Title of the Project

Evaluation of the *In Their Hands* Programme in Kenya *and the effects of COVID-* 19 pandemic on use of adolescent sexual and reproductive health services

Investigators and Institutional Affiliations

Principal Investigators:

Yohannes Dibaba Wado, PhD
Associate Research Scientist
African Population and Health Research Center (APHRC)

Co-investigators:

Clement Oduor, M.A
Research Officer
African Population and Health Research Center (APHRC)

Ramatou Ouedraogo, PhD
Post-doctoral Research Scientist
African Population and Health Research Center (APHRC)

Sylvia Onchaga, MSC
Data Manager,
African Population and Health Research Center (APHRC)

Sally Odunga, BSC
Research Assistant
African Population and Health Research Center (APHRC)

Moussa Bagayoko, PhD
Post-doctoral Research Scientist
African Population and Health Research Center (APHRC)

Abstract

Background:
The In Their Hands (ITH) programme in Kenya aims to increase adolescents' use of high-quality sexual and reproductive health (SRH) services through targeted interventions. ITH Programme aims to promote use of contraception and testing for sexually transmitted infections (STIs) including HIV or pregnancy, for sexually active adolescent girls, 2) provide information, products and services on the adolescent girl's terms; and 3) promote communities support for girls and boys to access SRH services.

Objectives:
The objectives of the evaluation are to assess: a) to what extent and how the new Adolescent Reproductive Health (ARH) partnership model and integrated system of delivery is working to meet its intended objectives and the needs of adolescents; b) adolescent user experiences across key quality dimensions and outcomes; c) how ITH programme has influenced adolescent voice, decision-making autonomy, power dynamics and provider accountability; d) how community support for adolescent reproductive and sexual health initiatives has changed as a result of this programme and e) how the COVID-19 pandemic has affected use of adolescent sexual and reproductive health services provided in the programme.

Methodology

ITH's key implementation strategies seek to increase adolescent motivation for service use, and created a user-defined platform to provide girls with a network of accessible subsidized and discreet SRH services. The evaluation study employs a mixed-methods approach with multiple data sources including routine monitoring data, and qualitative and quantitative primary data collection. The end line study will include a cross-sectional survey with **1500** adolescents of age 15-19 in Homa Bay. Qualitative data collection was done in March 2020 before data collection acitivites were postponed due to COVID-19 pandemic. As result of the government's guidelines on the containment of COVID - 19 pandemic, and subsequent suspension of face-to-face data collection by the study on March 21, we also conducted rapid phone interviews with adolescent users of short term contraceptive methods, who have dropped from the programme. Quantitative data analysis will be done using STATA to provide descriptive statistics and statistical associations / correlations on key variables. A comprehensive report of the evaluation will

be developed comparing baseline and end line results of key indicators. Key findings of the study will be disseminated at ITH partners' meetings and at the county level as well as to a broader audience.

1. Introduction

1.1 Background

Evidence exists to show that adolescents in developing countries are more vulnerable to early and unintended pregnancies and unsafe abortion than their counterparts living in other parts of the world. This has partly been attributed to poor access to sexual and reproductive health (SRH) information and services, early sexual debut, early marriage and poverty among others [1, 2]. Each year an estimated 21 million pregnancies occur among adolescent girls of age 15-19 years in developing countries, almost half of which (49%) are unintended [3, 4]. This results in estimated 16 million births, about 3.9 million unsafe abortions and over a million miscarriages annually [3, 4].

Adolescent girls in Kenya are also disproportionately affected by early and unintended pregnancies, unsafe abortion and HIV infection. According to the 2014 Kenya Demographic and Health Survey (KDHS), 37% of girls and 44% of boys aged 15 to 19 years have had sex [5]. Some 18% of Kenyan adolescents become mothers as teenagers, effectively ending their schooling and endangering their future economic opportunities. As a result of the prevailing high level of unintended pregnancy, adolescent girls in Kenya account for nearly half of severe abortion related complications, and make up 17% of post abortion cases treated at health facilities [6], Moreover, dropping out of school puts girls at greater risk of early and unintended pregnancy and HIV infection [5, 7]. While the incidence of new HIV infection is higher among adolescent girls due to biological and social vulnerabilities, less than half of adolescent girls report comprehensive knowledge of HIV AIDS in Kenya [1].

These are a few of the many reasons why youth friendly sexual and reproductive health services are central to girls’ empowerment. It is a proven way of reducing maternal and newborn deaths. However, although contraceptive use has greatly improved among married and sexually active young women in Kenya in the last few decades, yet a high unmet need for

contraception remains. According to the 2014 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. Sexually active unmarried adolescents have the highest unmet need for contraception [5]. Improving adolescent knowledge of, access to, and utilization of sexual and reproductive health services requires addressing both demand- and supply-side barriers that hinder uptake. Demand-side barriers include individual, socio-cultural and economic factors; stigma associated with contraceptive use among unmarried women; and pressure for married adolescents to begin childbearing [1, 8]. Supply-side barriers include poor SRH service infrastructure, provider bias, availability and cost of contraceptive commodities and lack of youth friendly service [1, 8].

Review of existing research evidences show that sexual and reproductive health (SRH) education, counselling and contraception provision are effective in increasing sexual knowledge, contraceptive use and decreasing adolescent pregnancy [2, 9]. But such policies and programs are either non-existent or are poorly implemented in many developing countries. The Government of Kenya, along with several health and development partners, has been striving to improve adolescent sexual and reproductive health by increasing access to quality SRH products and services. In 2015, the National Adolescent Sexual and Reproductive Health Policy was revised to provide guidance to government ministries and development partners on how to respond to adolescents SRH needs. The policy aims to enhance the SRH status of adolescents in Kenya and contribute towards realization of their full potential in national development [10].

1.2 Problem Statement

The ITH program is designed to develop a movement, driven by youth to normalize adolescent sexual health, reduce pregnancy and end unsafe abortion among Kenyan adolescents. Over three years, between 2017 and 2020, ITH will reach 250,000 girls with contraception, HIV counselling, testing and care, and safe abortion or post-abortion care, averting approximately 68,000 pregnancies and 21,000 abortions among girls aged 15 to 19 in 18 priority counties. Available evidence shows that interventions that increase youth uptake of SRH services and driven by the youth themselves may reduce pregnancies and unsafe abortions among adolescents. However, in Kenya there is no existing evidence to that effect. The ITH programme will be

the first national network of youth friendly service providers as defined by adolescent girls and including such interventions in Kenya. This evaluation study therefore seeks to generate evidence on how the interventions in the programme interlink to help girls start valuing their sexual health and wanting services, and involves designing these choices *on* their terms, and making providers accountable, creating an environment where girls are fully supported to make this decision, document and share the findings and lessons learnt throughout the implementation period. However, following the reporting of the first case of COVID- 19 in Kenya, the government issued guidelines that are intended to contain the spread of the pandemic [21]. These guidelines may singly or jointly with possibility of fear of the adolescents contacting the virus have an effect on the use of the free ASRH services offered by the programme, particularly those who use short term acting contraceptive methods.

The African Population and Health Research Center (APHRC) has partnered with the ITH implementing partners to conduct an independent impact evaluation of the ITH programme. The evaluation will focus on assessing to what extent and how ITH is (1) increasing access to quality sexual and SRH products and services among adolescent girls, and (2) improving community support in Kenya.

2. Literature Review

There are several reasons why youth friendly sexual and reproductive health information and services are central to adolescent health and wellbeing in developing countries. Adolescent girls are disproportionately affected by early and unintended pregnancies, unsafe abortion and HIV infection. In Kenya for instance, 37% of girls and 44% of boys aged 15 to 19 years are sexually active and some 18% of Kenyan adolescent girls become mothers as teenagers, effectively ending their schooling and endangering their future economic opportunities [5]. Although contraceptive use has improved over the years, about a quarter of adolescent girls in Kenya have unmet need for contraception and are at high risk of unintended pregnancies [5]. As a result of the prevailing high level of unintended pregnancy, adolescent girls in Kenya also account for nearly half of severe abortion related complications, and make up 17% of post abortion cases treated at health facilities [6].

The reasons for low contraceptive uptake among adolescents are complex, including lack of agency and control over their lives, lack of access to reliable sources of contraception information and financial resources. Broader socio-economic factors such as poverty, lack of education and limited economic opportunities among girls may also contribute to adolescent pregnancy [1]. Socio-cultural and gender norms that promote early marriage and childbearing and norms that stigmatize pre-marital sex also inhibit unmarried girls from seeking contraception services [11, 12]. Moreover, young people, particularly girls, encounter significant barriers to accessing quality health care, including provider bias, age restrictions or stigmatization when seeking services and concerns about confidentiality [9]. They 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 health-care providers [1, 8]

Increasingly, researches on programs designed to reduce teenage pregnancy and the adverse consequences of early child bearing have identified which interventions have proved effective in reducing teenage pregnancy. Review of existing evidences show that sexual and reproductive health education, counselling and contraception provision are effective in increasing adolescent's knowledge of sexuality and health, contraceptive use and decreasing adolescent pregnancy [2, 9, 13]. In addition, the potential of several methods to increase youth uptake of services, including linking of school education programs with youth friendly services, life skills approaches and social marketing and franchising are among the key interventions implemented to reduce teenage pregnancy and associated challenges. There is also evidence that the involvement of key community gatekeepers such as parents and religious leaders is vital to generating wider community support and increase contraceptive use among adolescents.

The central tenet of adolescent friendly sexual and reproductive health services is providing services that respond to the individual needs of adolescents. But health policies and programs in developing countries have struggled to figure out how services should respond to the needs of adolescents. The recent WHO global standards for quality health-care services for adolescents identified eight standards of quality in the delivery of health services for adolescents: health literacy, community support, appropriate package of services, provider's competencies, facility characteristics such as convenient operating hours, a welcoming and clean environment, privacy and confidentiality, equity and non-discrimination,

adolescent's participation and data and quality improvement [14]. Adolescent-friendly SRH services should meet the individual needs of adolescent males and females who return when they need to and recommend these services to friends. Moreover, their involvement in the planning and monitoring of services also promotes quality because it ensures that services are acceptable to adolescents and increases the likelihood that adolescents will refer the services to their peers. Lessons learnt from successful programs showed that they should involve adolescents in the planning process, gain community buy-in and use a combination of elements that fits with the needs of that particular community [15].

Since December 2019, a new strain of coronavirus, officially known as COVID-19, has been detected in almost all countries around the world and has subsequently been declared a global pandemic by the World Health Organization (WHO). The illness has already caused thousands of deaths and will have a continued impact on global health systems and economies. Kenya is also among the countries affected by this Pandemic. While the unmet need for contraception was already high among young people before COVID-19, the Pandemic may set to further derail access to contraception for women and girls. The WHO and other international organizations have expressed concerns that the pandemic has already disrupted supply chains and access to services [22, 23]. The measures being taken to respond to COVID-19, such as lockdown, are bringing disruptions to supply chain. It has been reported that the major manufacturers of contraceptives have had to halt production or operate at reduced capacity [22, 23]. In addition, the closures of borders and other restrictions imposed in the face of COVID-19 further affect the shipping and distribution of commodities. Thus, delays in the production and delivery of contraceptive supplies at global and national levels will lead to stockouts of supplies, severely impacting contraceptive access [23].

In addition, the disruption of services and diversion of resources away from essential sexual and reproductive health care because of prioritising the COVID-19 response are expected to increase risks of maternal mortality [24]. At national level, sexual and reproductive health services, staffing and funds may be diverted to support COVID-19 responses, leaving women and girls unable to access contraceptive and other sexual and reproductive health care. Provision of sexual and reproductive health services will also be affected by infection prevention measures, including health workers' access to personal protective equipment (PPE).

In Kenya, the Ministry of Health (MOH) has developed practical guidelines on the continuity of reproductive, maternal, newborn and family planning services in the background of COVID 19 pandemic [25,26]. The guideline provides an algorithm to ensure reproductive health services are not

compromised by the pandemic. Our evaluation will examine how the COVID-19 affected their access to and utilization of contraception and other SRH services.

3. Evaluation Objectives

3.1 General Objective

To assess if and how the In Their Hands (ITH) partnership model and integrated system of delivery meets its intended objectives and the needs of adolescents, promotes adolescent voice, decision-making autonomy, power dynamics and community support for adolescent sexual and reproductive health.

3.2 Specific Objectives

The study seeks to assess:

1. The extent to which and how the new Adolescent Reproductive Health (ARH) partnership model and integrated system of delivery is working to meet its intended objectives and the needs of adolescents.
2. Adolescent user experience across key quality dimensions and outcomes.
3. How the ITH programme has influenced adolescent voice, decision-making autonomy, power dynamics and provider accountability.
4. Assess how community support for adolescent reproductive and sexual health initiatives has changed as a result of this programme.
5. Identify the effects of the COVID-19 situation on adolescent's use of contraception and other SRH services
6. The replicability, scalability and sustainability of the ITH programme in Kenya and globally.

4. ITH's Theory of Change

The ITH program is implemented by ***Well Told Story***, a youth edutainment network with a focus on generating demand and changing social norms, attitudes and behaviors that influence SRH; *Marie Stopes Kenya*, provides adolescent friendly sexual and reproductive health services, and ***Triggerise***

– an innovator in mobile based incentives makes subsidized and youth friendly SRH services accessible to adolescent girls
and also reward positive behaviors. The programme objectives are threefold namely; 1) to get adolescents to want contraception and to know if they have sexually transmitted infections (STIs) including HIV or are pregnant, 2) to provide information, products and services on the adolescent girl's terms, and 3) to get communities in the selected pilot county to support girls and boys to access SRH services.

The ITH program assumes that teenage 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 shown below stipulates that by creating demand for and awareness of the mechanisms to prevent teenage pregnancy, by providing adolescent friendly and discrete sexual and reproductive health services and mobilizing community support for adolescent SRH, sexually active adolescents will utilize SRH services which will ultimately reduce teenage pregnancy. The philosophy goes - 'I want it' 'on my own terms' and 'I am being supported'.

To this end, the three partners will implement interventions that will respond to adolescent girls' needs, aspirations and motives to prevent unintended pregnancy and prevent themselves from STI/HIV infection. Marie Stopes Kenya will provide a network of youth friendly SRH services through their clinics and social franchise AMUA network. This network will be compensated by additional networks from PSK, FHOK and other-to-be-determined providers to be enrolled by Triggerise. This will be done using a user-defined ecosystem and platform that links girls with a network of service providers and subsidized and discreet SRH services. The ITH ecosystem or platform is a national network of youth-friendly service providers as defined by adolescent girls and includes a go-to ITH platform (web, media and hotline) where adolescents, service providers and connectors will be able to register. Adolescent girls will access information on contraception and services as well as free SRH service at nearby registered providers via the T-safe platform. They will also be able to rate providers on the services they received. Registered providers (clinics, pharmacies and new innovative channels) will offer services free for adolescents, opening a new market and incentivising them to provide youth friendly services. A network of teen-friendly connectors including Shujaaz Supafans, Marie Stopes Diva Connectors and Community Health Volunteers, Tiko Pro agents as well as other providers to be contracted by Triggerise from time to time to generate demand such as

the dance4life agents of change- will provide information and referrals. All parties will be incentivised on positive behaviors': providers when they are rated high, connectors for effective referrals, and girls themselves when they interact the ITH platform.

Well Told Story will create demand for and awareness of the services through their national multi-media platform 'Shujaaz'. It will expand and tailor the work of Shujaaz media and other social media options to increase adolescent motivation for service use. WTS will also implement an intervention in one selected county that will support efforts to change the public opinion on adolescent sexual and reproductive health using mass media and other possible avenues. Triggerise will provide the mobile platform to ensure easy access to the free services at specified health facilities. It has created a user-defined ITH ecosystem and platform to link girls with a network of subsidized and discreet SRH services provided MSK, PSK, FHOK, private Pharmacies, drug shops and AMUA network of private clinics. Figure 1 below presents ITH's theory of change (ToC).

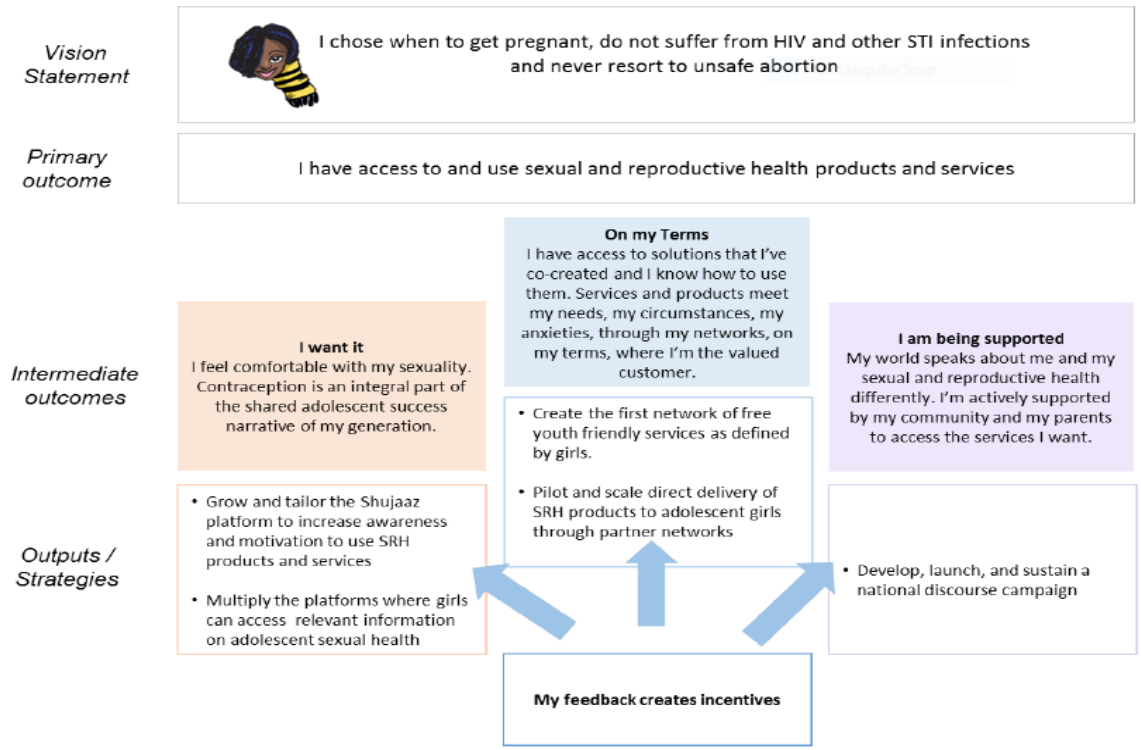

Figure 1: ITH program theory of Change

5. Research Questions

The evaluation will seek to answer the following overarching questions:

1. To what extent, and how is the new ARH partnership model and integrated system of delivery working to meet its intended objectives and the needs of adolescents?
2. What are the adolescent user experiences of the ITH programme across key quality dimensions and outcomes?
3. How has the ITH programme influenced adolescent voice, decision-making autonomy, power dynamics and SRH service provider's accountability?
4. How has community support for adolescent reproductive and sexual health initiatives changed as a result of this programme?
5. How has the COVID-19 pandemic affected adolescent's use of contraception and other SRH services?

6. Study Design and Sampling Strategy

6.1 Evaluation Design

The evaluation involves innovative and participatory evaluation approaches to understand programme achievements and acceptability of the programme by adolescents, providers and communities. We use a mixed methods design including a before and after evaluation design to systematically assess the delivery, effectiveness and effects of the programme. It will incorporate routinely collected programme monitoring data and additional data collection to fill the gaps and to complement the ITH monitoring data. The proposed evaluation methods (detailed below) will ensure that key learning questions are answered and that adolescent voices and perspectives are integrated into the planning, implementation, monitoring and evaluation of the programme.

6.2 Routine monitoring data

The evaluation depends partly on routine monitoring data collected by the implementing partners from participating facilities (MSK clinics, AMUA, Pharmacies) to evaluate the achievements of the primary outcome of the project- the number of adolescent girls accessing SRH services via ITH platform, number of girls receiving free HIV testing and number of girls accessing contraception via MSK services. The three partners routinely collect quantitative monitoring data on the programme via their health services, media and mobile platforms. The ITH database managed by Triggerise will document the number and types of SRH services provided, number of providers registered on the platform and several other indicators related to the primary outcome of the evaluation. Additional data gathered through the routine monitoring system include: year of birth, date of enrollment, agent or mobilizer who enrolled the girl onto t-safe platform (Tiko pro, msk mobilizer/ diva connector, shujaaz superfan) and service provider's information (location and organization).To assess if the ITH intervention is meeting its targets and more adolescents are accessing contraception services at sites with ITH interventions, ITH monitoring data on service delivery will be analyzed.

Analysis will involve comparing achievements with planned targets of services delivery at different time points, looking at whether adolescents of different geographic and socio-economic background have benefited from the program. We will also examine data on other intermediate outcome indicators, as key intervention activities and outputs lead to the achievement of these primary outcomes.

6.3 Qualitative Data Collection

During baseline we collected qualitative data to explore adolescent user experience, adolescents' decision-making, power dynamics and provider accountability as well as community support for the programme during the baseline and midline data collection. In March 2020, we collected qualitative data from community, adolescents and ITH service users to learn changes in user experience, participation in the project and changes in community support for adolescent SRH. Moreover, given the prevailing situation with COVID - 19 and the fact that the project is moving to the next phase, we conduct rapid telephone interviews to learn lessons on why adolescents drop out of the program despite the free services provided in the project. We

conducted thirty two **IDIS** with this group of adolescent girls (who dropped out of ITH services) in Nairobi and Nakuru. This will inform the development of specific intervention approaches that address adolescent's choices, preferences and concerns.

While most the qualitative data collection is completed, as part of the end line study, we aim to conduct in-depth interviews with program managers of the implementing partners and of the ITH to learn the extent to which the ITH programme can be replicable, scalable and sustainable. We will interview programme manager for the ITH, MSK, WTS and Triggersie as well as from CIFF to expound on our other data sources to make recommendations on the replicability, and scalability of the programme.

6.4 Quantitative Data Collection

The quantitative study involves a community based before and after evaluation design with pre and post surveys with adolescents aged 15-19 years to answer key evaluation questions of the program; how has the ITH changed adolescent access to information, health care services use and decision making autonomy? Baseline study was conducted in September 2018 with 1840 adolescents to provide baseline information on key areas of interest to the ITH programme. End line survey is thus important to assess how ITH has influenced adolescent access to information, health care services. We will conduct an end line evaluation study to compare indicators before and after the intervention.

Data will be gathered through adolescent survey at endline in ***one*** intervention county – Homa Bay. We will conduct a survey among a representative sample of adolescent girls living in both urban and rural ITH implementation areas (Homa Bay town, Ndhiwa, Kasipul and West Kasipul) to understand whether ITH has changed adolescents' access to information, use of SRH services, types of SRH services used, exposure to the intervention, and SRH-related decision making autonomy. The end line survey will include questions on adolescent's exposure to ITH program to evaluate how demand generation activities have influenced adolescent girls decision making on SRH issues, uptake of adolescent friendly sexual and reproductive health (ASRH) services and knowledge of sexual and reproductive health issues.

6.5 Sampling and sample size determination

The sampling of adolescents for the household survey will be based on expected changes in contraceptive method mix used by adolescents, expected changes in the proportion of adolescents using long acting and reversible contraceptive methods (LARC) at endline. According to the baseline survey conducted in Homa Bay County in 2018, 23.0% of the adolescent girls reported using Implants. Assuming that the project will achieve an impact of at least 5.0 percentage points in the intervention counties (i.e. an increase of approximately 20%) a design effect of 1.568 and a non-response rate of 3% (based on our baseline survey), a minimum sample size of **1,918** adolescent girls is to be sampled **-** estimated using sample size formula for comparison of two population proportions (Sharma, 2014) to detect this difference between baseline and end line time points at 80% power.

$$n \geq \frac{\left[Z_{\alpha/2}+Z_{\beta}\right]^2 * \left[P_1(1-P_1)+P_2(1-P_2)\right]}{(P_1-P_2)^2}$$ where,

n is the minimum sample of adolescent girls required to detect a 5.0% difference;
$Z_{\alpha/2}=1.96$ is the z-score in standard normal distribution corresponding to 95% confidence level for a two-tailed significance.
$Z_{\beta}=0.84$ is the z-score in standard normal distribution corresponding to 80% power
$P_1-P_2=0.05$ is the Effect size or expected difference in the proportion of adolescent girls using LARC. $P_1=23.0\%$ is the proportion at baseline and P_2 is the expected proportion at endline.

Based on data from the 2009 Kenya census, there are approximately 0.46 adolescents girls per a household, which means that the study will include approximately **4170** households from the three counties at the end line survey.

We begun data collection in March 2020 but it was effectvely suspended on March 21 due to the governemnt's directives regarding the prevention of COVID-19. By the time of the suspesnion, we have completed data collection in one sub-County (Ndhiwa) and interviwed some 420 adolescents. As a result, we will not repeat data colelction in this sub-county. This reduces our sample for this round of survey to **1500.**

County Selection

The ITH project is being implemented in 18 eighteen counties in Kenya with most counties concentrated in Nyanza, rift valley and western regions. It is implemented in all the six counties in Nyanza (Kisumu, Migori, Kisii, Siaya, Nyamira, and Homa Bay). For the purpose of the end line evaluation, we will purposively select Homa Bay County, one of the programme counties from Nyanza region for the endline survey. The selection of the county will also consider other important criteria of geographic and socio-economic similarity with the other counties where the project is implemented. A smaller and less intensive community intervention was also conducted in Homa Bay County to promote community's support for adolescent SRH.

Inclusion and Exclusion Criteria:

The ITH project focuses on adolescent girls of 15-19 years of age. The adolescent survey will include participants from both rural and urban areas in the selected county. The Inclusion criteria are:

1. Adolescent girls whose age is between 15-19 years
2. Have been living in the study areas for at least 6 months preceding the study.
3. Must be a member of a households sampled for the study from the county selected from among the intervention counties.

On the other hand, exclusion criteria include:

1. Adolescents not living in a household because the study is household based.
2. Adolescents for whom parental consent or respondents consent or assent could not be obtained
3. The adolescent is unable to participant due to severe physical or cognitive impairments

7. Data Collection

7.1 Recruiting participants for the study

We will work in three sub-counties in Homa Bay (Homa Bay town, West Kaspul and Ndihwa).We will select sub-counties and wards from places where the ITH program is being implemented in Homa Bay for purposes of the endline study. In Homa Bay County, there are sub-counties that have been prioritized for the project and our data collection will focus on these sub-counties selected for intervention. In Homa Bay, we worked in three sub-counties at baseline – Ndihwa, Kasipul and Homa Bay town during the baseline and midline surveys. Just like in baseline, a stratified sampling procedure will be used to select wards/villages from the sub-counties. Households will then be selected from each ward/village or primary sampling unit after all households in the village are listed. For the qualitative in-depth interview, we will interview about 25 adolescents recruited from Nairobi, Nakuru and Homa Bay counties.

The study team will work with the county management, local and community leaders to obtain permission to work with the necessary government and community leaders to map out the boundaries of sub-counties and wards. Once the boundaries are established, field workers will visit each household within the boundaries of the selected ward/village and will provide a statement about the study to the head of household and ask if there is a girl living in the house between the ages of 15-19 years who may be available to participate in the survey. If there is an eligible participant, the interviewer will move onto the recruitment and will obtain informed consent from the parent/guardian, and obtain assent from the adolescent girl if she is aged under 18, or will obtain informed consent from girls 18-19 years and emancipated minors (married 15-17 year olds living within their partners'/husbands' household). Once consented/assented the survey will be administered. The survey is designed so that the first several sections of the survey are asked to all eligible girls. Girls who report that they have ever had sex will complete additional sections of the survey (details about the survey are provided under Study Design and Methods). If the eligible participant is not available on the first visit, the fieldworker will make two additional attempts to contact that participant. Eligible participants not reached after a third attempt will be considered as not available.

The evaluation data collection is being implemented in three phases. In phase one we collected baseline data in the form of adolescent survey and

FGDs with community members to measure baseline levels of key indicators and identify main barriers to adolescent's sexual and reproductive health. During the second phase we collected qualitative data from service providers, adolescent service users to assess the quality and friendliness of the services as well as adolescent users' experience and provider accountability. The third and final round of data collection will involve endline survey with adolescents and FGDs with community members to examine the measurable outcomes of the ITH intervention.

7.2 Instruments

For the adolescent survey, we use standard questionnaire similar to the one used at baseline. The adolescent survey questionnaire will cover; socio-demographic and household information, SRH knowledge and sources of information, sexual activity and relationships, family planning knowledge, access, choice and use when needed, exposure to family planning messages and voice and decision making autonomy (see Annex 1).
The adolescent survey questionnaire will collect data on the adolescents' perception about the ITH programme and its impact on their access to information, health care services and decision making autonomy.

The questionnaire has been piloted before the data collection in March and the questions reviewed for appropriateness, comprehension and flow. The adolescent survey was piloted among a sample of 30 adolescent girls 15-19 from a community outside the study county.

7.3 Refresher training for data collectors

Interviewers wer selected based on level of education, prior experience working on similar surveys and knowledge of local languages. The recruitment followed a transparent process consistent with high ethical standards. For this survey round, we recruit fifteen interviewers for the survey in Homa Bay County. They were given a 5-day training workshop on the tools and data collection techniques and ethical considerations from a central venue, in Nairobi from March 2-6, 2020 but will be given two days refresher training. The refresher workshop will comprise of 1) facilitated

sessions on overview of the ITH programme, the overall aims of the evaluation study, the study tools, research ethics; and 2) mock interviews. The refresher training course will be facilitated by researchers with vast field work experience drawn from APHRC, including senior research staff, and research officers.

7.4 Team Composition

Interviewers will be deployed in two teams composed of qualitative and quantitative data collectors. Data collection exercises will be overseen by a full time field coordinator supported by 4 field team leaders, 2 each for quantitative and qualitative data collection teams respectively who will directly supervise a team of 4-6 data collectors each. The team leaders and data collectors will be trained on research ethics, interview procedures, data quality and use of the automated data collection process.

A field coordinator will be in charge of coordinating and verifying the quality of the work done by the fieldworkers. During the data collection period, the field coordinator will consult regularly with the project management team in APHRC on achievements and constraints of the operation. These consultations will help make necessary adjustments to the data collection process. The quantitative data will be collected electronically and uploaded to a secure server at APHRC. Qualitative interviews will be audio-recorded and audio recordings will be transmitted to the APHRC's offices in Nairobi while related interview notes while will be transported to APHRC offices at the end of data collection where the data transcription and coding will be conducted. The transcripts will be stored electronically in password protected computers and will only be accessible to the evaluation team working on the project. All interviews will be conducted in places and spaces free of potentially eavesdropping non-participants.

7.5 Field Quality Checks

During the data collection period, supervisors will consult regularly with the central coordination team on achievements and constraints of the operation. These consultations will facilitate any necessary adjustments to the data collection process. In the first week of data collection, a software developer will be available to perform onsite support where necessary. Thereafter,

remote connection through TeamViewer will be used to offer support to troubleshoot any problems that may arise involving data capture (and data transmission) using the tablets.

Team leaders will work with their teams at the end of each day to review data captured on the tablets, looking for any errors, such as incorrectly filled forms, missing data and inconsistencies. Through sit-in interviews, supervisors will randomly observe each interviewer at least once per week during the survey implementation. This will help to verify that data collectors are following all the procedures outlined in the training and ensure that interviews are being conducted to the highest standards. In addition, all data collectors will review each questionnaire before leaving the households to be sure that every applicable question has been asked and that responses recorded are clear and reasonable. They will also check that the skip instructions are correctly observed (i.e., for skip rules that are not automatically programmed into the tablets). A Quality Control Checklist will be used to that effect. Once all necessary checks are done by the team leaders, the data will then be synchronized into the APHRC data server.

7.6 Data Quality Assurance

Data quality assurance will focus on data accuracy, completeness, reliability, timeliness, confidentiality, precision and integrity. Data quality control will therefore be enforced at every point of data collection as much as possible to guarantee the results. Specifically, quality control will be enforced at the following points:

1. Sampling design: Appropriate sampling method will be used to ensure that the study is unbiased in the choice of respondents to be interviewed. This will ensure that only people who will actually give a correct indication for the greater population are interviewed.
2. Questionnaires design: Using the Open Data Kit (ODK)-based system, we will be able to enforce the following quality control requirements:
    - Applicable skip instructions: This will allow the respondents to answer only the questions that apply to them.
    - Response format: Specification of the exact type of format of response expected for instance, age field only accepts three (3) cell entries reflecting complete years and date of birth accepts eight (8) cell entries starting with 2 cells for date,

then 2 for months and 4 cells for year. This will ensure that errors from the field are minimized and only responses that are correct and within range are captured.

- Compulsory Questions: The ODK-system allows for enforcement of compulsory questions, where necessary before moving on to the next question.
- Collection of GPS data on physical location: This is part of the questions and will ensure that, the location of respondent interviewed is the actual intended location for the interview.

3. Sampling will make provision for oversampling to take care of an attrition in the course of the survey.
4. Finalize clusters, including specific Enumeration Areas (EAs) to be surveyed and lists of households per EA.
5. Where necessary we will conduct personal back checking of interviews through the team leaders in the field in the course of data collection. In addition, field team leaders will accompany the data collectors in the field to observe the data collection, otherwise called sit-in interviews. There will be at least one team leader for every 4-6 data collectors.

7.7 Data Transmission

Data collected using the tablets shall be transmitted to online secure surveyCTO servers for storage after all checks are performed by field supervisors. This will make use of internet connections to upload the data. Backup of the data will remain on the encrypted and password-protected tablets until the end of field activities and all the data have been synchronized at which time each tablet will be securely and permanently cleaned.

SurveyCTO servers are password protected to allow access to only authorized users. The Data Manager will be able to login and download the datasets for use using the assigned login details. The data will be downloadable in CSV formats for use and offline storage in secure servers at secured data room at APHRC offices.

7.8 Ethical Considerations

The protocol and data collection instruments will be reviewed for adherence to ethical standards by the AMREF Research Ethics and Scientific Review Committee. Additional approval will be obtained from relevant Ministry of Health and heads of counties, health facilities and departments for permission to collect data. There may be potential risks involved with conducting this study. Adolescent girls will be asked a number of questions that are sensitive in nature, including experiences with access and use of ARH services. Participants of will be told during the consent process the nature of the topics that will be discussed and the informed consent process will emphasize the voluntary nature of participation and participants' freedom to leave or to refrain from answering any questions they may not want to answer at any time. Interviewers will be trained how to deal with any distress caused by such questions and to pause before sections dealing with particularly sensitive issues and remind participants of the option to not respond.

7.8.1 Informed Consent/Assent

Informed assent will be sought from all participating adolescents prior to their participation in the study, consent from parents of adolescents and consent from all participating adults. (See Appendix 2 for the consent forms). During the parental consent process, we will clarify that the guardian's role is limited to providing consent for the girl to participate. We will ensure that the guardian understands that s/he and other household members will have no access to information provided by the study participant. This will be done in a language that the participant can understand very well and in very clear, simple and unambiguous terms. The participants will also be informed of the right to abstain from participation in the study or to withdraw consent to participate at any time without reprisal. Interviews with adolescents will be done in a very private setting to avoid interference of parents, and they are advised not to share questions with their parents. According to the Kenya law, the age of consent is 18 years and above [16]. However, for the health facility based study (depth Interview) we will assume that since the adolescents who participate in the study are sexually active and seeking sexual and reproductive health services, we therefore will treat them as

emancipated minors and therefore want to ask for waiver of parental consent.

Prospective study participants will be provided with information about the study before any consent to participate is sought. Participants will be adequately informed about the:

- Purpose of the study and methods to be used;
- Institutional affiliation of the research;
- Anticipated benefits and potential risks and follow-up of the study;
- Discomfort it may entail;
- The right to abstain from participating in the study, or to withdraw from it at any time, without reprisal;
- Measures to ensure confidentiality of information provided.

Data collectors will be trained on ethical issues to ensure that guidance on ethical conduct is clearly understood and implemented. Such training will include focused sessions and exercises regarding the meaning and process of informed consent, the importance of protecting the privacy of subjects, and confidentiality of the information obtained from them.

7.8.2 Privacy and confidentiality

The privacy and confidentiality of respondents and the information they provide will be strictly observed at all times. Both the quantitative surveys and qualitative interviews will take place in convenient places where privacy and confidentiality of the respondents will be ensured. All raw data will be protected as confidential and availed only to the research team. No uniquely identifying information, such as names, phone numbers, or addresses, will be collected from respondents. Rather, all those interviewed will be identified by a pseudonym. No individuals will be identified in dissemination of the findings or in any report related to this study. Informed consent forms will be retained for some years, after which they will be destroyed.

7.8.3 Ethical Training Certification and Clearance

The protocol has been reviewed by APHRC's internal scientific committee and has been adjudged to be scientifically sound. See Appendix 3 for online ethical training certifications for all the investigators.

7.8.4 Risks and benefits

There is no major risk for participation in the study. We have introduced a series of safeguards and protections for potential risks of privacy and confidentiality and possible distress caused by asking sensitive information. More importantly, the research team will ensure that interviews take place in locations where a reasonable level of privacy is possible, in a separate location or room where other people are not able to overhear the interviews. Interviewers are advised to end the interview if privacy is not able to be maintained.
However, some of the questions asked in the interview might bring up feelings or make respondents feel uncomfortable. Participation in the interview is entirely voluntary, and respondents may refuse to answer any of the questions and can stop the interview at any time. Training sessions will cover the ethics of sensitive research, confidentiality, and how to address the psychological risks, should they occur. All interviewers will be trained to pause before sections dealing with particularly sensitive issues and remind participants of the option to not respond. They will be advised to refer respondents to local organizations that provide appropriate services to contact if they like to access a counselor or social service. For those respondents under the age of 18, parents will be informed during the consent process the nature and importance of the topics that will be discussed and not to interfere once they consent.

There is no direct benefit to participating in the interview. However, the study findings are expected to contribute important information to policy makers in the Kenyan government and other stakeholders interested in the provision of adolescent friendly SRH information and services.

7.8.5 **Protocol for physical distancing and personal protection from COVID-19**

The proposed data collection approaches will require that the research team be physically present at the community and in the households for mobilization and sensitization activities, household listing and interviews with adolescents. To ensure the safety of the project staff and the study participants from COVID-19 infection and transmission, specific measures will be instituted and

the research team required to adhere to and/or enforce while preparing to go to the field and when in the field.

a) The entire research team will be trained on infection prevention protocols and hygienic practices that will ensure their and participants' safety. This training will happen during the main team training on study procedures, instruments and data collection approaches that will come before the start of field activities.
b) The refresher training of fieldworkers will consider social and physical distancing protocols with sufficient space to allow for adequate spacing.
c) Research assistants will be provided with essential personal protective equipment (PPE) that will include masks/face shields and gloves. The research assistants will be required to wear masks/gloves at all times during their field activities, while practicing regular hand washing, and the use of hand sanitizers.
d) Research assistants will request the respondents to wear masks during the interviews. Where necessary, disposable masks will be provided to respondents.
e) Fieldworkers will also be required to practice physical and social distancing at all times whilst the questionnaire administration and interviews/discussions are happening. This will involve ensuring that they sit a minimum of 1 meter away from the respondents during the data collection. In places where it is possible to carry out the interviews outside without interruptions, research assistants will request respondents if they can be allowed to do that. However, research assistants should be cautious not to breach culture and traditions while doing so.
f) Data collection equipment that include the tablets will be sanitized before and after each use.

8. Data Processing and Analysis

8.1 Data Processing

8.1.1 Survey tools programming

This stage is important in ensuring the survey tools are translated into the right electronic versions for data collection. The survey tools shall be programmed using the ODK-based SurveyCTO platform for data collection and management. During programming, consistency checks shall be in-built into the data capture software to ensure that there are no cases of missing or implausible information/values entered into the database by the field interviewers. For example, the application will include controls for variables ranges, skip patterns, duplicated individuals, and intra- and inter-module consistency checks. This will reduce or eliminate errors usually introduced at the data capture stage.

The developed tools shall be deployed onto the APHRC online SurveyCTO account, which is a subscription based account held by APHRC on the SurveyCTO servers. Samsung tablets running Android 5.0 operating systems shall be used to collect the data using the developed tools.

8.1.2. Tools testing and validation

Once programmed, the survey tools shall be tested by the programming team before handing over to the Quality Control team, who in conjunction with the project team will conduct further testing on the application's usability, in-built consistency checks (skips, variable ranges, duplicating individuals etc.), and inter-module consistency checks. Any issues raised shall be documented and tracked on the Issue Tracker and followed up to full and timely resolution. After internal testing is done, the tools shall be availed to the project and field teams to perform user acceptance testing (UAT) so as to verify and validate that the electronic platform works exactly as expected, in terms of usability, questions design, checks and skips etc.

8.1.3. Real-time quality check and Data cleaning

Data cleaning is performed to ensure that data are free of errors and that indicators generated from these data are accurate and consistent. This process begins on the first day of data collection as the first records are uploaded into the database. The data manager will use data collected during

pilot testing to begin writing scripts in Stata 14 to check the variables in the data in 'real-time'. This ensures the resolutions of any inconsistencies that can be addressed by the data collection teams during the fieldwork activities. The Stata 14 scripts that perform real-time checks and clean data also write to a .rtf file that details every check performed against each variable, any inconsistencies encountered, and all steps that were taken to address these inconsistencies. The .rtf files also report when a variable is found not to have any inconsistencies. The data manager performs all checks according to the flow of the survey tools, instructions in the survey tools and instructions to data collectors in both the survey tools and the data collection manual. The .rtf file that is generated as a result of the real-time checks is sent to the field coordinator for reconciliation of inconsistent data in the field. Audios from qualitative interviews will be transcribed and saved in MS Word format.

8.2 Data Analysis Strategy

8.2.1 Quantitative data management and analysis

Data will be collected by trained interviewers using android tablets with the tool programmed in Open Data Kit (ODK), which will be synchronized on a safe server (already hosted by APHRC) using SurveyCTO. The data collection will be thoroughly supervised, and supervisors conduct spot-check interviews on at least 5% of the sample to verify accuracy of data collected. There will be a careful cleaning of the data on the SurveyCTO platform. In addition to the regular meetings between investigators and field supervisors to monitor data quality, the investigators will make field visits to supervise the overall conduct of the study and ensure that the study protocol is adhered to. Further data checks will be contacted to verify response gaps and data cleaning will be done using STATA software. Quantitative data analysis will be done using STATA, and all relevant descriptive analysis such as percentages, mean, median and standard deviations will be computed based on the objectives of the study. The baseline-endline dataset will be analyzed using standard pre-post data analyses approaches including difference in difference or propensity score matching approaches. Statistical tests of significance will be contacted at 95% confidence interval. At the endline analysis, statistical models will be used to isolate the effects of program-related exposures on behaviour outcomes, controlling for baseline behavior.

All survey data collected in relation to the project will be stored electronically for a period of five years.

9. Communication of Study Findings

APHRC will share evaluation findings with the ITH advisory board and will convene adolescent health and SRH stakeholders to share findings and other emerging evidence on what works to improve adolescent outcomes. At the conclusion of the project, a stakeholder meeting with representatives from partners working in SRH and Ministry of Health will convene for a round-table discussion of learnings from ITH, led by implementing partners and informed by the evaluation. As a culmination of the evaluation, APHRC will work with ITH to facilitate a final strategy session for stakeholders on next steps for action, should the evidence warrant it.

To support these efforts, APHRC will use its strong network of cross-sectoral adolescent health and SRH contacts across Kenya from years of recent implementation research on these topics. We will update and tailor an environmental scan of adolescent SRH actors in collaboration with ITH implementing partners. As a part of its ongoing work to identify and share proven interventions that work for different groups of adolescent girls in Kenya, APHRC expects to work in partnership with the ITH implementing partners, the funder and a broad coalition of other adolescent SRH actors to encourage thoughtful use of the results of the evaluation.

APHRC will develop short, policy-maker friendly case studies for each Phase and a final briefing paper on the overall successes, challenges and opportunities gleaned from the ITH evaluation that will again weave in other learnings from adolescent SRH interventions so that ITH is presented in the context of complementary efforts. The case study content will be shared as a part of the community fora, via online platforms (partner website and social media), and by hosting a webinar to share findings that may be adaptable to other country contexts.

10. Study Limitations and Risks

The study involves cross-sectional surveys (adolescent survey and mystery client survey) and as a result the data potentially suffers from both recall bias and reporting bias. Some information, such as age of the respondent and age at first sex refer to past events and may be affected by reporting and recall bias.

Some interviews might be conducted in local languages and later translated in English. This may affect the accuracy of the responses provided by participants, translation bias. However, this will be mitigated by translating the study tools to Swahili with the help of data collectors knowledgeable in local languages that are mainly used in the study sites. Swahili is Kenya's national language and most widely spoken. In addition, intensive training of field interviewers will help mitigate this.

11. Management and Organization of the Study

The study will be implemented and managed by a team of researchers at the African Population and Health Research Center (APHRC). APHRC's study team oversee the study design, the recruitment and training of data collectors, data collection, data quality management and data analysis. All team members participating in the data collection will be trained in research ethics and documentation provided to the IRB. Data collection team will be recruited and trained on the specifics of the study's goal, objectives, and research methods, and will also review key concepts of research ethics. Skills and expertise of data collectors will include: experience with data collection, experience using electronic devices for data capture and in-depth knowledge of the cultural context in the survey area.

The study will be implemented by the following:

1. Yohannes Dibaba Wado, PhD. Yohannes is an Associate Research Scientist with African Population and Health Research Center (APHRC). Yohannes has led several research and evaluation studies including studies on adolescent health. Before joining APHRC, Yohannes served as Senior Advisor for Research and Evaluation for Ipas programs in Ethiopia for two and half years.

2. Ramatou Odeugeruo, PhD. is a Post-Doctoral Research Scientist with African Population and Health Research Center (APHRC).

3. Clement Oduor, M.A. Clement is a Research Officer with African Population and Health Research Center (APHRC).
4. Sylvia Onchanga Msc. Statistics. Sylvia is a data manager with African Population and Health Research Center (APHRC).
5. Sally Odunga. B.A. Sally is a Research Officer with African Population and Health Research Center (APHRC).
6. Moussa Bagayoko. Moussa is a Monitoring and Evaluation Specialist and a Post-doctoral research scientist with African Population and Health Reasearch Center (APHRC).

12. Revised Work plan (Endline)

	2019				2020				2021	
Activities	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Revising evaluation plan and data collection Instruments		x	x							
Internal and external ethical approval for the end line study		x	x							
Recruitment and training of Interviewers				x	x					
End line data collection, started on March 12 and suspended on March 21 – suspended due to COVID -19					x	**x**				
End line data collection - end line survey with adolescents							X			
Data Analysis								x		
Data Review and report writing								x	x	
Report, technical briefs and factsheets									x	
Stakeholder meetings and research uptake										x

13. Budget Summary

In Their Hands Evaluation

Item	Expenditure Line	Budget Y3 (USD)
1	Personnel Costs	75,672
2	Stakeholder Engagement	7,541
3	Ethical Reviews	-
4	Data Collection	36,093.36
5	Dissemination Meeting and Monitoring	12,763.19
	Total Direct Costs	**132,069.18**
6	Overhead Costs	19810.38
	Totals	**151,879.56**

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