

Report of an adolescent health services barriers assessment (AHSBA) in the United Republic of Tanzania

With a Focus on Disadvantaged Adolescents



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The United Republic of Tanzania
Ministry of Health, Community Development,
Gender, Elderly and Children

Assessment of barriers to accessing health services for disadvantaged adolescents in Tanzania

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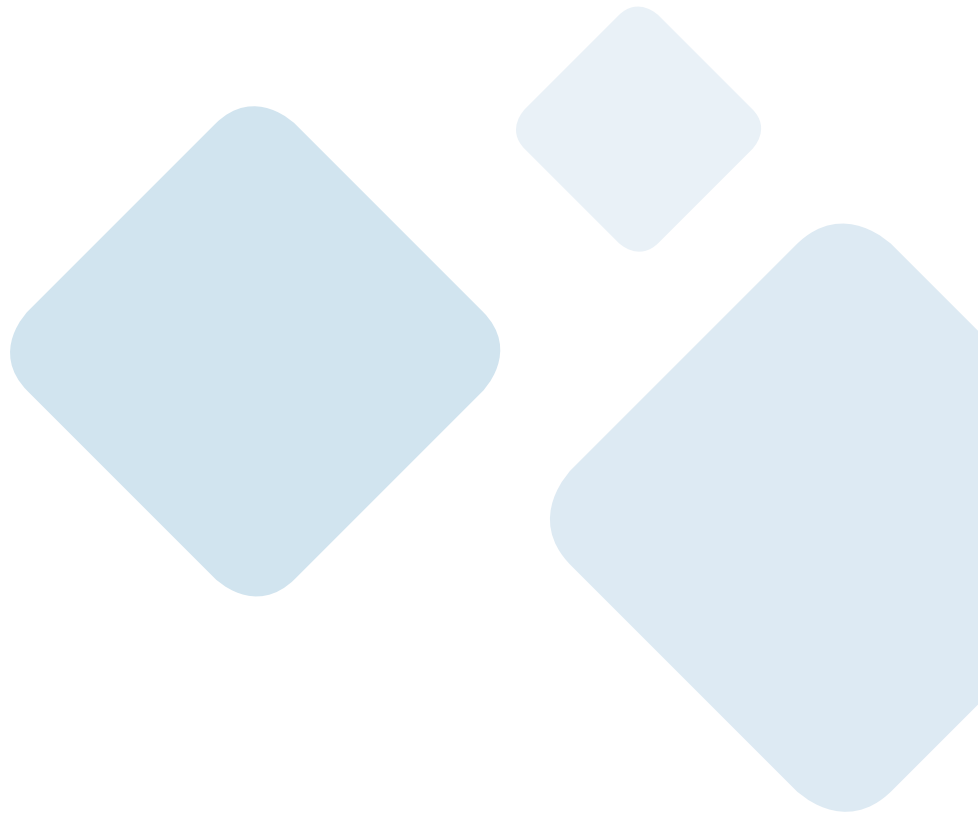
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Abbreviations

ARISE	African Research, Implementation Science, and Education Network
ARV	antiretroviral
ART	antiretroviral therapy
DHS	Demographic and Health Survey
HEAT	Health Equity Assessment Toolkit
MICS	Multiple Indicator Cluster Survey
NACP	National AIDS Control Programme
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
SRH	sexual and reproductive health
TASAF	Tanzania Social Action Fund
TAYOA	Tanzania Youth Alliance
TDHS	Tanzania Demographic and Health Survey
TGNP	Tanzania Gender Networking Programme
TYC	Tanzania Youth Coalition
UMATI	Chama cha Uzazi na Malezi Bora Tanzania
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
VMMC	voluntary medical male circumcision
WHO	World Health Organization

Executive summary

Adolescents (young people aged 10–19 years) in low-income countries face greater challenges than other age groups in obtaining quality health services. Moreover, high levels of inequity exist even within adolescent populations. Studies show there are subpopulations that often experience significant barriers and thus low coverage of needed health services.

Globally, the adolescent population makes up a significant proportion of the general population. In the United Republic of Tanzania, adolescents comprise almost one quarter (24%, or 12.8 million) of the total population of 54.2 million people. As in other regions and countries, adolescents face a number of health-related challenges, making it a population at risk. This is partly attributable to poor access and lack of quality and equitable health services. National data suggests low performance in key reproductive health indicators among adolescents and youth. To address these challenges, the country is implementing key strategies including the *National adolescent reproductive health strategy (2011–2015)* and *The national road map strategic plan to improve reproductive, maternal, new born, child & adolescent health in Tanzania (2016–2020): One Plan II*. While these efforts are commendable, there is still a need to intensify efforts as many adolescent health needs are not being met by existing programme interventions and activities.

To continue to enhance universal health coverage for adolescents, in 2018 the United Republic of Tanzania did an assessment using the draft WHO handbook for conducting an adolescent health services barriers assessment (AHSBA), with a focus on disadvantaged adolescents. The WHO guidance is grounded in the Tanahashi framework for effective coverage of health services, and other key conceptual frameworks relevant to equity-oriented, rights-based and gender-transformative health systems strengthening and intersectoral action for health. The AHSBA employs a mixed-method design, with both quantitative and qualitative approaches, to assess and describe adolescent health service barriers using a step-by-step, modular framework. The assessment in the United Republic of Tanzania was conducted between July and October 2018 as a standalone exercise to inform the review of the *National adolescent reproductive health strategy (2011–2015)* and the mid-term review of One Plan II.

In the adolescent health services barriers assessment, the country chose to focus on three key programmatic areas:

- sexual and reproductive health (SRH)
- HIV care and treatment
- voluntary medical male circumcision (VMMC).

Under-served adolescents in the United Republic of Tanzania

Under-served adolescents often lack access to quality health services in relation to their actual health needs. In the United Republic of Tanzania, under-served adolescents are facing a number of health challenges, many of which are related to SRH. According to national surveys, including the Tanzania Demographic and Health Survey (TDHS) 2015–2016, access to and utilization of contraceptives as well as SRH education remain limited among the majority of adolescents. As a result, many adolescents continue to engage in risky sexual practices and behaviours such as multiple and concurrent partnerships and inconsistent condom use. In line with nationally representative surveys, evidence from this assessment confirms an early age of sexual debut (14–17 years old) among many under-served adolescents, with recorded instances of even lower ages especially in rural areas. Girls often become sexually active earlier than boys. However, significantly more males than females report having multiple partners and less than half of sexually active adolescents report having used a condom during their most recent sexual act. Engagement in risky behaviours often results in unintended consequences, such as unplanned pregnancies or sexually transmitted infections/HIV transmission.

The AHSBA in the United Republic of Tanzania found that disadvantaged adolescents can be grouped based on a range of sociodemographic factors: sex; health status; education status (in- or out-of-school, and level of education); marital status; economic status; and geographic location. These are the most significant factors behind inadequate access to health resources and the means to lead healthy and productive lives.

In all three programmatic areas being assessed – SRH, HIV care and treatment, and VMMC – the assessment identified the following under-served subpopulations: adolescents living in rural areas or far from health facilities; adolescents from low-income households; and adolescents who are out of school. Specific to SRH services, subpopulations reported to be disadvantaged were: young adolescents (aged 10–14 years); unmarried adolescents; orphans; and in-school adolescents (both girls and boys, and boarding- and day-school students, who are disadvantaged in different ways). Specific to HIV care and treatment, the disadvantaged

subpopulations identified were: older adolescents; and in-school adolescents (both boarding- and day-school students). Specific to VMMC services, the disadvantaged subpopulations identified were: orphan adolescents; and adolescents engaged in income-generating activities.

Barriers to adolescent health services

The assessment found low availability of skilled human resources to be an overarching barrier to adolescent health services. The findings revealed that health workers are not adequately equipped to deliver quality services to adolescents and face heavy workloads and competing priorities. It was also found that commodities for adolescent SRH services are not always available at health facilities, including free contraceptives and antiretroviral (ARV) drugs. As a result, adolescents are sometimes required to purchase family planning products from private pharmacies and may find they cannot afford them. Long distances to health facilities are also a barrier to services, especially among those in rural areas who report incurring transport costs to reach facilities. Furthermore, when adolescents reach the health facilities they often face long queues before they are attended.

Health-seeking behaviour among adolescents is further compromised by the attitude of health care workers. At health facilities, fear of sexual abuse by service providers as well as judgmental attitudes of staff can create a barrier to adolescents seeking care. Young girls find it difficult to request for condoms or other family planning commodities in public and private facilities, because such demand is associated with promiscuity. Furthermore, myths and misconceptions continue to exist around reproductive health and HIV prevention services. Some adolescents expressed their disbelief in the safety and efficacy of condoms, while others associated circumcision with superstitious practices. Parents, guardians, teachers, religious leaders and care providers also play a role in escalating such misconceptions by imposing their values, cultural norms and religious beliefs on adolescents. Stigma and discrimination can necessitate adolescents living with HIV to be registered at a distant clinic, as parents do not want them to be known by providers at nearby facilities. Many adolescents living with HIV have

not disclosed their status to their teachers, making it difficult for them to adhere to medications and attend clinic appointments.

The barriers as experienced by specific under-served adolescent populations are described in more detail below. Table 1 provides a summary of barriers under the three key programmatic areas being assessed, grouped by coverage dimension.

Barriers facing adolescent boys

Adolescent boys are under-served due to a relative lack of tailored SRH services in comparison to girls, who are more able to access such services through reproductive and child health clinics. Furthermore, there are inequities in accessing VMMC services. Younger boys (aged under 18 years) who seek VMMC are challenged by the need to have parental consent. In VMMC programmes, health providers avoid discussion of important topics (such as use of condoms and masturbation) when counselling young adolescent boys. Even after circumcision, younger adolescents face challenges owing poor wound management knowledge of their immediate caregivers. On the other hand, older adolescent boys (aged above 15 years) who feel mature find it difficult to interact with female service providers when accessing VMMC services, and prefer male providers.

Barriers facing younger adolescents (aged below 15 years)

Younger adolescents (aged below 15 years) are disadvantaged as health providers often become prescriptive of the type of services that younger adolescents should receive, and do not provide the services they actually need. Evidence suggests younger adolescents who are sexually active are denied family planning services. Health care workers may have negative attitudes towards female students in uniform, especially when they seek family planning services. In addition, parents do not provide adequate support to younger girls who may want or need reproductive health services.

Barriers facing in-school adolescents

Some providers are unwilling to provide family planning services to students, especially girls, who are presented with negative attitudes when seeking contraceptives. In-school adolescents also face challenges in accessing reproductive health clinics, which only provide services on weekdays and so conflict with school hours. These student-unfriendly hours make the clinics inaccessible to the majority of in-school adolescents. Furthermore, adolescents living with HIV have to ask for permission from teachers to attend clinics on school days. This necessitates disclosure of HIV status to teachers, which is not common practice and is something students avoid due to fear of stigmatization.

Barriers facing rural adolescents

Adolescents living in rural areas, and especially those from households with a low socioeconomic status, find it difficult to reach health facilities due to the long distances and transport costs involved. This is coupled with long waiting times on arrival, owing to high demand at geographically dispersed health facilities. In rural areas, the majority of adolescents who are not in school engage in income-generating activities. They therefore find it difficult to forego potential working days in order to attend VMMC campaigns and to follow recommendations on post-circumcision care.

Barriers facing adolescents living with HIV

Adolescents living with HIV are under-served in a number of ways. Adolescents are at increased risk of late diagnosis, late initiation of antiretroviral therapy (ART) and loss of continuity of care, which can result in early mortality. Male adolescents are more likely to die earlier than females. In-school adolescents living with HIV need to ask for permission from their teachers to attend clinic appointments, to whom they may not have disclosed their HIV status. Those in boarding schools also find it difficult to take medications regularly and, at the same time, fear that their peers will discover their HIV status.

Adolescents living with HIV may need to travel long distances to attend clinics, because parents register them at a faraway facility due to fear of stigma in the local community. At health facility level, there are reported stockouts of important commodities such as antiretroviral (ARV) drugs. As a result, adolescents are required to return to a clinic within a short turn-around time and incur unnecessary transport costs to refill their prescriptions. In most clinics, adolescents living with HIV receive ARV drugs only, rather than a comprehensive package of services to meet all of their health care needs, including psychosocial support and

reproductive health education. This results in poor ART adherence and low viral suppression, frequently resulting in morbidity and death, especially among adolescent boys.

Barriers facing orphans and mentally challenged adolescents

Orphan adolescents and those who are mentally challenged require additional support from guardians when seeking health services, in general.

Table 1. Barriers facing adolescents in key programmatic areas, by coverage dimension

Coverage dimension	Sexual and reproductive health services	HIV care and treatment	Voluntary male medical circumcision
Availability	<ul style="list-style-type: none"> Inadequate number of skilled health care workers Stock out of commodities and supplies Unavailability of adolescent-friendly services and life-skills education programmes Lack of adolescent/youth SRH clubs 	<ul style="list-style-type: none"> Inadequate number of skilled service providers Stock out of ARV drugs Limited coverage of adolescent-friendly HIV services Limited availability of peer support groups 	<ul style="list-style-type: none"> Limited availability of skilled health care workers Limited number of static VMMC sites Low coverage of VMMC campaigns in rural areas
Accessibility	<ul style="list-style-type: none"> Cost of services or products Long distance to a health facility Need for consent/permission from parents Lack of information on where to get family planning services Health service operational hours conflict with school days/hours 	<ul style="list-style-type: none"> Cost of services Long distance to a health facility/inconvenient location Transport costs 	<ul style="list-style-type: none"> Long distance to a health facility Need to postpone work to go for VMMC Need for parental consent for younger adolescents (aged under 18 years) Need to pay for services
Acceptability	<ul style="list-style-type: none"> Stigma around use of condoms and family planning Stigma and discrimination from parents and elders/community Lack of privacy and confidentiality Unwillingness of distributors to provide condoms to adolescents Some adolescents disapprove of condom promotion and distribution Gender disparity Cultural and religious barriers Community perceptions that family planning is inappropriate for girls aged 10–18 years 	<ul style="list-style-type: none"> Myths and misconceptions Lack of privacy Unwillingness to use HIV care and treatment services Lack of respect for adolescents 	<ul style="list-style-type: none"> Myths and misconceptions Parental lack of information about VMMC and post-circumcision care Lack of privacy Negative attitude of some service providers

<p>Contact/use</p>	<ul style="list-style-type: none"> • Myths and misconceptions around condoms and family planning • Lack of support by the community, including parents and caregivers • Inability to negotiate condom use with partners 	<ul style="list-style-type: none"> • Nondisclosure of HIV status • Psychological challenges, such as loss of one or more parent • Limited involvement of parents/caregivers • Unfavourable school environment 	<ul style="list-style-type: none"> • Feeling shy/fearing pain due to the operation • Unavailability/inability of a caregiver to provide post-circumcision care • Desire for elements of traditional non-medical circumcision methods to be integrated into medical procedures • Inadequate information from service providers; for example, on how to identify post-circumcision complications • Students need permission to attend VMMC services
<p>Effective coverage</p>	<ul style="list-style-type: none"> • Long queues at health facilities • Irregular use of contraceptives • Sexual abuse by service providers • Health care workers discourage young people from using contraceptives • Inconsistent condom use/selective use with individuals considered to be high-risk 	<ul style="list-style-type: none"> • Delays in receiving test results • Medication fatigue • Inadequate/incomplete disclosure • Preference for traditional medicines • Poor communication by health workers • Mental illness, such as depression 	<ul style="list-style-type: none"> • Long queues at health facilities • Inability of adolescents to adhere to post-circumcision medical recommendations • Limited information regarding HIV prevention and care, and limited provision of condoms • Lack of skills of some providers on managing complications • Older adolescents ignore adverse events or complications

Need to refocus adolescent health programming

Improving adolescent health in the United Republic of Tanzania calls for streamlined interventions to address the barriers and challenges described in this report. A strategic refocus is needed to strengthen the health system, with a special emphasis on under-served adolescent populations. The needs of adolescents cannot be met by the health sector alone: a multisectoral approach that brings together communities, religious institutions and schools is required to advance adolescent health in the United Republic of Tanzania.

It is imperative to improve the skills of available providers at health facilities in order to equip them with adequate knowledge for provision of adolescent-friendly services. Increasing the competence and number of skilled providers will improve existing services and help to introduce adolescent-friendly services where missing. Existing adolescent-specific services can also be strengthened by improved infrastructure and operations at health facilities and in communities. To improve access to school-going adolescents, it is crucial to improve flexibility in days/hours for service provision, and provide outreach services to adolescents in both boarding and day schools. Providing needs-driven services and making adolescents central to their care will draw more under-served populations into health facilities, reduce inequities among disadvantaged populations, and improve service delivery overall.

Community and parental engagement to raise awareness and create demand for adolescent SRH services is another important intervention. There is a need to engage schools and teachers in addressing adolescent SRH concerns through equipping them with the skills to provide SRH education as well as specific counselling and support to adolescents on ART. Health facilities, communities (including civil society organizations and religious institutions) and schools should work together to deliver comprehensive sex education and life-skills interventions. Aligning the adolescent health strategy across ministries and implementing partners will ensure that common messages reach adolescents. To this end, respective ministries in education and health need to work together and align policies that target adolescents.

Teachers should be trained in health education for adolescents, and health workers should regularly visit schools to ensure access to needed services.

To ensure success in these suggested interventions, adolescent participation in health programming remains imperative. Adolescents should be engaged using innovative methods such as general media, social media and new technologies, as this is how many adolescents now spend most of their time. It is therefore necessary for health programmers to “talk their language” and use the same media. Other innovative approaches to improve quality of adolescent health services include using peer-based models for delivery of services, which can penetrate many health service barriers to reach all communities. Peer models such as adolescent clubs at care and treatment clinics, as used by the national HIV programme, should be scaled up. It is also important to involve teachers in these interventions, and promote disclosure of adolescent HIV status to teachers. One key element to consider is scaling up the recommended WHO package for adolescents living with HIV, which covers health needs of adolescents beyond HIV care. There is also a need to build on the gains of the VMMC programme by increasing the number of health facilities that provide VMMC and early infant male circumcision services in targeted regions to increase sustainability. Ongoing efforts to achieve national VMMC targets should focus on rural areas that have not yet been reached, and consider timing VMMC campaigns to school holidays and post-harvest seasons.

The delivery of adolescent SRH services should be backed by a strong monitoring system and research agenda that can support the country to improve programming and advance adolescent health priorities.

The consulting team recommend to WHO Country Office in the United Republic of Tanzania, the Reproductive and Child Health Section of the Ministry of Health, Community Development, Gender, Elderly and Children, and the National Technical Working Group to disseminate this report to intended audiences, and ensure that all salient issues arising from the assessment are adequately addressed.

Potential actions for programmatic areas

Sexual and reproductive health

- Increase number (coverage) of health facilities providing adolescent-friendly SRH services.
- Increase flexibility of SRH clinics to accommodate schedules of in-school adolescents e.g. offer services during the evenings or during weekends.
- Sensitize health workers on need to pay attention to the reproductive needs of both young and older adolescents, as per national guidelines.
- Incentivize health workers based on performance, using existing mechanisms such as results-based financing. Adolescent health indicators should be added into results-based financing.
- Establish a mechanism to report, investigate and take disciplinary measures against providers identified to have engaged in misconduct, as per national laws and regulations.
- Build capacity of civil society organizations to scale up community sensitization activities that engage parents in adolescent SRH issues.
- Involve village/community leaders, religious leaders and other influential people in SRH advocacy and sensitization activities.
- Build capacity of teachers and schools to formulate and support adolescent SRH clubs for males and females in schools.
- Strengthen age-appropriate and context-specific reproductive health and family planning education in schools.
- Use mass media, including social media and mHealth technology, to address SRH issues for adolescents and create demand for services.
- Councils working with implementing partners to design strategies/incentives to improve boys' access to SRH services.
- Expand access to condoms and other family planning products beyond health facility settings by strengthening capacity of other outlets, such as pharmacies and other vendors.
- Increase the number of providers (nurses) with skills to provide a variety of family planning methods, including intrauterine contraceptive devices and implants, through pre- and in-service training.
- Strengthen security of family planning commodities, including supply chain management.

- Councils working with implementing partners to conduct SRH camps in rural health facilities and communities, based on needs.
- Introduce family planning support groups and mHealth reminders for adolescents using scheduled contraceptive methods such as pills.
- Young adolescents (aged under 15 years) should be allowed to access and use SRH services without parental consent, as per national guidelines.
- Introduce targeted life-planning skills for underserved girls and boys aiming at improving their self-confidence and ability to make informed and rational decisions.
- Address norms and attitudes toward gender inequality (boys and girls).

HIV care and treatment

- Create demand for adolescent HIV services through engaging civil society organizations in increasing awareness and access to HIV testing, targeting adolescents in schools and communities.
- Scale up peer models (such as adolescent clubs) and use social media to engage and support adolescents living with HIV.
- Promote disclosure of adolescents' HIV status to teachers (school counsellors) to ease permission to access routine health services.
- Involve teachers in counselling students living with HIV on ART adherence.
- Inform teachers on clinic appointment dates.
- Scale up recommended WHO and national training packages to increase the number of health workers trained in providing adolescent-friendly HIV services.
- Use evidence-based methods to address key issues such as low uptake of HIV testing, late ART initiation, and inadequate viral suppression among disadvantaged groups.
- Scale up counselling and peer support through telephone calls (helpline services).
- Expand and renovate existing care and treatment clinics to accommodate space for provision of adolescent-friendly services.
- Counsel adolescents/parents to attend clinics nearby their residence to improve attendance and reduce costs for transport.
- Minimize waiting times at care and treatment clinics.

- Ensure adequate supply of medications to avoid stock out of ARV drugs and avoid unnecessary traveling costs.
- Provide multi-month ART refills for the following groups: adolescents in boarding schools; adolescents from households with low socioeconomic status who face transportation costs; adolescents in rural areas far from health facilities; adolescents registered in far-off facilities; adolescents who are working and may not find time for monthly visits.
- Address food insecurity facing under-served adolescents using practical community social protection means, such as the Tanzania Social Action Fund (TASAF).
- Scale up VMMC outreach services to target rural villages.
- Improve the process of obtaining parental consent by using modalities that do not necessitate physical presence of the parent; for example, community health workers obtaining consent at home.
- Increase flexibility of VMMC services for clients in terms of providers' gender (male versus female), time for the procedure, and a health facility of choice.
- Engage parents, guardians and service providers to provide post-circumcision care to young adolescents and those who are mentally challenged.
- Consider alternative methods of consent for orphaned adolescents and those who are mentally challenged.
- Expand the scope of VMMC counselling to include other SRH issues, such as HIV/AIDS, psychosocial services, and so on.
- Councils and implementing partners to plan for VMMC campaigns during school holidays and post-harvest seasons.

Voluntary medical male circumcision

- Increase the number of static health facilities providing VMMC and early infant male circumcision services in targeted regions.
- Integrate VMMC services into the general health services package.
- Address the myths and misconceptions around VMMC services through existing communication channels and by using champions.

Introduction and background

In recent years, many countries have started to specifically address adolescent health needs by improving the quality and coverage of adolescent health services. Yet despite notable efforts, many young people are still left out of the benefits of programme interventions and activities due to population-level and adolescent-specific barriers.

The Government of the United Republic of Tanzania is accelerating its efforts to reach universal health coverage by ensuring equitable health to all populations and especially to disadvantaged ones. To this end, addressing concerns about disadvantaged adolescent subpopulations that experience inadequate access to effective sexual and reproductive health (SRH) services is in keeping with efforts towards Sustainable Development Goal 3, which recognizes universal health coverage as a critical priority. It is also in line with WHO's *Global accelerated action for the health of adolescents (AA-HA!): guidance to support country implementation*, which stresses that all adolescents should have a fair opportunity to attain their full health potential, and that none should be disadvantaged from attaining this potential (1). In support of these aims, in 2018 WHO developed a handbook to help countries identify adolescent subpopulations with the least access to effective health services, and the barriers they face, to inform programming and policy development.

A critical, overarching reason for assessing which adolescents within a country experience the greatest difficulties in accessing health services, and why, is that all adolescents, like all people, have fundamental rights to life, development, the highest achievable standards of health and access to health services. These rights are supported by global human rights instruments to which almost all countries are signatories (2).

By understanding which adolescents are most disadvantaged in accessing health services and what barriers they experience, national health programming can be improved. This can result in substantial public health, economic and demographic benefits for the country in both the short and long term (3).

In the United Republic of Tanzania, adolescents (aged 10–19 years) make up nearly one quarter (24%, or 12.8 million) of the total population of 54.2 million people (4). The 2015–2016 Tanzania Demographic and Health Survey (TDHS) found only 33% of sexually active, unmarried 15–19-year-old girls and women use modern contraceptive methods, and 27% of all 15–19-year-old girls and women had begun childbearing (5). This is an increase in childbearing rate from 26% in the 2004–2005 TDHS and from 23% in the 2010 TDHS. Different sources available through WHO's Health Equity Monitor database (6) indicate inequities by income, education level, residence and age group in selected reproductive, maternal, neonatal and child health indicators in the United Republic of Tanzania.

Despite the efforts towards better health for all populations, some SRH needs of adolescents and young adults have been overlooked in health programmes and policies. Efforts have been limited, to a large extent, to prevention and treatment of HIV infection and increasing access to adolescent SRH services (7). However, in recent years, countries – including the United Republic of Tanzania – have started to respond to adolescent health needs through a health system approach.

The Government of the United Republic of Tanzania recognizes the importance of SRH services for adolescents, and has made progress towards implementing quality services on a large scale. In 2011, the Government developed the *National adolescent reproductive health strategy (2011–2015)* (8). This strategy highlights challenges faced by vulnerable adolescents such as inadequate knowledge on availability of adolescent SRH services, limited access to adolescent-friendly SRH services, and experience of poor attitudes from some providers resulting in poor quality services. More recently, in 2016, *The national road map strategic plan to improve reproductive, maternal, newborn, child & adolescent health in Tanzania (2016–2020): One Plan II* (9) expanded beyond the One Plan I to include adolescent health programming as a focus. One Plan II sets a new target: to increase the proportion of adolescent- and youth-friendly SRH services from 30% to 80% by 2020.

In the quest to achieve universal health coverage for adolescents, in 2018 the United Republic of Tanzania assessed health services barriers experienced by under-served adolescents using the draft WHO handbook for conducting an adolescent health services barrier assessment (AHSBA). The country conducted the AHSBA as a standalone exercise to inform the review of the *National adolescent reproductive health strategy (2011–2015)*, and the mid-term review of the *National road map strategic plan to improve reproductive, maternal, newborn, child & adolescent health in Tanzania (2016–2020): One Plan II*.

The AHSBA handbook is grounded in the Tanahashi framework on effective coverage of health services and other key conceptual frameworks relevant to equity-oriented, rights-based and gender-transformative health systems strengthening and intersectoral action for health.

The Tanahashi framework provides a step-wise approach to assessing health service coverage. It examines barriers and facilitating factors associated with each of the five Tanahashi coverage dimensions: availability, accessibility, acceptability, contact/use and effectiveness. Fig. 1 shows how the different dimensions build upon one another during the process of health care provision to achieve effective coverage of adolescent health services.

In conducting this assessment, the United Republic of Tanzania chose to focus on three health conditions: SRH, HIV care and treatment, and voluntary medical male circumcision (VMMC). The AHSBA handbook recommends countries use a systematic approach to conduct an assessment through completion of its seven modules. First, the assessment team in the United Republic of Tanzania did a literature review to explore health service coverage inequities and barriers experienced by under-served adolescents within the country. The next module covered data mining of existing databases. The following module included national and subnational key informant interviews, and focus group discussions with under-served adolescents at the subnational level. In the United Republic of Tanzania, the subnational interviews and focus group discussions took place in four regions: Dar es Salaam, Lindi, Mwanza and Singida. These regions were selected to give a mix of rural, semi-urban and urban settings that have low socioeconomic and health status. Dar es Salaam was included to get the context of a mega city that has variables in the mentioned vulnerabilities. In addition, national key informant interviews were conducted in Dodoma, the capital city, because this is where ministerial officials are based.

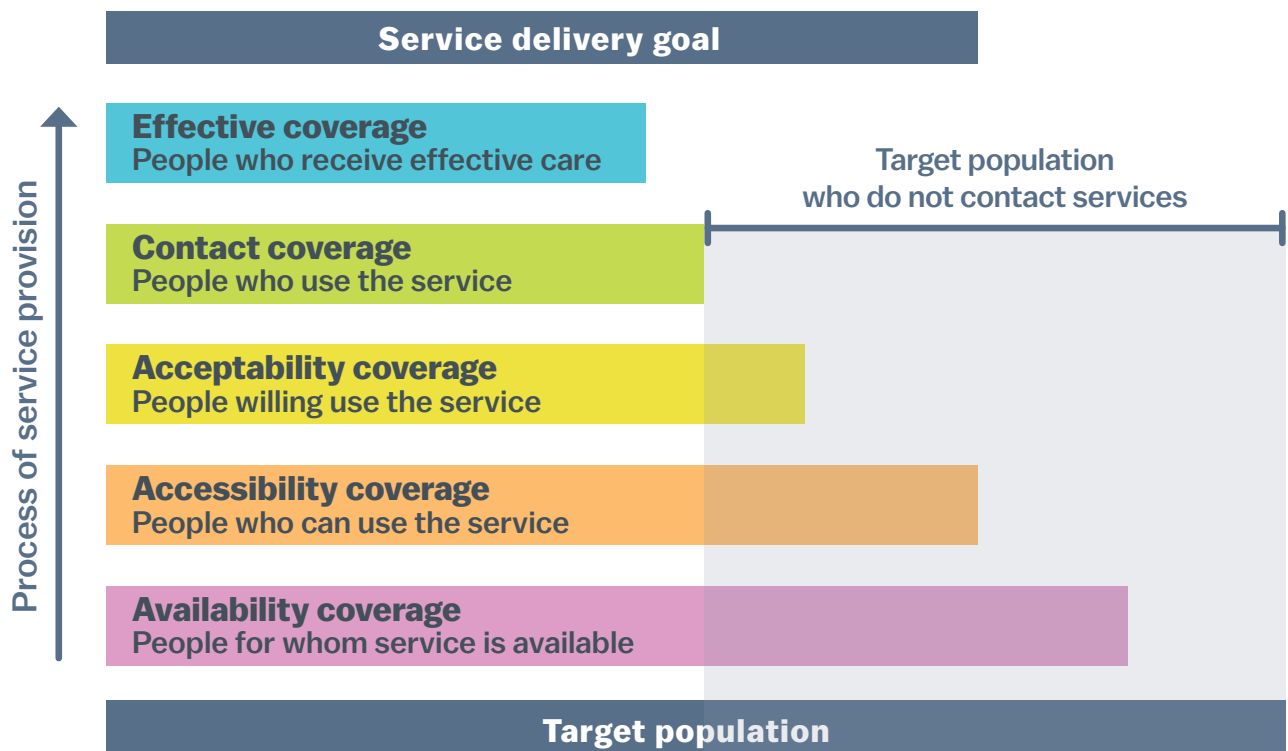


Fig. 1. Tanahashi conceptual framework



Methods

To address the AHSBA objectives, the assessment team employed a mixed-method study design including a literature and desk review, data mining exercise and qualitative research. Detailed methodology for each are presented in Annex 2 (literature review), Annex 3 (data mining) and Annex 4 (qualitative research).

Literature and desk review

First, a literature review was conducted to collect evidence from national and international scientific journal articles, technical reports, assessments, case-studies, presentations at technical meetings, working papers and briefings, and other write-ups of a qualitative or quantitative nature..

The literature review involved a targeted search of PubMed, the Cochrane Library and Google Scholar. The first-level search included key words related to adolescents and health service topics, and a geographic search limited to East Africa. The second-level search included key words specific to the research question, for example, pregnant teenagers, adolescents living with HIV, out-of-school youth, school dropouts, and so on. A total of 212 articles were considered, of which 101 were found to be relevant to the assessment. High-priority articles were then summarized in table format. See Annex 2 for detailed methodology of the literature review, including Table A2.1 for prioritized articles on adolescent subpopulations and barriers.

Data mining

Following the literature review, the assessment team adopted a quantitative approach. Secondary data analysis was performed on available national and global databases and datasets.

Data mining first explored WHO's Health Equity Monitor database using the Health Equity Assessment Toolkit (HEAT) software. The assessment in the United Republic of Tanzania used the HEAT Built-in Database Edition, version 2.1 (2018 update), which allows users to work with the built-in WHO Health Equity Monitor database. The Health Equity Monitor database contains several indicators that can be used to assess health service barriers experienced by underserved adolescents in a country. The team assessed three indicators, namely: adolescent fertility rate (per 1000 women aged 15–19 years), prevalence of use of modern contraceptive methods, and demand for family planning satisfied. For each indicator, where applicable, four equity stratifies were used: age, economic status, education and place of residence (urban/rural). In addition, two summary measures of inequality were assessed for all the indicators: difference as a simple measure, and slope index of inequality as a complex measure.

In addition, datasets from an adolescent study commissioned by the African Research, Implementation Science, and Education (ARISE) Network (<http://www.aaph-tz.org/activities/arise-network>) were analysed. The ARISE study was conducted within the Dar es Salaam Urban Cohort Study. Statistical analyses were not performed for these datasets. The team relied on frequency tables that summarized variables, which were generated by the project officer in the ARISE Network.

To complement these sources, the team also reviewed the United States Agency for International Development (USAID) comparative report on adolescent SRH data (10), which uses TDHS 2015–2016 data, to assess barriers to adolescent health services. See Annex 3 for detailed methodology of the data mining exercise.

Qualitative research

Research sites and context

Under the qualitative approach, the team conducted key informant interviews and focus group discussions to capture the contextual barriers and challenges to adolescent health services, and to identify disadvantaged subpopulations. The interviews and focus group discussions were conducted at both national and subnational levels. This primary research was carried out in five selected regions in the United Republic of Tanzania: Dar es Salaam, Dodoma, Lindi, Mwanza and Singida.

The selection of sites was made through consultation with the WHO Country Office in the United Republic of Tanzania, the Ministry of Health, Community Development, Gender, Elderly and Children, and other stakeholders, based on the context of priority areas. Dar es Salaam was selected because it is where most of the international and national organizations, as well as some ministerial officials, reside. In addition, due to a well-established HIV care and treatment system, Dar es Salaam was a convenient area to assess remaining barriers for adolescents living with HIV as well as SRH challenges. Lindi was selected because it has one of the highest rates of school dropout due to teenage pregnancy, among other issues relevant to adolescent SRH. Singida was selected to address SRH, VMMC and HIV care and treatment services. In contrast to Dar es Salaam, Singida was expected to illustrate the needs of adolescents living with HIV in rural areas. Mwanza was selected as a VMMC priority area owing to the nationwide intervention campaigns that are strongly ongoing in the region. Dodoma, the capital city, hosts all ministerial officials and was therefore selected for the key informant interview process.

Sample size and selection

A consultative process was followed to arrive at a suitable number of participants for key informant interviews and focus group discussions. Key informant interviews were conducted with senior officials identified in: Ministry of Health, Community Development, Gender, Elderly and Children (including the National AIDS Control Programme (NACP)); Prime Minister's Office for Labour, Employment, Youth and People with Disability; United Nations Children's Fund (UNICEF); United Nations Population Fund

(UNFPA); International Labour Organization (ILO); implementing partners including Jhpiego, Tanzania Youth Alliance (TAYOA), Femina Hip, Tanzania Youth Coalition (TYC), Chama cha Uzazi na Malezi Bora Tanzania (UMATI), Tanzania Gender Networking Programme (TGNP), and Population Services International. At subnational level, key informant interviews were conducted with reproductive and child health coordinators, social workers, health workers, HIV care and treatment clinic staff, and other respective individuals in key implementation areas. Focus group discussions were planned and conducted purposively in selected sites to address priority health areas. Focus groups included: adolescents living with HIV; in-school adolescent girls (boarding and day schools); in-school adolescent boys; pregnant adolescent girls and those with children; adolescent boys that recently received VMMC services; and teachers and parents of adolescents.

The interviewees and participants were selected based on the data needs for each priority health area being assessed. A total of 22 key informant interviews and 17 focus group discussions were conducted. See Annex 4 for further details on the interviews and focus group discussions, and on the regions where they were conducted.

Training of research assistants

The principal investigator recruited research assistants and organized a three-day training programme covering all key areas of the adolescent health services barriers assessment. The training spanned: knowledge sharing on the subject matter; objectives of the assessment; basic skills for data collection, including an orientation on data collection tools and processes; and, standard guidance on research ethics and upholding confidentiality of respondents and data. A total of three research assistants and three consultants skilled in qualitative data collection took conducted the assessment in the five selected regions.

Qualitative data collection tools

Qualitative data were collected through recording of interviews and taking notes. Interview guides were developed through a consultative process, taking into consideration the five Tanahashi dimensions of health service coverage: availability, accessibility, acceptability, contact/use and effectiveness. The interviews were

structurally the same, but were tailored to each of the three priority health services being assessed. The tools used for key informant interviews focused on individuals' opinions while those of focus group discussions reflected group dynamics. Examples of the final tools used are given in Annex 5 and 6.

The guide for key informant interviews was used at national, district and community levels. The guide for focus group discussions was used in health facilities, schools (for students and teachers), and at community level. The data collection tool was in English, but was translated to Kiswahili as necessary during interviews. A team of one consultant (senior researcher) and one research assistant conducted each interview/focus group discussion. The research assistant took notes and important quotes, while the senior researcher asked questions or probed for further follow up on answers. For recorded interviews, transcription was later done to extract quotes to be used to illustrate key barriers and challenges.

To analyse qualitative data, research assistants used the interview scripts to generate summary reports based on a pre-defined template. The reports summarized important findings including vulnerable populations, and barriers to health service access, use and effectiveness. Recommendations drawn from each interview set were also summarized upon triangulation of qualitative and other data gathered.

Quality assurance

The principal investigator and co-principal investigator were responsible for data quality assurance measures. All data collection was conducted in a uniform manner to ensure their validity, integrity, precision, conformity, reliability and timeliness. Research assistants were trained (by the principal investigator and co-principal investigator) on how to best collect primary data and adhere to ethical guidelines. The principal investigator and co-principal investigator checked that the research assistants took notes during focus group discussions and completed a 1-2 page summary of key findings immediately after each discussion or by the end of each field day. This ensured timely and efficient access to findings as the assessment proceeded. The 1-2 page summary followed the structure of the focus group discussion questions. At the end of each interview/focus

group discussion, the team checked that all tools were completed. At the end of each day, teams convened to go through all the tools to ensure they were filled correctly and rule out/confirm the need for follow-up interviews. The principal investigator cleaned, processed and synthesized the data in order to produce a report on the research findings.

Ethical considerations

Ethical approval was sought from the National Health Research Ethics Review Sub-Committee. Participation was voluntary, and signed informed consent was taken before each interview. Participants were assured of confidentiality and information collected did not record names of individuals. Approval to conduct this study was also sought from the President's Office for Regional Administration and Local Government, as was an introductory letter that introduced the research team to regional and district authorities. For school interviews, permission was sought from the relevant administration at regional and district levels. Selection of health facilities and schools was done by the respective authorities. Consent was generally signed by the school heads and students as well.

Assessment limitations

This assessment was conducted to assess barriers to adolescent health services, especially those experienced by disadvantaged subpopulations. During the literature review and expert consultations, it was noted that most similar studies looked at adolescents as a whole as a disadvantaged group. This assessment may be one of the earliest works set to define specific under-served groups and health barriers based on the Tanahashi framework.

The AHSBA handbook uses a combination of mixed methods in five modules with intermediate reports. Each module revealed findings that needed to be triangulated and prioritized by national experts and the consultants to define potential programmatic actions for the country. This exercise required consultation with experts with interest and expert knowledge not only on adolescent health issues but on barriers pertaining to those who are under-served. Often, such experts are faced with competing priorities.

Findings

The assessment used a mixed method study design including a literature review, data mining exercise and qualitative research. Detailed findings for each are presented as short reports in Annex 1 and 2 (literature review), Annex 3 (data mining) and Annex 4 (qualitative research). This main AHSBA report shows key findings after triangulation of the three short reports.

Size, geographic distribution and characteristics of under-served adolescent subpopulations

In 2017, estimates showed a total of 5.1 million children aged 7–17 years are out of school in the United Republic of Tanzania, including nearly 1.5 million of lower secondary school age (usually below age 17) (11). The 2015–2016 TDHS (which synthesized findings from the 2010 TDHS, the 2011–2012 HIV/AIDS and Malaria Indicator Survey, and the 2009 UNICEF Violence Against Children in Tanzania survey) indicates that 80% of Tanzanian adolescents aged 10–14 years live in rural areas, and one quarter of girls and one fifth of boys of the same age have neither parent in the household (5). Such factors may limit access to education and contribute to adolescents seeking alternative means of living, such as through domestic labour and child marriage. Among rural adolescents, school attendance in the early years of adolescence is similar for both genders; however, students, especially girls, begin to drop out at the age of 12, and the gender gap in attendance widens with increasing age (12).

As in other countries, adolescents in the United Republic of Tanzania engage in risky sexual behaviours. Lack of or limited access to health services places them at heightened risk from such behaviours, particularly under-served adolescents. According to national surveys and studies, access to and utilization of contraceptives as well as SRH education are limited among under-served adolescents. Many sexually active

adolescents have their sexual debut between the ages of 14 and 17 years (13). Girls have been shown to become sexually active earlier than boys (5, 13). A significantly higher proportion of males than females report having multiple partners, and less than half of sexually active adolescents report having used a condom during most recent sexual act (14, 15). Engagement in risky behaviours often results in unintended consequences such as unplanned pregnancies or sexually transmitted infections/HIV infection. A study in rural northern Tanzania showed that sexually transmitted infections were prevalent among half of rural adolescents who were pregnant (16). HIV prevalence among adolescent girls and young women (aged 15–24 years) is significantly higher (more than double) compared to males in the same age group (17).

This literature review found that disadvantaged adolescents can be grouped based on a range of sociodemographic factors: sex, health status, education, marital status, income status and geographic location, associated with inadequate access to resources and means to lead healthy and productive lives. Others include young people living with HIV and AIDS, young people with disabilities (deaf and visually impaired), school truants and casual labourers including food vendors and house maids (18).

The data mining exercise showed that adolescents are disadvantaged due to low socioeconomic status, including their education level, economic status and place of residence. The data mining exercise revealed that the fertility rate of adolescents living in urban areas has been decreasing since 1996; the rate of decrease was highest between 1999 and 2010, then the pace of decrease slowed to 2015. On the other hand, the fertility rate of adolescents living in rural areas increased steeply from 1996 to 2004, decreased to 2010, then started increasing again to 2015 (see Annex 3, Fig. A3.1). Data consistently show higher fertility rates among adolescents living in rural areas compared to

their urban counterparts; moreover, the trend analysis reveals a widening gap. The data mining exercise further shows that over the years, the existing gap for education and economic status has decreased.

For all three programmatic areas being assessed – SRH, HIV care and treatment, and VMMC – findings of the qualitative study showed that under-served populations include: adolescents living in rural areas or far from health facilities; adolescents from low-income families; and adolescents who are out of school. In terms of access to SRH services, additional subpopulations reported to be disadvantaged include: younger adolescents (aged 10–14 years); unmarried adolescents; farmers; orphans; and in-school adolescents (both girls and boys, and boarding- and day-school students, who are disadvantaged in different ways). In terms of access to HIV care and treatment, additional disadvantaged subpopulations include older adolescents and in-school adolescents (both boarding- and day-school students). In terms of access to VMMC, additional disadvantaged subpopulations include orphans and adolescents engaged in income-generating activities.

Adolescents living in rural areas or far from health facilities were under-served for several reasons. One reason is the existence of fewer health facilities in rural areas, which was reported in relation to VMMC services. Rural adolescents are often from households with a low socioeconomic status, and thus find it difficult to reach health facilities due to the long distances and transport costs involved; and on arrival, they are often faced with long waiting times. In addition, some adolescents living with HIV need to travel long distances to attend clinics, because parents will often register their child to a faraway clinic due to fear of stigma in the local community.

The assessment also found that boys and girls were disadvantaged in different ways. Boys were under-served due to lack of tailored SRH services in comparison to girls who are able to access reproductive health services through reproductive and child health clinics. On the other hand, younger girls (below 15 years) are disadvantaged as health providers often become judgmental and prescriptive regarding the type of services that younger adolescents should receive. In addition, parents do not provide adequate support for younger girls who want or need reproductive health services.

Similarly, younger and older boys were found to be disadvantaged in different ways. Young boys seeking VMMC services are challenged by the need to have parental consent. In addition, health providers may avoid discussions on important topics, such as use of condoms and masturbation, when counselling young adolescent boys. After circumcision, younger adolescents found it difficult to deal with wound care especially when parents (who are the immediate support providers) lack knowledge on post-circumcision care. On the other hand, older adolescents who feel mature (above 15 years) find it difficult to interact with female providers when accessing VMMC services, and prefer male providers.

Furthermore, both in-school and out-of-school adolescents were disadvantaged in different ways. In-school adolescents (in day or boarding schools) often do not find peers or providers to interact with on reproductive health issues, due to conflicting schedules between school hours and health facility operational hours. It was also noted that health care workers may present a negative attitude to girl students in uniform, especially when they seek family planning services. Adolescents whose clinic appointments and/or medications times coincide with their school programme may skip doses, leading to an increase in viral load. On the other hand, out-of-school adolescents were also reported to be disadvantaged, because it is difficult for them to access HIV prevention information.

Adolescents living with HIV face a number of challenges in accessing HIV care and treatment. More than half of children on ART do not properly adhere to their ART regimen. Living with a non-parent caregiver, having an unfavourable school environment, timing of the morning dose, treatment longevity, being unaware of HIV status, non-parental (biological) care, preference for traditional medicines (herbs) and forgetfulness were seen to be barriers to optimal adherence (19). Adolescents living with HIV also need to ask for permission from their teachers, to whom they may not have disclosed their HIV status. Those in boarding school also find it difficult to take medication regularly and, at the same time, experience fear that their peers will discover their HIV status. In most clinics, adolescents living with HIV end up receiving ARVs only and not the comprehensive package of health services (including psychosocial support and reproductive health education) that they need.

This results in poor ART adherence and low suppression of viral load, resulting in frequent morbidity and death especially among adolescent boys.

There are other groups of disadvantaged adolescents, such as orphans and those who are mentally challenged, that require additional support from guardians when seeking health services in general.

It should be acknowledged that the health services barriers assessment was not comprehensive: it focused only on a few disadvantaged/under-served adolescent subpopulations.

Main barriers to adolescent health services

The AHSBA found barriers to the provision of quality adolescent health services in all three of the programmatic areas – SRH, HIV care and treatment, and VMMC – being assessed. It was noted that the number of health care workers providing adolescent-friendly services is inadequate, and that those few who are available face heavy workloads and competing priorities. Furthermore, not all available health workers are equipped with the knowledge and skills to provide adolescent-friendly services, especially to younger adolescents and older adolescent boys.

The necessary commodities for adolescent SRH services are not always available. This results in limited use of services, especially when clients are asked to pay for products that they were promised free of charge. Other important services are not available all of the time, including laboratory investigations for CD4 count and viral load for adolescents living with HIV; and even when available, the results turn-around time is not optimal.

Health-seeking behaviour among adolescents is also compromised by attitude of health care workers. Young girls find it difficult to request for condoms or other family planning commodities in public and private facilities because such demand is associated with promiscuity. This barrier is linked to cultural and religious beliefs in many societies in the United Republic of Tanzania.

Distance to health facility is also a barrier to services. Many adolescents, especially those in rural areas, incur transport costs to and from health facilities. Furthermore, when adolescents reach the health facilities, they often face long queues before they are attended.

Although information and education has been one of the national HIV priority responses for the past three decades in the United Republic of Tanzania, there are still myths and misconceptions surrounding reproductive health and HIV prevention services. Some young people expressed their disbelief in the safety and efficacy of condoms, while others associated male circumcision with superstitious practices. Parents, guardians, teachers, religious leaders and care providers play a role in escalating such misconceptions by imposing their values and cultural/religious beliefs on adolescents.

Adolescents using reproductive health and HIV services also face stigma and discrimination. An example reported by adolescents living with HIV is that they are registered to a faraway clinic, as their parents do not want them to be known by providers at nearby facilities. Many adolescents living with HIV have also not disclosed their status to their teachers, making it difficult to adhere to medication regimens and clinic visits.

Adolescents who attend health facilities seldom receive quality services. Long waiting times are not the only problem. A few adolescents mentioned incidences of sexual abuse by health providers and many described incidences of facing judgmental attitudes, particularly when they expressed a need for reproductive health services such as family planning. Adolescents living with HIV do not receive a comprehensive package of health services and also have to wait for a long time to receive their laboratory results such as viral load and CD4 count.

Key findings with respect to national adolescent health plans

Availability of adolescent SRH services

The assessment found a number of availability barriers to adolescent SRH services, including: lack or inadequate number of skilled health care workers; stock out of commodities and supplies; unavailability of adolescent-friendly services; low number of health facilities providing SRH services; condoms not fitting adolescents; and lack of life skills education (confidence, discipline, personal and interpersonal skills).

Lack of skilled health workers able to deliver adolescent-friendly services can deter adolescents from accessing needed and appropriate care.

“Skilled health care workers are not available in many health facilities. And even when they are available, they are not adequate. The reproductive and child health coordinator always requests us to support the training of health care workers on adolescent SRH service provision.”

National key informant, Dar es Salaam

There is also interruption of important commodities and supplies, including condoms. In 2016, only 120.7 million condoms (about half of needed condoms) were distributed (20). Stockout of contraceptive commodities was reported as a barrier to accessing contraception by some adolescents. In this context, an adolescent may set a time to visit a health facility, but on arrival find that commodities are unavailable. Therefore, adolescents who can afford to purchase contraceptives are forced to go and buy them elsewhere.

“We were at the health facility when we were told to contribute some money so the nurse can go buy Depo-Provera [from an out-of-facility location] for those who needed it, as it was out of stock.”

Adolescent girl, focus group discussion, Dar es Salaam

Some adolescent participants in focus group discussions reported that health services are available, however, they are not adolescent-friendly. In the United Republic of Tanzania, coverage of adolescent-friendly health services is low. Only 39% of staff providing family planning services have been trained in adolescent SRH (21).

Lack of tailored SRH services – other than condom provision – was one of the main availability barriers for adolescent boys. Adolescent boys are more affected by limited SRH services than girls. Adolescent-friendly services such counselling and life skills education, in addition to family planning and disease prevention services, would be an added incentive for boys to visit health facilities. Condoms are the only seemingly available service for boys, and these can be found in normal shops making it unnecessary to visit health facilities. On the other hand, girls have more family planning or contraception options, some of which are only available in health facilities.

“At least for girls, we can offer other life skills and family planning methods [condom, pills, injections]. Boys have only a few options for family planning [condom use], and therefore miss a lot of opportunities.”

Key informant interview, Dar es Salaam

Availability of HIV care and treatment services

All key informants agreed that adolescent HIV care and treatment services are generally available in the country. However, services are limited to the availability of infrastructure only, while adolescent-friendly services are not commonly available. Only a handful of skilled staff are available to provide appropriate HIV care that meets needs and standards for adolescents. The national HIV programme is finalizing a training package for adolescent HIV services, including psychosocial support training and a guide for health care workers who deal with adolescents living with HIV. Although clinic infrastructure is available, it does not meet standards for the provision of adolescent-friendly services. For example, in the Dar es Salaam region, only Mwananyamala care and treatment clinic has the required space while Kinondoni clinic has none.

“Most of our clinics are not friendly to adolescents, it’s only Mwananyamala where you will find enough space, cartoons and a kids’ playing area.”

Key informant interview, Dar es Salaam

Adolescents living with HIV who participated in the focus group discussions in Dar es Salaam mentioned that they have experienced stock outs of ARV drugs, which sometimes necessitates bi-weekly drug refills instead of monthly or bi-monthly visits.

“Sometimes the facility stocks out, or medications are few. As a result, we have to share a one-month dose between two people, which requires you to come back after a short time.”

Adolescent, focus group discussion, Dar es Salaam

Availability of VMMC services

Availability barriers related to VMMC services include: unavailability of health care workers or insufficient number of skilled health workers; limited number of health facilities; and stock outs of medications. Many VMMC providers are trained to offer a wide range of services, including HIV counselling and testing. However, limited competence and lack of skills needed to counsel younger clients makes it difficult for them to discuss complex sexual health information (e.g. HIV testing, condoms and masturbation) when counselling young adolescents (22).

In one of the key informant interviews, it was reported that health care workers are sometimes not available in health facilities to provide VMMC services due to being ill, being on vacation, going for further training, or going to provide outreach services in villages far from the health facility.

“...sometimes they [health care workers] are on vacation or ill, or in the campaigns, because we have many regions to provide VMMC services, so maybe four service providers have been taken to go to either Morogoro or Singida, and those four service providers have other duties at the facility. So clients are asked to come back the next day. Others are on duty at night.”

Key informant interview, Iringa, near Dar es Salaam

The other availability barrier reported was the inadequate number of health facilities able to provide VMMC services.

“Not all facilities are allowed to offer VMMC services. Some facilities do not meet the criteria, such as having a sterilizing machine.”

Key informant interview, Dar es Salaam

Accessibility of adolescent SRH services

In the United Republic of Tanzania and other sub-Saharan countries, long waiting times and non-friendly adolescent SRH services limit access to services and influence adolescent pregnancy rates (23, 24).

Key informant interviews and focus group discussions found that the main accessibility barriers reported by participants are the cost of family planning services or products, long waiting times and long distances to a health facility. Other barriers mentioned by participants include: need for consent/permission from parents; lack of information on where to get family planning services; health care workers forcing youth to seek family planning services from other health facilities; health care workers postponing giving adolescents family planning education; difficulties in visiting a health facility because they know a health care worker; and language barriers.

Long waiting times at health facilities was cited as an important obstacle to accessing care, and can result in some adolescents deciding to look for services elsewhere. In most sites where the study was conducted, adolescents opt for pharmacies as a reliable place for addressing their contraceptive needs. However, this is not a sustainable solution as adolescents incur costs for such care.

“I went to the health facility from morning to the afternoon without receiving any service. I decided to go to the pharmacy for contraceptives, where I did not spend a lot of time.”

Pregnant adolescent girl, focus group discussion, Lindi

Another key barrier to accessing SRH services that was reported was the cost of the service or products. Most adolescents do not have an income, which creates a challenge when they need to avail services.

“There is no free counselling in the health facilities, for instance, for an adolescent to be able to just pass by for counselling. As long as you want to see a doctor or counsellor, who are same person in our settings, you will have to pay for consultation. For those adolescents with no insurance cards, where will they get money just for counselling?”

Teacher, focus group discussion, Lindi

Being too young is also a barrier to accessing SRH services. Adolescents that are at ordinary level in secondary school (that is, younger adolescents) are denied such services. Those who are at an advanced level of secondary school, who are usually older than those at ordinary level, do not face the same problem.

“Advanced-level students here are provided with condoms, but not ordinary level.”

Female secondary school student, focus group discussion, Lindi

The requirement for parental consent for adolescents aged under 18 years to receive family planning services was also mentioned as a barrier.

“For below-18s to be given family planning items like loop or Depo-Provera is a challenge, as parents have to consent first.”

Key informant interview, Dar es Salaam

Accessibility of HIV care and treatment services

Accessibility barriers to HIV care and treatment found by the assessment include: transport costs, cost of services and long distances to a health facility. ART coverage, especially in rural areas, is uneven and far below the universal coverage target of 80%, in particular among young men (25). In the Tanzanian context, general health-seeking behaviour among men is low. In the context of HIV services, it is rare for a man even to go and get tested, while it is almost mandatory for pregnant women to be tested for prevention of mother-to-child transmission (26). Furthermore, rural residents – especially those with a low socioeconomic status – incur significant out-of-pocket costs when accessing health services, including transport costs to facilities. This often limits access to HIV services (27).

In many settings, provision of adolescent HIV care and treatment has been streamlined. Many clinics that provide services for adolescents living with HIV are held on Saturdays, so that both in-school and out-of-school adolescents can be accommodated. There is good coverage of hospitals and health facilities in townships and high-volume sites, especially in districts where implementing partners are working. National-level key informants reported that access to health services might be difficult for those in rural areas with low-volume health facilities and dispensaries.

Establishment of paediatric/adolescent clubs promotes access to HIV care and treatment. However, two of four key informants acknowledged that the mere set up of a Saturday clinic does not fulfil the expectation of providing adolescent-friendly services, due to inadequate number of skilled providers. Therefore, services received may only be general health services.

“Initially, on Saturdays, youth were to receive the full package, but it’s still a challenge for these youth to access all of them due to inadequate number of providers.”

Key informant interview, Dar es Salaam

In focus group discussions, all participants confirmed travelling costs were an important barrier to accessing care. This is also related to the distance covered while seeking care, as some adolescents reside far from their chosen care and treatment clinic owing to perceived stigma and disclosure issues. Participants in Mwanza quantified the distance walked to care services as up to one hour. This becomes an even more significant barrier when there is stock out of ARV drugs, which can necessitate adolescents going to the clinic twice in a week, as testified by a focus group participant.

“I am coming from Mbezi to Magomeni care and treatment clinic [in Dar es Salaam] with my mother, who lives at Mbagala. She has to come pick me up from school at Mbezi on my clinic days. It’s so costly when you come and you are told the stock is not enough, that you are only going to be given a dose of two weeks. Considering that the kinds of medications I’m taking are not available at Mbezi care and treatment clinic. For us to manage these costs, it would be good if we are given a dose for two months instead.”

Adolescent, focus group discussion, Dar es Salaam

The majority of participants of the two focus group discussions on HIV confirmed that only ARV drugs and doctors’ consultations were available free of charge. Other associated costs, such as laboratory tests, have to be paid for either in cash or through insurance at the care and treatment clinic. Most adolescents cannot afford these costs and parents do not understand the importance of health insurance.

“Health insurance is important to have, although our parents are not convinced on spending money on the insurance, claiming that we might get ill only once a year or not at all.”

Adolescent, focus group discussion, Dar es Salaam

Accessibility of VMMC services

Accessibility barriers to VMMC services were reported by a minority of participants. Barriers include: long distance to a health facility; inability to postpone work to go for VMMC; need for parental consent for adolescents aged under 18 years; and the cost of care. Time is a limiting factor for adolescents engaged in income-generating activities, who find it hard to postpone going to work and getting an income to instead receive circumcision at a health facility.

“Many of the adolescents in the village who have started their own income-generating activities...look at the opportunity cost if he uses the services. He should be careful that he should not disturb the wound, to go back to the facility two days after the surgery and on the seventh day to go for check-up...Also, if he does hard manual work, he will be told to avoid doing that hard manual work for about 48 hours to avoid disturbing the wound. He is then asked to come back for check-up and he may be asked to wait for seven days before going back to his work.”

Key informant interview, Dar es Salaam

The requirement for parental consent for adolescent boys aged under 18 years to receive VMMC services was also mentioned as a barrier.

“Under-18 adolescents are considered as minors. They are allowed to provide assent but not consent. Consent must come from a parent or guardian.”

Key informant interview, Dar es Salaam

Acceptability of adolescent SRH services

Acceptability barriers to SRH services include stigma, lack of privacy and lack of confidentiality. A number of adolescents find family planning services unacceptable due to stigma and lack of privacy in clinics, which discourage young females from seeking reproductive health care (28). Reproductive health services and family planning in particular have also been found to

be unacceptable due to lack of privacy, confidentiality and equipment, as well as negative attitudes of service providers (29).

Lack of privacy was reported as a barrier by the majority of key informants and focus group participants. Limited privacy becomes an issue when a consultation room has more than one service provider working at the same time.

“Visiting at the health facility for care and finding a consultation room with more than one doctor, it’s real hard for a youth to open up.”

Adolescent girl, focus group discussion

Self-stigma among adolescents is also a barrier to acceptability; respondents reported that they worry about being judged by other people when they seek SRH services.

“Other people are asking themselves, like, how will people judge me if I am seen at the health facility testing for HIV or requesting contraceptives?”

Secondary school girl student, focus group discussion, Lindi

Some adolescents feel insecure with regards to confidentiality. If a family member is friends with the health provider, it poses a challenge to those adolescents who intend to access services in the same health facility.

“Parents being friends with health care providers creates a sense of insecurity to this youth going back to the same health facility to access family planning services.”

Adolescent girl, focus group discussion

Acceptability of HIV care and treatment services

Care-seeking behaviour of children and adolescents is influenced by the attitude of their parents. Most children are introduced to HIV care and treatment services by their parents or caregivers. Quality of care of adolescents living with HIV is compromised by late enrolment into treatment, by when many may be at an advanced stage of disease (30). Furthermore, parental disclosure of a child’s HIV status to the child, which is known to support ART uptake and adherence, is affected by factors such as the age of the child, the caregiver’s knowledge about HIV status, and household income (31).

All key informants and focus group participants agreed that HIV care and treatment services are acceptable to targeted clients. However, in rural areas, there are also myths and misconceptions that derail the intended objectives of the HIV programme.

“The first thing that a parent does when a child falls sick is to consult a traditional healer, it’s all about traditional medicine, and rituals are performed when a woman gives birth, or when a child succeeds in his primary exams to join the secondary school.”

Key informant interview, Mwanza

Although there is general improvement in the attitude of service providers compared to the past, there are still some judgmental elements or failure to respond to adolescents’ needs. For example, adolescent concerns about privacy and confidentiality may not be fully respected. This barrier was reported by three of the four key informants interviewed.

“As puberty approaches, adolescents become more concerned about their privacy – they might have fear, and when they go to services, they need prompt individualized services, they don’t want to wait for a long time.”

National key informant

Acceptability of VMMC services

Many adolescents reported a desire for circumcision. Motivation among adolescents comes from peer advice, and knowledge about protection against HIV and other sexually transmitted infections (32, 33). Parents are also involved in supporting adolescents, although they lack information on VMMC and wound care because most have not attended counselling sessions (34, 35).

Although acceptance for VMMC is high, myths and misconceptions were also reported. Some focus group participants mentioned that there is a community perception that the prepuce is taken and used in superstitious rituals; as a result, adolescents may not want to be circumcised. Some adolescent boys worry that their penile size might shrink, while others have misconceptions around becoming impotent. Some communities prefer the traditional method of circumcision rather than the medical one, due to concepts around masculinity.

In some health facilities, lack of privacy was reported as a barrier to VMMC services. This is due to infrastructure challenges, whereby lack of adequate space or rooms denies clients privacy and, therefore, threatens service delivery in general. During campaigns, there is little privacy in the provision of VMMC services due to the use of halls that have been partially partitioned.

“Privacy is an issue. It is about the infrastructure. You may find that the room in which VMMC services are provided is bordered by a place where other clients waiting for other services are seated... overall, for younger adolescents, 10 to 14 years old, it has never come up as a barrier, but it is an issue for older ones aged 18 to 19 years. The older adolescent may say...how can I go there where children and women are sat and everyone knows that I am going there for VMMC services?”

Key informant interview, Dar es Salaam

Contact/use of adolescent SRH services

The assessment identified several contact/use barriers to SRH services, including: myths and misconceptions; lack of support from community, including parents and caregivers, for provision of SRH services to adolescents; cultural and religious barriers; stigma and discrimination of parents, elders and/or the community that adolescents are not supposed to engage in sex because they are too young; discrimination and lack of respect by health workers; shyness on the part of adolescents; lack of transparency by parents on SRH issues; beliefs that boys are the ones who decide on the use of condoms; and issues of trust.

Despite decades of contraception promotion in the United Republic of Tanzania, contraceptive use – and in particular condom use – is still the subject of myths and misconceptions. Even among older educated adolescents and young women with knowledge of contraceptives, use of modern contraceptives is low (36, 37). Perceptions in the community that family planning is inappropriate for girls aged 10–18 years, and misconceptions about contraceptives, prevent adolescents from contacting and using services which are available, accessible and acceptable to them (22, 29). Many rural adolescents still express reservations about the quality of condoms and believe rumours, such as condoms having worms (38). Some adolescents also view condoms as ineffective for preventing sexually transmitted infections and pregnancies, and unnecessary for those in committed relationships (28). In two rural settings, young sexually inactive adolescents disapproved of condom promotion and distribution; they reported feeling uncomfortable being seen by parents/guardians buying or holding condoms. The same group questioned whether condoms offer protection against HIV/AIDS infections. In these settings, condoms are mainly accepted by older sexually active adolescents aged 15 and above (39). Such misconceptions were also reported during the focus group discussions.

“Condoms are not safe as the lubricant on it causes itching and discomfort, moreover most youth have the notion that condom reduces the level of pleasure.”

*Secondary school girl student,
focus group discussion, Lindi*

In a study conducted in rural districts in northern Tanzania, close-to-community providers – who are usually regarded as potential condom distributors – expressed an unwillingness to provide condom services to adolescents, and were prejudiced against adolescents using them (30).

Adolescent girls reported failure to seek and use condoms because of fear of experiencing non-consensual sex, perceptions that condoms reduce sexual pleasure, and inability to negotiate with their partner to use a condom (40). Gender disparity and unfavourable sociocultural practices may create barriers to accessing adolescent SRH services and rights (29). Although their magnitude is decreasing, religious and cultural practices still pose a barrier to access of family planning services (41). Also gender norms and peer pressure, which make boys want to demonstrate masculine norms, may inhibit them from discussing correct and consistent condoms use with providers or sexual partners (42).

Religious norms were reported as a barrier to effective use of contraceptives. Some religions do not allow the use of family planning methods. Parents and health care workers who hold these beliefs pose a great barrier to the use of reproductive health services by adolescents.

“Most of the religious teachings do not accept contraceptives, as they trigger sexual debut and are associated with promiscuity.”

Adolescent boy, focus group discussion, Lindi

Some member of the community do not support the provision of SRH services to adolescents. This is because of the social expectation that adolescents should not engage in sexual activity and should abstain from sex. This is expressed by elders in the community and by some of the adolescents themselves.

“Youth below 15 years should be taught on abstinence as most of them are planning for their futures, while those above 15 years should be taught about family planning methods as most of them are likely to be out of schools.”

Adolescent boy, focus group discussion, Lindi

Contact/use of HIV care and treatment services

For HIV care and services for adolescents, the assessment found that young- (below 14 years) and late-adolescent age groups are at increased risk of late diagnosis and late ART initiation, as well as loss of continuity of care and early death. Male adolescents are more likely to die early (43, 44). Furthermore, adolescents living with HIV reported difficulties coming to terms with their HIV diagnosis and espoused related feelings of self-blame. They are also affected by psychosocial challenges, including: loss of one or more parent; chronic domestic abuse; financial stress that restricts access to medical care and education; and high levels of internalized and community stigma among peers and other social contacts (45, 46).

Nondisclosure was mentioned as the main barrier to use of ART in key informant interviews. Lack of appropriate disclosure makes adherence to ART regimens difficult.

“Most of the disclosures are accidental and may happen when an adolescent is at the age of 15. The protocol is for the health care workers to empower the caregiver, and then caregiver to work with health care worker to disclose to the child.”

National key informant

Contact/use of VMMC services

Contact/use barriers to VMMC services found by the assessment include shyness, fear of pain due to the operation, and the unavailability of a caregiver to provide wound care after circumcision. Although the majority of adolescent boys use VMMC services, barriers and gaps in service provision remain related to self-imposed feelings of shame, fear of pain associated with the VMMC procedure, and a desire for elements of traditional non-medical circumcision methods to be integrated into medical procedures (47).

Shyness was reported as a barrier to VMMC services, and is mainly experienced by older and mature adolescents. They feel shy about receiving services from a female health care worker or one whom they know, or going to receive services in health facility room situated close to waiting areas where many women and children

are seated. This is also a problem for some adolescent boys who were not circumcised when they were young or delayed the procedure.

“An adolescent feels shy to receive VMMC service where there are many people at the site and they know that he is going to get that service...Also, many of our service providers are women [they feel shy to receive the service from a female service provider]...also, older adolescents think...people will be surprised that where was I [when he was younger] that that I get VMMC service now...until this age you were not circumcised.”

Key informant interview, Dar es Salaam

Effectiveness of adolescent SRH services

Regular use of contraceptives is a challenge for adolescents. Some adolescents forget to follow the instructions on the use of contraceptives, or forget the calendar day on which they are supposed to receive contraceptives. In most settings, school schedules intersect with clinic hours making it hard for in-school adolescents to attend or adhere to the given schedules.

Young people face challenges in accessing reproductive health services. A study in rural Tanzania found that health workers discouraged young people from using commodities such as condoms and family planning methods (48). Furthermore, provider and parent reluctance to discuss comprehensive sex education is likely to prohibit the provision of explicit guidance to young people on contraceptive use (48, 49).

During the qualitative assessment, some adolescents reported incidences of sexual abuse by service providers. This was mentioned by three girls in focus group discussions in three different locations. Such evidence from service users or their friends suggests to girls that this is a common threat, and therefore is a strong barrier to them accessing such interventions.

“...there is this private hospital where a young girl was raped during consultation.”

Secondary school girl, focus group discussion, Lindi

Furthermore, the operational hours of facilities was a barrier to adolescents accessing SRH services, especially among those attending classes as clinics hours coincide with class sessions.

It was reported that some health care workers have negative attitudes towards students, especially when they visit health facilities wearing their school uniforms. It is culturally unacceptable for students in uniforms to be perceived as if they have started sexual intercourse. Under this norm, they are often denied needed services such as contraceptives. Furthermore, parents do not support their adolescent children receiving such services. These barriers were mainly experienced by young girls (aged under 15 years).

“Health care workers are saying youth are too young to use family planning methods, as they may cause cervical cancer and odd discharges.”

Adolescent girl, focus group discussion

Effectiveness of HIV care and treatment services

Adolescents living with HIV are more affected by depression compared to their non-infected peers. They may also suffer from other mental health issues, which are usually associated with incomplete adherence and stigma (50). Adherence to ARV drugs among adolescents is suboptimal. As a result of low adherence and attrition, adolescents have been found to have limited immunological response (51). In addition, virologic failure rates in children and adolescents living in rural areas of the country have been found to be high, with the majority of ART-failing children harbouring HIV-drug resistance-associated mutations (52).

Participants of focus group discussions complained about the delay in receiving results of routine diagnostics. Specifically, the turnaround time for viral load and CD4 results remains a barrier. The care and treatment clinics also lack adolescent-friendly services tailored to those living with HIV, including SRH services. Regarding delays in receiving test results, participants of a focus group in Dar es Salaam explained:

“Results for CD4 and viral loads come back late and we wish to know our status as early as possible.”

A key informant also revealed that medication fatigue, number of pills for those who still use multiple drugs, and side-effects for those using second-line ARV drugs, contributes to non-adherence.

“He said he gave up because they were making him tired and have nightmares. He also didn’t want his friends to notice that he was taking certain medication every day at the same time – they started to question why he was taking drugs at the same time – do you have HIV?”

Key informant interview

Effectiveness of VMMC services

Barriers to effectiveness of VMMC services include: long waiting times, challenges faced by students in getting permission for VMMC services, lack of skills of some providers on managing complications, and inability of adolescents to adhere to post VMMC medical recommendations.

One of the reasons given for long waiting times was health care workers delaying the start time of service provision due to being in morning meetings, or health care workers being involved in other tasks.

“Sometimes long waiting time is a barrier when health care workers are caught up with other tasks.”

Key informant interview, Singida

Adolescents still face challenges regarding post-circumcision wound care owing to factors such as forgetting, misinterpreting and disregarding provider instructions. A multi-country study revealed that older adolescents report ignoring symptoms of infection and not returning to the clinic for review when an adverse event had occurred (35). Young adolescents are less likely to be adequately counselled on identification of complications, what to do if they arise, and why to abstain from sex or masturbation (33, 53).

Notable results differences between the methods

There were four notable differences between the findings of national key informant interviews, the literature review, the data mining exercise and the subnational qualitative research. First, although the literature review shows that VMMC services are available and accessible to adolescents, focus group discussions with adolescents revealed significant access barriers to services. Most VMMC services are delivered through campaigns, and therefore adolescent boys engaged in income-generating activities find it difficult to forego days at work for circumcision and post-operative wound care. Similarly, in-school adolescents need to get permission to undergo circumcision and to have time off for post-circumcision care. In addition, there are long queues and inadequate provision of counselling during campaign sessions.

“Many of the adolescents in the village who have started their own income-generating activities, their investment is their manpower. They look at the opportunity cost that if he uses the services, he should be careful that he should not disturb the wound, and also the adolescent thinks he wastes time by not working.”

Key informant interview

Secondly, the literature review noted that national policy and guidance materials indicate that adolescent-friendly health services are provided free of charge. However, although all family planning commodities, ARV drugs and condoms are available for free in public health facilities, adolescents frequently incur additional costs when accessing these services. There are episodes of stock outs of family planning commodities that necessitate those who need the services to buy from chemists/pharmacies. A focus group participant in Dar es Salaam gave an example where the service provider suggested that those who needed Depo-Provera should make a financial contribution. For ARV drugs, adolescents may incur transport costs in having to refill their prescription bi-weekly instead of monthly or bi-monthly; other potential costs relate to additional investigations necessary for follow up.

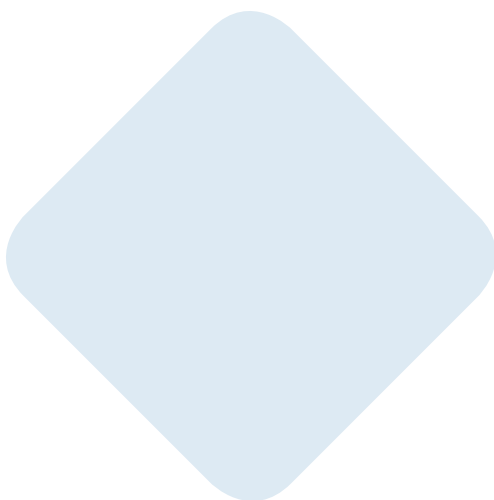
Thirdly, although it is documented that HIV care and treatment services are available, the quality of services being offered was found to be inadequate. Participants of focus group discussions complained about the delay in receiving results of routine diagnostics; specifically, the turnaround time for viral load and CD4 results remains a barrier. The care and treatment clinics also lack adolescent-friendly services tailored to those living with HIV, including SRH services.

Fourthly, the assessment found that although literature provides a clear definition of adolescent-friendly services, there are differences in implementation. During the qualitative research, it was noted that there is good coverage of hospitals and health facilities in townships and high-volume sites, especially in districts where implementing partners are working.

National-level key informants mentioned that access to health services might be difficult for those in rural areas with low-volume facilities and dispensaries. The establishment of pediatric/adolescent clubs promotes access to care. However, half of key informants who were interviewed on this subject acknowledged that due to insufficient numbers of skilled providers the type of services offered were inadequate.

“The overall performance of the country is fair. For it to be very good, the environment has got to be as good as what is seen in Baylor – at Bugando Hospital. That is the best practice, it’s in line with guidelines. There are children’s games, psychologists, and so on.”

Key informant, Mwanza



Conclusions and potential actions

The United Republic of Tanzania has taken important steps to align national strategies and guidelines toward improving adolescents' SRH services. However, this AHSBA shows that there are many barriers to effective SRH services for adolescents, especially among disadvantaged groups, in all five of the Tanahashi dimensions of health service coverage. To a varying degree, these barriers exist in all three types of adolescent health service examined in this assessment.

Access to family planning and HIV prevention is largely limited by availability of adolescent-friendly SRH services and, in particular, negative attitudes of providers towards young people especially girls. Adolescents living in rural areas and those who are out-of-school are most affected. Young girls who are not pregnant have limited access to and utilization of SRH services. This calls for an aggressive scale-up of adolescent SRH services, which should include building skills of facility and community-based providers in provision of adolescent-friendly SRH services.

Reproductive health care for adolescent girls who are not pregnant is very limited due to low knowledge, skills and willingness of providers, parents and caregivers to support provision of family planning services among adolescents. Adolescents in rural settings are less likely to access and use family planning services compared to those in urban settings. Younger adolescents also find it difficult to buy or request free condoms, due to feeling shy or scared of being judged. Myths and misconceptions on effectiveness of condoms still prevails among rural adolescents. Selective condom use is also a common practice among male adolescents with knowledge and intention to use condoms.

It is therefore recommended that SRH education should be addressed through a multisectoral approach including the education sector, health sector and public and private institutions. The needs of adolescents cannot be met by the available health services alone. There is strong justification for communities, religious

institutions and schools to play a part in advancing SRH education for adolescents. It is also important to improve the skills of available providers at health facilities in order to equip them with adequate knowledge and skills for provision of adolescent-friendly SRH services. Adolescent-friendly services should consider age-appropriateness and gender dimensions which are important in defining the quality of services to be provided.

Provision of adolescent HIV care and treatment services is limited by low coverage of tailored adolescent HIV care and treatment. Low adherence, high attrition and high mortality rates raise concerns about the effectiveness of services for those who are already enrolled to care. Specific needs of adolescents living with HIV need to be addressed based on age- and gender-sensitive interventions including adolescent-friendly clinics, differentiated service delivery, involvement of parents and peer support. Quality of adolescent HIV care and treatment services should also be improved. There are many adolescent-specific services needed by those living with HIV that are currently not provided within the care and treatment settings. These include psychosocial support, reproductive health and family planning services, and mental health, among others.

Male adolescents have limited access to HIV care due to low health-seeking behaviour, norms and cultural practices. Adherence to care among adolescents living with HIV appears to be a challenge, as there are problems related to disclosure of HIV-positive status which impacts treatment adherence. There are also inadequate adolescent-friendly HIV services, and a limited number of peer support groups. Health services for adolescents living with HIV need to be strengthened by creating demand for adolescent services and increasing capacity for provision of friendly and comprehensive services for adolescents. In order to provide quality services for adolescents, peer models such as adolescent/paediatric clubs should be scaled up.

It is also important to involve teachers and promote disclosure of adolescents' HIV status to teachers. Since adherence has been found to be a challenge, the HIV programme should continue to find evidence on remaining challenges facing adolescents who are already on ART and ways to improve adherence to medication. One key element to be considered is scaling up of the recommended WHO package for adolescents living with HIV, which covers health needs of adolescents beyond HIV care. Furthermore, community-level initiatives that address stigma and provide social protection to under-served adolescents, such as the Tanzania Social Action Fund (TASAF), should be scaled up.

The United Republic of Tanzania is one of the VMMC priority countries that has made considerable progress in scale-up. This assessment found the uptake of VMMC services among adolescents to be optimal. However, the challenges in delivering comprehensive VMMC services especially among younger adolescents is a gap that requires programmatic response. Existing gaps related to quality of VMMC services for adolescents need to be addressed using the recommended WHO adolescent health package. Special attention should be paid to younger adolescents through enhancing providers' knowledge and skills, while also involving parents and guardians. There is also a need to build on the gains of the VMMC programme by increasing the number of health facilities that provide VMMC and early infant male circumcision services in targeted regions. This strategy will ensure sustainability. Ongoing efforts to achieve national targets should target rural areas that have not been reached, and also consider timing campaign events during school holidays and post-harvest seasons. Available funding should also be used to strengthen static sites, and ensure that services are provided throughout the year.

In defining potential actions for the country, the research team consolidated recommendations from the qualitative research and the literature review. These recommendations, in each of the three priority health service areas, were presented to the National Technical Working Group. The consultants reviewed the list of recommendations and suggested potential actions for each programmatic area.

Potential actions for programmatic areas

Sexual and reproductive health (SRH)

- Increase number (coverage) of health facilities providing adolescent-friendly SRH services.
- Increase flexibility of SRH clinics to accommodate schedules of in-school adolescents e.g. offer services during the evenings or during weekends.
- Sensitize health workers on need to pay attention to the reproductive needs of both young and older adolescents, as per national guidelines.
- Incentivize health workers based on performance, using existing mechanisms such as results-based financing. Adolescent health indicators should be added into results-based financing.
- Establish a mechanism to report, investigate and take disciplinary measures against providers identified to have engaged in misconduct, as per national laws and regulations.
- Build capacity of civil society organizations to scale up community sensitization activities that engage parents in adolescent SRH issues.
- Involve village/community leaders, religious leaders and other influential people in SRH advocacy and sensitization activities.
- Build capacity of teachers and schools to formulate and support adolescent SRH clubs for males and females in schools.
- Strengthen age-appropriate and context-specific reproductive health and family planning education in schools.
- Use mass media, including social media and mHealth technology, to address SRH issues for adolescents and create demand for services.
- Councils working with implementing partners to design strategies/incentives to improve boys' access to SRH services.
- Expand access to condoms and other family planning products beyond health facility settings by strengthening capacity of other outlets, such as pharmacies and other vendors.
- Increase the number of providers (nurses) with skills to provide a variety of family planning methods, including intrauterine contraceptive devices and implants, through pre- and in-service training.
- Strengthen security of family planning commodities, including supply chain management.

- Councils working with implementing partners to conduct SRH camps in rural health facilities and communities, based on needs.
- Introduce family planning support groups and mHealth reminders for adolescents using scheduled contraceptive methods such as pills.
- Young adolescents (aged under 15 years) should be allowed to access and use SRH services without parental consent, as per national guidelines.
- Introduce targeted life-planning skills for under-served girls and boys aiming at improving their self-confidence and ability to make informed and rational decisions.
- Address norms and attitudes toward gender inequality (boys and girls).
- Ensure adequate supply of medications to avoid stock out of ARV drugs and avoid unnecessary traveling costs.
- Provide multi-month ART refills for the following groups: adolescents in boarding schools; adolescents from households with low socioeconomic status who face transportation costs; adolescents in rural areas far from health facilities; adolescents registered in far-off facilities; adolescents who are working and may not find time for monthly visits.
- Address food insecurity facing under-served adolescents using practical community social protection means, such as the Tanzania Social Action Fund (TASAF).

HIV care and treatment

- Create demand for adolescent HIV services through engaging civil society organizations in increasing awareness and access to HIV testing, targeting adolescents in schools and communities.
- Scale up peer models (such as adolescent clubs) and use social media to engage and support adolescents living with HIV.
- Promote disclosure of adolescents' HIV status to teachers (school counsellors) to ease permission to access routine health services.
- Involve teachers in counselling students living with HIV on ART adherence.
- Inform teachers on clinic appointment dates.
- Scale up recommended WHO and national training packages to increase the number of health workers trained in providing adolescent-friendly HIV services.
- Use evidence-based methods to address key issues such as low uptake of HIV testing, late ART initiation, and inadequate viral suppression among disadvantaged groups.
- Scale up counselling and peer support through telephone calls (helpline services).
- Expand and renovate existing care and treatment clinics to accommodate space for provision of adolescent-friendly services.
- Counsel adolescents/parents to attend clinics nearby their residence to improve attendance and reduce costs for transport.
- Minimize waiting times at care and treatment clinics.
- Increase the number of static health facilities providing VMMC and early infant male circumcision services in targeted regions.
- Integrate VMMC services into the general health services package.
- Address the myths and misconceptions around VMMC services through existing communication channels and by using champions.
- Scale-up VMMC outreach services to target rural villages.
- Improve the process of obtaining parental consent by using modalities that do not necessitate physical presence of the parent; for example, community health workers obtaining consent at home.
- Increase flexibility of VMMC services for clients in terms of providers' gender (male versus female), time for the procedure, and a health facility of choice.
- Engage parents, guardians and service providers to provide post-circumcision care to young adolescents and those who are mentally challenged.
- Consider alternative methods of consent for orphaned adolescents and those who are mentally challenged.
- Expand the scope of VMMC counselling to include other SRH issues, such as HIV/AIDS, psychosocial services, and so on.
- Councils and implementing partners should plan for VMMC campaigns during school holidays and post-harvest seasons.

Voluntary medical male circumcision (VMMC)

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Annex 1.

Adolescent subpopulation and barrier findings, by type of health service

Type of health service	Findings of the literature review		Main potential solution(s) suggested
	Under-served adolescent subpopulation	Main barrier(s) to health service	
General	1. In-school adolescents	<ul style="list-style-type: none"> Lack of time to visit health facility (school and facility operational hours clash) Lack of services at schools 	<ul style="list-style-type: none"> Improve awareness of parents and teachers on adolescent needs Provide services in schools
	2. Orphan adolescents	<ul style="list-style-type: none"> Lack a guardian to assist them to reach services 	<ul style="list-style-type: none"> Provide tailored serviced for orphans or adolescents who cannot be accompanied or taken to health services by guardians or caregivers
	3. Out-of-school adolescents	<ul style="list-style-type: none"> Lack of income to enable them to access services Limited ability to analyse information (compared to those in school) 	<ul style="list-style-type: none"> Assist youths to find income-generating activities
	4. Adolescents with disabilities	<ul style="list-style-type: none"> Infrastructure is not disability-friendly Hidden by their parents 	<ul style="list-style-type: none"> Increase efforts to improve infrastructure Provide education to parents on need for children with disabilities to access health care
	5. Girls	<ul style="list-style-type: none"> Lack a say in relationships 	<ul style="list-style-type: none"> Train girls in negotiation skills
	6. Sexually active adolescents	<ul style="list-style-type: none"> Lack of money to buy condoms 	<ul style="list-style-type: none"> Encourage citizens to join insurance schemes
SRH	1. Boys	<ul style="list-style-type: none"> Lack of tailored SRH services Lack of life-skills education 	<ul style="list-style-type: none"> Scale up boys clubs Scale up adolescent-friendly services Provide more SRH interventions for boys, improve contact with health services
	2. Young girls (aged under 15 years)	<ul style="list-style-type: none"> Health workers deny services Lack of parental support Poor implementation of national guidelines Fear of accessing services 	<ul style="list-style-type: none"> Enhance adherence to national guidelines Enhance knowledge and skills of health workers Provide incentives to health workers Community sensitization to engage parents in adolescent SRH issues
	3. In-school adolescents	<ul style="list-style-type: none"> Lack of life-skills curriculum in schools Clash between school and health facility operational hours Social expectations of students in sex-related matters Health workers' attitude towards students, especially when they visit facilities in uniform 	<ul style="list-style-type: none"> Increase parents involvement/engagement Involve health workers in school sessions Accommodate school schedules in health facility working hours Take a multisectoral approach to SRH (both health and education ministries) Train teachers on SRH to support girls and boys clubs

Type of health service	Findings of the literature review		Main potential solution(s) suggested
	Under-served adolescent subpopulation	Main barrier(s) to health service	
SRH	4. Adolescents living far from health facilities	<ul style="list-style-type: none"> • Long distance to facilities • Time and traveling costs • Sets a time to visit health facility, but finds stock out of commodities 	<ul style="list-style-type: none"> • Improve outlets other than health facilities e.g. pharmacies and other shops for condoms • Ensure there are enough outlets at district level • Provide community outreach services • Increase number of adolescent-friendly services • Designate space and improve flexibility of operating hours in health facilities • Increase number of trained providers on SRH in health facilities and for specific services • Implementing partners to conduct SRH camps in rural facilities and communities, based on needs and service availability • Decentralize stocks to facility level • Provide services to specific adolescent age groups
	5. Adolescents with disabilities	<ul style="list-style-type: none"> • Difficulty in travelling to health facilities 	<ul style="list-style-type: none"> • Provide community outreach services • Engage parents to ensure their child gets the services s/he needs
	6. Adolescents in rural areas	<ul style="list-style-type: none"> • Lower availability of health facilities, services and health workforce 	
	7. Younger adolescents	<ul style="list-style-type: none"> • Fear of accessing health services • Needs are not recognized(perception that they are still too young for SRH services) 	<ul style="list-style-type: none"> • Increase community involvement
	8. Out-of-school adolescents	<ul style="list-style-type: none"> • Limited sources of information 	<ul style="list-style-type: none"> • Introduced and implement life-skills interventions to empower those unable to continue with studies
	9. Adolescents from low-income families	<ul style="list-style-type: none"> • Cannot afford health services 	<ul style="list-style-type: none"> • Community sensitization to engage parents/ community in supporting adolescents on SRH issues • Small loans and entrepreneurship skills to support parents to accommodate health costs for children
		Accessibility	<ul style="list-style-type: none"> • Promote citizens joining of insurance schemes
		<ul style="list-style-type: none"> • Adolescents lack money to buy contraceptives 	
		Use	<ul style="list-style-type: none"> • Create support groups for specific scheduled contraceptive methods
<ul style="list-style-type: none"> • Forget to adhere to calendar schedules 			
<ul style="list-style-type: none"> • Do not follow instructions on contraceptive use 	<ul style="list-style-type: none"> • Educate adolescents on adhering to instructions on condom use 		
<ul style="list-style-type: none"> • Condoms do not fit adolescents' sexual organs 	<ul style="list-style-type: none"> • Need to produce condoms that fit adolescents' sexual organs 		

Type of health service	Findings of the literature review		Main potential solution(s) suggested
	Under-served adolescent subpopulation	Main barrier(s) to health service	
HIV care and treatment	1. Boarding school students	<ul style="list-style-type: none"> • Long distance to care and treatment clinics • Traveling costs • Nondisclosure to teachers, therefore lack permission 	<ul style="list-style-type: none"> • Encourage registration at the nearest clinic • Promote disclosure to teachers (who should be trained on HIV)
	2. Adolescents experiencing stigma and self-stigma	<ul style="list-style-type: none"> • Time and traveling costs (opt to attend far-off clinics) • Disclosure issues, especially to teachers and immediate family members 	<ul style="list-style-type: none"> • Promote disclosure of HIV status • Increase stigma reduction interventions, e.g. advocacy, integration in workforce, community sensitization
	3. Boys	<ul style="list-style-type: none"> • Boys receive only ARV drugs and not other services 	<ul style="list-style-type: none"> • Re-package adolescent HIV services to include services other than ART e.g. life skills, entrepreneurship training, sports etc. • Promote boys clubs
	4. Adolescents not attending youth groups	<ul style="list-style-type: none"> • Denied peer support • Poor adherence to medication and clinic visits • Lack group opportunities 	<ul style="list-style-type: none"> • Design/form adolescent groups based on their interests • Strengthen youth groups e.g. incentives, spaces, fares, foods, sports • Provide mentors and counsellors • Sensitize parents to encourage youth to join in clubs/groups
	5. Adolescents in rural areas	<ul style="list-style-type: none"> • Few health facilities 	<ul style="list-style-type: none"> • Increase number of health facilities
	6. Out-of-school adolescents	<ul style="list-style-type: none"> • Lack of information • Lack of income-generating activities 	<ul style="list-style-type: none"> • Provide more and better information • Adolescents should be economically empowered
	7. Adolescents living far from health facilities	<ul style="list-style-type: none"> • Long distance and transport costs 	<ul style="list-style-type: none"> • Cover traveling costs for those living far from facilities
		<p>Availability</p> <ul style="list-style-type: none"> • Stock outs of specific medications • Turn-around time of viral load and CD4 results • Lack of integration of SRH/family planning services in care and treatment clinics • Small spaces for youth activities • Low number of health workers • Lack of entertainment at health facilities 	<ul style="list-style-type: none"> • Assess actual demand to rectify stockouts • Decentralize diagnostics to district levels • Initiate SRH services and ensure availability of counsellors • Create adolescent-friendly spaces separate to existing spaces • Increase number of health workers • Provide sports ground and equipment at health facilities
	8. High-risk adolescents (those who use drugs, engage in transactional sex)	<ul style="list-style-type: none"> • Do not receive some services, e.g. pre-exposure prophylaxis 	<ul style="list-style-type: none"> • expand adolescents tailored services according to their needs
	9. Adolescents from low-income families	<ul style="list-style-type: none"> • Lack of food 	<ul style="list-style-type: none"> • Supply food to those from poor households
	<p>Access</p> <ul style="list-style-type: none"> • Cost of other services • Lack of transport fares 	<ul style="list-style-type: none"> • Integrate other services in care and treatment clinics • Provide at least 2-month dose to those unable to afford transport costs 	

Type of health service	Findings of the literature review		Main potential solution(s) suggested
	Under-served adolescent subpopulation	Main barrier(s) to health service	
HIV care and treatment		Acceptability <ul style="list-style-type: none"> Sometimes health workers are unfriendly 	<ul style="list-style-type: none"> Improve health workers' communication skills, including using adolescent-friendly language
		Use <ul style="list-style-type: none"> Forget to take medications 	<ul style="list-style-type: none"> Promote peer-support groups so adolescents remind each other Promote early disclosure to adolescents and immediate family members
VMMC	1. Adolescents aged 15 years and above	<ul style="list-style-type: none"> Shyness due physical maturity (around female service providers), or knowing service providers 	<ul style="list-style-type: none"> VIP services: client can choose day of service, service provider, an alternative health facility
	2. Adolescents aged under 18 years	<ul style="list-style-type: none"> Unavailability of parents to provide consent 	<ul style="list-style-type: none"> Take the process of consent to parents e.g. at the home
	3. Adolescents engaging in income-generating activities	<ul style="list-style-type: none"> Opportunity costs (foregoing working hours to attend health facility for services) 	<ul style="list-style-type: none"> Make appointments to provide services out of routine service hours
	4. Adolescents in rural areas	<ul style="list-style-type: none"> Few health facilities, leading to long travelling times 	<ul style="list-style-type: none"> Increase number of health facilities Provide outreach services
	5. Mentally challenged adolescents	<ul style="list-style-type: none"> Unavailability of a parent or guardian to enable access to services 	
	6. Orphans without a guardian	<ul style="list-style-type: none"> Unavailability of a guardian to enable access services 	
	7. Adolescents from low-income families	<ul style="list-style-type: none"> Cost of services Transport costs 	<ul style="list-style-type: none"> Procedure should be free of charge to attract more beneficiaries
	8. Out-of-school adolescents	<ul style="list-style-type: none"> Lack of education and subsequent misconceptions 	<ul style="list-style-type: none"> Provide education to address misconceptions
General barriers and solutions			
		<ul style="list-style-type: none"> Service providers are unavailable, due to illness, vacation, or engaged in other tasks 	<ul style="list-style-type: none"> Increase the number of VMMC service providers Add VMMC services in the facility roster
		<ul style="list-style-type: none"> Negative experience from service providers 	<ul style="list-style-type: none"> Train health workers to provide adolescent-friendly services
		<ul style="list-style-type: none"> Long waiting times 	<ul style="list-style-type: none"> Expand flexibility in adolescent clinics to accommodate their equally demanding schedules
		<ul style="list-style-type: none"> Myths and misconceptions (prepuce is taken to a secret society, e.g. freemasons) 	<ul style="list-style-type: none"> Provide health education to dispel myths and misconceptions
		<ul style="list-style-type: none"> Cost of treatment outside of campaigns and on occurrence of complications 	<ul style="list-style-type: none"> Increase frequency of VMMC campaigns
		<ul style="list-style-type: none"> Lack of continuity of SRH services post-circumcision VMMC is a vertical programme (sustainability of services needs to be addressed) 	<ul style="list-style-type: none"> Establish adolescent-friendly services, trainings and packages encompassing all adolescent health issues (SRH, HIV/AIDS, VMMC, psychosocial services etc.) Current providers of VMMC services should design mechanism to train future providers

Annex 2.

Literature review report

Introduction

To promote universal health coverage for adolescents, the United Republic of Tanzania conducted an assessment of health services barriers experienced by under-served adolescents, using draft WHO guidance. The WHO guidance uses the Tanahashi framework on effective coverage of health services and other key conceptual frameworks relevant to equity-oriented, rights-based and gender-transformative health systems strengthening and intersectoral action for health. The purpose of the assessment is to gather evidence on the barriers to adolescent health services in the United Republic of Tanzania as they are experienced by adolescents, with a focus on disadvantaged adolescents.

The assessment was conducted in a series of modules that build to a final report. The first module undertaken by the assessment team was a literature review. The literature review focused on three adolescent SRH issues that the reproductive, maternal, newborn, child and adolescent health programme has identified as priorities: prevention of pregnancy and HIV infection; HIV care and treatment; and voluntary medical male circumcision (VMMC).

The literature review is expected to inform areas of focus for other modules in the assessment. Gaps in literature are expected to be filled when implementing the module on qualitative data collection, in particular through discussions with key informants at national level.

Methods

The literature review involved a targeted search to identify published articles, reports, guidelines and strategic documents including case-studies, presentations at technical meetings, working papers and policy briefings. The search was mainly of PubMed, the Cochrane Library and Google Scholar.

Two levels of search took place. The first-level search included key words related to adolescents and health service topics, and a geographic search limited to

East Africa. The second-level search included key words specific to the research question, for example: pregnant teenagers, adolescents living with HIV, out-of-school youth, school dropouts, adolescents who are sex workers, adolescents who inject drugs and men who have sex with men. In addition, the country and international advisory team of experts shared 13 articles relevant to the assessment which were included in the review. A total of 212 articles were considered, of which 101 were found to be relevant to the research.

High-priority articles were summarized using an assessment template provided in WHO's AHSBA handbook. The summarized information was used to develop this short literature review report on key findings, discussions, proposals for next steps and limitations of the review. See Table A2.1 for the prioritized articles relevant to adolescent subpopulations and barriers.

Findings

1. Prevention of pregnancy and HIV infection

The United Republic of Tanzania has one of the highest adolescent pregnancy rates in the world (54). More than a quarter (27%) of women aged 15–19 have begun childbearing. Teenagers in rural areas are considerably more likely to have begun childbearing than their urban peers: 32% of rural teenagers have had a live birth or are pregnant, compared with 19% of urban teenagers (5). Four major risk factors undermined girls' ability to protect their own health and well-being: lower education level; poverty; rape and coercive sex (including sexual abuse from an early age); and transactional sex with older men (one of the few available sources of income that allowed adolescent girls to meet their basic needs) (55–57). According to the 2015–2016 Tanzania Demographic and Health Survey (TDHS), 22% of currently married young women (aged 15–19 years) have unmet need of family planning (5). Studies have shown that young maternal age increases the risk for adverse pregnancy outcomes,

and it is a stronger predictor for low birth weight and preterm delivery than other established risk factors in sub-Saharan Africa (58).

Condom use among adolescents is generally low, including for those who engage in risky behaviours such as multiple sexual partnerships. The proportion of adolescents using a condom at the last sexual intercourse is higher for those who know where to get condoms (59). According to the 2015–2016 TDHS, only 38% of females and 34% of unmarried adolescents aged 15–19 used a condom during last sex. Condom use is higher among adolescents in urban areas than those residing in rural areas (5).

Availability of family planning services (including condom education and provision)

In the United Republic of Tanzania, only 39% of staff providing family planning services have been trained in adolescent SRH (21). The low number of health facilities with adolescent-friendly services creates a significant barrier to accessing adolescent SRH services (29). In many rural settings, adolescent-friendly SRH care for girls who are not pregnant is inadequate (60).

A multi-country secondary analysis of demographic surveys in East Africa showed that more than half of young women in the United Republic of Tanzania and Uganda receive contraceptives from the private sector, and these are less available in rural areas (61).

National reproductive health and adolescent strategies and guidelines for family planning call for provision and use of condoms for dual protection among adolescents (8, 9, 60). National condom programming uses a total market model whereby both public and private for-profit and social marketing entities are engaged in condom procurement, promotion and distribution. However, there is shortage of the commodity: the national condom programming strategy stated that the need for condoms in the United Republic of Tanzania in 2016 was 256 million condoms, but the total number of condoms distributed in the Tanzanian market in the same year was only 120.7 million condoms, which is approximately half of the condoms needed (20).

Accessibility of family planning services (including condom education and provision)

Availability of condoms in rural areas is also low and adolescents have expressed specific concerns related to the accessibility of free condoms (62). A multi-country study that included the United Republic of Tanzania, Kenya and Zambia found inconsistent availability of free condoms for adolescents in rural districts. In this study, the majority of the participants found condoms to be affordable, while others thought condoms should be cheaper (63).

Systematic review of adolescent pregnancy and use of contraception in sub-Saharan Africa shows health system-related barriers, including inadequate and unskilled health workers, limited availability of contraceptives, long waiting times and lack of privacy at clinics, and non-friendly adolescent reproductive services, all of which limit access to services and influence adolescent pregnancy rates (23, 24).

Acceptability of family planning services (including condom education and provision)

Despite decades of contraceptive promotion in the United Republic of Tanzania, contraceptive use and in particular condom use is still the subject of myths and misconceptions. Many rural adolescents still express reservations about the quality of condoms and believe rumours such as condoms having worms (38). Some adolescents also view condoms as ineffective for preventing sexually transmitted infections and pregnancies, and unnecessary for those in committed relationships (28). Use of modern contraceptives is low, even for older educated adolescents and young women with knowledge of contraceptives (36, 37).

Gender disparity and unfavourable sociocultural practices may create barriers to accessing adolescent SRH services and rights (29). Although their magnitude is decreasing, religious and cultural practices still pose a barrier to access of family planning services (41). Many adolescents find family planning services unacceptable due to stigma, long waiting times and lack of privacy in the clinics, which discourage young females from seeking reproductive health care (28). Reproductive health services and family planning in particular have also been found to be unacceptable due to lack of privacy, confidentiality and equipment,

as well as negative attitudes of service providers (29). In a study conducted in rural districts in northern Tanzania, close-to-community providers – who are usually regarded as potential condom distributors – expressed an unwillingness to provide condom services to adolescents and were prejudiced against adolescents using them (30).

When adolescents are equipped with knowledge and friendly SRH services, they are more likely to change their behaviours and use contraceptive services. Currently, the leading sources of SRH rights information are peers and mass media, and not health providers or parents. Young people living with HIV and school truants have more access to SRH education and services than the other youth groups (18).

In two rural settings, young sexually inactive adolescents disapproved of condom promotion and distribution. They reported feeling uncomfortable being seen by parents/guardians buying or holding condoms. The same group questioned whether condoms offer protection against HIV/AIDS infection. In these settings, condoms are mainly accepted by older sexually active adolescents aged 15 and above (39).

Contact/use of family planning services (including condom education and provision)

Pervasive stigma surrounding adolescent and young people's premarital sexual activity, use of family planning, unplanned pregnancy, and sexually transmitted infections limits disadvantaged adolescents from accessing and using the available contraceptive services (64). Other social barriers, such as community perceptions that family planning is inappropriate for girls aged 10–18 years and misconceptions about contraceptives, also prevent adolescents from contacting and using services which are available, accessible and acceptable to them (23, 29).

Some of the barriers preventing out-of-school male adolescents from seeking and using available condom services include feeling shy to buy or request free condoms, and perceptions that condoms reduce sexual pleasure. Adolescent girls reported failure to seek and use condoms because of experiencing forced sex, perceptions that condoms reduce sexual pleasure and inability to negotiate with their partner to use a condom (40).

Effectiveness of family planning services (including condom education and provision)

Young people face challenges in accessing condoms at public health facilities. A study in rural districts of the United Republic of Tanzania found that health workers discouraged young people from using commodities such as condoms and family planning methods (48). Furthermore, reluctance of health care providers and parents to discuss comprehensive sex education is likely to prohibit the provision of explicit guidance to young people on contraceptive use (48, 49). In addition, gender norms and peer pressure that make boys want to demonstrate masculine norms may inhibit them from discussing correct and consistent condom use with providers or sexual partners (42).

Young people have been found to practice selective condom use, whereby men only use condoms with women who they considered to be high-risk, such as guesthouse workers or bar staff, but not with their wives or main partners. Even when they are in a relationship with main partners, condoms are often abandoned after the first few sexual encounters (65).

Conclusion

Despite national strategies and guidance on adolescent reproductive health services, adolescent family planning services are still limited by health system, societal and individual barriers. Reproductive health care for adolescent girls who are not pregnant is very limited due to low knowledge, skills and willingness of providers, parents and caregivers to support provision of family planning services among adolescents. Adolescents in rural settings are less likely to access and use family planning compared to those in urban settings. Younger adolescents also find it difficult to buy or request free condoms due to feeling shy or scared of being judged. Myths and misconceptions on effectiveness of condoms still prevail among rural adolescents. Selective condom use is also a common practice among male adolescents with knowledge and intention to use condoms.

The country needs to establish and implement concrete steps to ensure that all adolescents in the country obtain the SRH services they need, delivered in a friendly and non-judgmental manner (66). This includes empowering adolescents with knowledge

and skills to use contraceptives and holding the Government accountable to its commitment to strengthen adolescent-friendly reproductive health services (67, 68). It has been shown that adolescents with knowledge and ability to negotiate condom use and those who express appropriate attitudes and norms, such as a belief about what significant others think the individual should do, are more likely to express the intention to use condoms (13, 69).

2. HIV care and treatment services

Over the past two decades, efforts by the United Republic of Tanzania to increase access to antiretroviral therapy (ART) has produced commendable results. The country programme is guided by WHO recommendations, and the United Republic of Tanzania has adopted WHO's 2016 guidelines for treating all HIV-positive individuals irrespective of clinical or immunological stage. The adoption of this guidance and support from development partners, such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund, have led to an increased number of people living with HIV being enrolled into care and treatment. ART coverage has increased from 32% (432 338 clients) in 2012 to 72% (1007 026) in March 2018 (70).

Availability of HIV care and treatment services

By the end of 2015, it was estimated that 142 000 children under the age of 15 years were living with HIV in the United Republic of Tanzania (71). Significant progress has been made regarding provision of HIV care and treatment. However, a national service availability survey revealed that adolescent ART services are only available in 36% of health facilities in the United Republic of Tanzania (21).

Accessibility of HIV care and treatment services

HIV care is provided within care and treatment clinics, which are located in larger health facilities (hospitals and health centres) with wider geographical coverage. ART coverage, especially in rural areas, is unevenly distributed and far from the universal coverage target of 80%, in particular among young men (25). General health-seeking behaviour among men in Africa is low, and in the case of HIV care it is further complicated

by local culture and gender roles (26). Rural residents, especially those with low socioeconomic status, incur significant out-of-pocket costs including transport costs to health facilities. This often limits access to HIV services (27).

Acceptability of HIV care and treatment services

Despite knowledge of the existence of care and treatment clinics, not all adolescents living with HIV are willing to use these services. Barriers include lack of privacy, confidentiality and respect for youth; inconvenient times and location; and low youth involvement (72).

Care-seeking behaviour for children is influenced by the willingness of their parents. Most children are introduced to services by their parents or caregivers. The quality of care among children and adolescents living with HIV is compromised by late enrolment, by when most children have an advanced stage of disease (30). Further, parental disclosure of a child's HIV status to the child, which is known to support ART uptake and adherence, is affected by factors such as the age of a child, caregiver's knowledge about HIV status, and income (31).

Contact/use of HIV care and treatment services

Although the number of children and adolescents who are enrolled on ART is increasing, most of them are enrolled late and often with advanced disease limiting their chances of survival (73).

Young paediatrics (below 14 years) and late-adolescent age groups are at increased risk of late diagnosis and late ART initiation, as well as loss of continuity of care and early death. Male adolescents are more likely to die earlier (43, 44).

Over half of youth reported difficulties in coming to terms with their HIV diagnosis and espoused related feelings of self-blame. Other psychosocial challenges that have been identified include loss of one or more parent, chronic domestic abuse, financial stresses restricting access to medical care and education, and high levels of internalized and community stigma among peers and other social contacts (45, 46).

Effectiveness of HIV care and treatment services

More than half of children on ART do not adhere well to treatment. Living with a non-parent caregiver, having an unfavourable school environment, timing of the morning ART dose, treatment longevity, being unaware of HIV status, non-parental (biological) care, preference for traditional medicine (herbs) and forgetfulness were seen to be barriers for optimal adherence (19). Other factors that contribute to lower adherence are younger age, shorter time on ART and poor health care worker communication (74). Adherence has been found to be worse among adolescents who developed ART side-effects, could not attend clinic on a regular basis and missed drug doses (75). HIV-infected adolescents are more affected by depression compared to non-infected peers. Adolescents living with HIV may also suffer from mental health issues which are usually associated with incomplete adherence and stigma (50).

Another challenge facing adolescents living with HIV is attrition in care. Attrition before and after ART initiation was substantially higher among youth compared with other age groups. Older adolescents experienced substantially higher attrition before and after ART initiation compared with younger adolescents and older adults (76, 77).

As a result of low adherence and attrition, adolescents have been found to have limited immunological response which is usually improved by use of ART (51). In addition, virologic failure rates in children and adolescents living in rural Tanzania have been found to be high, with the majority of ART-failing children harbouring HIV-drug resistance-associated mutations (52).

Even in circumstances where ART services are accessible, care and treatment clinics usually offer limited service packages that do not provide all the services that are demanded by adolescents living with HIV. A study on reproductive health needs for adolescents living with HIV revealed that adolescents have restricted access to accurate information, appropriate guidance, or comprehensive reproductive health services. Caregivers and home-based care providers can contribute to this barrier by reinforcing negative views of sexual activity, partly due to

prevailing misconceptions about the harmful effects of having sex when HIV-positive (78).

Conclusion

Despite the availability of HIV care and treatment services, adolescents living with HIV have limited access to quality HIV services. Adolescents have many adolescent-specific services needs when living with HIV that may not be met in the current health system, and they may also experience adolescent-specific stigma within services, all of which reflect availability, acceptability and effectiveness barriers.

Male adolescents have limited access to HIV care due to low health-seeking behaviour, norms and cultural practices. Working with adolescents living with HIV appears also to be a challenge, as there are problems related to disclosure of HIV-positive status, with impacts on adherence to treatment. There is also inadequate availability of adolescent-friendly HIV services, and a limited number of peer support groups. Taking note of the need to reach all adolescents living with HIV, specific interventions and strategies to address their complex issues in access and utilizing care as per WHO guidelines on ART for children, adolescents and adults need to be scaled up (72).

Engaging adolescents in programme design, improving providers' training in communication with adolescents, proactively addressing unrealistic expectations, and increasing referral links to a wider range of services will improve HIV services (79).

3. Voluntary medical male circumcision (VMMC)

Results of experimental studies show that VMMC reduces HIV acquisition among heterosexual men by approximately 60% (80–82). Following these results, in 2007, WHO and the Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended VMMC to be part of comprehensive HIV prevention programming in regions with a generalized HIV epidemic and a relatively low level of male circumcision (83).

In 2010, the United Republic of Tanzania launched its national five-year strategy to scale up male circumcision for HIV prevention (2010–2015), which set a target for 2.8 million boys and men aged 10–34 years to receive VMMC services (84).

Availability of VMMC

In sub-Saharan Africa, efforts to roll out VMMC services in targeted traditionally non-circumcising communities requires mobilization of much needed resources, especially in countries where shortage of human resources has already been documented (85). Gaps in resources such as limited number of facilities providing VMMC services was also documented (86). As a result, the United Republic of Tanzania adopted a resource-intensive VMMC strategy that offers services through both fixed and outreach sites, i.e. community VMMC campaigns, augmented by service delivery in fixed sites utilizing routine clinical settings (87). The services are coordinated by the Ministry of Health, Community Development, Gender, Elderly and Children in collaboration with PEPFAR-funded implementing partners. Between 2010 and the end of 2016, 2.2 million of the 2.8 targeted males were circumcised in priority regions (88). The earlier strategy, however, falls short since it made VMMC available in prioritized districts with low male circumcision rates and high HIV prevalence (89), limiting access to districts with low circumcision prevalence in some regions such as Kigoma and Ruvuma (87) due to programmatic planning. Although many VMMC providers are trained prior to engagement, lack of specific counselling skills for younger clients makes it difficult for them to discuss complex sexual health information such as HIV testing, condoms and masturbation when counselling young adolescents (22).

Accessibility of VMMC

The United Republic of Tanzania made VMMC services available to adolescents from the beginning of implementation of VMMC for HIV prevention. There has been an increasing demand for VMMC among adolescents in the country, and the majority of clients served during campaigns (59%) are aged 10–14 years (89, 90).

VMMC services have been made available to adolescents and adults in priority regions. VMMC services have therefore been accessible to most adolescents in priority districts and, as such, a modelled study has shown that the United Republic of Tanzania will most likely reach the goal of 90% VMMC coverage in 10- to 29-year-olds by the end of 2021 (91).

However, earlier literature documents barriers such as long waiting times and long distances to health facilities (92).

Acceptability of VMMC

Many adolescents in priority VMMC regions are shown to express a strong desire for circumcision services. Motivation among adolescents comes from peer advice and knowledge about protection against HIV and other sexually transmitted infections (32, 33). A study in the United Republic of Tanzania, South Africa and Zimbabwe showed that even female adolescents accept and encourage sexual partners to undergo circumcision. They viewed males with a circumcised penis as more attractive than uncircumcised males, and used their romantic relationships with males or the potential for sex as leveraging points to convince males to become circumcised, and demonstrated supportive attitudes in the wound-healing period (92). Parents are also involved in supporting adolescents, although they lack information on VMMC and wound care because most have not attended counselling sessions (34, 35).

Contact/use of VMMC

In Tanzania, the majority of clients of VMMC services are adolescents (89). A systematic review has shown that there is a lack of health services addressing the specific needs of male adolescents, resulting in knowledge gaps that could diminish the benefits of VMMC programming. Barriers to and gaps in SRH and VMMC service provision to adolescents include factors such as imposed feelings of shame, endorsement of traditional gender roles, negative interactions with providers, violations of privacy, fear of pain associated with the VMMC procedure, and a desire for elements of traditional non-medical circumcision methods to be integrated into medical procedures (47).

Other studies have noted that during VMMC counselling, providers do not provide adequate information such as how to identify complications, what to do if they arise, and why to abstain from sex or masturbation (33, 53). Older adolescents (aged 15–19 years) are more likely to receive more items in the recommended WHO minimum package than younger adolescents (aged 10–14 years) (7).

Although parents, counsellors and providers are involved and supportive, they are inadequately prepared to counsel youth, partly owing to discomfort with adolescent sexuality. Adolescent boys, especially the youngest, experience gaps in their comprehension of key elements in WHO's "minimum package" (7). Another practice barrier is group counselling, which has been found to lack age-appropriate messages. Most adolescents who have undergone circumcision reported receiving more comprehensive information in individual counselling compared to group education (94).

Effectiveness of VMMC

Adolescents, especially younger adolescents (aged 10–15 years) have reported service barriers such as limited information regarding HIV prevention and care, and low provision of condoms (7). Although VMMC protocols require opt-out of HIV testing, adolescents recounted having blood taken without knowing the purpose and not receiving any test results (95). They also face challenges regarding post-circumcision wound care owing to factors such as forgetting, misinterpreting and disregarding provider instructions. A multi-country study revealed that older adolescents report ignoring symptoms of infection and not returning to the clinic for review when an adverse event had occurred (35).

Conclusion

The United Republic of Tanzania is one of the VMMC priority countries that has made considerable progress in VMMC scale-up. The country is likely to achieve the greatest VMMC impact, i.e. reduction in HIV incidence over a longer (15-year) period, by continuing to focus on inclusion of adolescents aged 10–19 years in VMMC programming (96, 97). Existing gaps related to quality of VMMC services among adolescents need to be addressed using the recommended WHO minimum package. Special attention should be paid to younger adolescents by enhancing providers' knowledge and skills, while also involving parents and guardians.

Discussion

This literature review shows that there are many barriers to access of effective SRH services among adolescents, and especially among disadvantaged adolescents, in all five dimensions of the Tanahashi framework for health service coverage. To a varying degree, these barriers exist in all three types of adolescent SRH service examined in this assessment.

Access to family planning and HIV prevention is largely limited by availability of adolescent-friendly SRH services and, in particular, providers' attitude towards young people especially girls. Adolescents living in rural areas and those who are out of school are most affected. Young girls who are not pregnant have limited access to and utilization of SRH services. This calls for an aggressive scale-up of adolescent SRH services, which should include building skills of facility- and community-based providers in provision of adolescent-friendly SRH services.

Provision of adolescent HIV care and treatment is limited by low coverage of tailored adolescent-friendly services. Low adherence and high attrition rates raise concerns over the effectiveness of services for those who are already enrolled to care. The specific needs of adolescents living with HIV need to be addressed based on age and gender-sensitive interventions including adolescent-friendly clinics, differentiated service delivery, involvement of parents and peer support.

Uptake of VMMC services among adolescents is encouraging. However, the challenge in delivering comprehensive VMMC services, especially among younger adolescents, is a gap that requires programmatic response. The United Republic of Tanzania can take advantage of the WHO minimum package guidance to enhance service provision for adolescents. Parents and caregivers should be involved to increase their ability to support young adolescents who undergo VMMC.

Limitations of the literature review

The literature review was conducted to assess barriers to health services, especially those experienced by disadvantaged adolescents. Literature available for all of the three priority health services did not necessarily focus on barriers faced by specific groups of under-served or disadvantaged adolescents. This made it necessary for the reviewers to establish a broader definition of terms such as under-served or disadvantaged adolescents in order to conduct the review.

The other limitation was difficulties in understanding the extent to which a certain barrier has been addressed in current programming. The reviewers used subject knowledge and limited timeframe for which materials can be reviewed in efforts to document existing barriers. It is expected that the next steps in the assessment, such as national-level key informant interviews and focus group discussions, will validate and provide further information about these barriers.

Table A2.1. Literature review summary table of adolescent subpopulation and barrier findings, by source document, type of research, study population and type of health service

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
Prevention of HIV and pregnancy					
1. Exavery A, Mubyazi GM et al. Acceptability of condom promotion and distribution among 10-19 year-old adolescents in Mpwapwa and Mbeya rural districts, Tanzania. BMC Public Health. 2012;12:569.	Cross-sectional survey, Mpwapwa and Mbeya, Tanzania	Adolescents (10-19 years)	Condom promotion	Rural adolescent boys and girls	<ul style="list-style-type: none"> Perceived as too young, unsuitable at their age Perception that condom promotion will encourage sexual practices as they explore or experiment with the use of condoms Uncomfortable to be seen by parents or guardians
2. Sandøy IF, Blystad A et al. Condom availability in high risk places and condom use: a study at district level in Kenya, Tanzania and Zambia. BMC Public Health. 2012;12:1030.	Surveys and focus group discussions, rural districts of Tanzania, Kenya and Zambia	Females, males, pregnant women, and adolescents (18-24 years)	Condom availability	Rural adolescents	<ul style="list-style-type: none"> Condoms are less available in rural settings Concerns over accessibility of free condoms
3. Kalolo A, Kibusi SM. The influence of perceived behaviour control, attitude and empowerment on reported condom use and intention to use condoms among adolescents in rural Tanzania. Reprod Health. 2015;12:105.	Cross-sectional survey, Newala, rural Tanzania	Adolescents (14-19 years)	Condom use	Rural adolescents in secondary schools	<ul style="list-style-type: none"> Perceived behaviour control predicted intention to use a condom Empowerment and a positive attitude predicted reported condom use, thus turning the decision to actions Subjective norms had only indirect effects on intention and reported use of condoms

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
4. Exavery A, Lutambi AM et al. Multiple sexual partners and condom use among 10 - 19 year-olds in four districts in Tanzania: what do we learn? BMC Public Health. 2011;11:490.	Secondary analysis of maternal, newborn and child health module, Kigoma, Kilombero, Rufiji, Ulanga, Tanzania	Adolescents (10–19 years)	Condom use	Rural adolescents	<ul style="list-style-type: none"> • Condom use is associated with increase in age • No association between multiple sexual partnerships and condom use • Low condom use in most rural districts
5. Dusabe J, Mchome Z et al. “There are bugs in condoms”: Tanzanian close-to-community providers’ ability to offer effective adolescent reproductive health services. J Fam Plann Reprod Health Care. 2015;41(1):e2.	Qualitative survey, Magu and Sengerema, Mwanza, Tanzania	Community cadres providing reproductive health services (drug stores, traditional healers, traditional birth attendants and village health workers)	Condom programming Family planning	Rural community cadre providers of reproductive health services	<ul style="list-style-type: none"> • Community providers lacked the necessary resources for provision of such services for adolescents • Some were particularly unwilling to provide condom services and were prejudiced against adolescents using them • Poor integration between the close-to-community providers and the formal health sector
6. Sommer M, Likindikoki S, Kaaya S. “Bend a fish when the fish is not yet dry”: adolescent boys’ perceptions of sexual risk in Tanzania. Arch Sex Behav. 2015;44(3):583–95.	Qualitative survey, Kilimanjaro, Tanzania	Adolescents boys (16–19 years)	Condom programming	Rural in- and out-of-school boys	<ul style="list-style-type: none"> • Peer pressure (“You can’t taste a lollipop with its wrapper”) • Lack of knowledge/poor parental communication • Condoms are not safe, they have a bacteria or virus “x”
7. Mchome Z, Richards E et al. A ‘mystery client’ evaluation of adolescent sexual and reproductive health services in health facilities from two regions in Tanzania. PLoS One. 2015;10(3):e0120822.	Mystery client, health facility survey, Mwanza and Iringa, Tanzania	Patient exit interviews (15–24 years)	Condoms Sexually transmitted infections Pregnancy prevention	Adolescents (18–19 years)	<ul style="list-style-type: none"> • Poor signage and reception for services • Health workers’ paternalistic attitudes and lack of knowledge on adolescent SRH services • Health workers discourage adolescents from using services such as condoms and family planning methods • Lack of confidentiality and privacy
8. Mann Global Health. Tanzania case study. Funded by the Bill & Melinda Gates Foundation. 2017.	Case-study, Tanzania	N/A	Condom programming	General	<ul style="list-style-type: none"> • The “Universe of Need” is 256 million condoms • Total number of condoms distributed in the Tanzania market in 2016 estimated at 120.7 million condoms, approximately half of condom needed

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
9. Health Communication Capacity Collaborative. Condom repositioning for adolescents – expert consultation. 2014	Literature review, global expert consultation	Adolescents and young people	Condoms	General	<ul style="list-style-type: none"> • Trust – women fear they will lose partner if they were to use condoms • Men – fear condom will reduce their performance
10. Teplitskaya L, Dutta A et al. Maternal health services in Tanzania: determinants of use and related financial barriers from 2015-16 survey data. Washington DC: Palladium, Health Policy Plus; 2018.	Policy note, maternal health services in Tanzania	Women	Maternal health services	General	<ul style="list-style-type: none"> • Self-reported financial barriers, less likely to use antenatal care services • Poorest women and women who reside in rural areas still face high out-of-pocket costs for delivery
11. Hokororo A, Kihunrwa AF et al. Barriers to access reproductive health care for pregnant adolescent girls: a qualitative study in Tanzania. Acta Paediatr. 2015;104(12):1291-7.	Qualitative study, rural Mwanza, Tanzania	Pregnant girls (15-20 years)	Reproductive health Sexually transmitted infections Condoms	Rural adolescent girls	<ul style="list-style-type: none"> • Stigma, long waiting times and lack of privacy in the clinics discouraged young females from seeking reproductive health care
12. Mbema RM, Mkuye MS et al. Barriers to sexual reproductive health services and rights among young people in Mtwara district, Tanzania: a qualitative study. Pan Afr Med J. 2012;13 Suppl 1:13.	Qualitative study, Mtwara, Tanzania	Adolescents (10-18 years), community leaders and parents	SRH rights Pregnancy prevention	Rural adolescent girls	<ul style="list-style-type: none"> • Inadequate skilled providers on SRH rights • Inaccessible due to lack of privacy, confidentiality, equipment and negative attitudes from providers • Initiation ceremonies, early marriages and gender disparities mentioned as sociocultural barriers to SRH rights
13. Mchome Z, Richards E et al. A 'mystery client' evaluation of adolescent sexual and reproductive health services in health facilities from two regions in Tanzania. PLoS One. 2015;10(3):e0120822.	Mystery client, health facility survey, Mwanza and Iringa, Tanzania	Patient exit interviews (15-24 years)	Condoms Sexually transmitted infections Pregnancy prevention	Adolescents (18-19 years)	<ul style="list-style-type: none"> • Poor signage and reception for services • Health workers' paternalistic attitudes as well as lack of knowledge about adolescent SRH services • Health workers discourage adolescents from using services such as condoms and family planning methods • Lack of confidentiality and privacy

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
14. Mauna JB. Factors contributing to high prevalence of teenage pregnancy in Lindi municipality, Tanzania. Masters thesis, Open University of Tanzania; 2015.	Qualitative and quantitative, rural Lindi, Tanzania	Rural teenagers (11–19 years)	Pregnancy prevention	Rural adolescents	<ul style="list-style-type: none"> • Low knowledge on contraceptive methods • Negative beliefs on the uses of family planning and reproductive health services • Inadequate information on sexuality, unavailability of teenager-friendly services • Culture hinders parent-teenager communication about sexuality • Problems getting transportation to services
15. Nyblade L, Stockton M et al. Perceived, anticipated and experienced stigma: exploring manifestations and implications for young people's sexual and reproductive health and access to care in north-western Tanzania. <i>Cult Health Sex.</i> 2016;19(10):1092–107.	Qualitative study, northwestern Tanzania		Reproductive health		<ul style="list-style-type: none"> • Stigma: excessive questioning, scolding and requirements to bring sexual partners or parents to receive services
16. Salam RA, Faqqah A et al. Improving adolescent sexual and reproductive health: a systematic review of potential interventions. <i>J Adol Health.</i> 2016;59:S11–28.	Systematic review		Pregnancy prevention		<ul style="list-style-type: none"> • SRH education, counselling and contraceptive provision are effective in increasing sexual knowledge, contraceptive use and decreasing adolescent pregnancy
17. McCleary-Sills J, Douglas Z et al. Gendered norms, sexual exploitation and adolescent pregnancy in rural Tanzania. <i>Reprod Health Matters.</i> 2013;21(41):97–105.	Formative research, rural Tanzania	Adolescent girls (12–17 years)	Pregnancy prevention	Rural adolescents girls	<ul style="list-style-type: none"> • Poverty pushed them into having sex to meet basic needs, sexual expectations on the part of older men and boys their age, rape and coercive sex. • Transactional sex with older men was one of the few available sources of income that allowed • adolescent girls to meet their basic needs

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
18. Exavery A, Kanté AM et al. Predictors of mistimed, and unwanted pregnancies among women of childbearing age in Rufiji, Kilombero, and Ulanga districts of Tanzania. <i>Reprod Health</i> . 2014;11:63.	Cross-sectional survey, Rufiji, Kilombero, Ulanga districts, Tanzania	Women (15–49 years)	Pregnancy prevention	Rural women	<ul style="list-style-type: none"> • Young age is a predictor of unwanted pregnancy
VMMC					
1. Lane C, Bailey RC et al. Adolescent male circumcision for HIV prevention in high priority countries: opportunities for improvement. <i>Clin Infect Dis</i> . 2018;66(Suppl 3):S161–5.	Literature review – supplementary report, Tanzania, Zimbabwe and South Africa	Adolescents and youth (10–24 years)	VMMC	Younger adolescents (10–14 years)	<ul style="list-style-type: none"> • Lower quality of counselling among young adolescents • Less frequent condom demonstration • Gaps in receiving comprehensive WHO minimum package among adolescent boys, especially the youngest • Parents, counsellors and providers inadequately prepared to counsel youth, partly owing to discomfort with adolescent sexuality • Limited attention to post-surgical wound care
2. Kaufman MR, Smelyanskaya M et al. Adolescent sexual and reproductive health services and implications for the provision of voluntary medical male circumcision: results of a systematic literature review. <i>PLoS One</i> . 2016;11(3):e0149892.	Systemic review, sub-Saharan Africa	Adolescents (10–19 years) and youth (15–24 years)	VMMC	Adolescents (10–19 years)	<ul style="list-style-type: none"> • Imposed feeling of shame • Endorsement of traditional gender roles • Negative interactions with providers • Violation of privacy • Fear of pain • Desire for elements of traditional non-medical circumcision to be integrated into medical procedures
3. Mavhu W, Hatzold K et al. Adolescent wound-care self-efficacy and practices after voluntary medical male circumcision—a multicountry assessment. <i>Clin Infect Dis</i> . 2018;66(suppl_3):S229–S35.	Qualitative and quantitative surveys, Tanzania, Zimbabwe and South Africa	Adolescents (10–19 years)	VMMC	Adolescents (10–19 years)	<ul style="list-style-type: none"> • Parents and guardians lack crucial information on wound care • Inadequate counselling on wound care

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
4. Patel EU, Kaufman MR et al. Age Differences in perceptions of and motivations for voluntary medical male circumcision among adolescents in South Africa, Tanzania, and Zimbabwe. Clin Infect Dis. 2018;66(suppl_3):S173–S82.	Qualitative survey, Tanzania, Zimbabwe and South Africa	Adolescents (10–19 years)	VMMC	Adolescents (10–19 years)	<ul style="list-style-type: none"> • Fear of pain
5. Kaufman MR, Patel EU et al. Counseling received by adolescents undergoing voluntary medical male circumcision: moving toward age-equitable comprehensive human immunodeficiency virus prevention measures. Clin Infect Dis. 2018;66(suppl_3):S213–S20.	Quantitative survey, Tanzania, South Africa and Zimbabwe	Adolescents (10–19 years)	VMMC	Young adolescents	<ul style="list-style-type: none"> • Limited counselling per WHO guidelines • No condom demonstration or condoms to take home for young adolescents
6. Tobian AAR, Dam KH et al. Providers' perceptions and training needs for counseling adolescents undergoing voluntary medical male circumcision. Clin Infect Dis. 2018;66(suppl_3):S198–S204.	Semi-structured and in-depth interviews, Tanzania, Zimbabwe and South Africa	VMMC providers Health Managers	VMMC	Young adolescent (10–15 years)	<ul style="list-style-type: none"> • Lack of adolescents special guidelines and counselling skills • Hesitance to express complex sexual health information e.g. HIV testing, condoms and masturbation when counselling young adolescents (below 15 years)
7. Van Lith LM, Mallalieu EC et al. Perceived quality of in-service communication and counseling among adolescents undergoing voluntary medical male circumcision. Clin Infect Dis. 2018;66(suppl_3):S205–S12.	Prospective quantitative survey, Tanzania, Zimbabwe and South Africa	Adolescents (10–19 years)	VMMC	Young adolescents (10–14 years)	<ul style="list-style-type: none"> • Lower quality of VMMC counselling • Limited discussions about pain, wound care and healing time
8. Dam KH, Kaufman MR et al. Parental communication, engagement, and support during the adolescent voluntary medical male circumcision experience. Clin Infect Dis. 2018;66(suppl_3):S189–S97.	Qualitative survey using focus group discussions, Tanzania, Zimbabwe and South Africa	Adolescents (10–19 years)	VMMC	Adolescents (10–14 years)	<ul style="list-style-type: none"> • Limited parental involvement • Challenges in communication

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
9. Kaufman MR, Dam KH et al. Voluntary medical male circumcision among adolescents: a missed opportunity for HIV behavioral interventions. <i>AIDS</i> . 2017;31 Suppl 3:S233-S41.	Qualitative survey, Tanzania, Zimbabwe and South Africa	Adolescents (10-19 years)	VMMC	Adolescents (10-19 years)	<ul style="list-style-type: none"> • Little time to conduct counselling • Assumption that young adolescents are not sexually active or are too young to understand
10. Kaufman MR, Patel EU et al. Counseling received by adolescents undergoing voluntary medical male circumcision: moving toward age-equitable comprehensive human immunodeficiency virus prevention measures. <i>Clin Infect Dis</i> . 2018;66(suppl_3):S213-S20.	Survey, Tanzania, Zimbabwe and South Africa	Adolescents (10-19 years)	VMMC	Adolescents (10-14 years)	<ul style="list-style-type: none"> • Limited counselling on HIV prevention and risk reduction leading to low knowledge on HIV prevention and condom use among young adolescents aged 10-14 years
11. Research to Prevention. Strategic assessment to define a comprehensive response to HIV in Iringa, Tanzania. Research brief: voluntary medical male circumcision. 2013	Research brief, Iringa, Tanzania	Adult men and women Service providers	VMMC	Male	<ul style="list-style-type: none"> • Lack of traditional circumcision practices • Fear of pain, impotence and relationship disturbances • Long waiting time, distance from facilities • Negative experience with HIV testing and counselling
12. Curran M, Njeuhmeli E et al. Voluntary medical male circumcision: strategies for meeting the human resource needs of scale-up in Southern and Eastern Africa. <i>PLoS Med</i> : 2011;8(11):e1001129.	Programmatic and policy review southern and eastern Africa	All	VMMC		<ul style="list-style-type: none"> • Shortage of human resources for health

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
13. Wambura M, Mwangi J et al. Situation analysis for male circumcision in Tanzania: final report. Dar es Salaam: Ministry of Health and Social Welfare; 2009.	Cross-sectional descriptive survey Mara, Kagera and Mbeya regions, Tanzania	Adults (18–44 years)	VMMC		<ul style="list-style-type: none"> • Availability of minor surgery supplies • Need to train providers • Limited coverage of health facilities providing VMMC services
14. Boyee D, Peacock E et al. What messages are adolescent voluntary medical male circumcision (VMMC) clients getting and how? Findings from an observational study in Tanzania. <i>AIDS Behav.</i> 2017;21(5):1383–93.	Cross-sectional quantitative survey, Njombe and Iringa regions, Tanzania	Males (15 years and above)	VMMC	Adolescents (15–19 years)	<ul style="list-style-type: none"> • Group counselling limits comprehensiveness of information received by adolescents • Mixed-age counselling lacked selected and appropriate messages
HIV care and treatment					
1. Nsheha AH, Dow DE et al. Adherence to antiretroviral therapy among HIV-infected children receiving care at Kilimanjaro Christian Medical Centre (KCMC), Northern Tanzania: a cross-sectional analytical study. <i>Pan Afr Med J.</i> 2014;17:238.	Cross-sectional analysis, northern Tanzania	HIV-positive children (2–17 years)	HV care	HIV-infected children and adolescents	<ul style="list-style-type: none"> • Males were more adherent to ART than females • Adherence was worse among children who developed ART side-effects, who could not attend clinic on regular basis and those who missed drug doses in the 6 months period prior to interview
2. Nzota MS, Matovu JK et al. Determinants and processes of HIV status disclosure to HIV-infected children aged 4 to 17 years receiving HIV care services at Baylor College of Medicine Children's Foundation Tanzania, Centre of Excellence (COE) in Mbeya: a cross-sectional study. <i>BMC Pediatr.</i> 2015;15:81.	Cross-sectional study, Mbeya, Tanzania	Caregivers of HIV-infected children (4–17 years)	HIV care	HIV-infected children and adolescents	<ul style="list-style-type: none"> • Disclosure is common among older children (aged above 10 years) and is largely driven by caregivers' knowledge about HIV status disclosure and monthly earnings
3. Chaudhury S, Hertzmark E et al. Equity of child and adolescent treatment, continuity of care and mortality, according to age and gender among enrollees in a large HIV programme in Tanzania. <i>J Int AIDS Soc.</i> 2018;21 Suppl 1.	Cohort study, Dar es Salaam, Tanzania	HIV-infected patients aged under 20 years at time of enrolment	HIV	HIV-infected children and adolescents	<ul style="list-style-type: none"> • Young paediatric and late adolescent age groups were at increased risk of late diagnosis, early death, delayed treatment initiation and loss of continuity of care • Males were more likely to die earlier

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
4. Poles G, Li M et al. Factors associated with different patterns of nonadherence to HIV care in Dar es Salaam, Tanzania. <i>J Int Assoc Provid AIDS Care</i> . 2014;13(1):78–84.	Cross-sectional survey, Dar es Salaam, Tanzania	HIV-infected patients enrolled into ART	HIV care	General	<ul style="list-style-type: none"> • Lower adherence is predicted by younger age, shorter time on ART and poor health worker communication
5. Lamb MR, Fayorsey R et al. High attrition before and after ART initiation among youth (15–24 years of age) enrolled in HIV care. <i>AIDS</i> . 2014;28(4):559–68.	Cohort study, Kenya, Mozambique, Tanzania and Rwanda	HIV-infected youth (15–24 years)	HIV care	HIV-infected youth (15–24 years)	<ul style="list-style-type: none"> • Attrition before and after ART initiation was substantially higher among youth compared with other age groups • Among youth, non-pregnant women experienced lower pre-ART attrition than men • Both pregnant and non-pregnant (female youth experienced lower post-ART attrition than men) • Clinics offering adolescent support groups experienced significantly lower attrition after ART initiation
6. Lwidiko A, Kibusi SM et al. Association between HIV status and depressive symptoms among children and adolescents in the Southern Highlands Zone, Tanzania: a case-control study. <i>PLoS One</i> . 2018;13(2):e0193145.	Case-control study, Southern Highlands Zone, Tanzania	HIV-infected and uninfected children (7–17 years)	HIV care	HIV-infected and uninfected children (7–17 years)	<ul style="list-style-type: none"> • Being HIV-infected, residing in a rural setting and history of childhood deprivation were significantly associated with depressive symptoms
7. Busza J, Besana GV et al. “I have grown up controlling myself a lot.” Fear and misconceptions about sex among adolescents vertically-infected with HIV in Tanzania. <i>Reprod Health Matters</i> . 2013;21(41):87–96.	Qualitative study, Tanga, Dar es Salaam, Tanzania	Adolescents, family members who serves as caregivers and home-based care providers	Adolescents living with HIV reproductive health care	Adolescents living with HIV (15–19 years)	<ul style="list-style-type: none"> • Worried about having to disclose status to partners, the risk of infecting others and for their own health • Caregivers and home-based care providers reinforced negative views of sexual activity, partly due to prevailing misconceptions about the harmful effects of sex with HIV • Adolescents had restricted access to accurate information, appropriate guidance, or comprehensive reproductive health services

Source citation information	Type of research	Adolescent or related study population	General or priority health services	FINDINGS	
				Under-served adolescent subpopulation	Main health service barrier(s)
8. Dow DE, Turner EL et al. Evaluating mental health difficulties and associated outcomes among HIV-positive adolescents in Tanzania. <i>AIDS Care</i> . 2016;28(7):825–33.	Cross-sectional study, Kilimanjaro, Tanzania	HIV-positive adolescents enrolled into care (12–24 years)	Mental health	Adolescents living with HIV (12–24 years)	<ul style="list-style-type: none"> Mental health difficulties were prevalent among HIV-positive adolescents and were associated with incomplete adherence and stigma
9. Ramaiya MK, Sullivan KA et al. A qualitative exploration of the mental health and psychosocial contexts of HIV-positive adolescents in Tanzania. <i>PLoS One</i> . 2016;11(11):e0165936.	Qualitative study, Kilimanjaro Tanzania				<ul style="list-style-type: none"> Psychosocial challenges identified included loss of one or more parents, chronic domestic abuse, financial stresses restricting access to medical care and education, and high levels of internalized and community stigma among peers and other social contacts
10. Mhalu A, Leyna GH, Mmbaga EJ. Risky behaviours among young people living with HIV attending care and treatment clinics in Dar es Salaam, Tanzania: implications for prevention with a positive approach. <i>J Int AIDS Soc</i> . 2013;16(1):17342.	Cross-sectional study, Dar es Salaam Tanzania	HIV-positive patients (15–24 years)			<ul style="list-style-type: none"> Unprotected sex and multiple sexual partnerships were prevalent Less knowledge on STI and lack of HIV disclosure increased the vulnerability and risk for HIV transmission among young people
11. MoHCDGEC. Service Availability and Readiness Assessment (SARA) report. Dar es Salaam: Ministry of Health, Community Development, Gender, Elderly, and Children; 2017.	National survey, Tanzania	Health facilities	General	Adolescent services	<ul style="list-style-type: none"> Adolescent ART services available in only 36% of health facilities
12. Mnzava T, Mmari E, Berruti A. Drivers of patient costs in accessing HIV/AIDS services in Tanzania. <i>J Int Assoc Provid AIDS Care</i> . 2018;17:2325958218774775.	Cross-sectional survey, Tanzania	Adults attending HIV clinic	HIV	Rural residents	<ul style="list-style-type: none"> Poor socioeconomic status and living in rural areas are associated with increased out-of-pocket costs

Annex 3.

Data mining report

Introduction

To promote universal health coverage for adolescents, the United Republic of Tanzania assessed health services barriers experienced by under-served adolescents, using draft WHO guidance. The purpose of the assessment is to gather evidence on the barriers to adolescent health services in the United Republic of Tanzania as they are experienced by adolescents, with a focus on disadvantaged adolescents.

The assessment was conducted in a series of modules that build to a final report. The second module undertaken by the assessment team was a data mining exercise. The data mining focused on prevention of HIV and pregnancy, which are the priority adolescent health issues for the United Republic of Tanzania. The rising burden of new HIV infections in Tanzania and the unprecedented magnitudes of teenage pregnancy, coupled with school dropout rates, marks the country's needs for these two areas. The consultants conducted quantitative data mining of available national and international databases and datasets.

Methods

Secondary data analysis was used to examine existing data sources for adolescent health services barriers. WHO's Health Equity Assessment Toolkit (HEAT) software was used to explore the WHO Health Equity Monitor database. A review of evidence from USAID's comparative report on adolescent SRH data (10) was conducted, which uses early and late adolescence SRH data based on the TDHS 2015–2016. Data mining was also conducted through document reviews of UNICEF's Violence against children in Tanzania survey (98). Finally, datasets from an adolescent study in Dar es Salaam were analysed. The study was commissioned by the African Research, Implementation Science, and Education (ARISE) Network (<http://www.aaph-tz.org/activities/arise-network>) and conducted within the Dar es Salaam Urban Cohort Study.

HEAT built-in database

HEAT is a software accompanying the free WHO Health Equity Monitor database, which includes indicators that can be used to assess health service barriers experienced by under-served adolescents in a country. This assessment used HEAT version 2.1 (2018 update) which allows users to work with the built-in WHO Health Equity Monitor database. The database currently includes data for more than 30 reproductive, maternal, newborn and child health indicators, disaggregated by six dimensions of inequality (economic status, education, place of residence, subnational region, age and sex (where applicable) from more than 330 Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and Reproductive Health Surveys conducted in 111 countries between 1991 and 2015.

HEAT calculates 15 summary measures of inequality, including: absolute measures (i.e. absolute concentration index, between-group variance, difference, mean difference from best performing subgroup, mean difference from mean, population attributable risk and slope index of inequality) and relative measures (i.e. index of disparity, Kunst-Mackenbach index, mean log deviation, population attributable fraction, ratio, relative concentration index, relative index of inequality and Theil index) (99).

The following indicators were assessed.

1. Adolescent fertility rate (per 1000 women aged 15–19 years).
2. Prevalence of use of modern contraceptive methods.
3. Demand for family planning satisfied – modern methods.

For each indicator, where applicable, the following equity stratifies were used:

- age
- economic status
- education
- residence (urban and rural).

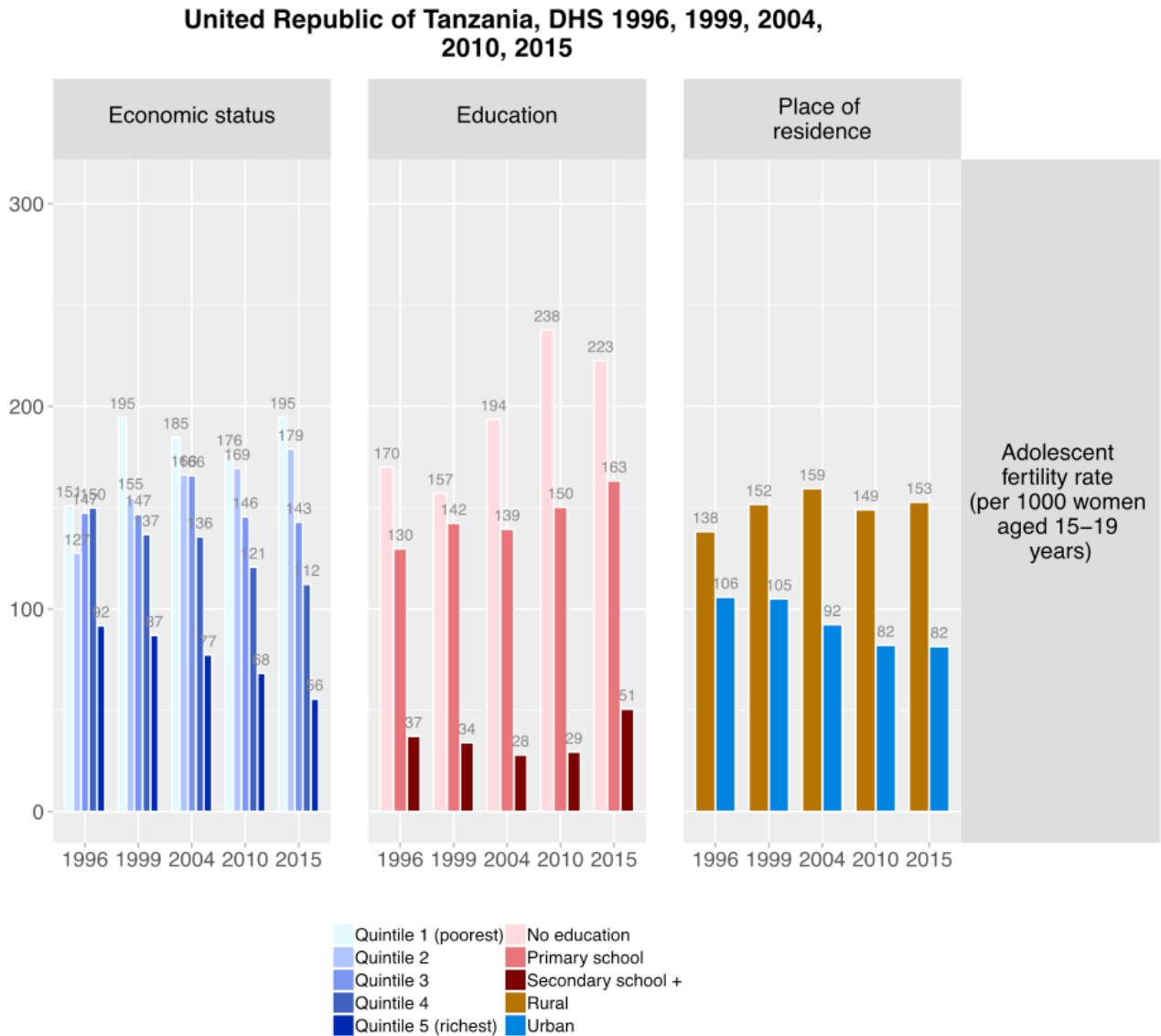
Two summary measures of inequality were assessed for all three indicators.

1. Difference (simple measure).
2. Slope index of inequality (complex measure).

Findings of the HEAT built-in database

This section presents results for the three indicators. For each indicator, all applicable equity stratifiers are included in a single graph.

1. Adolescent fertility rate



Source: Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 2.1. Geneva; World Health Organization; 2018. Data source: The disaggregated data used in this version were drawn from the WHO Health Equity Monitor database (2018 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website.

Fig. A3.1. Adolescent fertility rate (per 1000 women aged 15–19 years) based on economic status, education and place of residence, from 1996 to 2015

Equity stratifiers

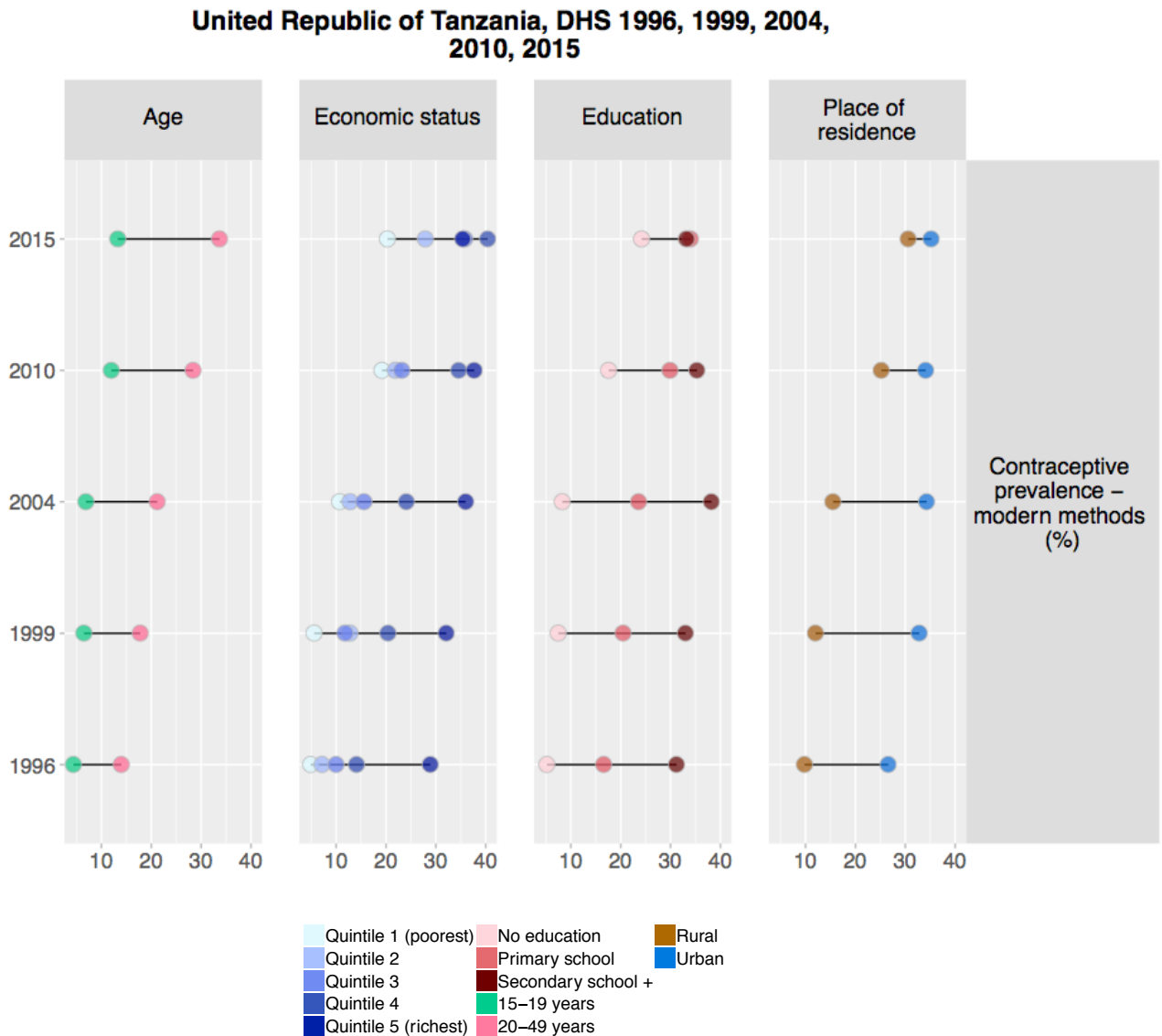
Economic status: For adolescents in the wealthiest quintile, the fertility rate decreased from 92 per 1000 women in 1996 to 56 in 2015. However, evidence suggests an increase (and therefore less improvement) in fertility rates among adolescents as a group over time. For example, the rate increased from 151 per 1000 women in 1996 to 195 in 1999, then decreased to 176 in 2010; however, it increased again to 195 per 1000 women in 2015 (Fig. A3.1). Overall, the fertility rate is generally higher among adolescents of lower socioeconomic status and this is consistent across all survey years.

Education level: The fertility rate showed variation from 1996 to 2015 among both educated and non-educated adolescents. The fertility rate among adolescents with secondary education or above decreased from 1996 to 2004, but then increased to 2015. A different trend was observed among those without education, where the fertility rate decreased from 1996 to 1999, then increased to 2010 and decreased to 2015 (Fig. A3.1).

Overall, the trend analysis shows a consistent increase in fertility rates among adolescents with less education.

Place of residence: The fertility rate of adolescents living in urban areas has been decreasing since 1996; however, the decrease rate was higher from 1999 to 2010, then the pace slowed to 2015. On the other hand, the fertility rate of adolescents living in rural areas increased steeply from 1996 to 2004, then started decreasing to 2010. However, the rate started increasing again to 2015 (Fig. A3.1). For all survey years, data consistently show higher fertility rates among adolescents living in rural areas compared to their urban counterparts. Moreover, the trend analysis reveals a widening gap of such inequality over the years of survey.

2. Prevalence of use of modern contraceptive methods



Source: Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition, Version 2.1. Geneva; World Health Organization; 2018.
 Data source: The disaggregated data used in this version were drawn from the WHO Health Equity Monitor database (2018 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website.

Fig. A3.2. Prevalence of use of modern contraceptive methods based on age, economic status, education and place of residence, from 1996–2015

Equity stratifiers

Age: Fig. A3.2 shows a general increase in the trend of contraceptive use from 1996 to 2015. However, for all survey years, use of modern contraceptive methods is lower among adolescents (aged 15–19 years) compared to older women (aged 20–49 years). In all age groups, use of modern contraceptive methods has been increasing between 1996 and 2015. However, while the prevalence of contraceptive use is rapidly increasing among older generations, a very slow pace is seen among adolescent girls.

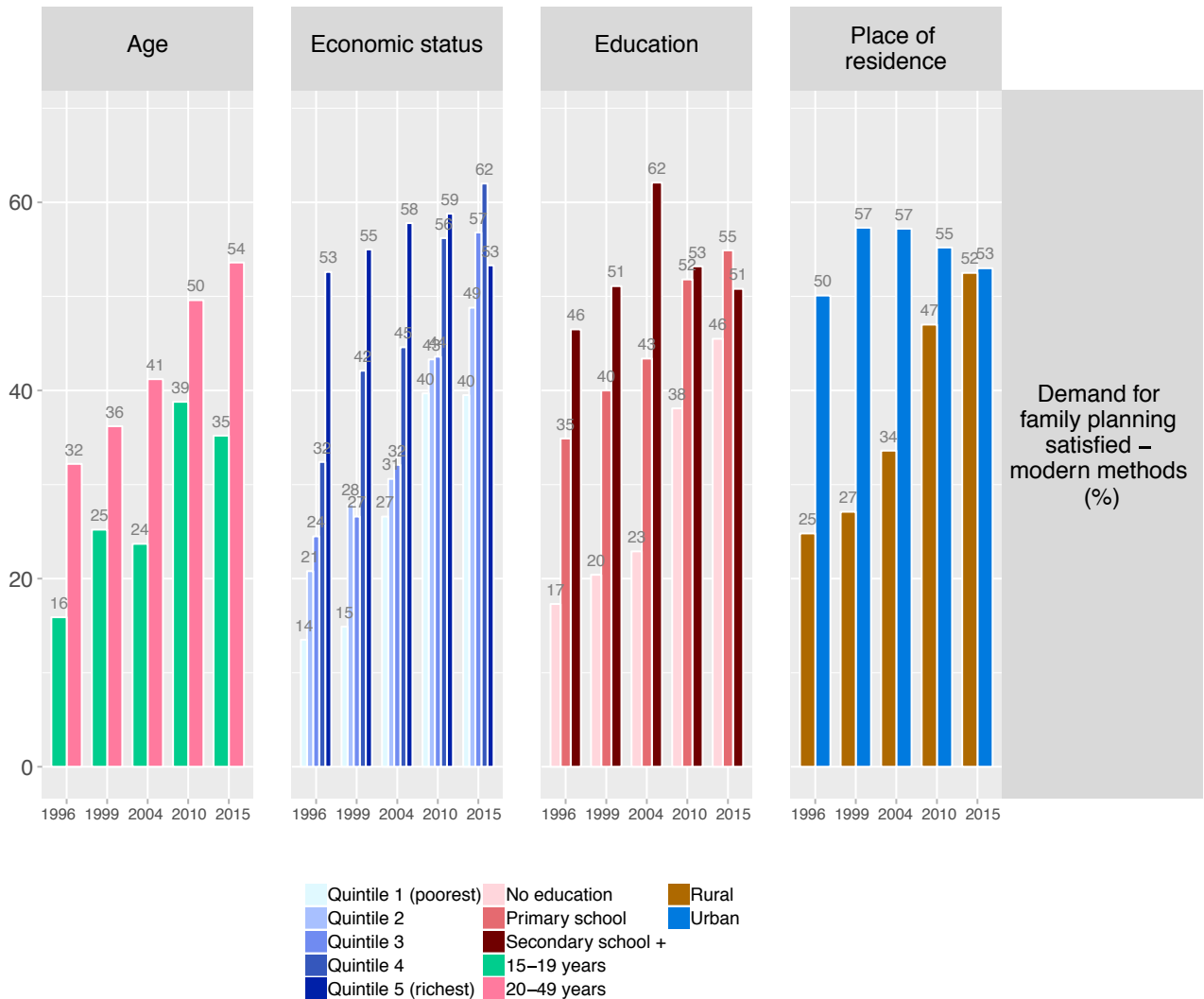
Economic status: There is a consistent increase in contraceptive use both among poor and wealthy individuals between 1996 and 2015. However, wealthy individuals have higher use rates and a more rapid increase compared to poorer ones, except for in most recent years where higher wealth quintiles are not much different in terms of contraception use.

Education status: Contraceptive use has increased among individuals without education from 1996 to 2015. Although in the past, the gap between uneducated and educated in terms of contraceptive use was wide, the gap has been steadily narrowed up to 2015. Specifically, a different trend has been observed among those with secondary education, where use of contraceptives increased from 1996 to 2004, then started to decrease from 2004 to 2015.

Place of residence: Rural–urban differences in terms of contraceptive use also exist in the United Republic of Tanzania. Rural populations have consistently been utilizing fewer contraceptives compared to urban populations. The gap, however, has been narrowing up to 2015. In both populations, the trend is improving towards better uptake of contraceptive devices.

3. Demand for family planning satisfied

United Republic of Tanzania, DHS 1996, 1999, 2004, 2010, 2015



Source: Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 2.1. Geneva; World Health Organization; 2018.
 Data source: The disaggregated data used in this version were drawn from the WHO Health Equity Monitor database (2018 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website.

Fig. A3.3. Demand for family planning satisfied based on age, economic status, education and place of residence, from 1996–2015

Equity stratifiers

Age: Fig. A3.3 shows demand for family planning satisfied is generally low among adolescents (aged 15–19 years) compared to older women (aged 20–49 years). Data show a consistent but widening gap, especially in recent years. Among adolescents, demand for family planning satisfied has fluctuated between 1996 and 2015. It increased from 1996 to 1999, but decreased to 2004. It then started increasing to 2010; however, decreased again to 2015. On the other hand, demand for contraceptives among older women has been increasing throughout the years.

Economic status: Consistent variation with some increasing trend is observed across the years, with lower met demand for family planning among individuals from poorer households compared to those from wealthier families. However, in general, demand for family planning satisfied has increased among poorer individuals and remained the same among wealthier ones.

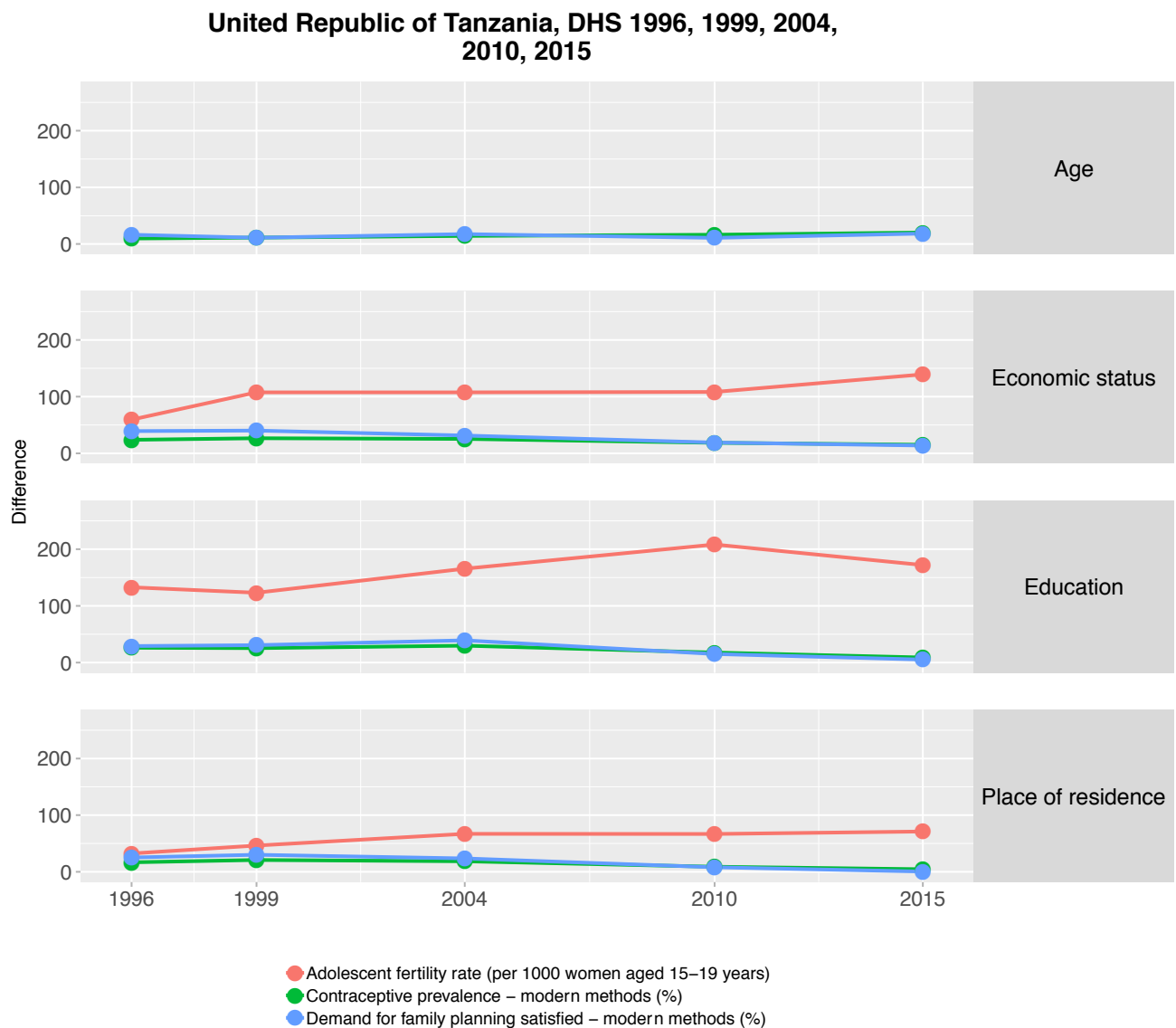
Education level: Data show a consistent increase in demand for family planning satisfied across education level and over the years. Individuals with no education have lower met demand for family planning compared to those with some level of education; however, the gap is narrowing over time.

Place of residence: Urban–rural divide also plays a role in demand satisfaction with family planning. The gap is narrowing as rural dwellers catch up over years; however, those living in urban areas consistently have higher met demand for family planning compared to their rural counterparts.

Summary measures of inequality

Two summary measures of inequality are presented. For each summary measure, all the indicators and stratifiers are included in a single graph.

1. Difference (simple measure)



*Source: Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 2.1. Geneva: World Health Organization; 2018.
 Data source: The disaggregated data used in this version were drawn from the WHO Health Equity Monitor database (2018 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website.*

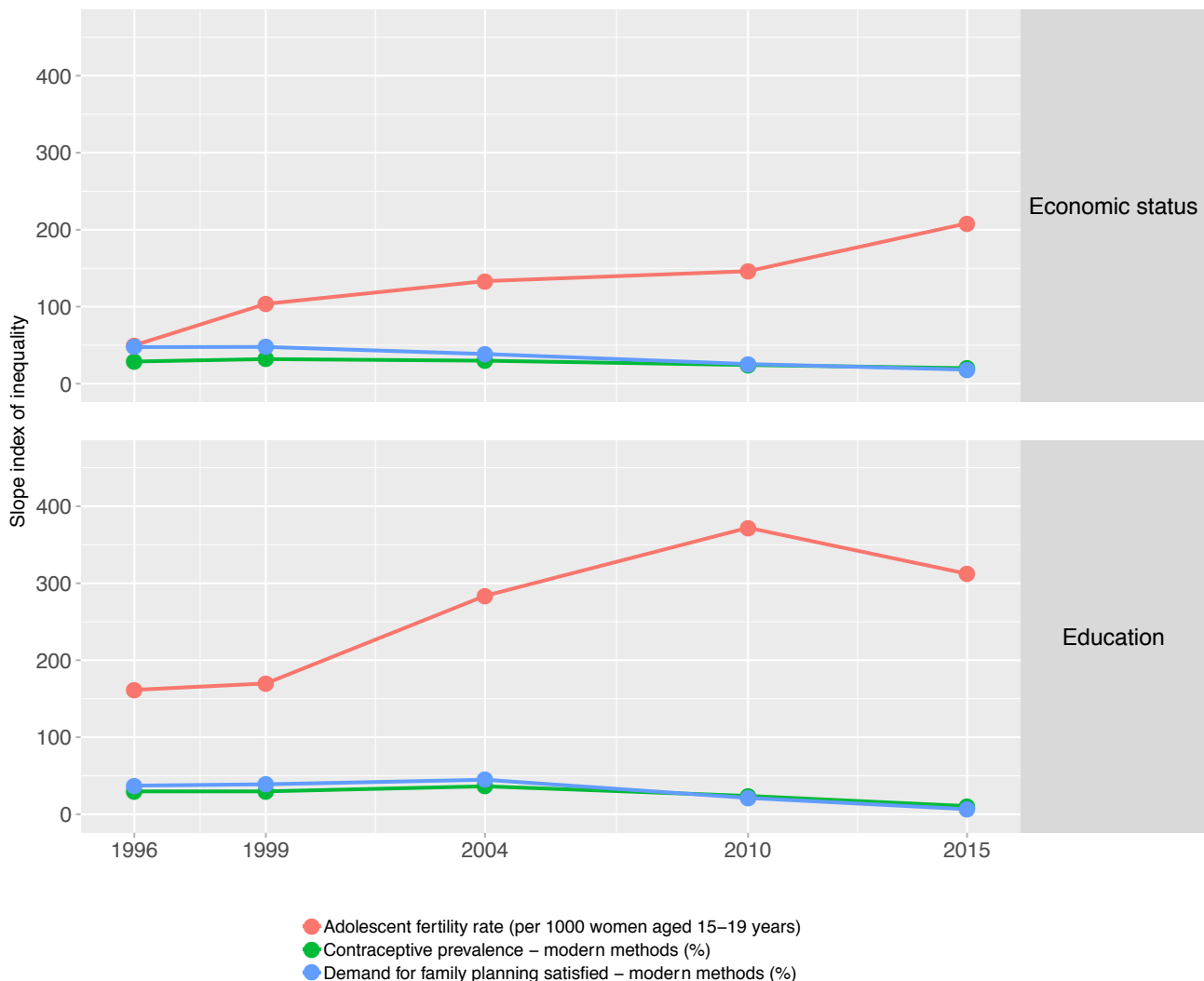
Fig. A3.4. Difference in adolescent fertility rate, contraceptive prevalence for modern methods and demand for family planning satisfied (modern and traditional methods)

Fig. A3.4 shows the patterns of inequality for the three indicators: adolescent fertility rate, contraceptive prevalence for modern methods, and demand for family planning satisfied (modern and traditional methods). For the three stratifiers – economic status, education and place of residence – absolute inequality is greatest

in adolescent fertility rate compared to the other two indicators. In addition, inequality in adolescent fertility rate increased from 1996 to 2015, whereas it showed a decreased trend for contraceptive prevalence and demand for family planning satisfied in the same period.

2. Slope index of inequality (complex measure)

United Republic of Tanzania, DHS 1996, 1999, 2004, 2010, 2015



Source: Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 2.1. Geneva; World Health Organization; 2018.
Data source: The disaggregated data used in this version were drawn from the WHO Health Equity Monitor database (2018 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website.

Fig. A3.5. Slope index of inequality for adolescent fertility rate, contraceptive prevalence for modern methods and demand for family planning satisfied for modern and traditional methods

Fig. A3.5 shows the patterns of inequality for the three indicators: of adolescent fertility rate, contraceptive prevalence for modern methods, and demand for family planning satisfied (modern and traditional methods). For the two stratifiers – economic status and education – absolute inequality is greatest in adolescent fertility

rate compared to the other two indicators. In addition, inequality in adolescent fertility rate increased from 1996 to 2015, whereas it showed a decreased trend for contraceptive prevalence and demand for family planning satisfied for the same period.

ARISE dataset

The ARISE Network dataset provided useful data on access to health facilities and especially care for adolescents. The results of the data analysis are given below.

Access to health facilities

- Adolescents attending clinic/hospital in the past 12 months: 10%; 90% were satisfied with care (55% female).
- Hospital admissions: 8% (of 823); 93% were satisfied with care; 90% were treated with respect; and 89% would come back owing to good care (55.4% female).
- Reasons for visiting: very few (3%) for sexually transmitted infections, contraceptives, or pregnancy testing; 10% for HIV testing.

Age disaggregate

- Attendees: 477 (58%), of which 68% were age 15–19 years.
- Perceived satisfaction: 440 (90%), of which the majority were older adolescents.
- Perceived respect: 410 (86%), of which the majority were older adolescents.
- Attendees due to HIV, sexually transmitted infections, etc. were older adolescents.

Needed to see health care worker/visit health services, but could not in the past 12 months

- Total: 159 (13%); 65% were young adolescents age 10–14 years.
- Self-treated or treated by family member: 276 (22.5%); of which 68% were young adolescents age 10–14 years.

Wealth disaggregate

- Of the 477 (58%) who attended primary clinics: low % falls within low wealth index (21% versus 19%).
- Attendance to traditional healer falls with increase in wealth index.
- Taking herbs/traditional medicines falls with increase in wealth index.
- Hospital admissions increase with wealth index.
- Attending a clinic increases with wealth index (5% in Q1 versus 29% in Q5).
- Self-treatment increase with wealth index (3.6% in Q1 versus 35% in Q5).

In summary, the ARISE data revealed the following under-served adolescent groups.

- Young adolescents:
 - poor access to health services in general
 - poor satisfaction with health workers' attitude
 - less likely come back for care
 - less likely to test for sexually transmitted infections, HIV, etc.
- Adolescents from poor households:
 - less likely to attend hospitals, clinics
 - more likely to attend traditional healers
 - more likely to take herbal/traditional medicine.

However, self-medication is more common among those in wealthier households.

2017 USAID report on SRH in early and late adolescence, based on TDHS 2015–2016

Analysis and review of evidence presented in the 2017 USAID report on SRH in the United Republic of Tanzania showed important results, as follows.

Current marital and sexual activity status among adolescents aged 15–19 years

- About 7% of unmarried adolescent girls and 18% of boys are sexually active.
- About 22% of adolescent girls and 2% of boys are married.

Antenatal care

- A significantly high proportion of women aged under 17 years (about 97%) have at least one antenatal care visit for their most recent pregnancy. A similar proportion of adolescents aged 17–19 years (about 98%) attend antenatal care.
- A slightly higher proportion of women aged under 17 years (about 49%) have four or more antenatal care visits for their most recent pregnancy compared to those aged 17–19 years (about 48%) (results not statistically significant). In this context, focused antenatal care indicators lag behind for both age groups.
- A lower proportion of women aged under 17 years (about 79%) receive iron syrup/tablets compared to those aged 17–19 years (about 84%).

Delivery care

- A significant proportion of women of reproductive age deliver outside formal health facilities. A lower proportion of women aged under 17 years (about 63%) delivered in a health facility compared to those aged 17–19 years (about 67%).
- A lower proportion of women aged under 17 years (about 66%) delivered by a trained health worker compared to those aged 17–19 years (about 69%).
- A higher proportion of women aged under 17 years (about 15%) gave birth to babies perceived to be small or very small compared to those aged 17–19 years (about 9%).
- A higher proportion of women aged under 17 years (about 38%) received a postnatal check-up within two days of delivering their most recent birth compared to those aged 17–19 years (about 36%).

In summary, analysis of the USAID report showed that access to SRH services remains a challenge for women of reproductive age; however, adolescent girls are disproportionately affected compared to their older counterparts. Moreover, a significantly higher proportion of adolescents do not deliver in formal health facilities or have skilled attendance at birth.

Summary of the data mining exercise

The data mining exercise identified the following under-served populations among adolescents in the United Republic of Tanzania:

- adolescents in rural areas;
- adolescents in households with a low socioeconomic status;
- adolescents with a low education level (compared with those with some formal education).

Barriers identified by the data mining exercise

- Access and availability: evidence gathered suggests poor access to contraception options among adolescents. Owing to sociodemographic disadvantages such as poverty, age, place of residence (rural areas) and absence of subsidized services for family planning in all places at all time, adolescents face access challenges in affordability, physical accessibility and operational hours in areas with such services. This is evidenced by low family planning rates among the poor and those residing in rural areas, among others.
- Contact/use: even where health services are available, adolescents are not using available services (evidence in facility delivery and use of antenatal care in the required frequency, as well as skilled birth delivery).
- Effectiveness: owing to lack of or limited adolescent-friendly services and other indicators above, adolescent pregnancy rates are high.

Table A3.1. Data mining summary table: adolescent subpopulation and barrier findings by data source, indicator, stratifier, inequality measure and type of health service

Data source	Indicator	Stratifier(s)	Measure(s) of inequality	Priority health service	Findings	
					Under-served adolescent subpopulation	Main health service barrier(s)
HEAT built-in database	1. Adolescent fertility rate (per 1000 women aged 15–19 years)	Economic status, education level, place of residence	Difference, slope index of inequality	Prevention of HIV and pregnancy	<ul style="list-style-type: none"> • Adolescents with low economic status • Adolescents with low or no education • Adolescents living in rural areas 	<ul style="list-style-type: none"> • Financial • Geographic: living in rural areas <p><i>Note: these barriers are extrapolated from the findings</i></p>
	2. Modern contraceptive methods prevalence	Age, economic status, education level, place of residence	Difference, slope index of inequality	Prevention of HIV and pregnancy	<ul style="list-style-type: none"> • Adolescents with low or no education • Adolescents from poor households • Adolescents in rural areas 	<ul style="list-style-type: none"> • Limited knowledge on contraceptives given in schools • Low education level and lack of life-skills education • Low access to health facilities/ remoteness of family planning services
	3. Demand for family planning satisfied (modern methods)	Age, economic status, education level, place of residence	Difference, slope index of inequality	Prevention of HIV and pregnancy	<ul style="list-style-type: none"> • Adolescents with low or no education • Adolescents from poor households • Adolescents in rural areas 	<ul style="list-style-type: none"> • Limited knowledge on contraceptives given in schools • Low education level and lack of life-skills education • Low access to health facilities/ remoteness of family planning services

Table A3.2. Data mining summary table: adolescent subpopulation and barrier findings by coverage dimension and type of health service

Health service coverage dimension	Under-served adolescent subpopulation	Type of barrier	Type of health service (check if applicable)			
			General	SRH	HIV care and treatment	VMMC
Availability	1. Adolescents in rural areas	<ul style="list-style-type: none"> • Low availability of contraceptives • Low availability of health services in general 		✓	✓	
	2. Adolescents compared to adults	<ul style="list-style-type: none"> • Lack of adolescent-friendly services 		✓		
Accessibility	1. Adolescents with poor economic status	<ul style="list-style-type: none"> • Financial: contraceptives not provided free • Physical: transport costs 		✓		
	2. Adolescents in rural areas	<ul style="list-style-type: none"> • Geographic • Long distance to health facilities 		✓		
Acceptability	1. Adolescents in rural areas	<ul style="list-style-type: none"> • Traditional and unfounded beliefs on contraceptives and lack of life-skills education 		✓		
	2. Adolescents with low or no education	<ul style="list-style-type: none"> • Traditional and unfounded beliefs on contraceptives and lack of life-skills education 		✓		
Contact/use	1. Adolescents in rural areas	<ul style="list-style-type: none"> • Lack of consistent supply of contraceptives/stock outs 		✓		
	2. Adolescents with low or no education	<ul style="list-style-type: none"> • Lack of knowledge on consistent use/adherence 		✓		
Effectiveness	1. Adolescents with low or no education	<ul style="list-style-type: none"> • Lack of knowledge on proper use of contraceptives 		✓		

Annex 4.

Qualitative research report

Introduction

To promote universal health coverage for adolescents, the United Republic of Tanzania conducted an assessment of health services barriers experienced by under-served adolescents, using draft WHO guidance. The purpose of the assessment was to gather evidence on the barriers to adolescent health services in the United Republic of Tanzania as they are experienced by adolescents, with a focus on disadvantaged adolescents.

The assessment was conducted in a series of modules that build to a final report. The third module undertaken by the assessment team was qualitative research. The qualitative research focused on three adolescent health issues identified as priorities for the United Republic of Tanzania: SRH; HIV care and treatment; and VMMC.

Methods

The team utilized focus group discussions and key informant interviews to explore the contextual barriers and challenges to accessing health services for adolescents, and to identify those adolescents who are disadvantaged. The interviews and focus group discussions were conducted at national and subnational levels in five regions of the United Republic of Tanzania.

Research sites and context

The qualitative research was conducted in five selected regions: Dar es Salaam, Dodoma, Lindi, Mwanza and Singida. The selection was made in consultation with WHO Country Office, Ministry of Health, Community Development, Gender, Elderly and Children, and other stakeholders, based on the context of priority regions. Dar es Salaam was selected because it is the economic capital and largest city where most international/national organizations and some ministerial officials reside. In addition, due to a well-established HIV care and treatment system, Dar es Salaam was a convenient area to assess remaining barriers to adolescents living with HIV as well as SRH challenges. Lindi was selected

because it has one the highest school dropout rates owing to teenage pregnancy in the country, among other issues relevant to adolescent SRH. Singida region, in the Central Zone and with a majority of the population living in rural areas, was selected to assess variation in availability and accessibility of SRH services and HIV care and treatment. Singida was expected to illustrate the needs of adolescents living with HIV in rural areas, in contrast to Dar es Salaam. Mwanza was selected as a VMMC priority area owing to nationwide intervention campaigns that are strongly ongoing heavily in the region. Dodoma, the capital city, hosts all ministerial officials was therefore selected for key informant interviews.

Sample size and selection

Purposive sampling was planned and conducted. A consultative process was followed to decide a suitable number of participants for interviews and focus group discussions. Key informant interviews were conducted with senior officials identified in the Ministry of Health, Community Development, Gender, Elderly and Children (including NACP) and the Prime Minister's Office for Labour, Employment, Youth and People with Disability. National level key informant interviews were also held with representatives of international organizations, UNICEF, UNFPA and ILO, as well as implementing partners including Jhpiego, TAYOA, Femina Hip, TYC, UMATI, TGNP and Population Services International. At subnational level, key informant interviews were conducted with reproductive and child health coordinators, social workers, health workers, HIV care and treatment clinic staff and other respective individuals in key implementation areas. Focus group discussions were conducted at purposively selected sites to address the priority health areas. Focus group participants included: adolescents living with HIV; in-school adolescent girls (boarding and day schools); in-school adolescent boys; pregnant adolescent girls and those with children; adolescent boys that recently received VMMC services; and teachers and parents of adolescents.

The interviewees were selected based on the data needs for each priority area chosen. A total of 22 key

informant interviews and 17 focus group discussions were conducted: 19 in Dar es Salaam, six in Lindi, five in Mwanza, eight in Singida, and one in Dodoma. Five interviews were conducted on general health services, 21 interviews on SRH, six on HIV care and treatment, and seven on VMMC.

Data collection tools

Qualitative data were collected by trained research assistants under supervision of the principal and co-principal investigators using interview guides created through a consultative process, taking into consideration the five Tanahashi dimensions of health service coverage: availability, accessibility, acceptability, contact/use and effectiveness. The interview guides were tailored to each of the three priority health service areas, but structurally were the same. The tools for key informant interviews were focused on individuals' opinions, while those of focus group discussions reflected group dynamics. The key informant interview guide was used for informants at the national, district and community levels. The focus group discussion guide was used in health facilities, in schools (for students and teachers), and at the community level. Data collection tools were in English. They were translated to Kiswahili, where necessary, during the interviews and discussions. The final tools used are given in Annex 5 and 6.

Findings of the qualitative research

1. Sexual and reproductive health

Overall performance of the country

Seven of the eight key informant interviewees reported that provision of SRH services to adolescents in the country is "fair", but could be improved.

“There are a lot of barriers in accessing health services. The set-ups are not youth-friendly. UMATI has designed youth umbrellas [a tent with service providers and supplies where youth can seek care] during outreach to attract youth separately, as it has been a challenge for them to access these services in the health facilities.”

Key informant interview

Only one key informant reported otherwise, saying that access to effective health services is poor.

“There are no commodities, the environment is not friendly for provision of services especially in rural areas, and parents and the community in general are not free to talk to youths on this matter.”

Most of the adolescents in the focus group discussions reported that when they need various health services, they go to a health facility. However, it was also reported that some of the adolescents go to pharmacies and/or traditional healers when they need health care. Others reported using herbs, telling their parents, or staying at home when they had no money.

Disadvantaged groups

Various groups of adolescents were identified as disadvantaged by the assessment, including: adolescents living in rural areas compared to those in urban areas; young adolescents (aged 10–14 years) compared to older ones; disabled adolescents compared to those who are not disabled; unmarried adolescents compared to married ones; farmers; adolescents from poor families; and orphans. Sometimes, two contrasting groups (for example, boys and girls, those who are in or out of school, those who are staying in or out of hostels/boarding schools) are disadvantaged in different ways, because they experience different barriers.

Adolescents living in rural areas are disadvantaged compared to those in urban areas due to poor access to health care, because of living a long distance from health facilities.

“Those who are in rural areas depend more on outreach programmes, compared to urban adolescents who visit in health facilities more.”

Key informant interview

Adolescents who are in school are disadvantaged compared to those who are out of school. One reason for this is that working hours at health facilities are the same hours in which students are at school. Also, those who are in school do not access adolescent SRH/family planning services, where the status of being a student

creates self-stigma. Moreover, society's perception is negative when a student is seen accessing family planning services.

“As working hours merge with the school hours, very few adolescents who are in nearby schools attend SRH clinics during break hours for services, as for now we don't have special hours to accommodate them.”

Key informant interview, in Lindi

“Family planning information is banned from being provided in schools, which narrows the chances of these adolescents to access family planning information and where to get them.”

Key informant interview

In addition, adolescents who are in Ordinary level of secondary education are disadvantaged compared to those who are at Advanced level, due to lack of access to condoms.

“Students who are in Advanced level of secondary education here are provided with condoms, but not those who are in Ordinary level.”

Secondary school girl, focus group discussion, in Lindi

It was also reported that adolescents aged under 15 years and those who are out of school are disadvantaged, compared to older adolescents and those who are in school.

“Those who are below 15 years of age are more disadvantaged. They are denied services because they are considered to be young, and those who are out of school are more at risk compared to those who are in schools because their sources of information are narrow.”

Boy, focus group discussion, in Lindi

Another disadvantaged group is boys compared to girls. Boys are not sensitized to use SRH services. A pregnant adolescent in Lindi said that, *“Boys are not encouraged to access SRH/family planning services”*.

“Boys are not seeking SRH services more often, as they are not the ones who become pregnant.”

Key informant interview, in Lindi

Adolescents coming from families of low socioeconomic status were also seen to be disadvantaged.

“The family has no income, so some girls depend on men in the streets to give them money to cater for their needs, and sometimes parents depend on these adolescents to bring money at home.”

Key informant interview

Furthermore, disabled adolescents are disadvantaged.

“It has been difficult for disabled youth to access most health services, it's hard for them to travel to health facilities and with special care they are very few.”

Key informant interview

1.1 Availability of SRH services

A number of availability barriers were reported by key informants and participants of focus group discussions. Lack of skilled health care workers or their inadequate number was reported by about 90% of key informants (7 out of 8) and by participants in a few of the focus group discussions (5 of 13). Stock out of commodities and supplies was reported by about half of key informants (3 of 8) and by participants in most of the focus group discussions (8 of 13). A few key informants (2 of 8) and focus group participants (4 of 13) reported unavailability of adolescent-friendly services. A few key informants (3 of 8) and participants in one focus group discussion with teachers reported that there are few health facilities which provide services. It was also reported by one key informant that condoms do not fit adolescents, creating a barrier to use. Furthermore, lack of life skills education (confidence, discipline, personal and interpersonal skills) was reported as a barrier.

Lack of skilled health care workers was the most common barrier reported by participants. Some health care workers were not trained on provision of some of the family planning methods. Also, some of them could not provide adolescent-friendly services.

“Skilled health care workers are not available in many health facilities. And even when they are available, they are not adequate. The reproductive and child health coordinator always requests us to support the training of health care workers on adolescent SRH service provision.”

National key informant, Dar es Salaam

Some adolescents who participated in the focus group discussions reported that services are available; however, they are not youth-friendly. In addition, stock out of commodities was reported as barrier to accessing contraceptive services by some adolescents. In this context, an adolescent could set a time to visit a health facility, but on arrival may find that contraceptive commodities are unavailable. Therefore, adolescents who can afford contraceptives are forced to go buy elsewhere.

“We were at the health facility when we were told to contribute some money so the nurse can go buy Depo-Provera [from an out-of-facility location] for those who needed it, as it was out of stock.”

Adolescent girl, focus group discussion, Dar es Salaam

However, other participants did not report lack of contraceptives as a barrier.

“Services are available, especially health care providers and contraceptives, but they are not youth-friendly. However, there are days where providers are few and more time is spent on waiting for services.”

Secondary school girl, focus group discussion in Lindi

Lack of tailored SRH services, other than condom use and life skills education, was one of the barriers to SRH services. Adolescent boys were more affected by this challenge than girls because, owing to lack of many options for boys, they do not have adequate chances of contacting the health system compared to girls.

“At least for girls we can offer other life skills and family planning. Boys have only few options for family planning and therefore miss a lot of opportunities.”

Key informant interview, Dar es Salaam

1.2. Accessibility of SRH services

The main accessibility barriers reported by participants were the cost of family planning services or products, long waiting times and long distances to health facilities. Cost was reported by 2 out of 8 key informants and participants in 5 of 13 focus group discussions. Long waiting time was reported by 1 out of 8 key informants and participants of 4 of 13 focus group discussions. Long distance was reported by 1 out of 8 key informants and participants of 3 of 13 focus group discussions. A few key informants and participants of focus group discussions reported other barriers such as need for consent/permission from parents, lack of information on where to get family planning services, health facility working hours being unfriendly to students, health care workers forcing youth to go seek family planning services from other health facilities, health care workers postponing giving adolescents family planning education, difficulties visiting to a health facility because they know a health care worker, and a language barrier.

One of the main barriers to accessing care was the cost of the service or products. Most adolescents do not have an income, which creates a challenge for them to access the services.

“There is no free counselling in the health facilities, for instance, for an adolescent to be able to just pass by for counselling. As long as you want to see a doctor or counsellor, who are same person in our settings, you will have to pay for consultation. For those adolescents with no insurance cards, where will they get money just for counselling?”

Teacher in Lindi, focus group discussion

Long waiting times at health facilities is another important obstacle to accessing care. As a result, some adolescents decide to look for services elsewhere. In most sites where the study was conducted, adolescents opted for pharmacies as a reliable place for addressing their contraceptive needs; however, this is not a sustainable solution as they incur costs for such care.

“I went to the health facility from morning to the afternoon without receiving any service. I decided to go to the pharmacy for contraceptives, where I did not spend a lot of time.”

Pregnant adolescent girl, focus group discussion in Lindi

Long distance to a health facility is a barrier that was mentioned by the majority of respondents in key informant interviews and during focus group discussions. It is time-consuming and costly to travel to a health facility on a regular basis for family planning and contraceptive services.

“The distance between the facility and the village is a problem.”

Key informant interview

“For those who live in rural areas, health facilities are far and cannot be accessed easily.”

Boy, focus group discussion in Lindi

The requirement for parental consent for adolescents aged under 18 years to receive family planning services was also mentioned as a barrier.

“For below-18s to be given family planning items like loop or Depo-Provera is a challenge, as parents have to consent first.”

Key informant interview, Dar es Salaam

Furthermore, the operational hours of health facilities was a barrier to accessing SRH services. This is clear for in-school students, as the operating hours of reproductive health clinics coincide exactly with school hours. Public services do not operate on weekends, creating an access barrier to students.

“For the entire region, we had 12 health care workers who attended youth-friendly services training. At a regional hospital, we had a special room for adolescents which was operating until weekends. With time, health care providers were dedicating their extra hours without motivations and these adolescents seemed to be flexible and could even attend these clinics on working days/hours. Therefore, the youth-friendly clinic was cancelled and integrated in general services.”

Key informant interview, in Lindi

Poor implementation of national guidelines by health care workers was also cited as a barrier to accessing family planning services by adolescents. Some health care workers did not know the type of services that adolescents should be receiving, and at what age.

1.3. Acceptability of SRH services

Lack of privacy was reported as a barrier by the majority of key informants and focus group participants. This problem occurs when a consultation room has more than one service provider working at the same time.

“Visiting at the health facility for care and finding a consultation room with more than one doctor, it's real hard for a youth to open up.”

Adolescent girl, focus group discussion

Self-stigma among adolescents is also a barrier; respondents reported that they worry about being judged by other people when they seek SRH services.

“Other people are asking themselves, like, how will people judge me if I am seen at the health facility testing for HIV or requesting contraceptives?”

Secondary school girl student, focus group discussion, subnational level, in Lindi

“While growing up I was scared to be impregnated, and I ended up stigmatizing myself from health care providers’ judgment before I could even access the services with what I was also hearing about the effects of family planning.”

Adolescent girl, focus group discussion

Younger adolescents also experience barriers in accessing SRH services. Adolescents that are at ordinary level in secondary school, who are usually younger, are denied such services, while those who are at an advanced level of secondary school, who are usually older than those in ordinary level, do not face the same problem.

“Advanced-level students here are provided with condoms, but not ordinary level.”

Secondary school girl student, focus group discussion in Lindi

Some adolescents feel insecure with regard to issues around confidentiality. If a family member is friends with the health provider, it poses a challenge to those adolescents who intend to access services in the same health facility.

“Parents being friends with health care providers creates a sense of insecurity to this youth going back to the same health facility to access family planning services.”

Adolescent girl, focus group discussion

Lack of proper information has made contraceptives unacceptable to many adolescents, due to myths that surround the after-effects of contraceptives such as heavy menstrual periods, cervical cancer, reduction of sexual pleasure and infertility.

“There was a story about how the mother had used the family planning methods and her womb got infected and she became sterile. Now, if we let our children have them, what will happen in the future? Are these medicines safe for our children?”

Teacher, focus group discussion in Kolomije

1.4. Contact/use of SRH services

Many barriers to contact/use of SRH services were reported. The most common barriers reported were: myths and misconceptions; lack of support by the community, including parents and caregivers, for adolescents to be provided with SRH services; and religious barriers. Myths and misconceptions were reported by 3 out of 8 key informants and by participants of 7 of 13 focus group discussions. Lack of community support was reported by 2 out of 8 of key informants and participants of 7 of 13 of focus group discussions. Religious barriers were reported by 1 of 8 key informants and participants of 7 of 13 focus group discussions. Other barriers that were reported by a few participants include: stigma and discrimination of parents and elders/community that adolescents are not supposed to engage in sex because they are too young; health care workers discriminating against youths or not respecting them; shyness; parents not being transparent about SRH; cultural barriers; boys being the ones who decide on the use of condom; and trust issues.

Myths and misconceptions on condom use is a barrier that discourages many adolescents from using them.

“Condoms are not safe as the lubricant on it causes itching and discomfort, moreover most youth have the notion that condom reduces the level of pleasure.”

Secondary school girl student, focus group discussion in Lindi

The community does not support the provision of SRH services to adolescents. This is because of social expectations that adolescents should not engage in sexual activity and should abstain from sex. This was expressed by elders in the community, and by some of the adolescents themselves.

“...most of parents think, like, we have not started engaging in sexual behaviours, but in reality, there are adolescents who are practicing sex from primary schools.”

Adolescent boy, focus group discussion in Lindi

“Youth below 15 years should be taught on abstinence as most of them are planning for their futures, while those above 15 years should be taught about family planning methods as most of them are likely to be out of schools.”

Adolescent boy, focus group discussion in Lindi

Religious norms were reported as a barrier to effective use of contraception. Some religions do not allow the use of family planning methods. Parents and health care workers who hold these beliefs pose a great barrier to the use of reproductive health services by adolescents.

“Most of the religious teachings do not accept contraceptives, as they trigger sexual debut and are associated with promiscuity.”

Adolescent boy, focus group discussion in Lindi

It was reported that some health care workers have negative attitudes towards students, especially when they visit health facilities in their school uniforms. It is culturally unacceptable for students in uniforms to be perceived as if they have started sexual intercourse. Under this norm, they are often denied needed services such as contraceptives. Furthermore, parents do not support their adolescent children receiving such services. These barriers were mainly experienced by young girls aged under-15 years and those in school.

“Health care providers are very harsh when we request for contraceptives. No one needs to be lectured, as I have made my decision already on which method I want to use.”

Pregnant adolescent, focus group discussion in Lindi

“Health care workers are saying youth are too young to use family planning methods, as they may cause cervical cancer and odd discharges.”

Adolescent girl, focus group discussion

“When a health care provider realizes that you are a student, they are questioning you as to why are you there, which develops fear to be judged.”

Secondary school girl, focus group discussion in Lindi

Cultural norms were also reported to be a barrier to use of SRH services.

“Masai girls whose culture believes contraceptive and family planning knowledge is more of witchcraft issues, for this culture when a girl reaches puberty, she is ready to be married.”

Secondary school girl, focus group discussion in Lindi

Lack of education was mentioned as a barrier, particularly for out-of-school adolescents. However, those adolescents who are sexually active and well informed on SRH services do use contraceptives.

“Out-of-school adolescents are at risk of HIV infection and pregnancy, because they have no education and no information related to HIV and family planning services.”

Key informant interview in Dodoma

“When we are well informed on sexual and reproductive health, we become freer on choices as currently Depo-Provera [injections] are more common among adolescents who are sexually active.”

Secondary school student, focus group discussion in Lindi

Trust in relationships also posed as a barrier to contraceptive use. It is believed by some adolescent boys that if a girl requests the use of condoms, then she does not trust her partner.

“As men are not getting pregnant it's easy for them to bring trust issues to ensure condom is not used.”

Secondary school student, focus group discussion in Lindi

Some adolescents do not believe that contraceptives are effective in preventing pregnancy, and therefore do not use them.

“There are people who claimed to conceive despite being on contraceptive, like implants. With the discomforts accompanied with these contraceptives, it makes it more challenging to use effectively.”

Secondary school student, focus group discussion in Lindi

In some contexts, there is an unwritten law that adolescent girls who are not students are required to be accompanied by their male partners for HIV testing or other services, including contraceptive use. If they are denied such services for not fulfilling this criterion, adolescents do not seek such services again.

“At first I went to the health facility for Depo-Provera and the health care provider told me to go bring my partner. I did not go back, instead I went to the pharmacy for the same services where nobody bothers to ask about your partner or anything else.”

Pregnant adolescent, focus group discussion in Lindi

Fear among adolescents is also a barrier. In this context, adolescents are not accessing SRH or family planning services out of fear about how health providers and parents will judge them.

“I was scared to access contraceptives, since my parents could think I have started sexual activity.”

Pregnant adolescent, focus group discussion in Lindi

Being shy was also reported as a barrier. One adolescent, in a focus group discussion in Manyoni, said, “They face difficulties to go for contraceptives because they feel shy”.

It was also reported that some health care workers are too old and discriminate against adolescents when they seek SRH services.

“Where I work, the health care provider is old and one of my friends went for family planning services. Apparently the provider told her as she is HIV-positive sexual intercourse is not for her anymore, instead of providing her condoms.”

Adolescent girl, focus group discussion in Dar es Salaam

1.5. Effectiveness of SRH services

Regular use of contraceptives is a challenge for adolescents. Some adolescents forget to follow the instructions on the use of contraceptives, or forget the calendar day on which they are supposed to receive contraceptives. In most settings, school schedules intersect with clinic hours making it hard for in-school adolescents to attend clinics or adhere to the given schedules.

“I forgot the injection day and realized late when I was tested positive for pregnancy.”

Pregnant adolescent, focus group discussion in Lindi

Some girls reported concern about sexual abuse from service providers. This was mentioned by three girls in focus group discussions in three different locations. Such evidence from service users or their friends suggests to girls that this is a common threat, and therefore it is a strong barrier to accessing such interventions.

“...there is this private hospital where a young girl was raped during consultation.”

Secondary school girl, focus group discussion in Lindi

“There is this girl who went to the dispensary for a contraceptive and a doctor asked her for sex in return. The good thing is she refused and went away.”

Secondary school girl, focus group discussion in Lindi

Furthermore, lack of instructions on how to use family planning methods was reported as a barrier.

“In most of the health facilities, providers do not provide adequate family planning information to youth.”

Adolescent girl, focus group discussion in Dar es Salaam

Potential actions suggested by respondents

- Increase number (coverage) of health facilities providing adolescent-friendly SRH services.
- Increase flexibility of SRH clinics to accommodate schedules of in-school adolescents e.g. offer services during the evenings or during weekends.
- Sensitize health workers on need to pay attention to the reproductive needs of both young and older adolescents, as per national guidelines.
- Incentivize health workers based on performance, using existing mechanisms such as results-based financing. Adolescent health indicators should be added into results-based financing.
- Establish a mechanism to report, investigate and take disciplinary measures against providers identified to have engaged in misconduct, as per national laws and regulations.
- Build capacity of civil society organizations to scale up community sensitization activities that engage parents in adolescent SRH issues.
- Involve village/community leaders, religious leaders and other influential people in SRH advocacy and sensitization activities.
- Build capacity of teachers and schools to formulate and support adolescent SRH clubs for males and females in schools.
- Strengthen age-appropriate and context-specific reproductive health and family planning education in schools.
- Use mass media, including social media and mHealth technology, to address SRH issues for adolescents and create demand for services.
- Councils working with implementing partners to design strategies/incentives to improve boys' access to SRH services.
- Expand access to condoms and other family planning products beyond health facility settings by strengthening capacity of other outlets, such as pharmacies and other vendors.
- Increase the number of providers (nurses) with skills to provide a variety of family planning methods, including intrauterine contraceptive devices and implants, through pre- and in-service training.
- Strengthen security of family planning commodities, including supply chain management.
- Councils working with implementing partners to conduct SRH camps in rural health facilities and communities, based on needs.
- Introduce family planning support groups and mHealth reminders for adolescents using scheduled contraceptive methods such as pills.
- Young adolescents (aged under 15 years) should be allowed to access and use SRH services without parental consent, as per national guidelines.
- Introduce targeted life-planning skills for under-served girls and boys aiming at improving their self-confidence and ability to make informed and rational decisions.
- Address norms and attitudes toward gender inequality (boys and girls).

2. HIV care and treatment

Overall performance of the country

All participants of the two focus group discussions with adolescents living with HIV said they seek health services at a care and treatment clinic when needed. Some also mentioned that they would ask their parents to take them to a health facility when feeling unwell. Those receiving care in Dar es Salaam thought adolescent clubs at the care and treatment clinics have been of great help in encouraging and promoting treatment adherence, and ensuring effective use of ARV drugs. In these clubs, adolescents and paediatric clients receive support from their peers on treatment and counselling.

A total of four key informant interviews were conducted on HIV care and treatment. Three key informants were interviewed at the national level and one at the subnational level. All key informants reported the country's performance in provision of adolescent HIV care and treatment services as "fair". Informants said that adolescent services are provided at an optimum level compared to the past, since the strategic changes had been made. Such tailored changes were designed to accommodate adolescents who cannot attend care and treatment clinics during weekdays. Currently, HIV care and treatment services are available every weekday for the general population including adolescents. However, to accommodate a number of in-school adolescents or those out-of-school adolescents who work during the week, such services are also provided on Saturdays. A few centres of excellence, supported by implementing partners, have been introduced and are doing quite well.

“The overall performance of the country is fair. For it to be very good, the environment has got to be as good as what is seen in Baylor – at Bugando Hospital. That is the best practice, it’s in line with guidelines. There are children’s games, psychologists, and so on.”

National key informant, in Mwanza

“There are only a few places where centres of excellence have been established. And you can also note that most of the facilities have specific clinic days and clubs for adolescents. This has become successful because of the transition from paediatric clinic to adolescent clinics.”

Key informant, Dar es Salaam

Disadvantaged groups

A number of disadvantaged adolescent groups were mentioned by key informants and participants of the focus group discussions. The most common group, mentioned by three quarters of key informants, was in-school adolescents living with HIV compared to those who are out of school. Others groups that were mentioned by a minority of key informants include: older adolescents compared to younger ones; boys compared to girls; adolescents living in rural as opposed to urban areas; and post-pubescent girls compared to younger girls. One key informant reported that in-school and out-of-school adolescents are disadvantaged in different ways. Participants in both focus group discussions reported disadvantages for students living in boarding schools and compared to those living at home, and for adolescents from poor families compared to those from well-off families. Focus group participants also reported that in-school adolescents compared to out-of-school ones, and adolescents living far from HIV care and treatment centres compared to those living closer to such facilities, are disadvantaged.

In-school adolescents are disadvantaged because their clinic appointments and time for taking medicines (those who need to take medicines twice a day) may coincide with their school programme. According to guidelines, children need to take the medicines on a full stomach. Therefore, especially for the morning ARV dose, adolescents have to wait to have breakfast

before they leave for school, and as a result they may be late to their classes or risk being punished. This may make them skip the morning dose and thus lead to an increase in viral load. In addition, nondisclosure of HIV status at school may result in nonadherence to treatment as students wish to avoid being questioned on why they take medications every day.

“Nondisclosure at school makes them not take medication, due to stigma, and end up stopping medication.”

Key informant interview, in Dar es Salaam

On the other hand, out-of-school adolescents were also reported to be disadvantaged as it is difficult for them to access HIV prevention information.

“Their [out-of-school adolescents] understanding of the information is difficult. It is also difficult to package the information for this group of adolescents.”

Key informant interview

Most adolescent girls living with HIV become disadvantaged when they reach puberty. At this stage, they start to mature and think they can handle their lives without guidance from their elders. As a result, many adolescent girls do not listen to advice from elders on various issues including how to take care of their health. Monitoring and adherence are therefore compromised.

“From 13 years old, girls are at puberty stage. If they have been given proper counselling and disclosure has been done, they can handle the changes. But girls at this stage are real hard to control and monitor, most dropouts are in this stage.”

Key informant interview, Dar es Salam

However, adolescent girls have an advantage compared to boys in terms of access to care, because they seek maternal and child health services. Also, younger girls are targeted more by intervention programmes, because they have a higher risk of HIV acquisition than boys. If girls continue to be the focus of interventions, there is a risk that boys are not being reached. As a result, older adolescents and boys could be disadvantaged in accessing care.

“Young adolescents are considered paediatric. They are given special attention through paediatric clinics and initiatives such as ACT, they can easily benefit from routine services as compared to older adolescents who are 15 and so they are considered as general adults.”

National key informant

Further evidence pointed out lack of awareness as a barrier to HIV care and treatment. Such awareness was mentioned in terms of availability of services – those who are not aware of services are automatically disadvantaged. Often these are adolescents with low literacy, from poor households and those who reside in rural areas.

Focus group participants commonly mentioned adolescents in boarding schools as more disadvantaged compared to peers that live at home. Specific to key informant interviews, adolescents mentioned adolescent boys were disadvantaged, and that those whose parents had not disclosed their HIV status were the most under-served group in terms of HIV care and treatment. In focus group discussions, adolescents explained that living far from the clinics makes an adolescent disadvantaged when it comes to accessing health services at a care and treatment clinic. Adolescents also mentioned that some of their peers have not disclosed their status to teachers, and therefore are reluctant to seek permission to attend routine clinics during school hours due to fear of discrimination and stigma from their peers and teachers.

“Boarding students face a challenge for coming to youth club days due to distance and traveling costs.”

Adolescent, focus group discussion in Dar es Salaam

Furthermore, participants from both focus group discussions in Dar es Salaam and Mwanza, mentioned that adolescents from poor households are disadvantaged due to their inability to afford health service fees and transport costs to attend clinics. They also have challenges in accessing adequate and nutritious food.

2.1 Availability of HIV care and treatment

All key informants agreed that adolescent HIV care and treatment services are generally available in the country. However, services are limited to infrastructure only, while adolescent-friendly services are not widely available. Only a handful of skilled staff are available to provide appropriate HIV care that meets needs and standards for adolescents. Although clinic infrastructure is available, it does not meet standards for the provision of adolescent-friendly services. For example, in the Dar es Salaam region, only Mwananyamala care and treatment clinic has the required space while Kinondoni clinic has none. The national HIV programme is finalizing a training package for adolescent HIV services, including psychosocial training for providers and a guide for health care workers who deal with adolescents living with HIV.

“Most of our clinics are not friendly to adolescents, it’s only Mwananyamala where you will find enough space, cartoons and a kids’ playing area.”

Key informant interview, Dar es Salaam

“...only a few facilities have youth-friendly services, and even in such cases, adolescents may not be aware of the availability of those services. They rely on peers quite often – and we are not sure if all peers have the right information.”

National key informant

Participants of both focus group discussions stated that HIV care and treatment services are available. Adolescent participants revealed that both basic and specific services are available. Most care and treatment clinics in Dar es Salaam provide adolescent services on Saturdays. Generally, the clinics offer routine services including ARV drugs, consultations, blood tests for CD4 and viral load, nutrition counselling and referrals for other medical conditions. However, participants in both focus groups mentioned that they have experienced stockouts of ARV drugs, which sometimes necessitates bi-weekly refills, instead of monthly or bi-monthly visits.

“Sometimes the facility stocks out, or medications are few. As a result, we have to share a one-month dose between two people, which requires you to come back after a short time.”

Adolescent, focus group discussion in Dar es Salaam

However, a key informant in Dar es Salaam added that:

“Not all the times that doses are given for a month or less is because of the stock. The dispensing of these ARVs depends on various factors including monitoring of the progress, adherence and other medical conditions. For the youth to be given more than a month, it’s risky, it will be difficult to monitor their progress.”

“Many care and treatment clinics have set an adolescents special clinic day, which is usually on Saturday. On this day counselling on ARVs use and adherence are available, but in cases of other services, adolescents will need to come back on weekdays.”

Key informant interview, Dar es Salaam

In terms of human resources for health, the participants of focus group discussion in Dar es Salaam, confirmed that health providers are available and supportive.

“Health care providers are encouraging, supportive and friendly. Other doctors know how to probe, even if you were not ready to open up, you will just talk.”

Adolescent, focus group discussion in Dar es Salaam

However, a key informant stated that: *“We don’t have enough health workers who are skilled for providing adolescent services. They don’t consider the needed services for this group, but they just provide these services as regular nurses or clinicians.”*

In addition to routine care, the focus group participants in Dar es Salaam noted that they receive life skills lessons from peer educators. Such lessons help to increase awareness and promote self-acceptance.

“The life skills training I received has been of help on self-recognition, if anyone will stigmatize me, that will not affect my medication intake.”

Adolescent, focus group discussion in Dar es Salaam

Despite such positive feedback, however, a focus group discussion conducted in a rural district noted the existence of only a few health care providers at their health facility.

“The one health worker at the reception is also responsible for dispensing medicines.”

Adolescent, focus group discussion in Misungwi, Mwanza

2.2. Accessibility of HIV care and treatment services

Two of the four national key informants noted that although services are available for free, adolescents living in rural areas need transport to reach the clinics where services are offered. There are also costs associated with treating other illnesses, such as sexually transmitted infections.

Adolescents are served on Saturdays to accommodate both in-school and out-of-school adolescents. There is good coverage of hospitals and health facilities in townships and high-volumes sites, especially in districts where implementing partners are working. National-level key informants mentioned that access to health services might be difficult for those in rural areas with low-volume health facilities and dispensaries.

The establishment of adolescent clubs promotes access to care. However, two of the four key informants acknowledged that the mere set up of a Saturday clinic does not fulfil the expectation of providing adolescent-friendly services, due to inadequate number of skilled providers. Therefore, the services received are only general.

“Initially, on Saturdays, youth were to receive the full package, but it’s still a challenge for these youth to access all of them due to inadequate number of providers.”

Key informant interview, Dar es Salaam

Challenges in accessing care are related to distance to health services, especially when parents opt to take or register their child to a distant (from home) clinic due to fear of stigmatization, or as a result of self-stigma. Students, especially those in boarding schools, need to seek permission to attend clinics. This requires them to disclose their HIV status to teachers, a challenge for adolescents who might not want to disclose their status.

In both focus group discussions, all participants confirmed travelling costs as an important barrier to accessing care. This is also related to the distance covered while seeking care, as some adolescents reside far away owing to perceived stigma and disclosure issues. Participants in Mwanza quantified the distance walked to care as up to one hour. This becomes even more of a significant barrier when there is stock out of ARV drugs, which can necessitate adolescents going to the clinic twice in a week, as testified by a focus group participant:

“I am coming from Mbezi to Magomeni care and treatment clinic [in Dar es Salaam] with my mother, who lives at Mbagala. She has to come pick me up from school at Mbezi on my clinic days. It’s so costly when you come and you are told the stock is not enough, that you are only going to be given a dose of two weeks. Considering that the kinds of medications I’m taking are not available at Mbezi care and treatment clinic. For us to manage these costs, it would be good if we are given a dose for two months instead.”

Adolescent in Dar es Salaam, focus group discussion

The majority of participants from the two focus group discussions confirmed that ARV drugs and doctors’ consultations were available free of charge. Other associated costs, such as laboratory tests, have to be paid for either in cash or with insurance at the care and treatment clinic. Most adolescents cannot afford these fees and say their parents do not understand the importance of health insurance.

“Health insurance is important to have, although our parents are not convinced on spending money on the insurance, claiming that we might get ill only once a year or not at all.”

Adolescent, focus group discussion in Dar es Salaam

2.3. Acceptability of HIV care and treatment services

All key informants and focus group participants agreed that HIV care and treatment services are acceptable to the targeted clients. However, in rural areas, there are also myths and misconceptions that derail the intended objectives of the HIV programme.

“The first thing that a parent does when a child falls sick is to consult a traditional healer, it’s all about traditional medicine, and rituals are performed when a woman gives birth, or when a child succeeds in his primary exams to join the secondary school.”

Key informant interview, Mwanza

Although there is general improvement in the attitude of service providers compared to the past, there are still some elements of being judgmental or failing to respond to adolescents’ needs. For example, adolescents are concerned about privacy and confidentiality. This barrier was reported by three of the four key informants interviewed.

“As puberty approaches, adolescents become more concerned about their privacy – they might have fear, and when they go to services, they need prompt individualized services, they don’t want to wait for a long time.”

National key informant interview

Adolescents in both focus group discussions accept the services that are provided at the care and treatment clinic.

2.4. Contact/use of HIV care and treatment services

Nondisclosure was mentioned by all three of the four key informants as the main barrier to use of ART. Lack of appropriate disclosure makes adherence to ART regimen difficult for adolescents.

“Most of the disclosures are accidental and may happen when an adolescent is at the age of 15. The protocol is for the health care workers to empower the caregiver, and then caregiver to work with health care worker to disclose to the child.”

National-level key informant

“Nondisclosure at school makes them not take medication, due to stigma, and end up stopping medication. Some of the issues at school may include worsening of side-effects due to limited availability of proper nutrition and counselling.”

Key informant interview, Dar es Salaam.

There is a need for awareness-raising to counteract the stigma that continues to exist. Parents are willing to make efforts to initiate their children on ART, but there is still a significant level of stigma in the community. Parents are afraid that disclosing HIV status to their child will allow them to discuss their status with other children in the neighbourhood, and this will escalate the news that the family is living with HIV to their communities. Overall, it is stigma that is delaying disclosure.

“Yes, these children are brought in by their parents and they make follow up to ensure that they get ART. However, they are not able to break the news and problems start when they start to ask questions. So you will note that children are not provided with the right knowledge of their status and this continues to be a secret.”

National key informant

It was reported by one of the four key informants that adolescents' lack of awareness about availability of services creates a barrier in the use of HIV care and treatment services.

2.5. Effective coverage of HIV care and treatment services

All four key informants noted that current HIV care and treatment services do not adequately address the needs of adolescents. Health care workers possess inadequate skills to address important issues for adolescents such as prevention of HIV, ART adherence, ART side-effects, disclosure, transitioning from adolescent to adult care, nutrition, mental health and psychosocial support.

“At least now there is more attention given to adolescent services. We know they have unique needs that require their own package. Previously they were included in the adult category, which denied them comprehensive services.”

National key informant

“Adolescents' services are not effective as there are not youth-friendly. The available staff is not skilled to provide the intended services, and the day they come to clinics, we mix them with general population.”

Key informant interview, Dar es Salaam

HIV care and treatment services are available to a large extent. However, participants of focus group discussions complained about the delay in receiving results of routine diagnostics. Specifically, the turnaround time for viral load and CD4 results remains a barrier. The care and treatment clinics also lack adolescent-friendly services tailored to those living with HIV, including SRH services.

“Results for CD4 and viral loads come back late and we wish to know our status as early as possible.”

Focus group discussion, Dar es Salaam

The majority of focus group participants mentioned long queues due to congestion at clinics as a barrier to quality services. The quality of services can also be compromised by unfriendly treatment, especially when health care workers seem to be agitated with workload or family issues. Adolescent participants said they would avoid these providers as a result.

“There are times you may come here and find the provider is not in a good mood. It might be from home, or workmates have provoked that mood, but it's obvious you cannot talk to him or her.”

Adolescent, focus group discussion in Dar es Salaam

“In case you show up on a different day [from the clinic appointment date], you might be attended with some harsh language.”

Adolescent, focus group discussion in Mwanza

One key informant also revealed other elements that could affect use of ARV drugs, including medication fatigue, number of pills for those who use multiple drugs, and side-effects for those using second line ARV drugs.

“He said he gave up because they were making him tired and have nightmares. He also didn’t want his friends to notice that he was taking certain medication every day at the same time – they started to question why he was taking drugs at the same time – do you have HIV?”

Key informant interview

In addition, one key informant mentioned appropriate nutrition is a barrier to adherence, such as availability of food and nutritional content.

“Taking a dose demands a child to eat first, now the school-going children find it hard to take the medicine and so end up skipping the morning dose.”

Key informant interview, Mwanza

During focus group discussions, adolescents living with HIV mentioned side-effects of ARV drugs and nondisclosure issues as barriers to use. Another barrier related to timings for taking drugs, especially medications that need to be taken before meals which can be a challenge during school hours. Regular use is a challenge; sometimes adolescents forget to take medication owing to competing school issues and other household activities.

“There are days when I get busy with house duties and homework from school without noticing time passes by, and I forget to take the medication on time.”

Adolescent, focus group discussion in Dar es Salaam

Potential actions suggested by participants

- Create demand for adolescent HIV services through engaging civil society organizations in increasing awareness and access to HIV testing, targeting adolescents in schools and communities.
- Scale up peer models (such as adolescent clubs) and use social media to engage and support adolescents living with HIV.
- Promote disclosure of adolescents’ HIV status to teachers (school counsellors) to ease permission to access routine health services.

- Involve teachers in counselling students living with HIV on ART adherence.
- Inform teachers on clinic appointment dates.
- Scale up recommended WHO and national training packages to increase the number of health workers trained in providing adolescent-friendly HIV services.
- Use evidence-based methods to address key issues such as low uptake of HIV testing, late ART initiation, and inadequate viral suppression among disadvantaged groups.
- Scale up counselling and peer support through telephone calls (helpline services).
- Expand and renovate existing care and treatment clinics to accommodate space for provision of adolescent-friendly services.
- Counsel adolescents/parents to attend clinics nearby their residence to improve attendance and reduce costs for transport.
- Minimize waiting times at care and treatment clinics.
- Ensure adequate supply of medications to avoid stock out of ARV drugs and avoid unnecessary traveling costs.
- Provide multi-month ART refills for the following groups: adolescents in boarding schools; adolescents from households with low socioeconomic status who face transportation costs; adolescents in rural areas far from health facilities; adolescents registered in far-off facilities; adolescents who are working and may not find time for monthly visits.
- Address food insecurity facing under-served adolescents using practical community social protection means, such as the Tanzania Social Action Fund (TASAF).

3. VMMC services

Overall performance of the country

Access to VMMC services was reported as “fair to excellent” in areas reached by projects working on provision of VMMC services. This was reported by all five key informants who were interviewed.

“Access is good maybe because of the modality we use. Routine services at the facilities and campaign or outreach.”

Key informant interview, Singida

Two focus group discussions were conducted among in-school adolescents. Participants of both groups reported going to a health facility when they need any type of health care. However, they reported that some of their peers who are not in school go to traditional healers when they need health care.

Disadvantaged groups

The most common disadvantaged adolescent groups identified were those living in rural compared to urban areas and those who are out-of-school compared to in-school. Adolescents in rural areas were reported as disadvantaged by 3 of 5 key informants, and those who are out-of-school were reported by 2 of 4 key informants and participants of both focus group discussions. Other disadvantaged groups mentioned by a few of the participants include adolescents who engage in income-generating activities, adolescents from poor families, mentally challenged adolescents and orphans.

Adolescents living in rural areas are disadvantaged because fewer health facilities providing VMMC services exist in rural areas compared to urban areas.

“Those who are in urban areas are more exposed. Also, there may be more health facilities in urban areas compared to rural areas.”

Key informant interview, Dar es Salaam

Out-of-school adolescents are disadvantaged for several reasons, including the difficulty in locating them for service provision, because they cannot be found in a structured setting compared to those who are in school. Another reason is that some out-of-school adolescents are not educated on the importance of VMMC, and therefore do not seek services.

“It is easier to reach those who are in school. They can be asked to go inform their parents, or the community voluntary health workers can make a follow-up on them. Those who are out of school, the big challenge is they are below 18 years and are not self-employed, so it is difficult to reach them as they are neither in school nor at their workplace.”

Key informant interview, Dar es Salaam

Another group of adolescents that is under-served are those engaged in income-generating activities, who may consider going to a health facility for VMMC as a waste of working hours.

“Many of the adolescents in the village who have started their own income-generating activities, their investment is their manpower. They look at the opportunity cost that if he uses the services, he should be careful that he should not disturb the wound, and also the adolescent thinks he wastes time by not working.”

Key informant interview

Adolescents from poor families were also identified as under-served compared to those from wealthier families. This is due to the costs associated with receiving care, such as transport costs.

“Much as the VMMC services are free of charge in many places, especially in the villages supported by donor-funded projects, in some unsupported facilities the services are not free of charge. In addition, there are other associated costs such as transport costs emanating from the frequent visits to the designated health facility to get the services. These costs make this population face difficulties in accessing VMMC services.”

Key informant interview, Iringa.

Adolescents who are mentally challenged are disadvantaged because they need someone to look after them, particularly in terms of post-operative care. In addition, orphans, who do not have caregivers, experience barriers to VMMC services.

3.1. Availability of VMMC services

The main availability barrier to VMMC services is the unavailability of health care workers or insufficient numbers of skilled health care workers, which was reported by four of five key informants and participants of one focus group discussion. Other barriers were reported by a minority of participants, including lack of health facilities and stockouts of medications.

Several reasons were cited for insufficient human resources being available to provide VMMC services, include health workers being ill, being on vacation, going for further training, or going to provide outreach services in villages far from a health facility. In addition, owing to the shortage of health workforce, health care workers are sometimes not available to provide VMMC services because they have to do other duties. Furthermore, clients are frequently requested to come back on a different day due to health workers' high workload.

“...high workload for health care workers. You find that the same health care worker who provides VMMC services also provides other services... Sometimes a health care worker goes for further training, so their number decreases. Or sometimes health care workers go for outreach services.”

Key informant interview, Singida

“...sometimes they [health care workers] are on vacation or ill, or in the campaigns, because we have many regions to provide VMMC services, so maybe four service providers have been taken to go to either Morogoro or Singida, and those four service providers have other duties at the facility. So clients are asked to come back the next day. Others are on duty at night.”

Key informant interview, Iringa, near Dar es Salaam

The other availability barrier reported was the inadequate number of health facilities that can provide VMMC services.

“Not all facilities are allowed to offer VMMC services. Some facilities do not meet the criteria, such as having a sterilizing machine.”

Key informant interview, Dar es Salaam

3.2. Accessibility of VMMC services

Accessibility barriers to VMMC services were reported by a minority of participants, including long distance to a health facility, inability to postpone work to go for VMMC, the need for parental consent for adolescents aged under 18 years, and the cost of care.

Time is a limiting factor for adolescents who are engaged in income-generating activities, who find it hard to postpone going to work and getting an income to instead receive circumcision at a health facility.

“Many of the adolescents in the village who have started their own income-generating activities...look at the opportunity cost if he uses the services. He should be careful that he should not disturb the wound, to go back to the facility two days after the surgery and on the seventh day to go for check-up... Also, if he does hard manual work, he will be told to avoid doing that hard manual work for about 48 hours to avoid disturbing the wound. He is then asked to come back for check-up and he may be asked to wait for seven days before going back to his work.”

Key informant interview, Dar es Salaam

Economic activities related to particular seasons, such as the harvesting period, can be a barrier; adolescents assisting in harvesting will not be willing to forgo such activities in order to receive VMMC services.

Another accessibility barrier is having to travel a long distance to a health facility that provides VMMC services. Not all health facilities can provide VMMC services, as they have to meet certain criteria for provision. This barrier is mainly experienced in rural areas, which have fewer facilities that can offer VMMC services; therefore, clients have to travel a long distance to receive the service.

“Long distance is a barrier, so what we do is to provide outreach services.”

Key informant interview, Singida

“Health facilities which have met the criteria to provide VMMC services may be far away, so it is costly to go.”

Key informant interview, Dar es Salaam

Unavailability of parents to provide consent for adolescents aged under 18 years was also reported as a barrier. Sometimes parents are busy with income-generating activities and find it hard to allocate time to take their sons for VMMC.

“Under-18 adolescents are considered as minors. They are allowed to provide assent but not consent. Consent must come from a parent or guardian.”

Key informant interview, Dar es Salaam

Cost of treatment was also mentioned as a barrier, as some clients could not pay for circumcision when services were not provided during campaigns.

“Currently there are no campaigns, so when you go to a health facility, you are asked to pay.”

Adolescent boy, focus group discussion in Mwanza

3.3. Acceptability of VMMC services

Most communities accept VMMC services, however, myths and misconceptions were also reported. Some focus group participants mentioned that there is a community perception that the prepuce is taken and used in superstitious rituals; as a result, adolescents may not want to be circumcised. Some adolescent boys worry that their penile size might shrink, while others have misconceptions around becoming impotent. Some societies in the country prefer the traditional method of circumcision rather than the medical one, because it looks effeminate.

In some health facilities, lack of privacy was reported as a barrier to VMMC services. This is due to infrastructure challenges, whereby lack of adequate space or rooms denies clients privacy and, therefore, threatens service delivery in general. During campaigns, there is little privacy in the provision of VMMC services due of the use of halls that have been partially partitioned.

“Privacy is an issue. It is about the infrastructure. You may find that the room in which VMMC services are provided is bordered by a place where other clients waiting for other services are seated... overall, for younger adolescents, 10 to 14 years old, it has never come up as a barrier, but it is an issue for older ones aged 18 to 19 years. The older adolescent may say... how can I go there where children and women are sat and everyone knows that I am going there for VMMC services?”

Key informant interview, Dar es Salaam

Sometimes health care workers do not provide friendly service to adolescents, creating a negative interaction between the provider and client. This situation could be reported back to other adolescents and discourage them from seeking VMMC services.

“Sometimes adolescents experience negative experiences from the health care providers...because of a health worker’s bad mood... but not frequently.”

Key informant interview, Iringa

3.4. Contact/use of VMMC services

Very few participants reported contact/use barriers to VMMC services. Barriers include shyness of adolescents, fear of pain due to the operation, and the unavailability of a caregiver to provide care after circumcision.

Shyness was mainly experienced by older and mature adolescents, who feel shy about receiving services from a female health care worker or one whom they know, or about going to receive services in a health facility room situated close to waiting areas where women and children are seated. This is also a problem for some adolescent boys who were not circumcised when they were young and delayed the procedure.

“An adolescent feels shy to receive VMMC service where there are many people at the site and they know that he is going to get that service...Also, many of our service providers are women [they feel shy to receive the service from a female service provider]... also, older adolescents think... people will be surprised that where was I [when he was younger] that that I get VMMC service now...until this age you were not circumcised.”

Key informant interview, Dar es Salaam

Pain was reported as a minor barrier to contact and use of VMMC services. Fear of pain may be a response to pre-service information on the VMMC procedure itself. A small number of adolescents retreat from health facilities if they heard their peers cry out of pain.

“Fear of pain is a barrier, but not to a big extent.”

Key informant interview, Singida

Unavailability of a parent or guardian to take care of clients after the procedure, including wound care, was also reported as barrier. This concern related mainly to adolescents who are mentally challenged or orphans without guardians.

“Access to care depends on the type of disability. There are those who are mentally sound and those who are not. For those who are not mentally challenged, we have to make sure that someone is available to assist in taking care of the wound, but for those who are mentally sound, face no challenges.”

Key informant interview, Iringa

3.5. Effectiveness of VMMC services

A minority of participants reported barriers related to effectiveness of VMMC services, including long waiting times, students needing permission for VMMC services, providers' lack of skills for managing complications, and inability of adolescents to adhere to post-VMMC medical recommendations.

One of the reasons reported for long waiting times was health care worker attendance at morning meetings delaying the start of service provision or health care workers being involved in other tasks.

“Sometimes long waiting time is a barrier when health care workers are caught up with other tasks.”

Key informant interview, Singida

“In our health facilities, usually there is a long queue, clients usually wait for not less than 2 or 3 hours to get the service. So, the adolescent thinks he wastes time not working and going just to wait at the health facility.”

Key informant interview, Dar es Salaam

It was also reported that service providers sometimes do not know what to do if a complication occurs, and therefore refer a patient to a higher-level facility. Some patients then face difficulties as they have no money for transport and medical care.

There is no continuity of SRH services to male adolescents after they are circumcised. This poses a challenge to the effectiveness of VMMC as an intervention to prevent HIV infection. Moreover, some adolescents do not follow the instructions on wound care; they may use local herbs to fast-track the recovery process, which can lead to complications.

“We haven't looked into the adolescents' reproductive health as a whole for quite a while. There are silos of programmes, which is not comprehensive enough.”

Key informant interview

Potential actions suggested by participants

- Increase the number of static health facilities providing VMMC and early infant male circumcision services in targeted regions.
- Integrate VMMC services into the general health services package.
- Address the myths and misconceptions around VMMC services through existing communication channels and by using champions.
- Scale up VMMC outreach services to target rural villages.
- Improve the process of obtaining parental consent by using modalities that do not necessitate physical presence of the parent; for example, community health workers obtaining consent at home.
- Increase flexibility of VMMC services for clients in terms of providers' gender (male versus female), time for the procedure, and a health facility of choice.
- Engage parents, guardians and service providers to provide post-circumcision care to young adolescents and those who are mentally challenged.
- Consider alternative methods of consent for orphaned adolescents and those who are mentally challenged.
- Expand the scope of VMMC counselling to include other SRH issues, such as HIV/AIDS, psychosocial services, and so on.
- Councils and implementing partners to plan for VMMC campaigns during school holidays and post-harvest seasons.

Limitations of the qualitative research

Some of the adolescents who participated in focus group discussions were recruited from structured settings; as a result, very under-served adolescents that experience more barriers when accessing health care may have been missed. For instance, adolescents living with HIV were recruited from care and treatment clinics. Therefore, their perceptions on the provision of health services and barriers experienced to accessing care might be different from those adolescents who are living with HIV but who do not access care.

Recruitment of adolescents living with HIV but not receiving care was particularly challenging, because it is difficult to locate them due to HIV stigma and the fact they are not found in a structured system.

The qualitative research covered all five dimensions of health service coverage of the Tanahashi model and the three health conditions selected by the country. The findings and potential actions could not be listed in order of priority or strength. As such, the magnitude of the barriers could not be measured and results will need to be triangulated with other data and findings before they are ranked and prioritized.

Annex 5.

Key informant interview guide: adolescent SRH services

This guide was used to conduct key informant interviews at national and subnational level. It is based on a generic script provided in the WHO handbook for conducting an adolescent health services barriers assessment, which was modified to address adolescent subpopulations and barriers relating to SRH services (including HIV prevention and family planning) in the United Republic of Tanzania.

Introduce the research

We are researchers working for the Ministry of Health, Community Development, Gender, Elderly and Children and the World Health Organization to identify barriers faced by adolescents when accessing health services. Before you decide whether or not to participate, I will explain why the research is being conducted and what it will involve. Please feel free to ask if anything is not clear, or if you would like more information.

We are trying to identify which groups of adolescents in the country have the least access to health services, and what barriers they face. By “adolescents” we mean young people aged 10–19 years. By “adolescent group” we mean any subpopulations that might be identifiable by sex, age, education, economic status, place of residence (e.g. rural/urban), subnational area (e.g. district, state or province), or other characteristics. It may be that some under-served adolescent groups are not easily recognized, so your opinion as an expert would be especially valuable in identifying them.

We would like to identify adolescent groups which have difficulty accessing health services in general, but also particularly as relate to prevention of pregnancy and HIV, which the country has identified as a priority for adolescent health. Two goals of this assessment are for the information we learn to better inform national health programming and to improve access for under-served adolescent populations. Do you have any questions before we continue?

Consent information

If you are satisfied, you will be asked if you wish to participate in the study. If yes, you will be asked to sign this Informed Consent Form. You will be given a signed copy of the form to keep.

Your participation in this study is completely voluntary. If you decide not to participate, you will not lose any benefits to which you are entitled. If you agree to participate in the study, you are free to skip any questions or to end your participation at any time without penalty, and you will not lose any benefits to which you are entitled and it will not affect your relationship with the facilitators. Your responses will be kept confidential and will not be linked to your name.

Proceed seeking for consent, using the Informed Consent Form.

Answer any questions that the interviewee may have, and then proceed with asking the key informant interview questions, as follows.

1. How would you rate adolescents' overall access to quality HIV prevention and family planning services in this country? Would you say excellent, good, fair or poor? Why?
2. Which group(s) of adolescents have the greatest difficulty accessing general HIV prevention and family planning services e.g. condoms and/or contraceptives? (Examples of groups could be poor, rural or ethnic minorities, but also groups which are not as obvious or easy to measure such as migrant labourers, married girls, street children, disabled adolescents, out-of-school adolescents or sexually active school pupils.
3. Several steps need to be achieved for an adolescent to obtain effective health services such as HIV prevention and family planning (e.g. condoms or contraceptives, including emergency contraceptives), including steps related to:
 - Availability (Do adolescent sexual and reproductive health services exist all over the country? Do they have required inputs, such as adequately skilled staff, medications and equipment?)
 - Accessibility (Can adolescents reach the services, in terms of transport and opening times, and can they afford them?)
 - Is this access different for adolescent boys and girls? For younger (under 15 years) or older adolescents?
 - Acceptability (Are the services acceptable to adolescents, considering gender issues, confidentiality, discrimination and stigmatization that they may face, and other issues?)
 - Use (Has the adolescent contacted and used the services?)
 - Effectiveness (Are the services of sufficient quality to be effective? Are there issues that influence treatment adherence by the disadvantaged subpopulation? Does the referral system work, etc.?)

For the disadvantaged adolescents you have already described, which step/steps are the main barriers with regards to HIV prevention and use of contraceptives? [Discuss each group mentioned previously by the key informant.]

4. What changes to current services should be made to address barriers and improve access for the most disadvantaged adolescents?
5. What social or cultural changes do you think could address barriers and improve access for the most disadvantaged adolescents? (Let them answer, and then probe if they have not addressed: what about changes in relation to gender norms, roles and relations?)
6. In your mind, what are currently the most important available sources of information on why some adolescents are being left behind?
7. How would you adjust monitoring of health status and health services to better see if the needs of the most disadvantaged subpopulations are being met?

When done with these questions, briefly explain the planned literature review, data mining exercise and subnational research. Ask the key informant if they have any suggestions, e.g. databases which might be analysed, and contacts who can help access them. Then offer to answer any questions they may have, and thank them for their time at the end.

Annex 6.

Generic guide and script for focus group discussions with adolescents

This guide was used in focus group discussions with under-served adolescents. It is based on a generic script provided in the WHO handbook for conducting an adolescent health services barriers assessment, which was adapted to address adolescent subpopulations and priority health services in the United Republic of Tanzania.

Introduction

The facilitator should begin by introducing him or herself and saying:

- We are meeting to discuss adolescent experiences of trying to obtain good health services [in general or specific to health conditions A, B and C]. By “adolescent” we mean anyone aged 10–19 years old.
- In this discussion, we ask that everyone will respect each other’s privacy and not share what is said here outside of the group later. What we discuss here will remain confidential.
- We would like to audio-record the discussion and take notes to help us remember the details later, but no one’s name will be connected to what they say.
- The discussion will probably take about 2 hours, and then we might ask to speak with a few of you individually afterwards, just for a short time. During the discussion, we will provide you with some refreshments.

The facilitator should make sure participants consent before proceeding with audio-recording. The facilitator should then introduce the other researcher who is present, and invite members of the focus group to introduce themselves using their first names and briefly saying if they are in school or working, and if they live with friends, parents or a spouse.

Q1. We would like to learn more about what young people like yourselves do when they have health care needs. When we say “health care needs”, we mean things like treatment for an illness or an injury, or medicine to prevent disease or pregnancy.

What do most people your age do if they have health care needs? (20 minutes)

Q2. We would like to understand more about any barriers young people experience when they are trying to get good health care. I am now going to ask some questions about different kinds of barriers.

If you or your friends have experienced any of these barriers, please explain.

Q2.1. (**Availability**): Are there any health services available to you and your peers? If yes, do they have enough staff, medications and equipment? If there are any problems, please explain. (12 minutes)

Q2.2. (**Accessibility**) Are you and your peers able to reach those health services when you need them? Do young people encounter any problems with distance or transportation? Are there problems with costs or opening hours? Please explain. (12 minutes)

Q2.3. (**Acceptability**): Do you or your friends like or dislike those health services? Are they private? Are the health workers respectful? Do the health workers discriminate against adolescents in general, or any particular groups of adolescents? Do they treat girls and boys differently? Do they treat younger and older adolescents differently? Please explain. (12 minutes)

Q2.4. (Contact/use): Are there any other reasons why adolescents might not attend available services when they have health care needs? Do you think sometimes young people might not recognize when they need health care? And do they ever have false beliefs about health services? Please explain. (12 minutes)

Q2.5. (Effective service): Do you think the treatments young people receive through health services are good? Do they work well? Please explain. (12 minutes)

One important task during discussion of the above questions is to understand which reported barriers seem to be common, and which groups of adolescents are most affected. Thus, when a participant has described a new barrier, the facilitator can follow up by asking the whole group for clarification. Follow-up questions can include:

- Is this a common problem for young people like yourselves? Please explain.
- Does it happen to most youth, or only about half, or only a small number?
- Please explain if this affects some adolescent groups more than others.
- Please explain if it is different for boys and girls.
- Please explain if it is different for younger and older adolescents.

Q3. Before we close, we would like to ask whether there are any groups of adolescents that experience especially great difficulty in getting needed health services.

In your opinion, are there any groups of adolescents that experience especially great barriers to health services? Please explain. (15 minutes)

- Are there any differences between girls and boys?
- Between younger and older adolescents?
- Between other groups which are different because of poverty, ethnicity, education, or where they live?
- Please explain.

Q4. Please take a moment now to think about the different adolescent groups we have talked about, and the different barriers that prevent them from getting good health care. What do you think could be changed to help them get better health services? In your opinion, what single change would make the biggest difference?

Please explain. (10 minutes)

Closing (5 minutes): The facilitator should end the discussion by saying:

- Thank you very much for participating in this discussion.
- Do any of you have any questions for us before we end? [Answer any questions].
- At this time, we would like to interview two or three people individually for 15–30 minutes.
This is a standard part of the assessment.
- Can you all please wait a few minutes while I consult my colleague?
Then we will let you know who we would like to interview, and the other participants can leave.
- Thank you all again.

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