

Sexual and Reproductive Health Needs and Service Provision Among Adolescents Living with HIV in
Kenya: A Qualitative Analysis

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Abstract

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Background: Integrating HIV treatment and sexual and reproductive health services (SRHS) is important to address health needs of adolescents living with HIV (ALHIV) and prevent future infections. To improve holistic care for ALHIV, including integration of SRHS, the Kenya Ministry of Health implemented an adolescent package of care (APOC) in 2015. Understanding experiences with SRHS following APOC implementation among ALHIV, their primary caregivers, and healthcare workers (HCWs) can inform adaptations to enhance service delivery.

Methods: Within a large national evaluation of service provision for ALHIV in Kenya, we conducted a qualitative evaluation to characterize beliefs about and personal experiences with SRHS post-APOC implementation. We conducted in-depth interviews (IDIs) with 40 ALHIV (ages 14-19) and 40 caregivers of ALHIV, and 4 focus group discussions (FGDs) with HCWs. Data was collected between February and May 2017 from 4 high burden, APOC-trained facilities in Homa Bay County. IDIs and FGDs were audio-recorded, transcribed, and translated to English. Qualitative data was analyzed using conventional content analysis to identify key influences on SRHS uptake and access.

Results: Adolescents reported that they were treated well by HCWs, feeling encouraged, respected, and able to communicate openly with HCWs. Adolescents and caregivers in APOC-trained facilities noted that there was variable access to family planning, condoms, and partner, pregnancy, and STI testing and HCWs stressed prioritizing different SRHS while implementing the APOC checklist. Adolescents reported very limited utilization of SRHS other than education services. ALHIV, caregivers and HCWs, all reported that the primary SRHS available to ALHIV were abstinence and condoms. Almost all caregivers desired that adolescents receive SRH information and services from HCWs, although some planned to supplement information from HCWs. Many ALHIV felt more comfortable speaking about SRH with HCWs than with caregivers because they felt respected and understood by HCWs, had freedom to express themselves and ask questions about SRH, and perceived that they had greater SRH knowledge. HCWs reported feeling comfortable discussing SRH with adolescents, but highlighted that adolescents were not universally comfortable discussing the topic with them. Discussion of SRH topics was the most common reason why caregivers and ALHIV preferred that ALHIV meet separately with HCWs, without a caregiver present.

Conclusions: Our results indicate the important role of HCWs in provision of adolescent-friendly family planning and STI screening services and that variable SRH services are currently provided in APOC-trained facilities. Broadening discussions of contraceptive and HIV prevention options and ensuring adolescent autonomy in SRH care at clinics may facilitate improved provision of SRHS for ALHIV.

Introduction

Adolescence is a time of vulnerability and a pivotal period of learning and growth.¹ Adolescents (ages 10-19) face a number of challenges as they transition from childhood to adulthood, including adjusting to physical and psychosocial transformations, as well as increasing independence.² For adolescents living with HIV (ALHIV), these challenges likely intensify preexisting stressors related to HIV infection, such as HIV status disclosure and increasing personal responsibility for treatment adherence.³ The initiation of sexual relationships and associated challenges of living with a lifelong communicable disease that can be sexually transmitted further complicates this time for many ALHIV.⁴ While evidence suggests adolescents have better health outcomes if adolescent friendly services (AFS) are provided, specialized programs have been slow to respond to these needs in this growing cohort.^{3,5} Evidence-based interventions and support are critical for improving ALHIV uptake of HIV care and sexual and reproductive health services (SRHS) during this critical time of change and development.⁶

All individuals, including ALHIV, have the right to available, accessible, acceptable, and quality SRHS.⁷ Adolescent SRH rights were first established at the 1994 International Conference for Population and Development (ICPD) and later expanded to include access to youth friendly services that meet adolescent needs for sexual health information, counseling, and services.⁸ SRH rights are not always realized, due to a number of barriers such as limited availability of resources, stigma, cultural norms, and restrictive laws that impede access to SRH services or information for adolescents.⁹

There are 2.1 million ALHIV globally and six percent of the world's population of ALHIV live in Kenya.¹⁰ Kenyan adolescents have limited sexual health knowledge, further increasing the risk of sexual transmission of HIV to new partners.¹¹ A systematic review of sexual behavior among ALHIV in sub-Saharan Africa (SSA), including Kenya, found high rates of sexual risk-taking behaviors, including inconsistent condom use, transactional sex, and multiple partners during the last year.¹² Findings from a recent study on modes of HIV transmission among youth in Kenya revealed the majority of new HIV infections among older adolescents are likely sexually acquired.¹³ These findings highlight the importance of improving SRHS for ALHIV in Kenya to realize their SRH rights and promote overall wellbeing.

Integration of HIV treatment and SRHS provides an important opportunity to meet the health needs of ALHIV. However, integration of HIV treatment and SRHS is not yet a common practice for ALHIV from SSA.¹⁴ Healthcare workers (HCWs) in Kenya have reported numerous barriers to providing SRHS to young people, including limited SRH knowledge themselves, staff shortages, inadequate training, and language differences (slang used by youth not understood).¹⁵ Additionally, some HCWs in Kenya do not believe adolescents should have access to contraceptives or other SRHS.¹⁵

In response to the need for improved integration of HIV treatment and SRHS for adolescents, the Kenyan Ministry of Health (MOH), with support from collaborating partners, developed a comprehensive package of clinical and psychological services for adolescents known as the Adolescent Package of Care (APOC). The APOC is a healthcare provider guide designed to improve health services offered to adolescents that includes an adolescent care booklet, a standardized checklist for service provision, and provider training materials on important adolescent health topics. One component of the APOC focuses on the provision of SRHS, including condoms, contraception, pregnancy testing, STI screening and management, and partner HIV testing. The package targets provision of care to all adolescents but places a specific emphasis on ALHIV. Since implementation in 2015, the impact of the APOC on SRHS provision in adolescents has not been evaluated. Better understanding of SRHS provided at APOC-trained facilities can identify remaining gaps in SRH education, access and uptake for ALHIV. Therefore, the goal of this project was to characterize current knowledge, attitudes and practices around provision of SRHS for ALHIV from the perspectives of ALHIV, primary caregivers of ALHIV, and HCWs.

Methods

Study design and population

This study was nested within the Public Health Adolescent Services Evaluation (PHASE). PHASE is a national evaluation of adolescent HIV services in Kenya undertaken as a collaborative effort between the Kenya MOH, CDC, the Kenya Medical Research Institute (KEMRI), and the University of Washington. The

primary objective of PHASE is to assess uptake of HIV services and determine baseline rates and correlates of key adolescent health indicators in 102 facilities.

For this qualitative analysis, four facilities in Homa Bay County were selected from the original 25 PHASE evaluation sites that had received training in the provision of the APOC. Facilities were selected based on total clinic size and ease of availability. Two medium (456-866 total patients) and two large (≥ 867 total patients) clinic sites were selected to capture variation in services by clinic size. Small sites (< 456 total patients) were excluded due to foreseeable recruitment challenges with fewer adolescents receiving care. At each site, HCWs participated in focus group discussions (FGDs), and ALHIV (ages 14-19) and caregivers of ALHIV participated in individual interviews (IDIs).

Ethical Approval

The study was approved by the University of Washington Institutional Review Board (IRB) and the Kenya Medical and Research Institute Ethical Review Committee (ERC). All adult participants provided written informed consent while adolescents provided written assent with written parental permission to participate in the study.

Data collection

Semi-structured IDIs and FGDs were conducted between February and April of 2017. ALHIV and their caregivers were recruited by clinic staff and referred to the study team. Adolescents were eligible to participate if they were between 14 and 19 years of age, knew their HIV status, and were able to communicate in Dholuo, Kiswahili, or English. Caregivers were eligible if they were the primary caretaker of an ALHIV ages 10-17 and were able to communicate in Dholuo, Kiswahili, or English. Adolescents and caregivers were not required to participate as a dyad, although 16 dyads chose to. HCWs were purposively sampled to include a broad range of HCW cadres to maximize the range of adolescent service provision experiences captured.

IDIs and FGDs were conducted using semi-structured discussion guides designed to elicit perspectives on five key topic areas: 1) general adolescent HIV service provision and access, 2) HIV testing, 3) HIV disclosure, 4) medication adherence, and 5) SRHS. HCW discussion guides also solicited views on personal experiences with APOC training and utilization of the APOC tools. Discussion guides were developed collaboratively by study team members based on literature reviews and expertise in HIV research. IDIs and FGDs were conducted in Dholuo, Kiswahili, English or a combination of these languages, depending on interviewee preference. All IDIs and FGDs were audio recorded, transcribed verbatim and translated to English as needed. Targeted detailed summaries were written within 24-48 hours of the IDI or FGD by the interviewer to capture the context and experience of each interview as well as summarize key topics.

Data analysis

The goal of this analysis was to describe ALHIV, caregiver and HCW knowledge, attitudes and practices around adolescent SRHS provision. Conventional content analysis¹⁶ was conducted to produce a description of key concepts and themes arising within and between the individual primary categories represented in the interview guides. Transcripts were analyzed using a codebook that was developed iteratively by four members of the primary analysis team (HM, KBS, KW, SL) using both inductive and deductive approaches. Transcripts were imported into ATLAS.ti version 8 (Scientific Software Development GmbH, Berlin, Germany), which was used to manage data analysis. Transcripts were divided between team members and each transcript was coded independently by one member of the coding team using the final version of the codebook. Transcripts were exchanged and all previously coded transcripts were reviewed by another member of the team. Identified disagreements in code application were resolved through group discussion.

This secondary analysis focused on identifying themes related to the beliefs, experiences and practices around adolescent SRHS within HIV service delivery. More specifically, IDIs with ALHIV were analyzed to understand their experiences, motivations and influences for accessing SRHS while IDIs with caregivers were analyzed to understand their attitudes toward adolescent SRHS and sexual health education and

information. HCW FGDs were analyzed to understand HCW experiences providing SRHS to ALHIV and perceived influences and perspectives on SRHS for adolescents.

Results

Overall, a total of 40 ALHIV (10/clinic) and 40 caregivers (10/clinic) participated in IDIs. The median age of ALHIV was 16 years (IQR: 15-17) and the majority were female (67.5%). All but four were currently enrolled in school. The majority (62.5%) of ALHIV were single at the time of the IDI. Most (70%) had parents or guardians who were also living with HIV. The majority of caregivers were parents (60%) and female (80%). The median age of caregivers was 45.4 years (IQR: 37-53.5) and fewer than half (40%) were employed. Nearly all (95%) were caring for an adolescent who was aware of their HIV status. Caregivers who were living with HIV had been taking ARVs for a median of 6 years (IQR: 3.5-10). In addition, a total of 39 HCWs (counselors (38.5%), nurses (17.9%), clinical officers (15.4%), lab technicians (10.3%), and other HCWs (17.9%)) participated in 4 FGDs (1/clinic with up to 10 participants in each FGD). HCWs had a median of 3 years (IQR: 1-6) of experience providing care to ALHIV. Almost half (48.7%) of HCWs had received training on AFS but few (12.8%) had received training on SRHS provision. Additional characteristics of participants can be found in Table 1.

ALHIV, caregivers, and HCWs all described positive experiences receiving or providing adolescent HIV services at their respective clinics. Adolescents reported they were treated well by HCWs, feeling encouraged, respected, and able to communicate openly with HCWs. In addition to supportive and friendly treatment by HCWs, adolescents stressed their appreciation of adolescent-specific services (although not universally available), such as adolescent clinic days, separate waiting rooms, reduced wait times, and weekend clinic days to accommodate their school schedules. Many caregivers also felt adolescent-friendly, supportive services were available to their adolescents. Strong relationships and supportive adolescent HIV service delivery influenced the primary themes that emerged regarding integrated adolescent SRHS within HIV care. When evaluating SRHS access and uptake, three key themes emerged as central to characterizing current experiences: 1) HCWs were the preferred source for SRH information, 2) adolescent

autonomy was a facilitator of SRH discussions with HCWs, and 3) ALHIV had variable access to and limited utilization of SRHS within APOC-trained health facilities.

HCWs were the preferred source for SRH information

Adolescents and caregivers stressed that HCWs should be the primary source of SRH information because they were perceived as the most knowledgeable on the topic, would provide accurate information, and would keep information shared confidential.

“The doctor cannot mislead anyone, they have the right information. They will advise her accordingly.” (58-year-old aunt)

Caregiver decisions on where adolescents should receive information were focused on the importance of having adolescents receive accurate information, while adolescent decisions about where they get information focused more on comfort and confidentiality. Adolescents were often concerned about who would be a supportive and non-judgmental listener that they could openly ask questions of without feeling embarrassed or shy. Adolescents without strong relationships with HCWs identified others, such as siblings, peers, romantic partners, or caregivers they would seek SRH information from and speak freely with.

“I only have a sister. I am really free with my sister so with her we can square out our issues, we can talk [about] anything, but I don’t like talking with the adults, even mum. When she tells me, I blush so she has a limit.. [my brother and sister-in-law] do not know more about [SRH] and also they would think that I am already sexually active.” (17-year-old female)

While adolescents reported they would feel most comfortable receiving SRHS from HCWs, HCWs highlighted that adolescents can sometimes be hesitant to discuss the topic with them.

“As a care provider, I am very comfortable [discussing SRHS] but the adolescents are the ones who shy off and you find that when it comes to sexual and reproductive health...you keep counseling them until they get used to talking about it.” (25-year-old female clinical officer)

A few adolescents identified peers or romantic partners as important sources of SRH information because they felt they could discuss the topic openly with them. However, caregivers identified these groups as the least desirable source of SRH information for adolescents, given the high risk of misinformation from adolescent peers. Some adolescents also identified caregivers as trusted sources of SRH information, depending on their relationship.

“I feel free talking to my mother because I spend most of my free time with her and my mother is able to sense fast if something is bothering me, hence I will just feel comfortable discussing with her so that she can make me feel at ease.” (16-year-old female)

Caregivers were polarized in their desire and comfort providing SRH information to their adolescents. Some caregivers saw themselves as an important information source for their adolescent and emphasized their role in reinforcing the SRH information provided by HCWs.

“Once the provider has given her [SRH] information [and] she comes home, then I will be able to build on that...I will also tell her that I am just a girl like her so we can just talk.” (50-year-old mother)

Other caregivers, especially those of the opposite sex of their adolescent (i.e. male caregivers of adolescent females), were less likely to feel comfortable discussing SRH with their adolescents.

“...there are some issues that are a bit hard for a man to talk about with his child, especially those that involve girl[s]...those are best left for women who can easily handle them.” (69-year-old father)

While most HCWs reported feeling comfortable discussing SRHS with older adolescents, some were less comfortable discussing SRHS with younger adolescents, initially limiting the information discussed with them and only later realizing these adolescents were also in need of comprehensive SRHS.

“You get a 10-year-old girl, you want to educate her on condom use and family planning and the next question or what she is going to tell you is I don’t have a sexual partner, why should I know all these?...then at times, you find that you thought someone was naïve and then the next time she surprises you, she is expecting.” (26-year-old female clinical officer)

Adolescent autonomy was a facilitator of SRH discussions with HCWs

Many caregivers attended clinic visits with their adolescents and were particularly engaged with HIV treatment challenges and progress.

“I must have some say over his medical care. For example, if he falls sick I have to come to the clinic to supervise his treatment. I must also come the day that he is coming to know about his CD4 results because I want to know how he is progressing with his treatment.” (77-year-old grandmother)

Adolescents, caregivers and HCWs identified conversations pertaining to SRHS as important instances where adolescents should be more autonomous in their health care. Each group felt adolescents should meet privately with HCWs to discuss these topics, in order to facilitate open communication, which they thought might be hampered with a caregiver present.

“You find that...there is a part where you ask if they are sexually active, and the child doesn’t answer if the parent is there. But if it’s just the healthcare provider, they will be very free.” (32-year-old female adherence counselor)

The majority of caregivers cited SRH discussions between adolescents and HCWs as the most common reason they are asked to leave the exam room.

“I was told to wait outside as she talked with the doctor... [they were talking about] her sexual behaviors. I had to leave for her to be free with the doctors. At her age if she is sexually active, she wouldn’t share such information in [my] presence. That is between her and the doctors.” (58-year-old aunt)

While often participants cited adolescent shyness as the primary motivator for autonomous visits with HCWs to discuss SRH, one caregiver emphasized their own discomfort as the main reason they would prefer adolescents and caregivers both discuss adolescent SRH with the HCW alone.

“Sometimes the [HCW] might want to ask me her progress or how her sexual health is. You know if he asks me in the presence of the child then I might also feel shy talking about it.” (42-year-old mother)

ALHIV had variable access to and limited utilization of SRHS within APOC-trained health facilities

While all adolescents had received some information and education about SRH, their access to additional services and the types of information they had received varied greatly. Most adolescents described exclusively receiving information about abstinence first, and to use condoms only if abstinence was not possible. Only one adolescent mentioned receiving information about PrEP. Information on condom use often incorporated messages not just about transmission to others, but also around prevention of reinfection.

“They tell us that we should take care of ourselves, we should not have sex like that, we can use condoms to prevent reinfection and so we do not infect others.” (15-year-old female)

Caregivers similarly reported that SRH education often revolved around abstinence education and the use of condoms to prevent reinfection, HIV transmission, or pregnancy. While this information was widely available, information about STIs, family planning options (other than condoms), and STI, pregnancy and partner testing was provided inconsistently. Few adolescents reported they had received information about all of these items, but many more reported learning about a few or none at all.

“What they talk about is the abstinence of sex. You can abstain or you can use the condoms...but they don’t talk about family planning...they don’t urge us.” (18-year-old female)

Few adolescents reported actually utilizing SRHS other than educational services. While many reported they would be comfortable accessing such services, they were not currently doing so. Many caregivers had limited information about the SRHS their adolescents were utilizing. One caregiver noted that her adolescent did have access to SRHS but did not need these services yet.

“She also told me that family planning options are also available that one can use if interested, but she told me that she has no interest when it comes to that and I also told her that there is a time for everything. It will reach a time that she will now need to use the contraceptives.” (42-year-old mother)

The only services adolescents reported using included condoms, oral contraceptives, pregnancy testing, and sex education. No one reported utilizing STI or partner testing services, although HCWs reported that they provide these services to adolescents.

Some HCWs identified the SRH component of the checklist in the APOC as useful for guiding their approach to providing adolescent SRHS. Other HCWs identified the APOC as helping them provide AFS that help adolescents feel more comfortable receiving SRHS. While the APOC provides adolescents more SRH information, some were concerned this information was not translating to improved adolescent decision-making about SRH.

“...the information we are supposed to be giving to adolescents so they can make an informed decision is being given. But them taking it and practicing it, we are not seeing.” (42-year-old female nursing officer)

Another HCW reported challenges utilizing the APOC SRH checklist components for young adolescents without sexual partners yet. Some HCWs felt this information was not relevant to young adolescents and might actually encourage them to initiate sexual activity earlier.

“...sometimes I feel like I am putting this [SRH] information or opening their minds to what they are not prepared for, then it is like they are seeing that they need to be doing these things. They even ask themselves why they are late because it is like they are expected to have started.” (26-year-old female clinical officer).

Discussion

This analysis highlights the importance of AFS for successful integration and uptake of SRHS within HIV service delivery systems. HCWs were identified by adolescents and caregivers as the most suitable individuals to provide adolescent SRHS. While caregivers emphasized expertise and confidential services, adolescents stressed the importance of feeling comfortable to talk openly with HCWs as a key factor in accessing SRHS. Strong relationships between ALHIV and others were a key factor in determining their comfort level discussing SRH with a specific individual or group. Adolescent autonomy was important for facilitating candid discussions of SRHS between adolescents and HCWs. While caregivers often attended clinic visits, they saw SRH conversations as something that should primarily occur without them present or were often requested to leave the room even if they were comfortable with the topic. SRH education about abstinence and condoms was widely available but other services such as family planning methods, pregnancy testing, U=U or PrEP for HIV prevention, were inconsistently reported as available to adolescents. The SRH portion of the APOC checklist was generally helpful for HCWs to feel more comfortable providing these services.

For ALHIV, having a positive and open relationship with HCWs was an important influencer of their comfort discussing SRH. Previous studies have similarly found that ALHIV identify amicable providers as a key component of providing adolescent-friendly SRHS.^{17,18} This study also found that friendly and non-judgmental HCWs were critical to foster relationships that would allow adolescents to ask questions about SRH. HCW discomfort or personal beliefs and values about adolescent SRH needs and rights have been found to be a barrier to adolescent SRHS provision in other settings.^{15,19} In contrast, HCWs in this study believed it was their responsibility to share SRH information and provide these services regardless of their beliefs. This finding was surprising and possibly attributable to the APOC training provided regarding adolescent SRHS provision.

Adolescent autonomy emerged as an important theme in improving access to SRHS. During adolescence, major changes in caregiver-child relationships and communication occur as adolescents seek greater autonomy and independence in decision-making.^{20,21} Our finding of autonomy as a facilitator of SRHS discussions between HCWs and adolescents reflects adolescents' desire for independence, particularly for topics such as sexuality and relationships. In order to continue to improve access and uptake of SRHS for ALHIV, it is important that adolescents are supported by both HCWs and caregivers in ways that respect and foster their growing autonomy.

Prior evaluations have reported SRHS uptake can be improved when providers are trained in AFS, when outreach activities engage adolescents to inform them of available services and encourage utilization, and when community members support the provision of adolescent health services.²²⁻²⁴ While the implementation of the APOC promotes AFS and the integration of HIV and SRHS delivery, further improved SRHS delivery might occur as the APOC continues to be implemented and reinforced at facilities throughout Kenya. To actualize the SRH rights of adolescents, they should be consistently provided accurate SRH information and have access to SRHS. To further improve adolescent SRHS uptake and positively influence adolescents' sexual behavior, caregivers should be encouraged to support HCW messaging to adolescents about SRHS to foster communication about SRH.^{25,26}

This study had a number of limitations. Adolescents who participated in the study were actively involved in HIV care and caregivers were engaged in their adolescent's HIV care and willing to come to the clinic for an IDI. Therefore, study results may not be representative of perspectives of ALHIV not currently engaged in care and caregivers not frequently attending the clinic with their adolescents. Additionally, all IDIs and FGDs were conducted in one county in Kenya and might not be generalizable to other settings. However, these clinics were selected from a region in Kenya with a high HIV burden and it is expected that the perspectives shared by participants would be similar to other ALHIV, caregivers, and HCWs in these regions. Social desirability bias is a concern, given participants largely highlighted only positive attributes of the clinics and comfort providing or receiving adolescent SRHS.

Conclusion

Our results indicate the importance of utilizing HCWs in provision of adolescent-friendly SRHS services as well as ensuring consistent and comprehensive integration of SRHS provision into HIV treatment and care. While ALHIV, caregivers, and HCWs reported feeling satisfied with the APOC and currently available SRHS provision, qualitative evidence did not support that substantive SRHS were being provided to or used by ALHIV. To better meet the needs of ALHIV, consistent and comprehensive SRHS should be provided in the future while continuing to build upon the existing foundation of trust between HCWs and ALHIV and caregivers.

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Table 1: Sociodemographic characteristics of participants

Characteristic	Population		
	Adolescents, N=40	Caregivers, N=40	Healthcare workers, N=39
	Median (IQR) or n (%)		
Female	27 (67.5)	33 (82.5)	29 (74.4)
Age	16 (15-17)	45.4 (37-53.5)	33 (28-42)
Education*			
Primary	20 (50)	20 (50)	2 (5.1)
Secondary	15 (37.5)	13 (32.5)	8 (20.5)
College/polytechnic	1 (2.5)	4 (10)	29 (74.4)
Not currently enrolled	4 (10)	--	--
None	--	3 (7.5)	--
Parent/Guardian with HIV	28 (70)		
Receiving HIV care	27 (96.4)	--	--
Relationship status			
Single	25 (62.5)	--	--
Steady boyfriend/girlfriend	14 (35)	--	--
Married	1 (2.5)	--	--
Employed	--	16 (40)	--
Relationship to adolescent			
Parent	--	24 (60)	--
Aunt/Uncle	--	4 (10)	--
Sibling	--	3 (7.5)	--
Grandparent	--	5 (12.5)	--
Other relative	--	4 (10)	--
Characteristics of adolescent			
Female	--	25 (62.5)	--
Age	--	16 (14.5-16)	--
Education*			
Primary	--	26 (65)	--
Secondary	--	12 (30)	--
College/polytechnic	--	1 (2.5)	--
Other	--	1 (2.5)	--
Aware of HIV status	--	38 (95)	--
Taking ARVs	--	40 (100)	--
Years taking ARVs	--	6 (3.5-10)	--
HCW Cadre			
Nurse	--	--	7 (17.9)
Counselor	--	--	15 (38.5)

Clinical Officer	--	--	6 (15.4)
Lab Technician	--	--	4 (10.3)
Other**	--	--	7 (17.9)
Years employed at current clinic	--	--	2 (2-5)
Years providing HIV care	--	--	4 (2-9)
Years working with adolescents	--	--	3 (1-6)
AFS Training	--	--	19 (48.7)
SRH Training	--	--	5 (12.8)

***Education: For adolescents, current enrollment; for caregivers and HCWs, highest education attained.**

****HCWs also included cough monitor (1), data clerk (1), nutritionist (1), peer educator (1), pharmacy technician (2), and triage officer (1).**