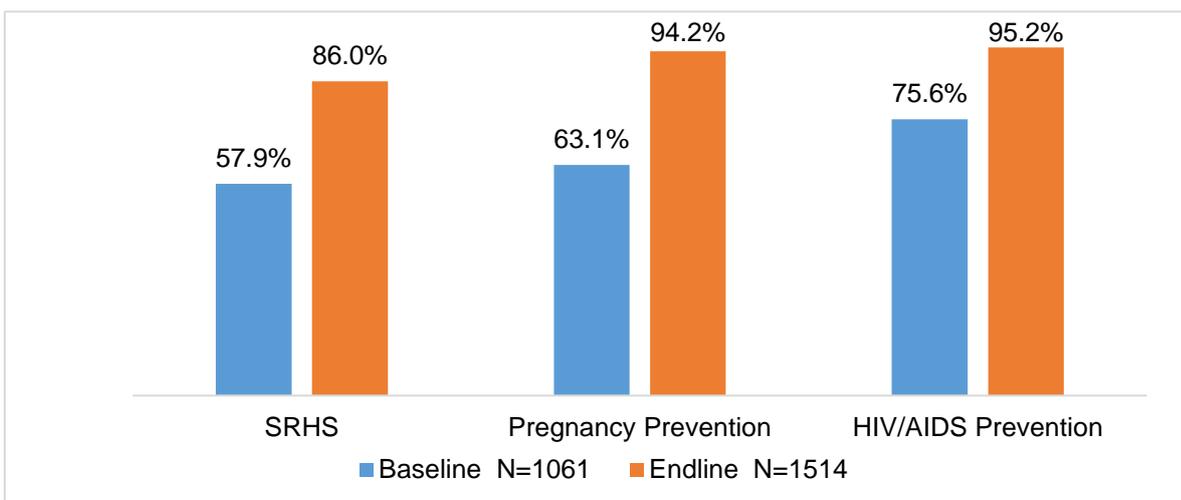


Figure 3: Received information on SRH services, pregnancy and HIV prevention

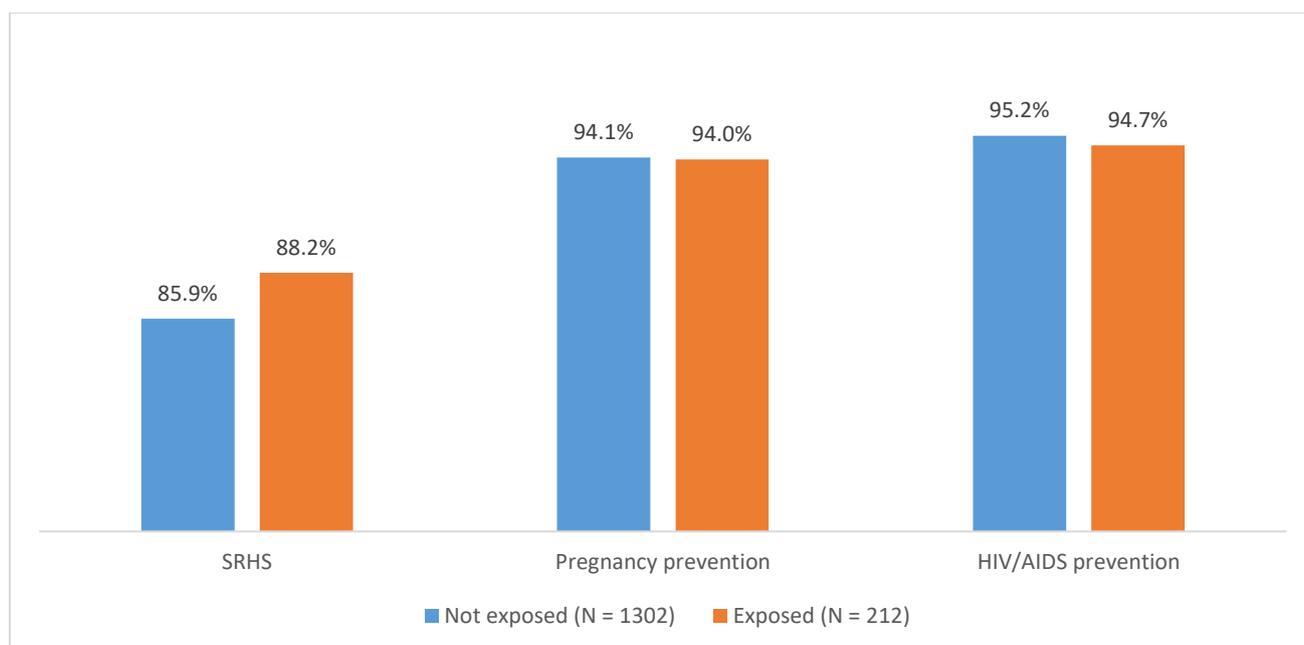


Figure 4: Differences in sources of information on pregnancy and HIV prevention by exposure to the program

Respondents were also asked about their main sources of information. Table 4 shows respondents' main sources of information for SRH, pregnancy and STIs (including HIV). The most commonly mentioned sources of information on any of the three indicators were teachers followed by parents/relatives and neighbors at endline. CHVs and parents remained the least sources in that order with parents but with the two sources having increased during the program period compared to baseline. Of the sources of information mentioned, use of radio significantly increased between baseline and endline for all the three variables. Moreover, parents/relatives played increased role as a source of information across the three SRH dimensions.

Table 4: Sources of information on SRH by survey round

Source of information	Baseline n(%)	Endline n(%)	p- value
SRH			
Radio	40 (6.5)	241 (18.5)	0.001**
CHV	26 (4.2)	113 (8.7)	0.001**
Parents/relatives and neighbors	57 (9.3)	218(16.7)	0.001**
Friends	109 (17.8)	64 (4.9)	0.001**
Teachers	215 (35.0)	313 (24.0)	0.001**
Peer educators	24 (3.9)	83 (6.4)	0.026*
DREAMS	17 (2.8)	99 (7.6)	0.001**
Others*	126 (20.5)	171 (13.1)	0.001**
STIs and HIV/AIDs			
Radio	64 (8.0)	213 (14.8)	0.001**
CHV	59 (7.4)	150 (10.4)	0.019*
Parents/relatives and neighbors	53 (6.6)	176 (12.2)	0.001**
Friends	69 (8.6)	57 (4.0)	0.001**
Teachers	304 (37.9)	443 (30.7)	0.001**

Peer educators	28 (3.5)	84 (5.8)	0.016*
DREAMS	13 (1.6)	118 (8.2)	0.001**
Others*	212 (26.4)	201 (13.9)	0.000**
Pregnancy prevention			
Radio	32 (4.8)	218 (15.3)	0.001**
CHV	36 (5.4)	132 (9.3)	0.002**
Parents/relatives and neighbors	62 (9.3)	225 (15.8)	0.001**
Friends	105 (15.7)	69 (4.8)	0.001**
Teachers	272 (40.7)	388 (27.2)	0.001**
Peer educators	24 (3.6)	72 (5.0)	0.152
DREAMS	10 (1.5)	118 (8.3)	0.001**
Others*	128 (19.1)	204 (14.3)	0.005**

While only a small proportion of adolescents cited media as their source of SRH information, data from the endline survey indicates that adolescents have a comparatively good access to media, with the "Shujaaz" Magazine being the most reported at 78% closely followed by radio at nearly 76% at endline compared to 73.3% and 87.2% at baseline. Access to mobile phone improved although it remained comparatively low at 41% but far much higher than internet at 26.3% and social media at 23.2% which were the lowest in that order during the endline compared to 30.9%, 3.6% and 13.8%, respectively during baseline. Figure 4 shows adolescents' access to sources of information.

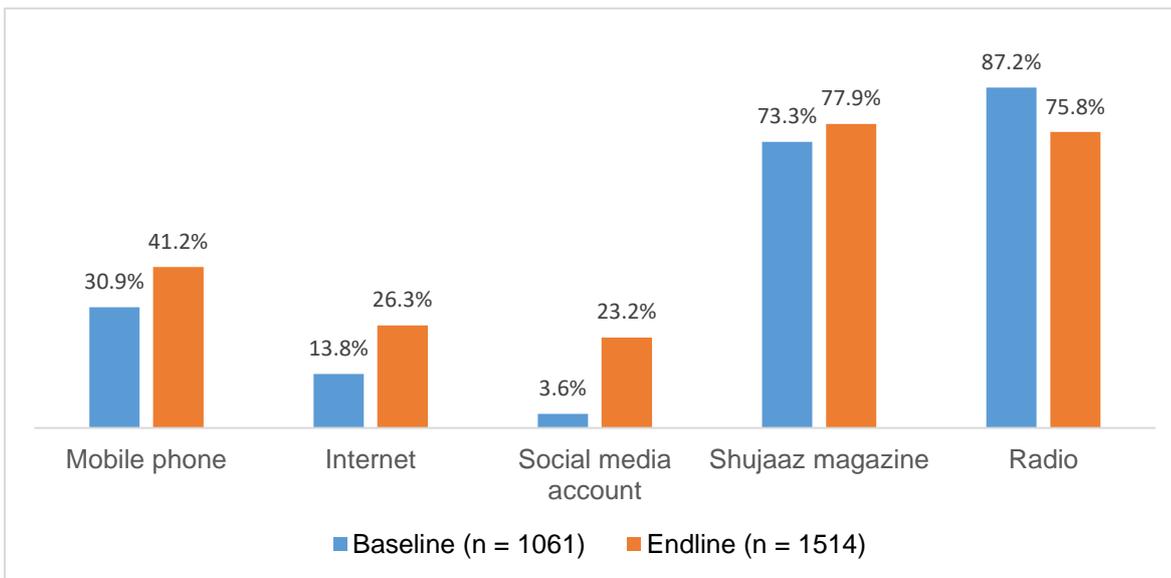


Figure 5. Proportion of adolescent girls reporting access to media

Participants of the qualitative study also narrated that adolescents today have various sources of information. One of the Key Informants in the qualitative study said the following of Shujaaz as a source of information:

I have had to interact with the Shujaaz agency in this program through the magazine, the Shujaaz comics that are available in the facilities that girls can read and know the story on Maria Kim and also through the radio show that they were piloting in Homa Bay. Janyuol Makare [A proper parent] to normalize parents relationship with their girls teach parents how to talk to their girls, how to raise them, how to talk to them about matters sexual reproductive health (sic)...I know they have some other channels...but those have not

happened in my area they've primarily been centered around the more urban areas where there is penetration of phones. So maybe I feel like the Shujaaz platform has not been able to take root as such in the more remote areas maybe because of technology maybe that is how their platform is set out or maybe the girls don't have a lot of access to the channels that they can reach the Shujaaz in these settings, yeah. (CHV, FGD Participant, Homa Bay).

One CHV also explained that the adolescents already have information from other sources and that whatever they do only adds to what the girls have already received from radio, phones, television or from school (teachers);

...The child has information from the phone, radio, television or even school. Therefore, when I want to give this information on contraceptives, it will find her when already she has the information and in addition to her interest, she will understand the information so quickly.

(CHV, FGD Participant, Urban).

Adolescents' knowledge of contraception was assessed by asking them to spontaneously mention the contraceptive methods they are aware of, and by further probing for each method not spontaneously mentioned. At endline, the most commonly known methods were male condom (96%), implants (88.7%), injectable (87.3%), and oral pill (83.5%). These three methods were also the most commonly known methods at baseline. IUD remained the least known modern method even after probing. The proportion of adolescents who knew about the emergency pill, standard days and Implants increased from baseline to endline. Figure 5 shows adolescents' knowledge of contraceptive methods by round of study.

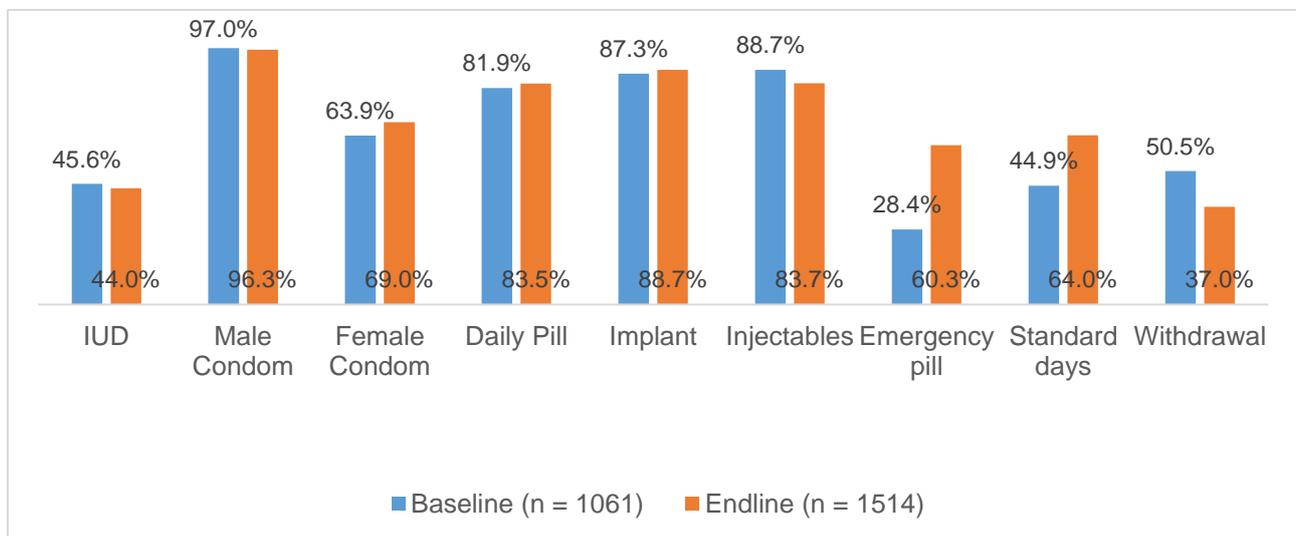


Figure 6: Proportion of adolescents' with knowledge of contraceptive methods

Girls were asked if they knew any place where adolescents could obtain contraceptives, and almost all adolescents were aware of at least one source of contraception. During the endline survey, about 90% of respondents mentioned government hospitals as main source of contraceptives compared to only 73% at baseline. This was followed by private hospital/clinic (45% versus 42%), government health centers (42% vs 39%), and government dispensary (41% versus 16.1%). Figure 6 below presents the adolescents knowledge of source of contraception.

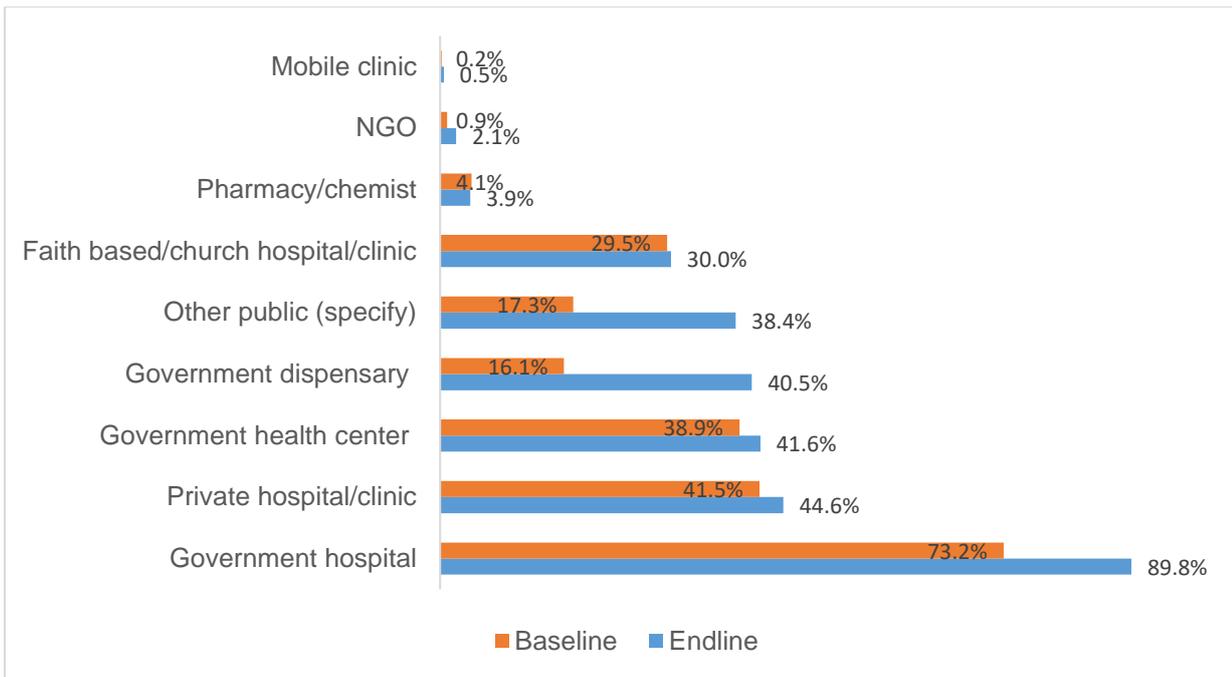


Figure 7: Adolescents' knowledge of source of contraception

While knowledge of contraception and its sources is nearly universal, the data highlighted various perceptions regarding contraceptives that could affect adolescents' use of modern contraception services. More than half of adolescents interviewed at endline believed that modern contraceptive methods such as injectables or hormonal methods are likely to cause unpleasant health problems and side effects, may cause infertility and birth defects. Moreover, the majority of the respondents believe that it is not safe to use contraceptives for a long period without a break (Figure 7). Adolescents who were exposed to the t-safe program have relatively lower negative perceptions on most indicators compared to those not exposed to the t-safe program but the differences were not consistent across the various indicators.

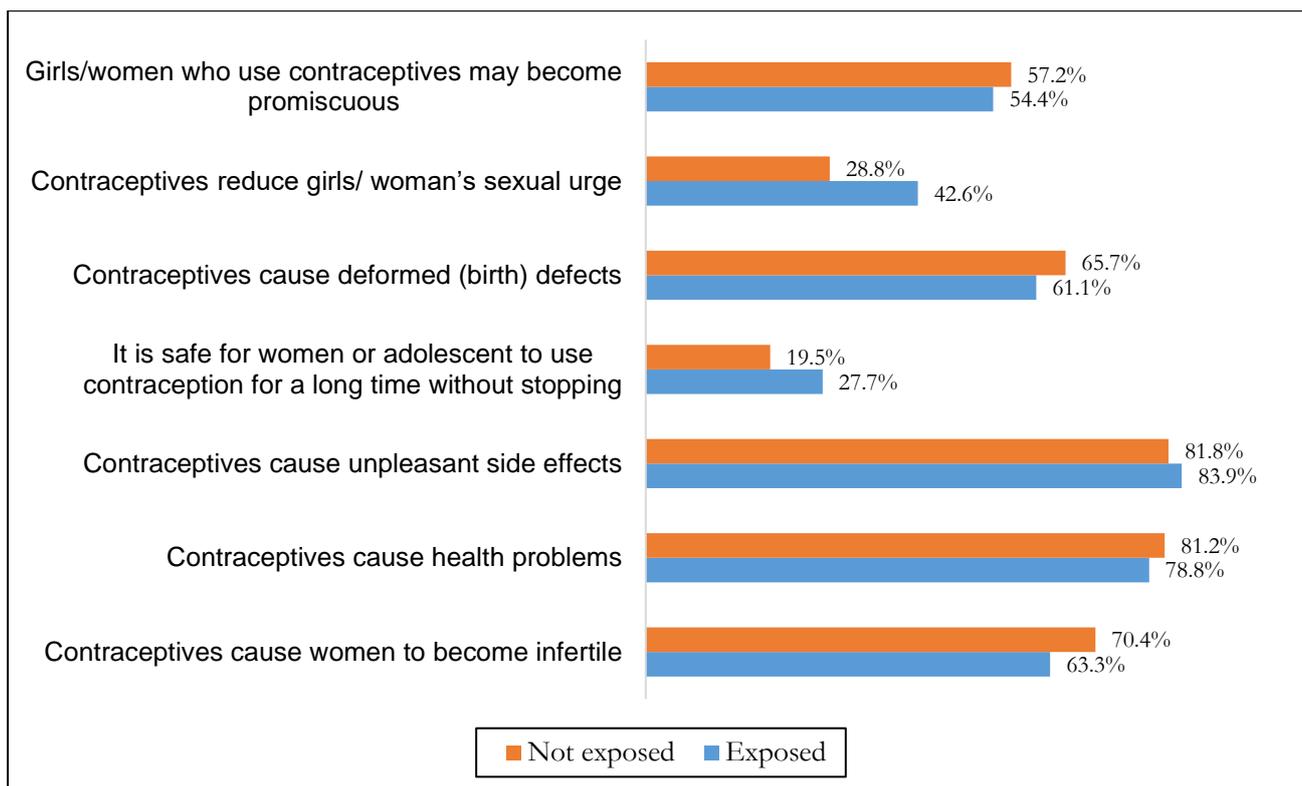


Figure 8. Proportion of adolescent girls who agree with statements about contraceptive by exposure to the ITH program

3.3 Exposure to the ITH program

Table 5 presents data on exposure of adolescents to the ITH program. Study respondents were asked if they had ever heard about the ITH program. Forty-two percent of adolescents interviewed in the endline survey indicated that they had heard about the ITH program. In addition, adolescent girls were asked whether they were reached by some of the major form of t-safe communication and mobilization activities, including in-person mobilization activities or through community meetings, through online/ Facebook/ internet services as well as mobile SMS or WhatsApp sources of information. Fifteen percent of the adolescent girls indicated that they were exposed to the t-safe related information communication activities through any of the three sources: 9.6% reported being contacted by mobilizers or received information through community meetings or other public event organized by t-safe mobilizers; 5.5% received information through the internet/Facebook; and 4.9% through mobile phone service like SMS and WhatsApp. Respondents indicated that the Facebook and websites visited and SMS information received were largely from Triggerise and Marie Stopes Kenya. Adolescents who had heard about the t-safe program or were ever exposed to program activities were not significantly different in terms of their socio-demographic characteristics including age, education or current school attendance (annex 1).

Table 5: Adolescents' knowledge of and exposure to the ITH program

Program related questions	n (%)
Ever heard about the t-safe program	
Yes	632 (41.7)
No	881 (58.2)
Ever received information about contraception/SRH from a mobilizer in a community meeting or other public events organized by T-safe	
Yes	144 (9.6%)
No	1369 (90.4)
Ever received information about contraception/SRH from t-safe through the internet/Facebook sent by Triggerise, MSK or Shujaaz Inc.	
Yes	81 (5.5)
No	1397 (94.5)
Ever received information about contraception/SRH from t-safe through a mobile phone service like SMS or Whatsapp	
Yes	74 (4.9)
No	1440 (95.1)

Data from the qualitative study also shows that most girls came to know about the t-safe program through the mobilizers. Study participants mentioned that the mobilizers approached them individually and shared information about the t-safe program or at times invited them to meetings facilitated by mobilizers for groups of adolescents. Adolescents were also referred to mobilizers by siblings and friends. Information shared by mobilizers focused on how adolescent girls take care of themselves, prevent unwanted pregnancy and STIs, and how t-safe helps them. Adolescents were enrolled in the t-safe platform after the mobilization process.

I was in school when my sister talked to a mobilizer, then I heard about the t-safe from her. I really wanted to know more about it and met with the mobilizer. You know these days you just have to be curious to know some things. Yeah and I am like how does the t-safe work? or what is it about and all that?

19-year-old, program beneficiary, single, no child, urban.

She [friend] told me you are in a condition to help especially young mothers hmm [...] because I'm one. So when she saw how hard life was at times and she came and told me there is this program I do attend that will somehow help you. After that I asked her actually where they normally meet during that program and she brought me here [FHOK youth center]. When I came, I met a mentor who also explained to me some of the benefits, how it could help me yeah.

19-year-old, program beneficiary, single, has a child, urban.

When asked whether they had ever registered/enrolled on the t-safe platform, 6.6% of the respondents indicated that they had ever registered to a t-safe platform using a mobile phone while 5.6% of them were referred to a t-safe provider through a mobilizer. Seven percent of the respondents indicated that they had ever received any contraception, contraception

counselling or HIV testing through the ITH program in the past three years. Of those enrolled, 45.9% received contraception services while 40.4% received HIV/STI testing. Table 6 shows the details of adolescents' exposure to the program.

Table 6: Adolescents exposure to ITH program and use of t-safe services (endline, unweighted)

Questions on program exposure	n(%)
Ever been contacted by mobilizers, or received information through SMS or Facebook	
Yes	222 (14.7)
No	1292 (85.3)
Ever registered/ enrolled in t-safe platform using a mobile phone	
Yes	100 (6.6)
No	1414 (93.7)
Ever been referred to t-safe provider by mobilisers	
Yes	85 (5.6)
No	1429 (94.4)
Received any SRH service (contraception or HIV testing) through the t-safe	
Yes	109 (7.2)
No	1405 (92.8)
Services received from t-safe - (N=109)	
Contraception	50 (45.9)
Contraception counselling	15 (13.8)
HIV/STI testing	44 (40.4)
Contraception method received from t-safe provider - (N=48)	
Male condom	4 (8.3)
Daily pill	2 (4.2)
Implant	37 (77.1)
Injections	3 (6.3)
Emergency contraception	2 (4.2)

Data from the qualitative study also showed how adolescents benefited from the program. As illustrated in the following quotes, some adolescents learnt about the benefits of using contraception and some decided to take up a method to avoid pregnancy;

It helped the adolescents know themselves and what they should do. As for me, I got pregnant and lost the child. Some of us are not good at abstaining at all. There are some health stuffs that we need to be taught how to use for us not to get pregnant at an early stage. So you get to be taught about them. You get to use them for you not to have to get pregnant at an early stage. This program has done that.

19-year-old, program beneficiary, single, no child, urban

I still want to go far with my education. I told myself why not use the family planning when it is available since I still want to go to school. As adolescent girls we have feelings. I can have sex and conceive. I went for the three-year family planning method. It will help me go far with my education and prevent me from getting a child for now.

19-year-old, program beneficiary, single, has a child, urban.

3.4 Sexual behavior and pregnancy experience

3.4.1 Sexual behavior

Adolescents' sexual activity is shown in table 7. The data shows that the proportion of adolescents who had ever had sex at endline was significantly lower compared to the baseline survey. Yet evidence from the data shows that early sexual debut is still common. Forty-six percent of adolescent girls interviewed at endline had engaged in sex. The mean age at the time of first sexual initiation for the endline sample was slightly higher than the baseline (15.4 years versus 14.9 years,). About 28% of the adolescents reported that they were sexually active in the month preceding the survey.

Table 7: Adolescents sexual debut and current sexual activity

Characteristic	Baseline n(%)	Endline n(%)	p-value
Ever had sex			
Yes	61.9[59.0, 64.8]	45.9[43.4, 48.4]	0.001**
No	38.1[35.2, 41.0]	54.1[51.6, 56.6]	
Age at first sex			0.001**
<= 14 years	40.7 [37.0, 44.5]	24.6 [21.6, 28.0]	
15-17 years	53.5 [49.7, 57.3]	67.1 [63.5, 70.4]	
18-19 years	5.8 [4.2, 7.8]	8.3 [6.5, 10.6]	
Mean age at first sex	14.79 [14.6, 15.0]	15.48 [15.3, 15.6]	
Had sex in the last one month			0.146
Yes	30.8 [27.4, 34.4]	27.3 [24.0, 30.6]	
No	69.2 [65.6, 72.6]	72.7 [69.4, 76.0]	

The proportion of adolescents who have ever had sex varied by the respondents socio-demographic characteristics. As expected, older adolescents of age 18-19 years were more likely to have had sex compared to the 15-17 years adolescents both at baseline and endline. At endline, a higher proportion of adolescents from rural areas reported having had sex compared to their urban counterparts. The proportion of adolescents who have ever had sex increased as adolescent's education level increased during both the baseline and endline surveys. Moreover, a higher proportion of adolescents not attending school reported ever having sex compared to adolescents currently attending school. Table ...below presents adolescents sexual behaviour by socio-demographics.

Table 8: Adolescent's sexual behavior by socio-demographic characteristics

Characteristics	Ever had sex (%)		P-value
	Baseline	Endline	
Age			0.001**
15 - 17 years	275 (46.1)	306 (30.5)	
18 - 19 years	384 (83.2)	392 (70.6)	
Place of residence (rural-urban)			0.001**
Rural	478 (61.5)	431 (49.8)	

Urban	181 (63.2)	266 (39.6)	
Education			
Some /completed primary	305 (54.9)	141 (34.0)	0.001**
Some/completed secondary	339 (70.2)	517 (48.2)	
Beyond secondary/vocational	15 (75.0)	40 (78.4)	
Marital status			
Currently married/in union	184 (99.6)	60 (3.7)	0.001**
Currently in a romantic relationship	348 (81.2)	497 (32.9)	
Single and not in a romantic relationship	127 (74.6)	141 (17.9)	
School attendance			
Attending	319 (46.0)	531 (40.6)	0.001**
Not attending	337 (93.1)	167 (81.6)	
Knowledge of the t-safe program			
Yes	-	325 (51.2)	
No	-	373 (42.5)	
* Significant at 5% level, ** significant at 1% level - data not collected			

3.4.2 Pregnancy

A lower proportion of adolescents at endline reported that they had ever been pregnant (Figure 8). Adolescent pregnancy was also less common at endline compared to the baseline. At endline, only 14.4% of all respondents reported that they had ever been pregnant or had given birth, compared to 31.8% of adolescents at baseline. This difference was statistically significant.

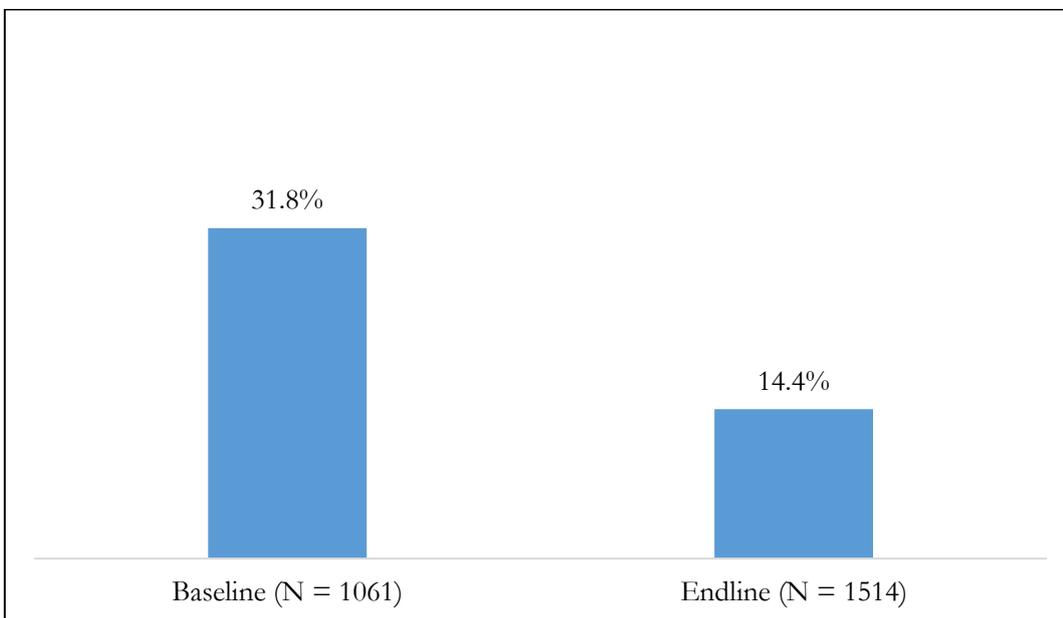


Figure 9: Proportion of adolescent girls who had ever been pregnant at baseline and endline

In the qualitative interviews, adolescent girls and CHVs stated that adolescent pregnancy had decreased in recent years and explained how the t-safe program contributed to reducing adolescent pregnancy;

The changes it has brought is that there is a reduction in early teenage [adolescent] pregnancies. This is because of those referrals that we give to make them receive certain services that prevent pregnancies.

CHV, FGD participant, rural.

However, data from the endline survey shows no significant difference in the proportion of adolescents reporting pregnancy by knowledge of the program. About 31.5% of sexually active adolescents who had heard about the t-safe program reported ever been pregnant compared to 31% of those who had never heard about the program but the difference was not statistically significant (Figure 9).

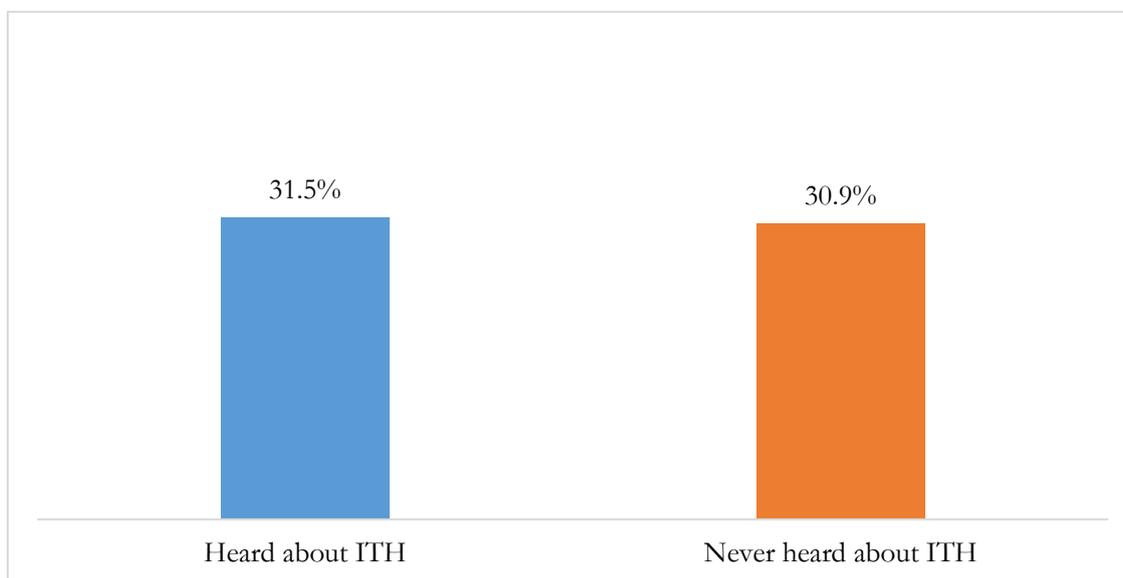


Figure 10: Proportion of adolescents reporting pregnancy by knowledge of the ITH program (endline)

Of concern is that nearly 92% of adolescents who had ever been pregnant reported that they did not want the pregnancy at that time (mistimed) or did not want at all (unwanted). This is an increase from 83% of girls who had ever been pregnant reporting unintended pregnancy at baseline.

3.5 Contraceptive use and the effects of the t-safe program

3.5.1 Contraceptive use

Contraceptive use was fairly high among sexually active adolescents in Homa Bay county. At endline, 53.1% of sexually active adolescents reported current use of any contraception/family planning methods. This is equivalent to 25% of contraceptive prevalence

rate among all adolescent girls in the study areas in the county. However, as shown in Figure 11, male condom was the most commonly used method among adolescents and predominantly among younger adolescents (15-17 years). About 42% of contraceptive users reported the use of male condoms at endline. although this is lower than the proportion of Condom use reported at baseline (62%). Implant was the next most commonly used method with 32% of current users at endline. At endline, more adolescents reported the use of IUD, emergency pills and oral contraception compared to the baseline survey (grouped in to the 'other' category in Fig 10) The proportion of users who reported implants increased by more than ten percentage-points between baseline (22.1%) and endline surveys. Implant use was higher among older adolescents of age 18-19 years. About 11.8% of respondents reported current use of injectables, with a slight decline of users between the baseline (14%).

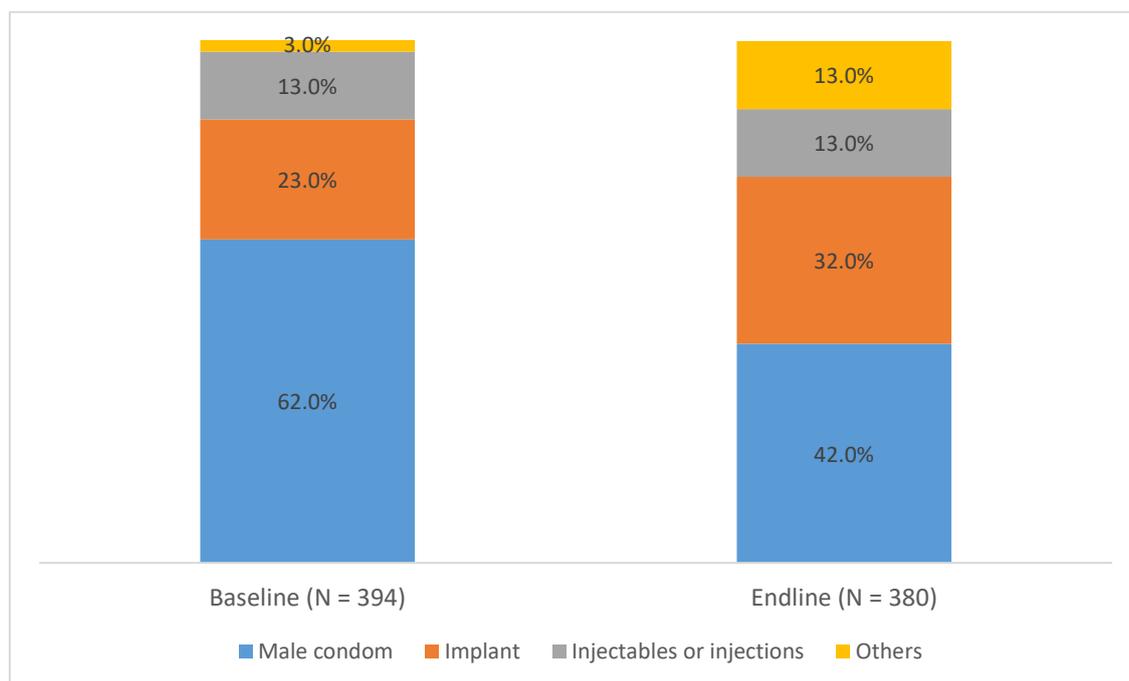


Figure 4: Contraceptive use, by survey round

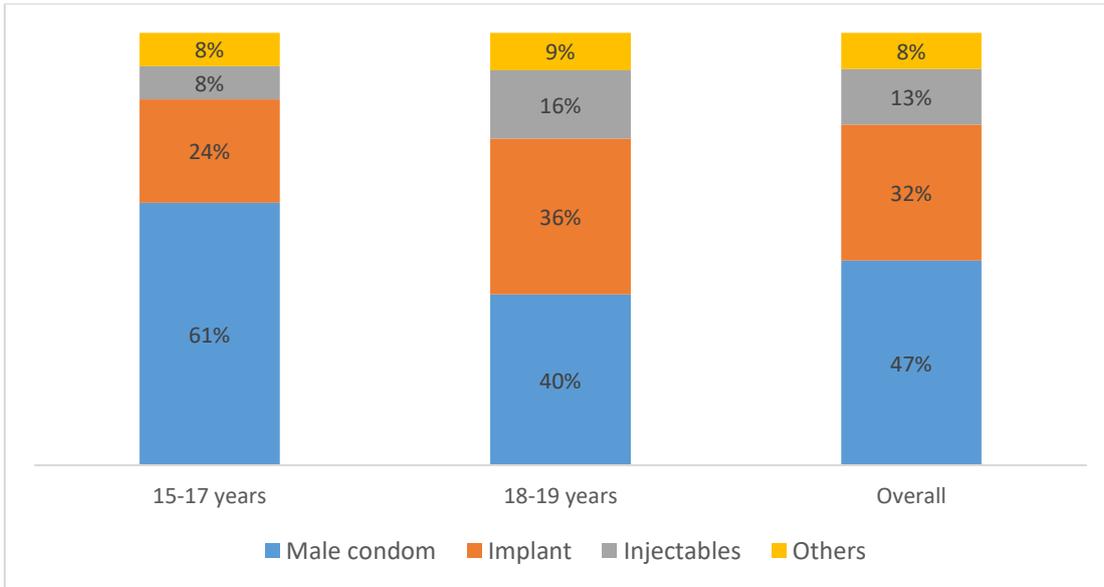


Figure 12: Contraceptive use by respondents age (endline)

3.5.2 Modern Contraceptive use

The use of modern contraception methods (excluding male condom) has not changed significantly between the baseline and endline surveys. The use of modern methods other than condom increased only by 0.8% points from 35.4% at baseline to 36.2% at endline and the differences was not statistically significant. However, the contraceptive method mix used at the two rounds were significantly different with important changes in the use of IUD, daily pills and emergency contraception between baseline and endline (Table 9). The proportion of Implant users has not changed significantly, when excluding the use of male Condom, between baseline and endline. The sources of adolescent contraception also shifted towards private facilities between baseline and endline surveys.

Table 9: Percentage of respondents using modern Contraceptive methods

Characteristic	Baseline N = 1061 n (%)	Endline N = 1514 n (%)	P-value
Currently using any method to delay or avoid getting pregnant			
Yes	60.7[56.9, 64.4]	53.1[49.4, 56.8]	0.005*
No	38.0[35.6, 43.1]	46.6[43.2, 50.6]	
Currently using modern methods (without male condom)			
Yes	35.4 [30.9, 40.1]	36.2 [32.2, 40.5]	0.789
No	64.6 [59.9, 69.1]	63.8 [59.5, 67.8]	
Contraceptive method currently used (Modern contraceptives used)			
IUD	0.9 [0, 4.3]	2.7 [1.0, 6.3]	0.001**
Daily Pills	0.0 [0, 3.2]	2.7 [1.0, 6.3]	

Implant	63.4 [55.2, 70.9]	62.7 [55.4, 69.2]	
Injectables	35.2 [27.8, 43.4]	25.5 [19.2, 32.4]	
Emergency pills	0.5 [0, 4.3]	6.3 [3.6, 11.0]	
Sources of contraception for adolescents			
Public facility	50.8[45.9, 55.9]	35.7[31.1, 40.7]	0.001**
Private facility	49.2[44.1, 54.1]	64.3[59.3, 68.9]	

Current use of modern contraception varied by age, education, place of residence and other socio-demographic characteristics as well as exposure to the ITH program. As expected, contraceptive use was higher among the older adolescents compared to the younger ones. However, the pattern by residence shows that contraceptive use was higher among rural /peri-urban adolescents than urban adolescents, but the differences were not statistically significant. Current contraceptive use was higher among adolescents with secondary education compared to those with primary education. The data also shows that current contraceptive use was higher among out of school adolescents compared to school-going adolescents. Modern contraceptive use varied between baseline and endline for education, current marital status and current school attendance. But, there was no difference in modern contraceptive use by age and place of residence between the baseline and endline surveys. Moreover, a higher proportion of adolescents exposed to the t-safe program used modern contraception compared to those not exposed to the t-safe program. Table 10 below presents adolescents contraceptive use by socio-demographics.

Table 10: Percentage of respondents using modern Contraceptives by socio-demographic characteristics

Characteristics	Currently using contraception n (%)		P-value
	Baseline	Endline	
Age			
15 - 17 years	41 (26.6)	53 (26.4)	0.959
18 - 19 years	110 (43.9)	144 (44.3)	
Place of residence (rural-urban)			
Rural	292 (61.9)	146 (40.9)	0.817
Urban	102 (59.1)	51 (29.9)	
Education			
Some /completed primary	180 (59.8)	46 (40.6)	0.001**
Some/completed secondary	205 (61.4)	140 (36.7)	
Beyond secondary/vocational	8 (75.0)	11 (45.1)	
Marital status			
Currently married/in union	107 (58.6)	36 (66.7)	0.037**
Currently in a romantic relationship	232 (68.1)	136 (38.6)	
Single and not in a romantic relationship	55 (43.5)	25 (21.4)	
School attendance			
Attending	198 (63.7)	125 (31.1)	0.002*
Not attending	196 (29.7)	72 (56.5)	
Knowledge of the t-safe program			
Yes	N.A	108 (47.4)	-
No	N.A	89 (29.7)	
Exposure to the program			
Yes	N.A	63 (67.6)	-
No	N.A	134 (30.4)	

3.6 Changes since the baseline and possible effects of the ITH program

3.6.1 Contraceptive method mix

Overall, the modern contraceptive method mix (excluding male condom) improved significantly between the baseline and endline surveys. Once male condom is excluded, Implant is the the most commonly used methods with over 60% of the modern contraceptive method mix. The increase in the use of IUDs, emergency contraception and Pills contributed to the changes in contraceptive method mix between the baseline and endline surveys. Figure 11 shows the contraceptive method mix, by round of survey.

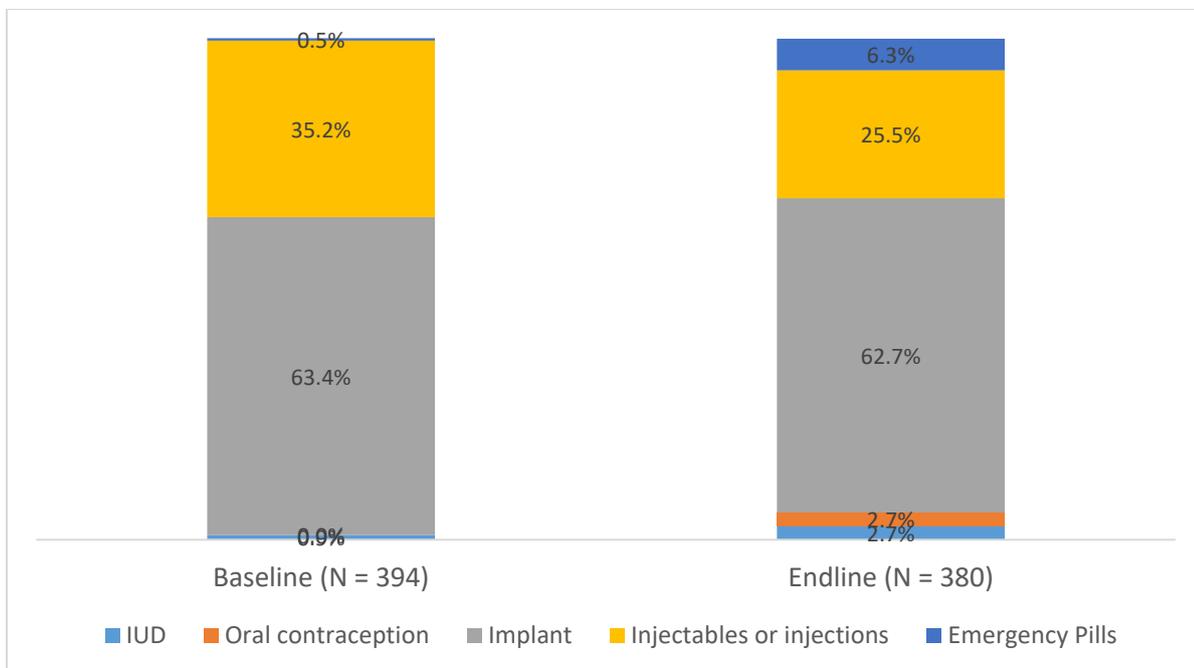


Figure 5: Contraceptive method mix, by round of survey

Qualitative interview participants noted that adolescents who received contraception services through the t-safe program were counselled on a range of methods;

They told me there is injection for three months and three years and there is another one where you come for every month. So I opted for the three years and they inserted it.

19-year-old, program beneficiary, single, no child, urban.

A closer examination of the differences in contraceptive use by exposure to the ITH program shows that a higher proportion of adolescents who had information about the t-safe and or were exposed to any of the t-safe information sources or mobilization activities reported the

use of contraceptives than those who had never heard about t-safe been exposed to the t-safe information and communication activities. As shown in table 8, nearly 67.6% of adolescents who were exposed to the t-safe program were using contraception at the time of the endline survey as compared to 30.4% of those who were not exposed to the program. The difference was statistically significant. The contraceptive method mix also varied by exposure to the program. As figure 13 shows, about three fourths of the adolescents (75%) exposed to the program reported current use of implants compared to only 52% of users who had never been exposed to the t-safe program. The difference was statistically significant.

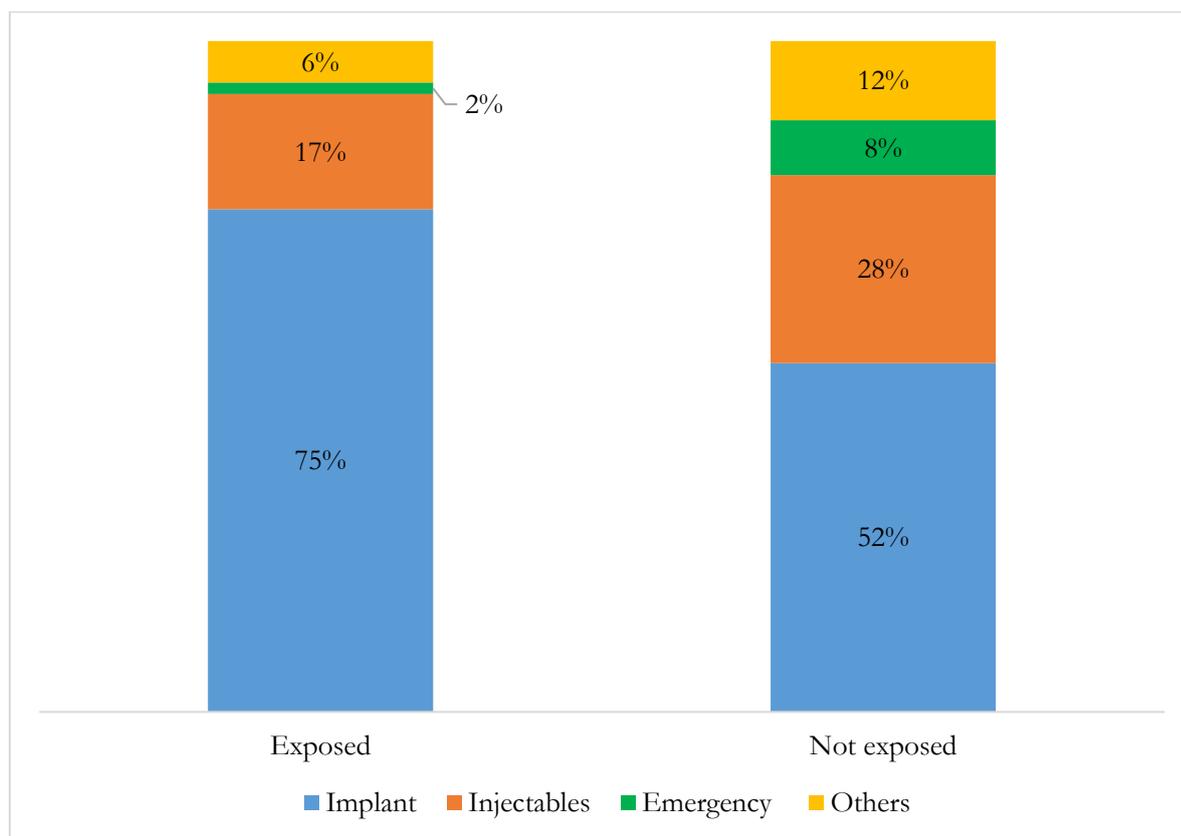


Figure 6. Contraceptive method mix by program exposure

3.6.2 Sources of contraception for adolescents

Another significant change that was observed is the increased diversity of sources of modern contraception for adolescents. At baseline, the majority (61%) of modern contraceptive users received their methods from public sources. At endline, the proportion of adolescents reporting that they obtained their methods in public facilities was only 37%. During the same time, the proportion of contraceptive users who depended on private sources (clinics, facilities) and pharmacies increased from 29% and 1% to 45% and 9%, respectively. The difference in the sources of contraceptive methods at baseline and endline may reflect the role played by t-safe in diversifying the sources of contraception for adolescents by increasing access to AMUA, FHOK and Tunza clinics, as well as pharmacies. The t-safe program also

promoted adolescent friendly services through the private facilities which had been very uncommon. Figures 14 and 15 below show sources of contraception by survey round; and by exposure to t-safe program.

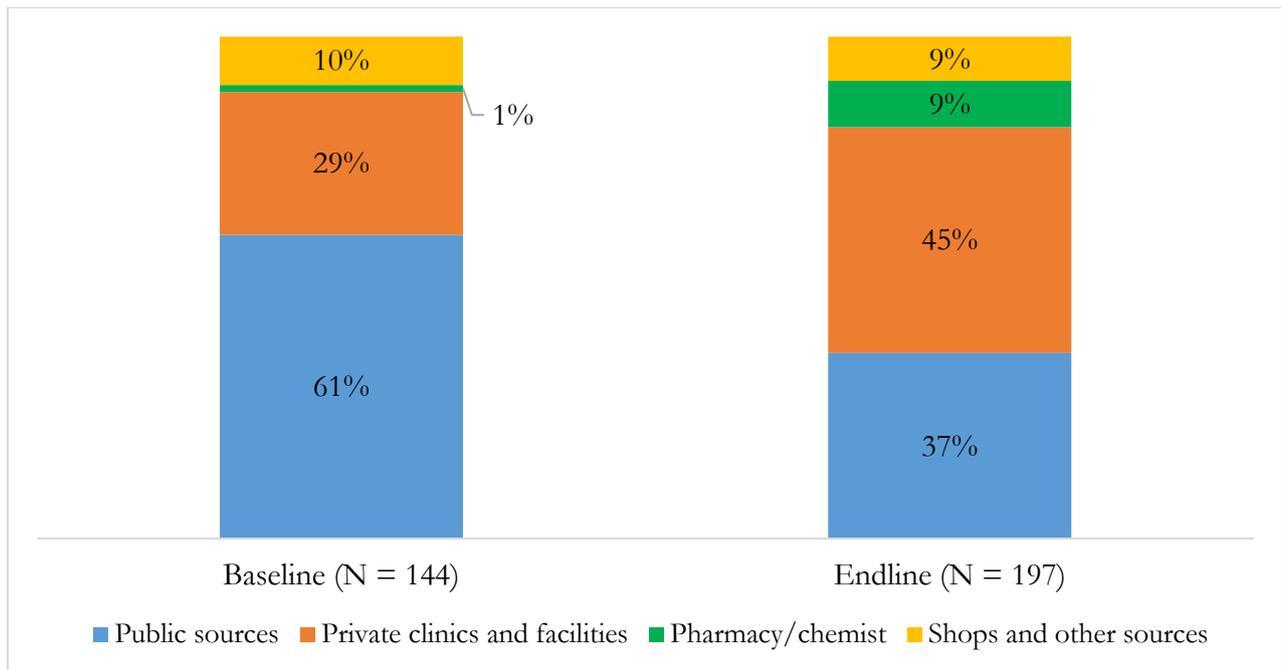


Figure 7: Sources of contraception by survey round

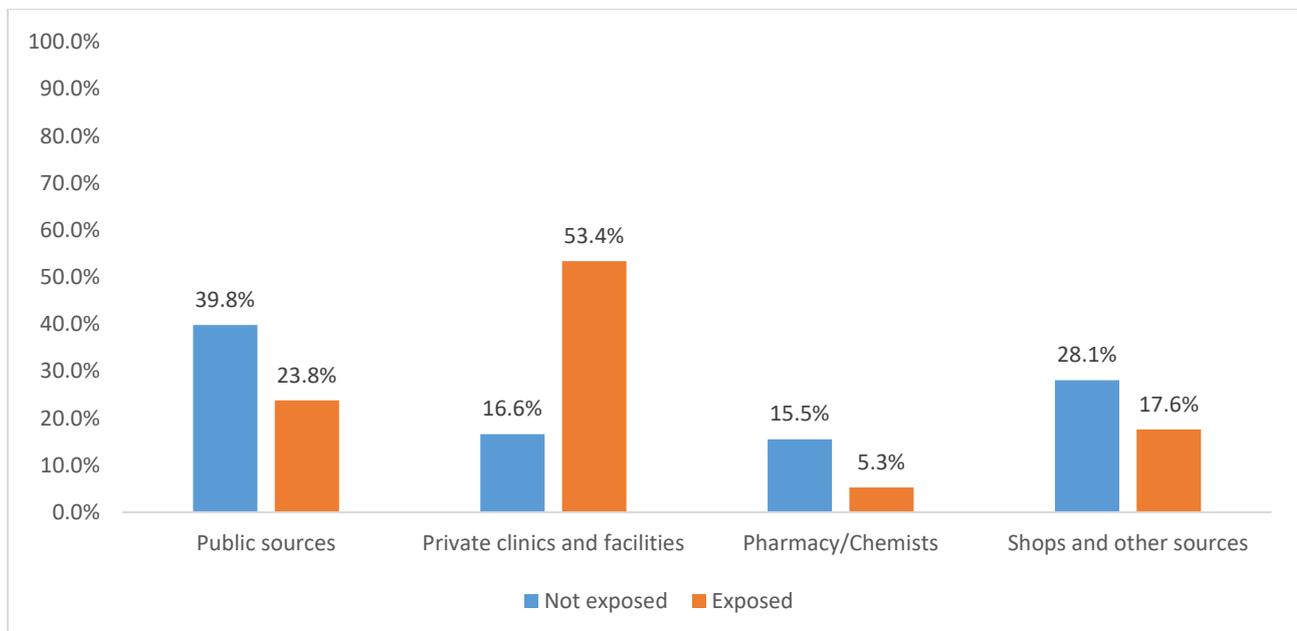


Figure 16: Sources of contraception by exposure to the program

3.6.3 Quality of care in contraceptive services

Table 9 below presents the findings on the quality of SRH services. Data from the endline survey also shows that quality of care for adolescent contraception including informed choice has improved. About 98% of respondents who had visited health facilities for contraceptives said they obtained the method of their choice during their last visit. The majority of users said that they (alone or with their partners) made the final decision about the method they received. Moreover, about 97% of current users said they would return to the facility while 94% said that they would refer a friend to that facility indicating a high level of satisfaction with the services they received.

Moreover, data from the endline survey shows that about 61% of users who received contraception from health facilities said they were informed about other contraceptive methods; nearly 72% reported that they were informed about the side effects of the methods they received; and 63% reported they were informed about what to do if they experienced side effects. Comparing with the baseline survey, evidence from the data shows that some of the indicators of informed choice and quality of care had improved overtime with statistically significant differences observed being observed on information about side effects.

Table 11: Quality of family planning services received by adolescents, Homa Bay county

Service related questions	Baseline N=170 n (%)	Endline N=245 n (%)	P-value
Informed about other methods of contraception	95 (55.9)	149 (60.8)	0.317
Informed about side effects	98 (57.7)	176 (71.8)	0.003**
Told what to do if experienced side effects	102 (60.0)	154 (62.9)	0.555
Obtained the method wanted during last facility visit	160 (94.1)	239 (97.6)	0.073
Who made the final decision about the method given			
Me alone	92 (54.1)	122 (49.8)	
Provider	4 (-)	4 (-)	0.893
Partner	12 (7.1)	18 (17.4)	
Me and provider	7 (-)	14 (5.7)	
Me and partner	46 (27.1)	70 (28.6)	
Other	9 (-)	17 (6.9)	
Would return to that facility	161 (94.7)	237 (96.7)	0.303
Would refer a friend who is also an adolescent to that facility	154 (90.6)	231 (94.3)	0.153
(-) Percentages not calculated for fewer cases (frequencies less than 10).			
* Significant at 5% level, ** significant at 1% level			

A close examination of variations in informed choice by exposure to the program shows that a higher proportion of adolescents who had ever heard about t-safe or were exposed to t-safe mobilization activities reported higher informed choice compared to their counter parts who were not exposed to the program. Figure 16 shows that 76.6% of contraceptive users who were exposed to t-safe information and mobilization activities reported being informed about other methods of contraception as compared to only 53.7% of users not exposed to t-

safe reporting about other methods of contraception during their last visit. The differences were statistically significant.

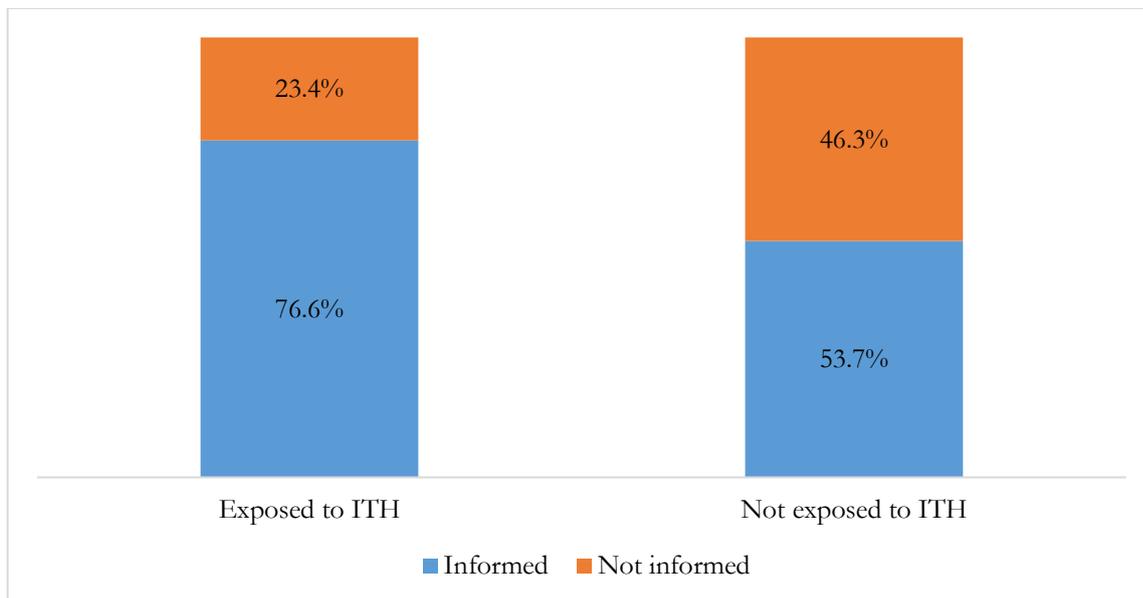


Figure 17: Differences in informed choice by exposure to the program

The qualitative study conducted with t-safe users also underlined the ways in which the t-safe program provided informed choice and influenced adolescents' perceptions regarding contraceptives;

When you go the facility, you will find a provider who will ask you how he/she may help you. After that the provider will tell you what family planning methods they have. The provider will then ask you to choose which one you would like and then he/she will tell you the advantages.

19-year-old, program beneficiary, single, with a child, urban

Similarly, in the endline survey, 66.9% of contraceptive users who reported being exposed to the t-safe reported that they were informed about the side effects of the method they received compared to 48.3% of those who were not exposed to the t-safe program indicating that adolescents who have gone through the t-safe program had a better informed choice. The differences were statistically significant ($P < 0.05$). Figure 17 presents the details on adolescents' report on information about side effects.

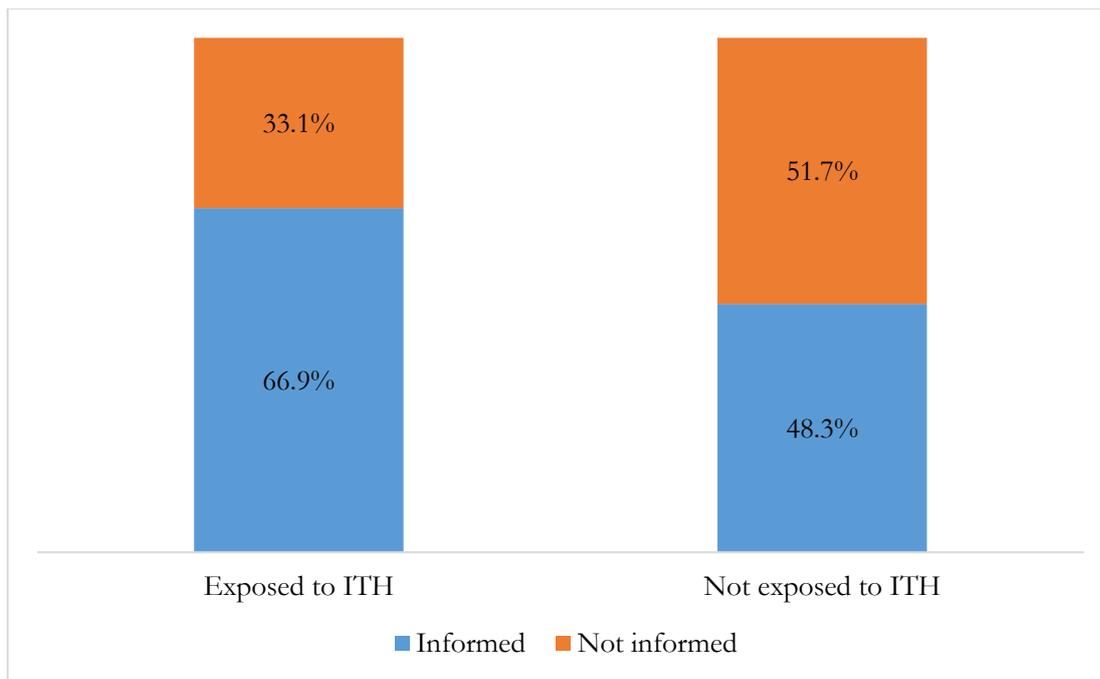


Figure 18: Information on side effects of the methods by exposure to program

Evidence from the qualitative study also shows that adolescents were informed about side effects of contraceptive methods to separate myths and truths about contraceptives. This was clearly captured by the following statement from one of the adolescents;

She told me people have myths, I heard people saying family planning can make you infertile? She told me no. After that clarification I had some comfort because in future I would like to have children. The service provider told me if that is the case then many people using family planning would have no children. So she told me what people are saying are not true.

19-year-old, program beneficiary, single, with a child, urban.

3.7 Reasons for contraceptive non-use and intention to use in the future

The reasons for contraceptive non-use given by the respondents are diverse. As shown in Table 10 more than half of non-users of sexually active adolescents, at both the baseline and endline, reported not using contraceptives because “they never really thought about it”. Other key reasons for not using contraception include: not wanting to seem too eager for sex with their partners; fear of side effects; infrequent sex; and lack of knowledge of sources of contraception. The reasons remained similar at both time points.

Regarding future use, about 59% of all the sexually active non-users at endline reported that they intend to use a contraceptive method in the future. This proportion was significantly lower at endline compared to the baseline. Most of the girls who reported on their intentions to use in the future said they intend to use implants (44%), male condom (21%) and injectables (19%) at endline.

Table 12: Reasons for contraceptive non-use and intentions for future use among sexually active adolescents

Reasons for not currently using contraceptive	Baseline	End line	P-value
	N=265	N=318	
	n (%)	n (%)	
I am too embarrassed to talk about using contraception	14 (5.3)	7 (2.2)	0.047*
Fear of Side effects/health concerns	26 (9.8)	42 (13.2)	0.204
I am breastfeeding	22 (8.3)	5 (1.6)	0.000**
Contraception interferes with enjoyment	27 (10.2)	6 (1.9)	0.000**
I don't know where to get contraception	31 (11.7)	12 (3.8)	0.000**
I don't want to seem too eager for sex	76 (28.7)	43 (13.5)	0.000**
I have never really thought about it	59 (22.3)	171 (53.8)	0.000**
Infrequent sex	27 (10.2)	13 (4.1)	0.004**
Other	62 (23.4)	58 (18.2)	0.126
Intend to use contraceptive in the future among currently not using	203 (76.6)	187 (58.8)	0.000**
Contraceptive method you intend to use in the future			
Male condom	16 (10.3)	40 (21.4)	0.004**
Implant	65 (41.7)	83 (44.4)	
Injectables or injections	54 (34.6)	35 (18.7)	
Daily pill	10 (6.4)	12 (6.4)	
Others	11 (7.1)	16 (8.6)	

- Percentages not calculated for fewer cases (frequencies less than 10).

* Significant at 5% level, ** significant at 1% level

3.8 Predictors of modern contraceptive use: association with program exposure

To test whether exposure to the program increased the odds of using modern contraception, adjusting for the effects of socio-demographic factors, we run logit regression models with the following variables; Socio-demographics (age, education, rural-urban residence, school attendance, relationship status), exposure to the ITH program and attitudes towards contraception. Model fitness was checked using and the regression model explained nearly half of the variation in modern contraceptive use at endline, correctly classifying 75% of cases. The outcome variable, modern contraceptive use was coded as '1' if using and '0'

otherwise. All covariates were also coded as binary or categorical depending on the response options.

Among the socio-demographic characteristics; use of modern contraception varied significantly by age, place of residence (urban or rural), current school attendance and relationship status. There was no significant variation in modern contraceptive use by education status. Exposure to the ITH program significantly improved the odds of using modern contraceptive use; the odds of using modern contraception was more than two times higher among adolescents exposed to the program compared to those who were not exposed to the program.

The attitudes and perception of adolescents on modern contraception also significantly influenced the use of modern contraception. The odds of using modern contraception among sexually active adolescents was lower among those who believed that contraception causes health problems, contraception causes infertility and it is not safe to use contraception for a long time without a break (Table 13).

Table 13: Logit regression model predicting modern contraceptive use among adolescents

Characteristics	Odds Ratio (OR)	P-value	95% C.I. for Odds Ratio	
			Lower	Upper
Socio-demographics				
Age (15-17 years) (RC-18-19 years)	.502	.001**	.361	.698
Education level (RC-above secondary)				
Primary	.671	.342	.294	1.529
Secondary	.686	.312	.330	1.426
Residence Urban (RC-rural)	.696	.017**	.516	.938
Attending school	.453	.001**	.292	.703
Relationship (RC-married/in union)				
Currently in a romantic relationship	.843	.613	.435	1.633
Not married nor in a romantic relationship	.061	.001**	.030	.125
Exposure to the ITH program				
Heard about T-safe	1.233	.213	.887	1.713
Exposed to t-safe	2.128	.001**	1.387	3.265
Attitudes towards contraception				
Contraception cause infertility	.643	.011**	.458	.902
Contraception cause health problems	.651	.041*	.431	.982
Not safe to use for long time without stopping	.376	.001**	.271	.524
Constant	11.02	.001**		

3.9 Community support for adolescent sexual and reproductive health

3.9.1 Parental communication with adolescents on SRH issues

In the endline survey, adolescents were asked whether they had ever discussed with their parents about sexual and reproductive health issues including; whether or not they should use contraceptive methods with their boyfriends, problems that girls face with romantic partners or husband, changes in their bodies, sexual activity, or contraceptive use. Nearly 72% of the respondents reported that they had ever discussed changes in their body, sexual activity, or contraceptive methods with their parents. Notably, only about 22% reported that they had ever discussed whether or not they should use contraceptive methods with their boyfriend (Figure 16).

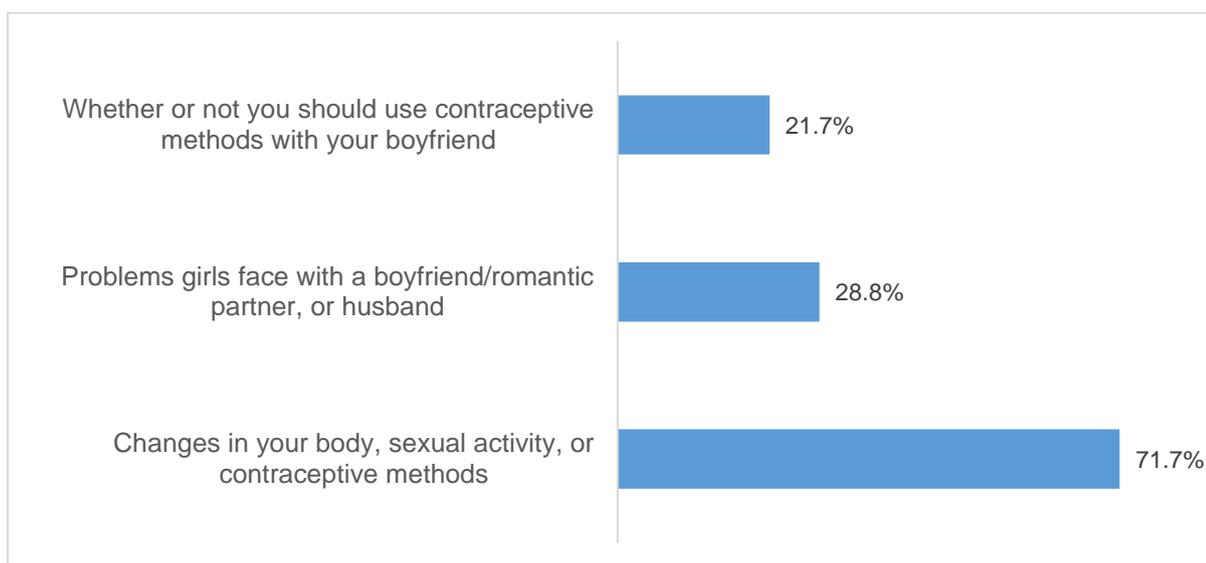


Figure 19: Adolescent's discussion with parents on SRH issues

In the FGDs with parents, they described their conversations with their adolescent daughters about sexual relationships, pregnancy and STIs. Different participants described when and what they discuss with their adolescents:

Yes, I talk to my adolescent child telling her that you are now a grown-up and when you have relationships and you don't take care, you might get pregnant or get sexually transmitted diseases.

Parent, FGD participant, rural.

When she has told you she is experiencing her monthly period this is the right time to tell her not to joke around with boys because she will get pregnant.

Parent, FGD participant, rural.

One CHV also spoke about how other adolescents' negative experiences prompted her conversations with her daughter. As she explained:

Now you can hear (sic) that there was a child who was pregnant and decided to kill herself...broadcasted on radio. As a parent when I listen to that, I look at

the age of my child, I become close to her. I tell her, my child in order for your future to be bright, put aside sex issues. Just proceed with your education so that those things can happen to you when you are somebody somewhere.

CHV, FGD Participant, urban.

3.9.2 Challenges with parent-adolescent communication about SRH

In the FGDs with CHVs, they indicated that some parents do not talk to their adolescent girls about their SRH because they consider it a taboo or that some parents are just out rightly harsh to their children. Others reported that many parents find SRH a difficult and embarrassing issue to discuss with their children. These views are illustrated in the following statements by CHVs;

I think...it is rare for parents to talk to their adolescents. What am trying to say is that parents have left their children in such a way that when the child wants to talk to them, they are very harsh. So it gives the child a difficult moment, it makes the child to indulge in early pregnancies or even marriage because the parents are harsh and hence there is no way they have that can help them concerning their life.

CHV, FGD participant, urban.

Majority of them will say that is a very big issue that I cannot discuss with a child. That is a very big embarrassment that I can't handle. So you will find that those parents who have known are very free with their children. Others are so embarrassed that even a father just going to the market to buy pads for her daughter, he can't do that.

CHV, FGD participant, rural.

According to the CHVs, one of the challenges that parents face in engaging with the adolescent girls is that at some age when a girl begins to observe certain changes in their bodies they find it easier to talk to besides their parents about such changes. As captured in the following statement, according to one CHV, this left parents feeling like they are not part of the adolescent's life:

Another challenge that parents have is that there is an age that when a girl reaches, for example, me there is an age that when I reached, it was better for me to go and share my problems with another person but not my mother. This is because you feel that when you talk to your mother about these problems such as telling her that such and such thing has started. She would then go and share it with my father. Therefore, even the children are not close to the parents, they do not want to tell the parents the issues that they pass through. This makes the parents feel they are outsiders or even guests in their children's life.

CHV, FGD participant, rural

Myths and beliefs were also reported as impediments to parental-adolescent communication about contraceptives. For example, some parents were reported to refuse to support adolescent SRH services based on the perception that starting to use family planning early

interferes with adolescent's reproductive system. These concerns are illustrated in the following quotes:

Concerning contraceptives...depending on what is being said about family planning...it becomes a difficult subject for a parent to talk to her child about contraceptives. The reason why this is happening, they have a belief that this will make the child have difficulty in giving birth in the near future. In such a way when a time for her to give birth comes, she cannot give birth. Then these things will give the child many diseases such as growths. The child will continuously bleed. It becomes difficult for a parent to be open with the child to talk about contraceptives with her child.

CHV, FGD participant, urban.

There are some parents who accept and those who refuse, they claim that when they [adolescents] start using family planning at a younger age it will interfere with their reproductive system. According to me my child uses family planning because I want it to prevent pregnancy so that she can go to school and finish her education.

CHV, FGD participant, rural.

On the other hand, data from discussions with CHVs indicated that some parents do not talk to their adolescent girls about their SRH because they consider it a taboo or that some parents are just out rightly. These were clearly demonstrated by the following statements;

In this community... you find that it's very hard for the parent to speak up about these reproductive health things with the adolescents. So you find that for the ITH program, the adolescents want to come to get the services without their parents' consent. This is because sometimes they ask the parent but they are told that; that is bad manners they should not say in the presence of their father.

CHV, FGD Participant, urban.

3.9.3 Perceived parental support for adolescent SRH

We assessed adolescents' views on parental support by asking them whether they agreed with several statements that describe parents' support for adolescent SRH. Table 10 presents the details of adolescents' views on parental support for adolescent SRH. The proportion of adolescents who disagreed with the statement that "parents in my community support unmarried adolescent girls using contraception" was lower at endline than at baseline or disagreement seems to have declined although the proportion of adolescents who were The proportion of adolescents who agreed with the statements; "parents in my community disapprove adolescent girls having a child before finishing school" and; "parents in my community disapprove adolescent girls getting married before finishing school" significantly changed during endline (94.3% vs 88.6%, and 94.9% vs 89.8%, respectively).

Table 14: Adolescents' views on parental support for adolescent sexual and reproductive Health issues

Parent's support	Baseline N=1061 n (%)	End line N=1514 n (%)	P-value
Parents in my community support unmarried adolescent girls using contraception			
Agree	248 (23.4)	310 (20.5)	0.001**
Neither agree nor disagree	104 (9.8)	319 (21.1)	
Disagree	709 (66.8)	885 (58.5)	
Parents in my community disapprove of unmarried adolescent girls having a child before finishing high school			
Agree	940 (88.6)	1428 (94.3)	0.001**
Neither agree nor disagree	25 (2.4)	44 (2.9)	
Disagree	96 (9.1)	42 (2.8)	
Parents in my community disapprove adolescent girls getting married before finishing high school			
Agree	953 (89.8)	1430 (94.9)	0.001**
Neither agree nor disagree	24 (2.3)	49 (3.3)	
Disagree	84 (7.9)	28 (1.9)	

(-) Percentages not calculated for fewer cases (frequencies less than 10).

** Significant at 1% level

Although the qualitative interviews suggest that there was little parental support of adolescent SRH, some parents indicated that there are things that parents can do in supporting adolescent SRH. For example, one parent explained;

Parents can take them for family planning and for the grown-ups who have started experiencing monthly periods they should be warned that when they engage in unprotected sex they might get HIV/AIDS or be pregnant.

Parent, FGD participant, rural.

3.9.4 Challenges facing parental support for adolescent SRH

The CHVs described various challenges limiting parental support for adolescent SRH in the county. They reported that some parents are yet to embrace adolescent SRH and that it's a challenge having them to support adolescents to use contraception. As illustrated in the following quotes, CHVs indicated that such parents even perceive contraceptive use by adolescents as promoting promiscuity amongst them;

You find that parents have not accepted, they just hear that you want to teach the children about family planning in order to prevent them from having early pregnancies. Most of them give you different responses... Some of them tell you that you are the ones who [increase] prostitution because you are the ones who take small children for family planning. There are people who believe that contraceptives make the child start sleeping around or engage in prostitution because she will know that she has prevented pregnancies. That is why I think they are against it.

CHV, FGD participant, urban.

It is also a challenge because sometimes you have called them to talk to them, and you want her to go to the facility so that she can get family planning, her parent or any other parent who is seeing will say that we are teaching the girls prostitution. You are taking them so that now they can do prostitution.

CHV, FGD Participant, Rural.

3.10 The role of ITH community intervention

As part of the t-safe SRH program, Shujaaz Inc. implemented a pilot community intervention in Homa Bay county. The pilot intervention involved community sensitization on adolescent SRH and a radio program focused on parents to promote communication between parents and their adolescents. As noted below, qualitative interview participants reported that the ITH program has improved community support by; i) enabling open discussion among adolescents and; ii) facilitating parents to be open with their children, particularly adolescents.

Adolescents reported that the ITH program had made it possible for adolescents in the community to freely discuss SRH issues, including contraception, which was not possible prior to the introduction of the program. One adolescent said the following:

It has given us an opportunity to discuss about issues like family planning in our community which was not being discussed earlier.

19-year-old, adolescent beneficiary, married, with a child, urban.

As illustrated in the following quote, some of the CHVs also indicated that the ITH program has helped in improving parents' communication with their adolescents about SRH issues:

It has helped some to be free with their children and discuss. You can find that there are others when the [radio] programs begin, they call their children so that they can follow the program together. There are also others that when the program ends, they leave the children there. So I think parents should just get the teachings.

CHV, FGD participant, rural.

The CHVs also indicated that as a result of the program's activities and services, adolescents were open with them and trusted them when it comes to their SRH needs, including in cases where adolescents' parents may still be opposed to their adolescents using contraception. One of the CHVs said the following about this:

it has really helped us and now the adolescent girls are very free with us. This is because of the benefits they have seen and what we do for them. So for me I can say it has changed the lives of adolescent girls and it has made them be free in their life. If a child can approach you to tell you that she needs family planning even if my mother is against it. This is because she has seen the benefits of family planning or she has heard the benefits of family planning.

CHV, FGD participant, urban.

4. DISCUSSION

The ITH program promoted adolescents' use of contraception and other sexual and reproductive health services in 18 counties in Kenya. In the three years since 2018, the program served more than 350,000 adolescents in Kenya with SRH services, largely contraception services (ITH dashboard, accessed on 27/07/2020). The evaluation used quantitative and qualitative data collected at baseline, midline and endline from adolescents, parents and CHVs to assess adolescent's exposure to the program and program effects on adolescent SRH service use and quality of care.

Comparison of adolescents sampled at baseline and endline showed that the adolescents sampled for the endline survey were significantly different from the baseline sample in a number of key characteristics. The respondents during endline were comparatively younger, had a higher educational attainment, were currently attending school and mostly unmarried, respectively than those at the baseline. Although we excluded adolescents who were in boarding school, school closures due to the COVID-19 pandemic at the time of the endline survey might have contributed to such significant differences in the two samples. These differences may have implications for the SRH indicators of interest. There are evidences that younger age, higher education or being in school are protective factors for adolescents sexual and reproductive health [12]. Below we summarize the key findings of the evaluation highlighting changes observed since the baseline survey:

4.1 Exposure to the ITH/t-safe program

The ITH program has reached a considerable proportion of adolescents with sexual and reproductive health information and services. More than two in five adolescents who participated in the endline survey reported that they had ever heard about the t-safe program. About one in six adolescents were exposed to any of the three t-safe information, communication and mobilization activities. Overall, about 16% of sexually active adolescents indicated that they had ever received any contraception, contraception counselling or HIV testing through the ITH program in the past three years. Data from the qualitative study also described that adolescents benefited from the program's free SRH services and enabled them to prevent unwanted pregnancies.

4.2 Improved contraceptive method mix

Availability of contraceptive method choice is an important indicator of optimal delivery of family planning services since it enables users to use their desired method. The contraceptive method mix used at endline was better with increased proportion of adolescents using other methods including the IUD, emergency contraception and pills. Among modern contraceptive methods, Implant is the most commonly used method among adolescent in Homa Bay county. A closer examination of the differences in contraceptive use by exposure to the ITH program also shows that adolescents who had information about the t-safe and or were exposed to any of the t-safe information sources or mobilization activities have higher contraceptive use and improved method mix compared to those who have never heard about

t-safe or have never been exposed to the t-safe information and communication activities. Hence, improving access to adolescent friendly services is important in improving method mix for adolescents.

4.3 Sources of contraception for adolescents

Lack of access to reliable sources of contraception information and services is one of the major barriers to adolescents' use of contraception and SRH services. To reduce such barriers, the ITH program provided free SRH services through private clinics, clinics run by non-governmental organizations, and pharmacies. Data from the evaluation suggests that the sources of contraception services have diversified. Between September 2018 and September 2020, the proportion of contraceptive users who depended on private sources (clinics, hospitals) and pharmacies improved significantly. The results suggest that by working with MSK's AMUA franchise, FHOK, and Tunza clinics, and pharmacies, the t-safe succeeded in diversifying the sources of contraception for adolescents.

4.4 Informed choice and quality of care

Information about the side effects of the methods they chose and what they should do when they encounter such problems is important as it assists users to make decisions on which method works best for them and can help them better cope with the side effects. Data from the endline survey shows that more than three-fifth of users who received contraception from health facilities said they were informed about other contraceptive methods; were informed about the side effects of the methods they received; and were informed about what to do if they experienced side effects. Comparison with the baseline survey shows that some of the indicators of informed choice and quality of care have improved overtime with a statistically significant differences observed in information about side effects.

Moreover, other indicators of quality of care including satisfaction with the methods received were reported. Nearly all of respondents who had visited health facilities for contraceptives said they obtained the method of their choice during their last visit would return to the facility and would refer a friend to that facility indicating a high level of satisfaction with the services they received. An examination of variations in informed choice by exposure to the program shows that adolescents who had ever heard about t-safe or were exposed to t-safe mobilization activities reported higher informed choice and quality of care compared to their counter parts who were not exposed to the program.

The major reason for not using contraception among sexually active adolescents not currently using contraception relates to the fact that adolescents often do not think about using contraception largely because of the sporadic nature of sexual relationships indicating that there is a perception of being at low risk for pregnancy. Other major reasons include fear of side effects; infrequent sex; lack of knowledge of sources of contraception. The concerns about side effects and health risks of contraceptive methods are common among adolescents which are among the major reasons for non-use of contraceptives. There is a need to provide more tailored information to improve acceptability of contraception among adolescents

4.5 Limitations

The findings from this study need to be interpreted in light of the following limitations. First, evaluation study relied on retrospective reports of potential sensitive information therefore the possibility of recall and reporting biases exist. Some information, such as age at first sex and participating in program activities or receiving services from the program referred to past events and may have been affected by recall and reporting biases. Second, although we compared the baseline and endline results, the cross-sectional design precludes assessment of the temporality and thus the impacts of the intervention cannot be accounted for fully. However, the use of mixed-methods approach and various rounds of data collection (baseline, midline and endline) as part of the evaluation enhances the validity and credibility of the findings. Finally, the three program implementers used various implementation strategies (information and education, mobilization, behavior change communication and service provision), our evaluation did not comprehensively measure the effectiveness of these various program strategies.

5. IMPLICATIONS FOR FUTURE PROGRAMMING

Provide more tailored information to improve acceptability of contraception among adolescents

Given the perception of being at low risk for pregnancy due to infrequent sexual activity, adolescents need accurate information about the risk of becoming pregnant whether they are married or not. Some believe that they are not at risk of pregnancy due to sporadic sexual relationships, others fear exposing that they are sexually active. Thus, information and education about the risk of becoming pregnant even when they have infrequent or sporadic sexual relations is important. Providing more tailored information, education and communication on the risk of pregnancy and the benefits of using contraception and SRH services is essential to reduce unwanted pregnancy among adolescents.

Addressing negative perceptions about contraception and providing a range of contraceptive methods

The study showed that negative perceptions about modern contraception are persistent among adolescents and parents and such negative perceptions are among the major reasons for non-use. Counselling on contraceptive methods is key to providing accurate information on how contraceptive methods work, the side effects of each method and the benefits associated with them. In addition, it is important to provide a range of contraceptive methods that meet the needs of adolescents in different relationship types and different personal circumstances. When appropriate, they should be encouraged to switch methods.

Promoting parental involvement and communication on adolescent SRHR issues

Despite some encouraging signs from parents who were involved in the program, parental involvement and support for adolescent SRHR issues remains low. Programs should support parents to enable them to communicate effectively with their adolescents about sexuality, relationships and contraceptive use. Based on the WHO recommendations on parental

involvement, it is important to start from their own knowledge, misconceptions, hopes and fears.

Sustaining and scaling up adolescent friendly programs such as the t-safe

Evidence from this evaluation shows that the uptake of contraception was higher among adolescents who were exposed to the program. In addition, as the program's intervention focused on private facilities, the proportion of adolescents who received their contraception services from private clinics and pharmacies increased implying that adolescents are ready and willing to access contraception services if the service environment is friendly. This has important implications for programming aimed at increasing the role of the private sector in SRH services. The quality of SRH services also improved as indicated by measures of informed choice (majority were informed about other contraceptive methods; about the side effects of the methods they received; and what to do if they experienced side effects). Thus, sustaining and or scaling up such adolescent friendly programs will play an important role in reducing early and unintended pregnancies among adolescent.

6. CONCLUSION

The evaluation study suggests that the ITH program, which used a digital platform (t-safe) that linked adolescent girls to services improved adolescents access to contraception and other SRH services, improved quality of care by promoting informed choice and availing a mix of contraceptive methods. Yet, negative perceptions about modern contraceptive methods was widespread and a substantial proportion of sexually active adolescents were not using contraception due to fear of side effects and health concerns. In addition, some sexually active adolescents also believed that they are at low risk for pregnancy due to infrequent sexual activity. Moreover, there is little or no improvement parents in community support for adolescent contraception. Future programs should provide tailored information to improve acceptability of contraception among adolescents; address negative perceptions about contraception; provide a range of contraceptive methods and promote parental engagement as well as communication on adolescent SRH issues.

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