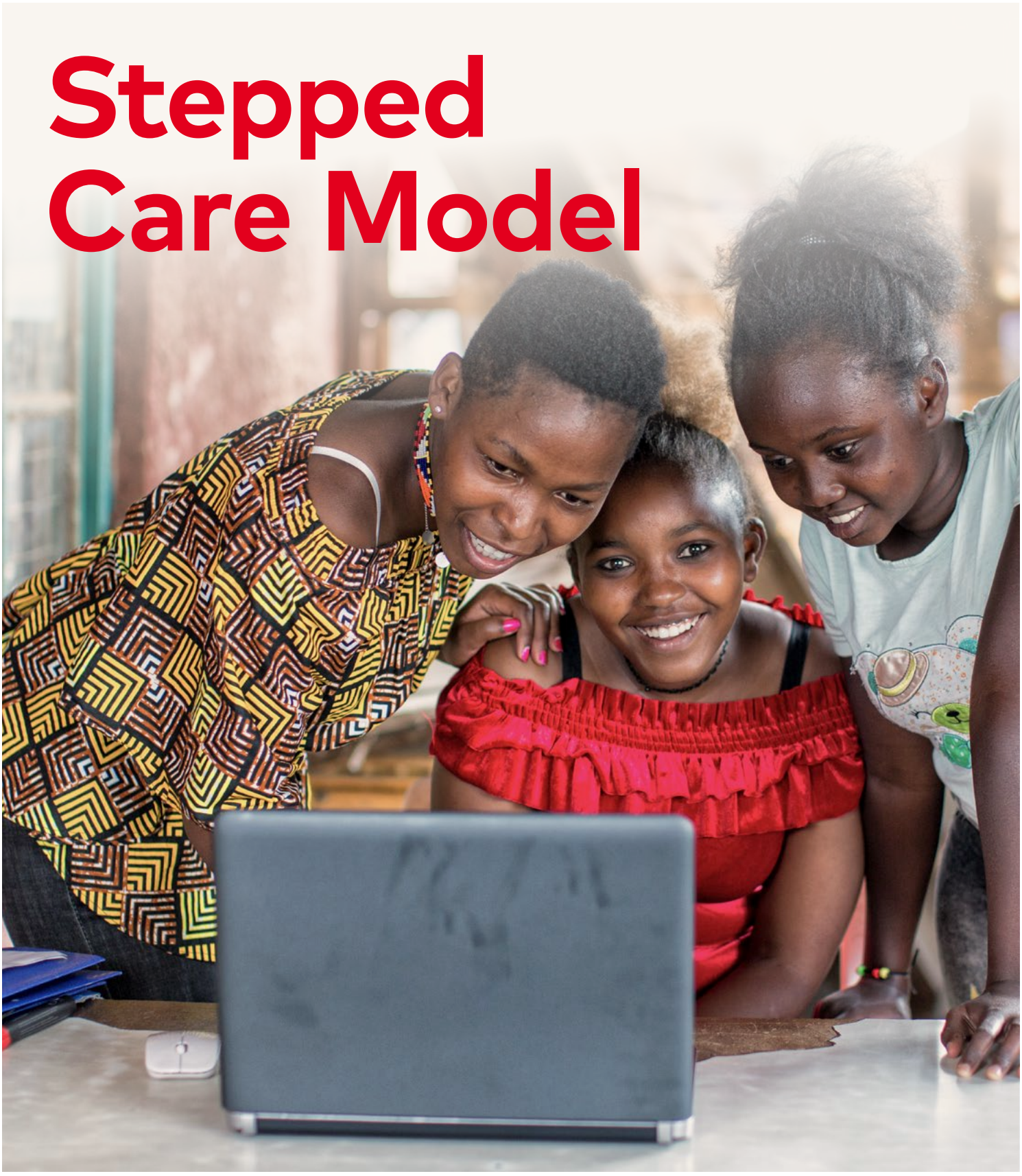
Stepped Care Model



Framework for youth-centred sexual reproductive health and rights information and services

Guidelines for implementation

aidsfonds

About this guidance

This guidance provides an overview of experiences, lessons and challenges in implementing the Stepped Care Model. Through a literature review and key informant interviews with partners and policy leaders, the lessons documented here can help guide implementers, researchers, policy-makers and donors to reduce fragmentation, stimulate cooperation between health providers and support young people to lead healthy sexual and reproductive lives.

Reference
Aidsfonds (2021). Stepped Care Model: Framework for youth-centered sexual reproductive health and rights information and services. Amsterdam: Aidsfonds – Soa Aids Nederland.

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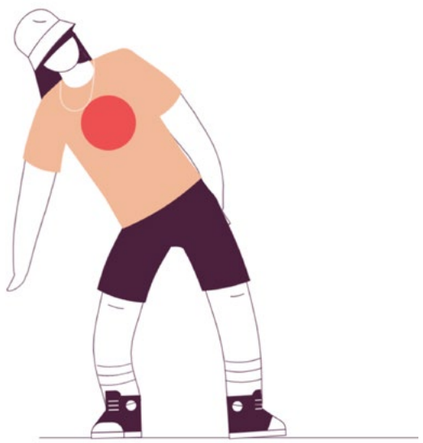

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Acronyms

DHCK	Digital Health Coalition for Adolescents and Young People – Kenya
HIV	Human Immunodeficiency Virus
NGO	Non-Governmental Organisation
SCM	Stepped Care Model
SRHR	Sexual and Reproductive Health and Rights
STI	Sexually Transmitted Infection
WHO	World Health Organization
NDOH	National Department of Health – South Africa

Introduction

Young people face significant barriers when trying to access sexual and reproductive health and rights (SRHR) services or information. Right when they begin exploring their own sexuality, access to information is withheld because of social norms around sexuality. There is often limited availability of trained health professionals and/or lack of resources dedicated to youth-friendly services. Additionally, young people experience inconvenient facility locations and a general fear of stigma and discrimination from parents and other gatekeepers (Delany-Moretlwe et al., 2015; Zuma et al., 2015; Denno et al., 2015). All of these factors increase the barriers that young people face and negatively impacts on their SRHR.

The reach of mobile and internet technologies is expanding rapidly, especially among young people. Young people seek out health information from other sources including their peers and, increasingly in the digital age, from the internet and connected mobile devices (Ippoliti & L'Engle 2017; Hampshire et al., 2015). The World Health Organization (WHO) sees digital technologies as important tools to deliver SRHR services, to improve access and complement traditional service delivery (WHO, 2019; WHO 2018; WHO 2019b; Ippoliti & L'Engle 2017; Guse et al., 2012).

As digital technology becomes more integrated into daily life, the digital delivery of health services and information can promote the sexual rights of young people by revolutionizing the way they view their own sexuality. Digital technology provides an opportunity for young people to understand their reproductive rights and access the information they need to lead healthy sexual and reproductive lives (Braeken & Rondinelli, 2012; Chattu et al., 2021).

The need for more collaboration

Multiple digital health funders and implementers may develop new apps, websites and hotlines to support young people. However youth-focused digital health applications can be fragmented and confusing for a young person to navigate. Products developed with limited donor funding do not last from one 5-year period to the next. Uncoordinated services vary in quality and may not have any connection or link to youth-friendly health delivery points that provide contraceptives, HIV testing and other SRHR services that young people need.

Digital solutions for sexual health should be combined and linked with other coordinated services to engage young people according to their personal life experiences and match their level of sexual development and risk exposure (Ventuneac et al., 2020; Mustanski et al., 2020; Baraitser et al., 2015; Guse et al., 2012).

The **Stepped Care Model for Sexual and Reproductive Health** is a client-centered framework that organizes and coordinates online and offline services in a meaningful way for young people. The framework:

- Streamlines the experience for a young person to realize a healthy sexual and reproductive life
- Helps young people navigate and choose among available services and facilitates access to information
- Links and complements information and service delivery
- Intends to maximise the capacity of health professionals to focus their time and effort on prioritized and vulnerable young people

1. Stepped Care Model: An approach to improve digital health systems

Stepped care is an evidence-based model which comprises of a hierarchy of services and complimentary steps to tailor information and service provision to the complexity of an individual's health needs. The stepped care model aims to increase access to quality information and services for young people while also improving health service provider experiences, lowering the burden on the healthcare system, and empowering young people to become more self-reliant. By progressing through different choices and steps in the model, a young person is connected to the services that directly meet their needs; when their needs change, the appropriate services are available to help them.

Origins of stepped care

Stepped care as a model of health service delivery originated in the mental health field. It proposed a way to reduce costs and treatment burden by offering the first line of treatment as self-guided therapy delivered through the internet or other remote mechanism (Ho et al., 2016). Clients are referred to higher steps in the model according to their needs and treatment outcomes, with progressively more intensive and individualised care in successive steps (Ho et a., 2016).

The model is based on three assumptions (Von Korff & Tiemens, 2000):

1. Different people need different levels of care at different points in time
2. Systems that assess and monitor clients' needs and outcomes at each level can help clients find the right level of care
3. Moving between levels of care based on clients' needs and outcomes may increase effectiveness and lower costs

By applying this model of service delivery to youth-focused SRHR, the needs of the individual can be better respected regardless of age, sexual orientation, gender identity, health or marital status (Berer 2003; Pleaner et al., 2021; Braeken & Rondinelli 2012; Starrs et al., 2018).

The **Stepped Care Model for sexual and reproductive health** aims to meet the specific needs of young people by providing:

- the right level of care – information and services
- in the right place
- at the right time
- delivered by the right digital solution or person

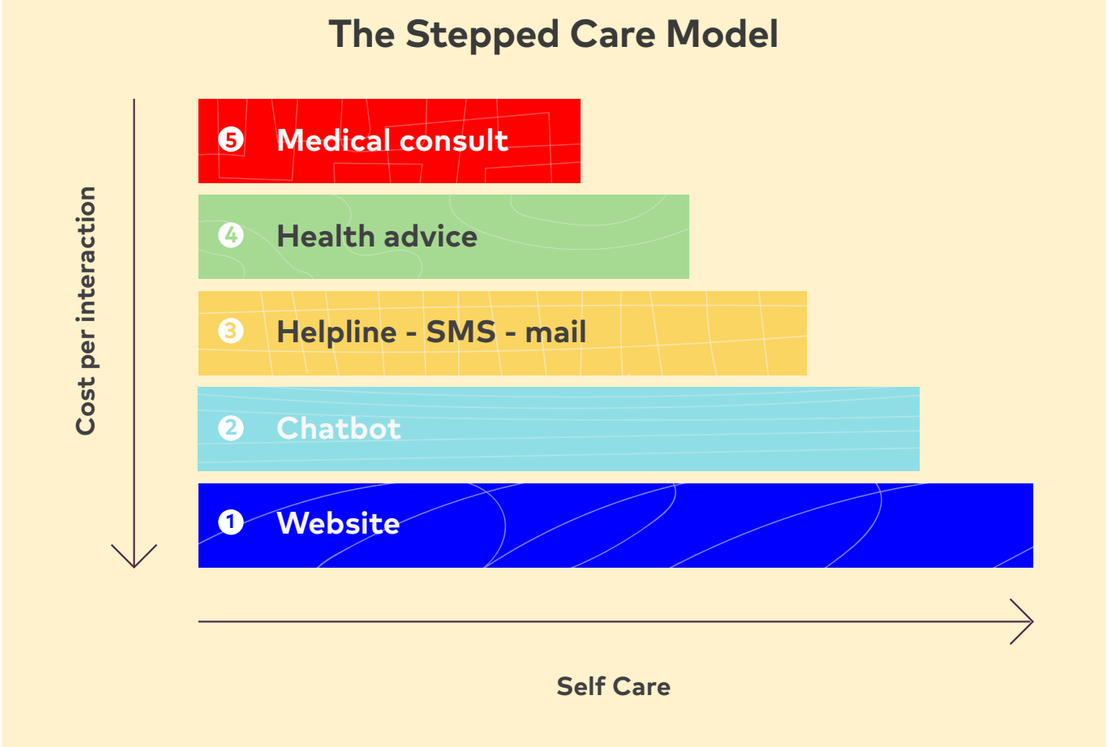


Table 1: Levels of the Stepped Care Model

	Description	Objective	Mode of interaction	Reach	Degree of self-care
Step 5 Medical consult	Specialized care by medical doctor	To provide client-centered diagnosis, treatment and care for an individual's health condition or chronic health needs	In-person visit to facility/clinic/hospital	Low	Low
Step 4 Health advice	Personal health advice and services provided by a licensed health professional, community-based health professional	To provide client-centered care and services, assess risk and personalized support with link to specialist medical care as needed	In-person visit to health facility/clinic or remote telemedicine consult	Low	Low
Step 3 Helpline - SMS - mail	Anonymous interactions with trained counselors for personal advice	To provide personalized advice through interactive dialogue to address specific needs, situations and refer to other services	Live or asynchronous communication with trained counselor via phone, hotline/ call center, chat, Whatsapp, email, SMS/ text, social media, peer chat forum	Medium	Medium
Step 2 Chatbot	Automated and personalized advice and targeted learning (online training) according to personal situation and risk	To provide interactive tailored messages on SRHR topic areas that address individual needs and recommend/ link to other services	Digital self-care applications, self-assessment tools, quizzes, chatbots, games	High/ medium	High
Step 1 Website	General comprehensive sexual education from a youth-friendly, trusted, common-branded website	To increase client knowledge of SRHR topics and serve as an entry portal to link and referral to other on and offline services	Website, mobisite, smartphone access with static content, videos, self-guided information modules	High	High

Digital solutions to enhance self-care

The concept of self-care is becoming more recognized as a critical component to lead a healthy lifestyle and encourages positive behaviour change. Self-care increases agency and autonomy and shifts responsibility for some health practices away from the health professional towards the individual (WHO, 2019).

An array of online solutions can complement and transform traditional forms of SRHR care systems (Baraitser et al, 2015). New digital tools and approaches for self-education, self-care and self-management bring opportunities for youth SRHR. Digital self-care may take the form of a web-based sex education module, an artificial intelligence chatbot to answer common questions about HIV or a live message service to ask for advice about sexuality and puberty (SCTG, 2020).

Digital solutions can encourage young people to make informed decisions and actively engage in prevention and care that extends beyond clinic walls and in the time between face-to-face encounters with healthcare providers (Qudah & Luetsch 2019). Sexual health education, reminders and messages delivered via mobile devices or the internet show promising results for increasing young people's knowledge, improving self-reported behaviours and may be less costly to implement at scale (Ybarra et al., 2013, 2014; Salam et al., 2016; Guse et al., 2012; Palmer et al., 2020; Rokicki et al 2017; Ippoliti & L'Engle 2017).

"I watched personal stories of other young gays. It helped me find a peer WhatsApp group where I felt comfortable. I'm now moderating this group and helping others."
– Young person

While supporting client-led self-care, digital tools and approaches also aim to reduce a healthcare professional's workload. For example by automating some routine functions, such as counselling and reminders, and promoting more timely and informed health-seeking behaviour by young people. Early qualitative studies suggests that digital client communication and linkages to care may increase health worker efficiency, reduce workload, help them prioritize clients and maintain relationships with clients (Qudah & Luetsch, 2019; Odendaal et al., 2020; Feldacker et al., 2020). More studies, evaluations and evidence are needed to understand the potential benefits that digital self-care may provide for healthcare providers in youth-centered SRHR.

Read more about:
- Digital Self-Care: A Framework for Design, Implementation & Evaluation **link**
- A Vision for Going Online to Accelerate the Impact of HIV Programs **link**

Benefits of stepped care for youth SRHR

The coordinated model provides benefits for young people as well as (governmental) policy and advocacy organisations, implementers, healthcare providers and service delivery stakeholders.

For young people

The Stepped Care Model provides more autonomy to access the mode of service delivery that is most suited to a young person's needs. Young people are offered information and services according to the complexity of their health needs, personal preferences, risk exposure and self-efficacy:

- Some young people may find what they need by watching a video or reading information on a website
- Others may benefit from a one-to-one chat or a peer-support group
- Some may find it easier to talk about a sensitive subject over chat while others may prefer in-person counselling
- Relatively few young people may need physical examination or long-term treatment from a medical specialist.

As the needs of young people changes and evolves over the course of their sexual and reproductive lives, integration therefore provides access to a wide range of services.

For policy, advocacy and implementation

The Stepped Care Model promotes the coordinated delivery of information and services to minimize duplication of activities and services:
The Stepped Care Model:

- Helps SRHR policy and implementation by mapping the 'ecosystem' of available SRHR interventions for young people
- Provides structure for an organization or coalition to organize all activities, services and products to contribute to defined health outcomes, behaviour changes or gaps in service delivery
- Facilitates stakeholder, implementer and donor coordination to avoid duplication, competition between interventions and fragmentation of services.

As a dynamic and agile model, the Stepped Care Model can adjust to new technologies, policies and meets the needs of the target population. The Stepped Care model can increase efficiency, effectiveness and sustainability of youth-focused SRHR programming. Collaboration, shared investment and streamlined activities can help move towards achieving greater accessibility to reliable information and services, greater cost efficiency, especially in low resource settings.

For healthcare and service delivery

Digital technologies offer new ways to support people who wish to take care of their health. Digital technologies provide opportunities:

- To increase access to information and services, give personalized advice and connect people to the traditional healthcare system to maintain continuity of care over time (WHO, 2019)
- To create quality support and care options that encourage meaningful engagement with the health system and uptake of SRHR services
- To support healthcare professionals to prioritize and focus their efforts on individualized high-risk cases or those clients who need more attention

2. Stepped care through a social justice lens

The enabling environment and social enablers form the underlying community, legal and cultural conditions that affect a young person's ability to have healthy sexual and reproductive lives. A comprehensive program to improve SRHR for youth should include steps to make positive changes in the fundamental elements of justice, policies and practices related to youth access and improvements in community norms free from gender disparities, stigma and discrimination (Svanemyr et al., 2015; Stover et al., 2014; Narasimhan et al., 2018; UNAIDS 2019).

Supporting young people along their health journey

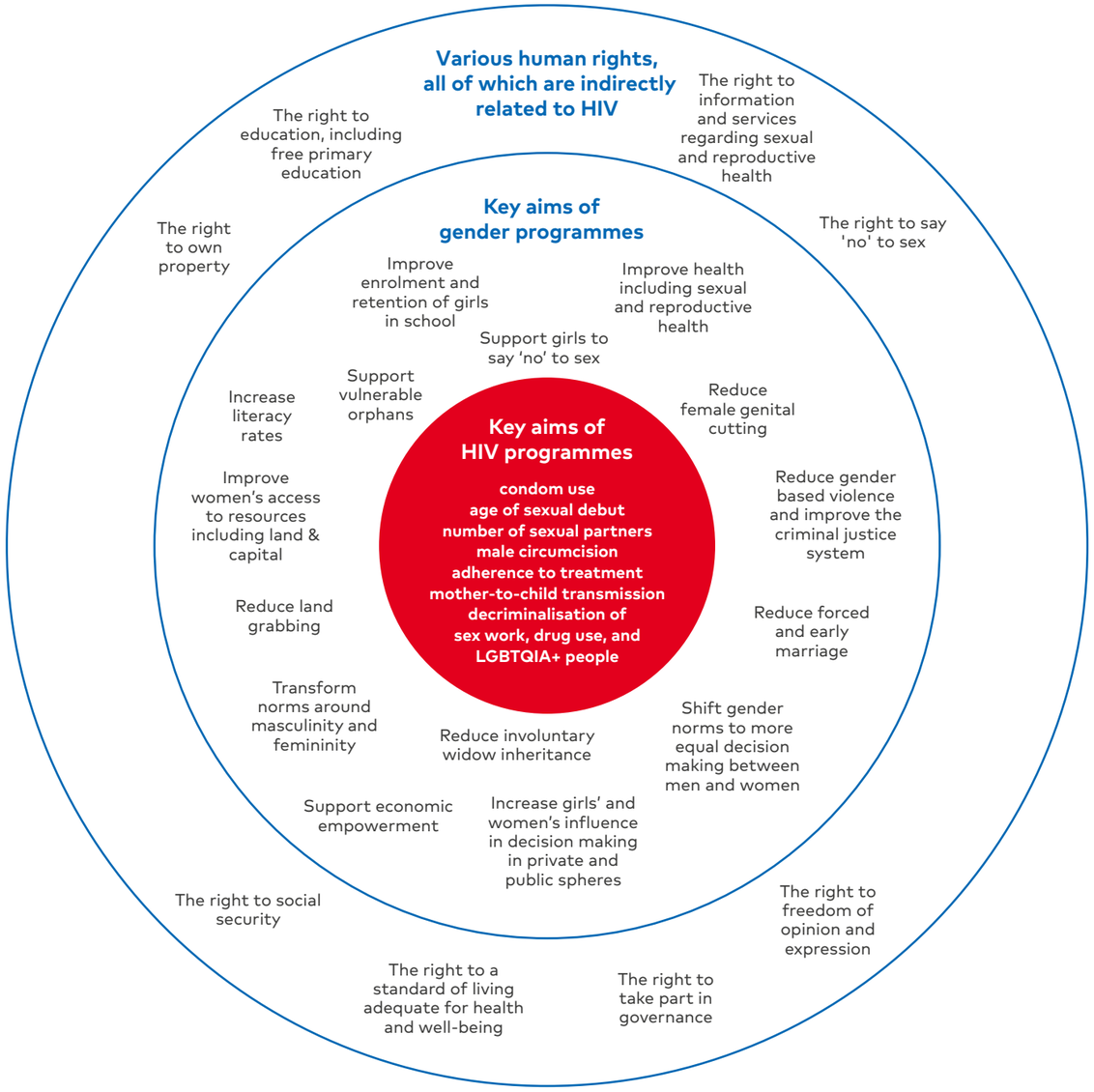
Adolescence is a time of evolving independence, exploration of sexual identity and sexual activity (Smith et al., 2018; Delany-Moretlwe et al., 2015). The unique social, biological and psychological changes that occur between the ages of 10 and 24 also place young people at risk for sexual and reproductive health hazards that can have long-lasting consequences into adult life and for future generations (Denno et al., 2015; Stover et al., 2014).

Stepped care incorporates the concept of **evolving capacity** highlighted in the UN Convention on the Rights of the Child. Young people will gradually develop the ability to take full responsibility for their actions (Braeken & Rondinelli 2012). Reaching adulthood, young people learn to take action to maintain a healthy life, prevent disease, cope with illness and manage risk. Integrated and coordinated SRHR services better match the needs and capabilities of young people and enhance the consistency and availability of care across the sexual and reproductive life course (Narasimhan et al., 2018; Pleaner et al., 2021; Starrs et al., 2018).

Barriers to youth SRHR information and services

Young people experience actual and perceived barriers to SRHR services, in many cases beginning with inadequate basic sexual and reproductive health education that prevents them from making informed choices about their own health and behaviours (Zuma et al., 2020; Wood & Jewkes 2006; Delany-Moretlwe et al., 2015). When they do seek out SRHR services they often face stigma and discrimination from healthcare providers, parents and other adults who do not validate or endorse young people's sexual health choices, experiences or need for SRHR care (Chimbindi et al., 2020; Smith et al., 2018; Zuma et al., 2020).

Unfortunately, the digital space poses risks to young people. Misinformation is easily spread and young people's online security and privacy are not always protected. The internet can be especially unsafe for young LGBTI+ people, sex workers and young people who use drugs, because of bullying, harassment and persecution.



The Big Picture of HIV programmes, Gender Equality and Human Rights

Legal and policy barriers place age restrictions on access to services or criminalise the behaviours of young people without providing life-saving prevention and treatment to respond to their reproductive and sexual health needs (Delany-Moretlwe et al 2015; Ventuneac et al., 2020; Braeken & Rondinelli 2012). A key barrier for young people to access SRHR services is their need for privacy and confidentiality, to protect and respect their choices and lived experiences in sexuality and intimate relationships (Delany-Moretlwe et al., 2015; Braeken & Rondinelli 2012).

Gender and social inequalities in SRHR

Gender inequality is a structural driver of the HIV epidemic and is the root cause of increased vulnerability to HIV and poor sexual and reproductive health epidemic (Jewkes, 2010; Aidsfonds, 2020). Unintended pregnancy, HIV and other sexually transmitted infections, gender-based violence and mental health conditions all contribute to school drop-out, unemployment, health and social disadvantages that persist beyond the period of adolescence (Smith et al., 2018; Zuma et al., 2020).

Young women and girls are disproportionately affected by SRHR risks, bearing the burden of unintended pregnancy and consistently higher rates of HIV infection than their male peers (Birdthistle et al., 2015; Dellar et al., 2015). Access to sexual health information or taking control of reproductive health and contraceptive use can pose considerable harm for young women, especially those living in conservative settings where women are not free to choose over their own bodies (Bacchus et al, 2021).

Involve young people and integrate services to increase access

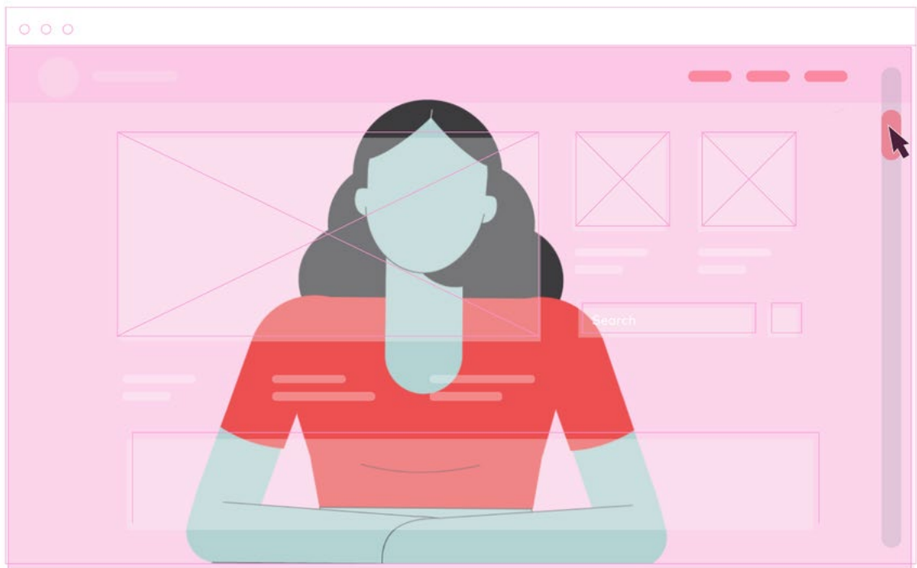
Persistent myths, misconceptions and fear of stigma from the community can prevent youth from using services (Chimbindi et al., 2020). Efforts to increase access and uptake of SRHR services in low- and middle-income countries have been shown to be most effective when these changes are designed with meaningful youth involvement (Denno et al., 2015; Dellar et al., 2015; Delany-Moretlwe et al. 2015).

User-centered design
User-centered design is an approach that is grounded in meaningful collaboration with youth. It is essential to address the needs of young people and create responsible and responsive programming from the starting point.

Read more about:
- Youth-centred digital health interventions: a framework for planning, developing and implementing solutions with and for young people **link**

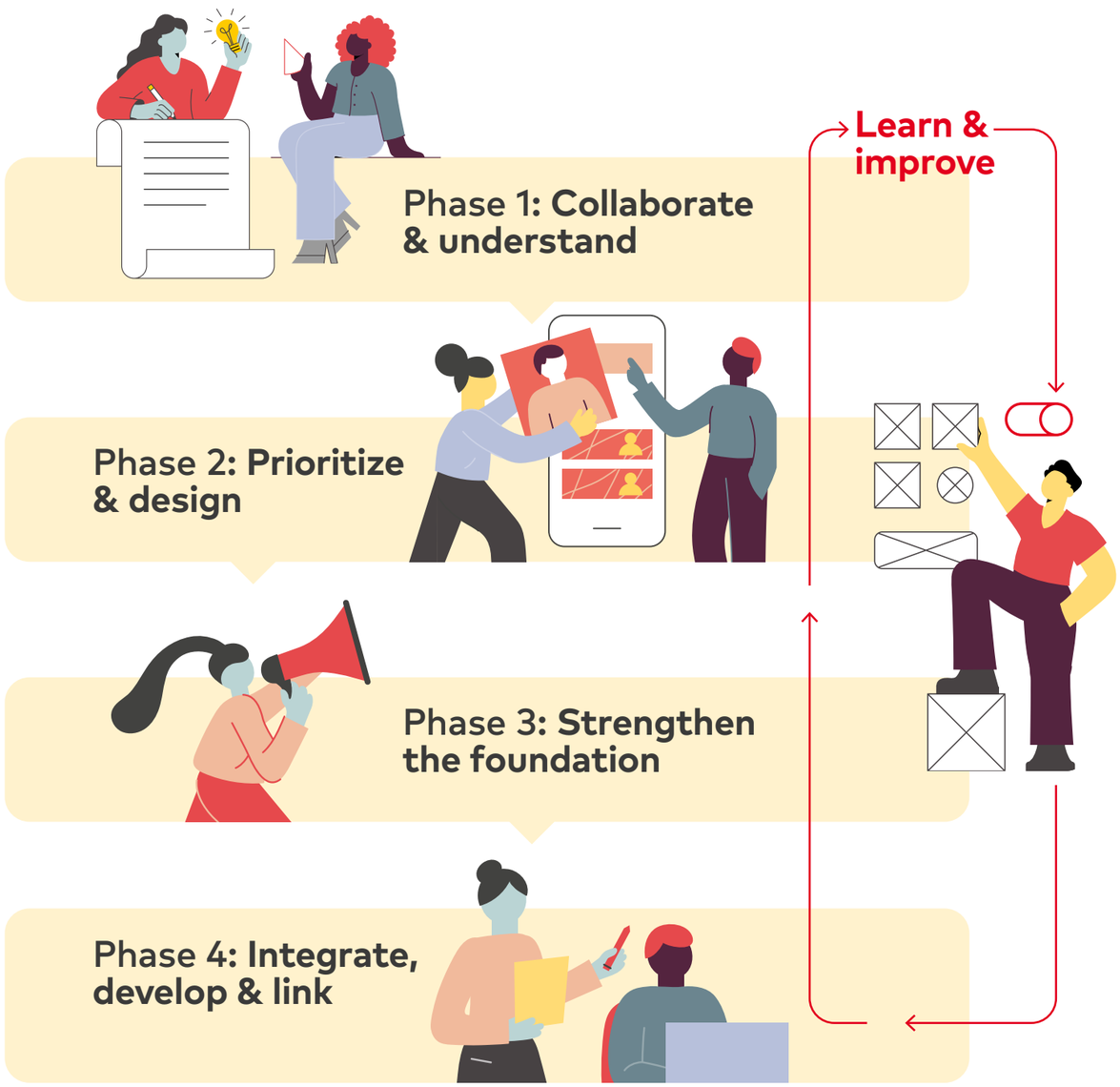
Community and peer mobilization and demand generation supported by a comprehensive of sexual health education can improve access and utilization of services (young people's knowledge and improve self-reported behaviour change (Zuma et al., 2020; Denno et al., 2015, Salam et al 2016; Dellar et al., 2015; de Castro et al., 2018; Fonner et al., 2014; Krugu et al., 2018).

Offering alternate delivery options such as community-based or home-based care, testing and counselling can reduce the public stigma of visiting a SRHR clinic and provide more privacy for youth (Zuma et al., 2020; Mavedzenge et al., 2014). Service integration can reduce siloed programming that requires one individual to visit multiple locations for related health topics or at different times in their reproductive lives (Pleaner et al., 2021; Hewett et al., 2016; Obure et al., 2015). Enhanced referral systems with patient navigators and peer escorts can prevent drop-out and increase uptake of HIV treatment programs, SRHR and youth-specific services by encouraging clients to attend referrals and follow-up appointments (Mizuno et al., 2019; Hewett et al., 2016; Gonsalves et al., 2017).



3. Implementation Roadmap

This Roadmap outlines the collaborative process of developing and implementing a stepped care approach to SRHR of young people. For each phase practical suggestions and tools are provided. The Roadmap draws from recent resources, stakeholder experiences and lessons from implementing the model.



In each phase: Learn & improve

- Ensure **meaningful participation of young people**
- Define your Monitoring & Evaluation plan together and select **key performance indicators** to monitor client satisfaction and the use, reach and effectiveness of your activities
- Gather and analyse data, user feedback and experiences to constantly improve services, linkages to care and user experience
- Actively document and share results, achievements, challenges and lessons with all stakeholders and decision-makers

Phase 1: Collaborate & understand

Form a coalition:

- Invite implementing partners, experts, advocacy groups, governments and NGOs to establish the partnership
- Prepare and organize an open **discovery workshop of several days,** preferably with an experienced neutral facilitator and plenty of breaks and social time to foster relations
- Clarify how your dream goals and objectives align and to which extent these differ
- Establish standards for decision making, **governance** and participation in the coalition
- Identify human capital and resource needs

Draft programme for discovery workshop

	Day 1	Day 2	Day 3
Aims	- Getting to know the core group, people and organizations - To understand the local SRHR context of young people - To understand the history and present of a unified brand - To understand and operationalize the SCM	- Contextualize the SCM to local setting - To map out current activities/services as part of the Stepped Care Model - To develop personas of the target communities	- To identify gaps in the current service delivery - To identify opportunities for the Stepped Care Model - To agree on next steps after the workshop
Time	**Activity**		
09.30-10:00	Welcome & introductions	Welcome and reflections of day 1	Welcome and reflections of day 2
10.00-10.30	Getting to know each organization and work	Contextualizing the SCM (Part 2)	Walking through the Stepped Care Journey using Personas (Part 1)
Break			
10.45-12.00	Getting to know each organization and work	Mapping existing services and aims on the SCM	Walking through the Stepped Care Journey using Personas (Part 2)
12.00-12.30	Theory of Change presentation		
Extended lunch break			
13.45-14.15	Unified brand – past, present and future	Presentations of current services in the SCM	Identifying gaps and opportunities
14.15-15.00	Explain the SCM using concrete examples from the Netherlands		
Break			
15.15-16:30	Contextualizing the Stepped Care (Part 1)	Persona development	Conclusions, reflections and wishes
16:30-17:00	Closing and invitation to optional group dinner	Closing and invitation to optional group dinner	Closing

On governance:
Start by identifying your partnership's non-negotiable principles, e.g. about decision making, ownership, complementarity, transparency and flexibility. Collectively build a governance structure which ensures the roles and responsibilities of each partner are clear and fair. Decide how mandates for decision making will be given: when, by whom and to whom. Write down how decisions will be made in the case disagreements. Stay sensitive to power relations and power shifts between donors and recipients.

Understand the situation:
- Create key **'personas'** of diverse communities of young people to understand their lived experiences and needs
- Map the existing landscape (offer) of youth-friendly sex education brands, interventions, websites, services and implementing partners and other stakeholders
- Identify key barriers and enablers in the social, legal and policy environment

On personas:
Personas are an instrument often used in product development. Personas are fictional biographies of individuals who represent key segments of your audience. By thinking from their perspective you can improve the quality and reach of your service.

How do you develop a persona?
1. Bring together partners and stakeholders. Take a big sheet of paper
2. Give the persona a name, gender and age
3. Create a life story about this character and describe its personal life in detail
4. Cover the following topics: family background; daily life; passions in life; frustrations in life; sources of (informal) support and how the person engages with media

Interactive persona development during AIDS2018

Phase 2: Prioritize & design

Prioritize:
- Identify gaps and weaknesses in the existing offer of information and services
- Identify strengths and linkages between existing services
- Preferably choose one brand or platform to which (most) activities will link

Design:
- Decide on your shared objectives and outcomes
- Use evidence-based and data-driven approaches to design effective interventions
- Develop a plan for generating interest and demand creation
- Choose the right technical partner to develop state-of-the-art digital solutions

Phase 3: Strengthen the foundation

Develop Step 1:
- Create/update a mobile-friendly website with comprehensive sexual and reproductive health education
- Promote youth-driven design, creation, testing and improvement to match local needs
- Plan generous staff time and resources for the process of content development, pre-testing and launch
- Ensure staff time and resources for continuous improvements after the launch of the website

Phase 4: Integrate, develop & link

Connect steps 2 & 3
- Consider linking existing or developing new remote-access services for automated SRHR advice, self-assessment and referrals
- Strengthen links to anonymous hotlines, call centers, SMS or chat services with trained counselors or peer-support

Support steps 4 & 5
- Train medical staff about the available (online) resources and services that together form your stepped care model

Foster the partnership
- Continue to foster new relationships with youth-friendly services and institutions that provide consultation and in-person health services for youth
- Actively involve private donors and governments for co-investments

4. Implementation Experiences: Country case studies

To understand how the Stepped Care Model can help bring together fragmented SRHR services for youth, it is useful to learn how the model has been applied in different settings. The stepped care model for SRHR builds on 10 years of cooperation, development and streamlining of digital and linked in-person services for youth in the Netherlands. Applying and adapting the model in South Africa and Kenya has led to insights and recommendations that are applicable to other settings across the globe.

The Netherlands – Sense.info

In 2011 the Dutch partnership on public sexual health, formed by Aidsfonds – Soa Aids Nederland, RIVM, Rutgers, identified the need for and importance of coordination and collaboration in developing and implementing digital public sexual health services for young people. Several of the STI clinics at municipal health centers held their own local live-chat sessions to answer questions from young people, while Soa Aids Nederland offered similar services at the national level.

The national department of Aidsfonds – Soa Aids Nederland, in partnership with Rutgers International Centre of Expertise on Sexual and Reproductive Health and Rights, helped bring together the national and local partners to map existing services and coordinate digital and in-person resources for meaningful collaboration and strategic decision making. **Sense.info** was chosen as a unifying website to organize all digital and traditional services in one place for easier access with standardized content for young people.

Through this process, the Stepped Care Model for Sexual and Reproductive Health and Rights evolved and was refined to increase the scale and reach of services, to improve cost-efficiency, provide high quality services and promote self-efficacy of young people to manage and make choices about their own health journey. The sexual health education content on the Sense.info website was updated as part of a comprehensive participatory needs assessment, design and development based on established behaviour change theory and determinants of behaviour for young people in the Netherlands. The website also provides access to an online STI self-assessment tool, chatbot, self-education modules with links to the nationally coordinated live-chat service. Video consultations for home-based STI sampling and links to in-clinic services create a more streamlined experience for young people seeking help.

South Africa – B-wise

Adolescents and youth in South Africa experience some of the highest HIV infection rates in sub–Saharan Africa with young women and girls bearing the greatest burden (Birdthistle et al. 2019). Sexually active young people in South Africa experience both real and perceived barriers to sexual and reproductive health services including stigma and unfriendly interactions with health workers, embarrassment, fear of disclosure to parents, cost, distance and time required to access services (Smith et al. 2018; Smith et al., 2019).

In response to this unmet need for youth-friendly sexual health services, the National Department of Health (NDOH) launched a mobile-friendly platform in 2015 called B-wise. Bwisehealth.com is website that empowers young people to make informed choices about their health and find appropriate services in their communities (Rosenberg et al., 2017). In 2019, the NDOH partnered with Aidsfonds to explore opportunities to increase access and uptake of services using the Stepped Care Model.

South Africa has an established foundation of health system infrastructure and implementing partners in the community, Despite this foundation the initial process of addressing Steps 1 and 2 of the model proved challenging. Through a series of workshops, a coalition of stakeholders representing implementers, government agencies, research institutions, donors and NGOs all agreed to work together to transform B-wise into a comprehensive youth-focused health initiative. Together they formed a steering committee.

"The Stepped Care Model is a progression of steps, not only for the young people to access services, but also for those who are engaged in applying the model."
– Steering committee member

Building a strong collaboration

The steering committee has been key to success throughout the process of applying the model to the B-wise platform in South Africa. The partners are leading the application of the Stepped Care Model in South Africa and are dedicated to helping young people become true champions of their own health.

"The first lesson to remember is to collaborate with the willing."
– Steering committee member

As expected when working with a diverse group of stakeholders, one of the greatest challenges has been scheduling. Meetings are instrumental in decision-making and problem solving through live discussions and sharing of ideas. It is important that all partners prioritize and attend the steering committee meetings to contribute to the robust and comprehensive implementation of the model.

The steering committee approaches meetings as a time when they can all come together to work through challenges and make decisions. To make it more efficient, not every decision has to be made by the entire group. Sub-committees take the lead on different aspects of implementation such as website design, call centre coordination or content development. Lead roles are flexible and can be transferred from one organization to another.

The steering committee owes much of its success to a culture of **positive accountability.** Which means all partners support each other, respect deadlines and major milestones to advance progress on applying the overall Stepped Care Model.

"Accountability isn't a negative thing. It is a positive force to help each other and build stronger relationships."
– Steering committee member

Involving young people and addressing social enablers

The support and recognition of social enablers and the enabling environment contribute to the strength and reach of digital self-care applications. Social enablers come into play in many aspects of implementation of the Stepped Care Model in South Africa:

- Community involvement: the lived experiences of young people are addressed through co-creation and inclusive consultation with youth leaders and young people throughout the design and implementation process
- Bridging the digital divide: Digital materials and content are reproduced in print form and echoed by providers, peer-counsellors and telephone call centres to increase access for individuals who do not have a smartphone or private access to the internet
- Privacy and confidentiality are protected with encrypted and secure communications in compliance with national laws and regulations
- Reports of gender-based violence are referred to national call centres with experienced, trained counsellors who can initiate appropriate legal actions and provide counselling and support

"From the very start, we recognised that their ideas are always better than ours."
– Elmari Briedenhann (Wits RHI)

The new B-wise

Bwisehealth.com serves as the entry point to the model with general information about sexual health and relationships. Implementing all five steps of the model can be overwhelming. In order for the model to be successful it was important to first build a strong and sustainable foundation. Activities began redesigning the B-wise mobisite (Step 1) and adding chatbot support system (Step 2). Through the process of developing content and linkages for the B-wise website, new opportunities to expand efforts into subsequent steps emerged over time. The newly developed website platform specifically designed for mobile phones was relaunched in August 2020. There is an automated self-assessment and chatbot tool that provides more personalized advice and suggestions in response to young people's individual questions and concerns.

"B-Wise has helped me to get courage to do an HIV test."
– Young person, 27

Plans for the future

The more that the partners have engaged with the first steps of the model, the more opportunities they have found to tackle steps higher in the framework. The next set of priorities will be to strengthen linkages to care and guide young people to make the transition from digital services to in-person visits to clinics, healthcare providers and support services in the community. Measuring this transition from digital tools to in-person interactions is a challenge. Qualitative research needs to be connected to a monitoring and evaluation strategy that can demonstrate the progress, satisfaction and growth of a young person's journey along the steps of the model and optimise information and services provided at each level.

For more information:
Visit aidsfonds.org/b-wise

b·wise
health at your fingertips

Kenya – One2One

Young people in Kenya face a range of sexual and reproductive health risks. Yet the stigma surrounding youth sexuality, misconceptions about safe and appropriate prevention methods, combined with inconvenient and judgmental clinic services leaves many of them without the care or information they need (Godia et al., 2014; Gonsalves et al., 2020; Sila et al., 2020).

The decentralized Kenyan national health system has led to a fragmented landscape of multiple donors, implementers and advocacy groups with separate interventions and products, each serving a different population, region or niche for youth-centered SRHR. Digital solutions are not organized or linked to national government systems. Programs dependent on international funding serve donor-driven program objectives This is not necessarily in the best interest and needs of the young people in Kenya.

In 2019, LVCT began discussions with Aidsfonds to explore how they could integrate their digital solutions with face-to-face services. LVCT Health has been providing HIV testing, counselling, gender-based violence and other SRHR services in Kenya for 20 years. However, these adolescents and youth activities, interventions and programs were not organized or interlinked. The hotline call service was overburdened and their existing website for youth sexual health information was not designed as a unified platform and needed to be updated.

The Stepped Care Model for organizational development

Using the Stepped Care Model as a framework, LVCT Health began a process of intensive capacity building to organize digital solutions and create a seamless client journey that could result in behaviour change outcomes. The team held a participatory discovery workshop with young people to understand the existing barriers to access SRHR information and services in different regions and populations in the country.

"Developing quality behavior change content turned out to be one of the most intensive processes... Partnerships with others who have this experience can help build the capacity of your organization."
– LVCT Health Sr. Technical Officer

This needs assessment helped identify underlying behaviours that could be targeted with digital health tools and enhanced linkages to appropriate services. The content, messages and self-learning modules were created, tested and designed to lead to desired behaviour change outcomes, for example consistent contraceptive use or regular testing for HIV. This evidence-driven health promotion approach has helped build the skills of the implementing team to create interventions and digital self-care tools that address determinants of behaviour with youth-friendly relevant messages.

Since the relaunch of the one2one website in February 2021 the website and upcoming chatbot provide basic information and answers to common questions for youth who have access to the internet or smartphones. With the data from the hotline interactions, LVCT is hoping to learn if young people who've interacted with the website (Step 1) and linked automated tools (Step 2) before calling the hotline are better prepared and ask more specific questions than young people who call the hotline directly.

The Stepped Care Model for cooperation and collaboration

Applications of the Stepped Care Model in Kenya demonstrate how the framework can be an effective guide to form complementary connections within a decentralized healthcare system. Donors and implementing partners have used the Stepped Care Model to guide **the Digital Health Coalition for Adolescents and Young People Kenya** (DHCK), a strategic alliance to form partnerships and find solutions to reduce the fragmentation of digital interventions and better serve the needs of young people.

The DHCK is made up of national implementing NGO partners, international NGOs, advocacy and rights groups and international agencies that aim to accelerate the digital transformation of healthcare and streamline the landscape of adolescent SRHR through collaboration and cooperation among stakeholders. They have formed a technical working group and steering committee, using the model to create a service map and referral tree to demonstrate the strengths and opportunities for linkages between digital and traditional SRHR services in the country. Together they hope to establish common standards and metrics, cooperate to integrate and link services, engage in joint resource mobilization and identify gaps and opportunities across the SRHR ecosystem.

"The Stepped Care Model can help stakeholders to be complementary instead of in competition with each other."
– Aidsfonds Technical Advisor

The DHCK is well-positioned to translate their strategic coordination into concrete action and linkages between services to create a sustainable ecosystem and the best possible experience for young people. To-date, all of the stakeholders participate in the DHCK on a voluntary basis and donate their time to support the Coalition since there are not yet any dedicated resources for activities or local leadership. The Coalition hopes to establish a partnership with the government, to share data from digital services and influence national policy and decision-making with leadership from a central coordinator. Maintaining the energy and enthusiasm of members will continue to be a challenge to ensure sustainability for the future.

Challenges and lessons learned in Kenya

Through the process of applying the Stepped Care Model for their youth services, LVCT Health underwent a transformation that built the capacity of their staff to design and develop behaviour change interventions. The framework provides a foundation to help guide the coordination of services. The Stepped Care Model has been an important guide to help LVCT Health organize and design youth-friendly digital solutions and linked services.

However, the underlying effectiveness of any behaviour change intervention requires careful planning using evidence-driven methods and the development of relevant skills and experience. The process of updating the website and hotline content and messages required more time and resources than expected by the team. The skills to develop quality behaviour change content will continue to benefit the linked SRH services as well as other areas of implementation for the NGO.

The next challenge for LVCT's coordinated youth SRHR services is to generate more interest in the website platform as an entry point for the other linked services. Social media is an important approach for promotion, as well as existing youth groups and peer support networks to promote the brand and increase access and uptake. They hope to be able to measure achievements and successes of the website, chatbot and hotline linkages to better understand the user's journey through referral and digital self-care tools.

For more information:
visit aidsfonds.org/one2one

5. Key findings and recommendations

The research and discussions for this guidance document uncovered some challenges to implementing holistic digital self-care and linkages to traditional services and early lessons. As stakeholder coalitions gain more experience in applying the Stepped Care Model in a variety of contexts these challenges and lessons will no doubt continue to evolve.

Challenges and approaches to address them

It is critical that a monitoring and evaluation framework and plan is designed from the beginning to learn from the process of design and implementation, to make necessary adjustments and respond to the changing needs of the target audience by collecting constant feedback from users. Many implementing partners struggle with how to measure success in the ongoing application of the Stepped Care Model. Understanding how users interact with the linked services and move through the different steps will improve services and prioritize investment in a particular implementation context. Further investigation into changes in determinants of behaviour as a result of interaction with the linked services and tools will provide more evidence of success. Scientifically rigorous monitoring and evaluation of the Stepped Care Model can help address the global gap in high-quality evidence on how digital health interventions can impact behavioural and health outcomes.

It is important to make sure that the element of choice is always primary in the application of the model. The Stepped Care Model could otherwise lead to a rigid chain of services that could force clients into a care model that does not meet their needs and is wasting resources. Individuals have different levels of self-efficacy and should have the freedom to choose self-directed care, provider-led care or a combination of both according to their needs and the requirements of their health situation

It is important to seek opportunities to engage pharmacies and other delivery options for SRHR commodities as part of the partnership, planning, and linked services within the Stepped Care Model. In many communities, pharmacies are popular access points for young people to purchase commodities such as self-test or self-sampling kits, contraceptives and emergency contraception (Gonsalves et al., 2020). However pharmacies are often not engaged in the formal chain of health service delivery. The role of these commodity access points should be included in the initial needs assessment and part of the organization and application of model as appropriate.

The quality of care is paramount for effective service delivery. Perceptions of what is the right care provided at the right time may vary between medical professionals and young people. Medical professionals may bring to table difference needs or requirements than young people. It is recommended to keep networks of medical professionals informed and engaged in the implementation of stepped care and development of online interventions.

Conclusions

Effective collaboration begins with engaged, dedicated and willing partners. When all stakeholders understand the benefits and advantages of the model and apply their skills, expertise and time, they are more likely to hold themselves accountable and follow-through on commitments to reach the common goal. It is fundamental to have an organizational structure and genuine buy-in from various stakeholder partners. Otherwise the model will not succeed in creating a unified system but will continue the cycle of fragmentation and duplication.

Approach the Stepped Care Model as a series of steps for implementation. Focus on one step at a time and trust that as the foundations in steps 1 and 2 are supported with high quality needs assessment and meaningful participation of young people in the design, development and implementation, the other steps will become more realistic, approachable and attainable. With success of the foundational elements, more partners will see the value of the partnership and join forces.

The activities, services and delivery models must respond to the needs and voices of young people and the workplace realities of healthcare professionals. Foster meaningful collaboration with young people and the service providers at all stages, from needs assessments, co-design, content creation and ongoing improvements. Youth and adolescents are not a homogeneous population. Seek out diverse young people and adequately compensate and respect them for sharing their diverse perspectives and essential contributions. Healthcare professionals should be involved to incorporate their needs and priorities for client interactions and quality of care, to support the challenges healthcare professionals face.

Build and support organizational capacity to develop, design and create effective and high-quality content and messaging that contributes to prioritized behavioural outcomes. Do not rely on a single individual, but build this experience and knowledge in multiple members of the organization or coalition for sustainability.

Factor in the cost and time necessary to monitor and evaluate implementation, to create high quality content and to market the brand from the beginning stages of design and collaboration. These aspects all require sufficient time and resources to be truly successful.

References

Aidsfonds. 2020. The Big Picture: A guide for gender transformative HIV programming. Aidsfonds, Netherlands. link

Bacchus, L.J., Reiss, K., Church, K., Colombini, M., Pearson, E. Naved, R., Smith, C., Andersen, K & Free, C. 2019. Using Digital Technology for Sexual and Reproductive Health: Are Programs Adequately Considering Risk? Global Health: Science and Practice 7(4): 507-514. link

Baraitser, P., Syred, J., Spencer-Hughes, V., Howroyd, C., Free, C. and Holdsworth, G. 2015. How online sexual health services could work; generating theory to support development. BMC Health Services Research. 15(1):1-8. link

Berer, M. 2003. Integration of sexual and reproductive health services: a health sector priority. Reproductive health matters. 11(21):6-15. link

Birdthistle, I., Tanton, C., Tomita, A., de Graaf, K., Schaffnit, S.B., Tanser, F. and Slaymaker, E. 2019. Recent levels and trends in HIV incidence rates among adolescent girls and young women in ten high-prevalence African countries: a systematic review and meta-analysis. The Lancet Global Health. 7(11):e1521-e1540. link

Braeken, D. and Rondinelli, I. 2012. Sexual and reproductive health needs of young people: matching needs with systems. International Journal of Gynecology & Obstetrics. 119:S60-S63. link

Chattu, V.K., Lopes, C.A., Javed, S. and Yaya, S. 2021. Fulfilling the promise of digital health interventions (DHI) to promote women's sexual, reproductive and mental health in the aftermath of COVID-19. Reproductive Health. 18(1):1-8. link

Chimbindi, N., Birdthistle, I., Floyd, S., Harling, G., Mthiyane, N., Zuma, T., Hargreaves, J.R., Seeley, J. and Shahmanesh, M. 2020. Directed and target focused multi-sectoral adolescent HIV prevention: insights from implementation of the 'DREAMS Partnership' in rural South Africa. Journal of the International AIDS Society. 23:e25575. link

de Castro, F., Rojas-Martínez, R., Villalobos-Hernández, A., Allen-Leigh, B., Breverman-Bronstein, A., Billings, D.L. and Uribe-Zúñiga, P. 2018. Sexual and reproductive health outcomes are positively associated with comprehensive sexual education exposure in Mexican high-school students. PloS one. 13(3):e0193780. link

Delany-Moretlwe, S., Cowan, F.M., Busza, J., Bolton-Moore, C., Kelley, K. and Fairlie, L. 2015. Providing comprehensive health services for young key populations: needs, barriers and gaps. Journal of the International AIDS Society. 18:19833. link

Dellar, R.C., Dlamini, S. and Karim, Q.A., 2015. Adolescent girls and young women: key populations for HIV epidemic control. Journal of the International AIDS Society. 18:19408. link

Denno, D.M., Hoopes, A.J. and Chandra-Mouli, V. 2015. Effective strategies to provide adolescent sexual and reproductive health services and to increase demand and community support. Journal of adolescent health. 56(1):S22-S41. link

Feldacker C, Murenje V, Holeman I, et al. 2020. Reducing Provider Workload While Preserving Patient Safety: A Randomized Control Trial Using 2-Way Texting for Postoperative Follow-up in Zimbabwe's Voluntary Medical Male Circumcision Program. J Acquir Immune Defic Syndr 1999. 83(1):16-23. link

Fonner, V.A., Armstrong, K.S., Kennedy, C.E., O'Reilly, K.R. and Sweat, M.D. 2014. School based sex education and HIV prevention in low-and middle-income countries: a systematic review and meta-analysis. PloS one. 9(3):e89692. link

Godia, P.M., Olenja, J.M., Hofman, J.J. and Van Den Broek, N. 2014. Young people's perception of sexual and reproductive health services in Kenya. BMC health services research. 14(1):1-13. link

Gonsalves, G.S., Paltiel, A.D., Cleary, P.D., Gill, M.J., Kitahata, M.M., Rebeiro, P.F., Silverberg, M.J., Horberg, M., Abraham, A.G., Althoff, K.N. and Moore, R. 2017. A flow-based model of the HIV care continuum in the United States. Journal of acquired immune deficiency syndromes. 75(5):548. link

Gonsalves, L., Wyss, K., Cresswell, J.A., Waithaka, M., Gichangi, P. and Hilber, A.M. 2020. Mixed-methods study on pharmacies as contraception providers to Kenyan young people: who uses them and why? BMJ open. 10(7):e034769. link

Guse, K., Levine, D., Martins, S., Lira, A., Gaarde, J., Westmorland, W. and Gilliam, M. 2012. Interventions using new digital media to improve adolescent sexual health: a systematic review. Journal of adolescent health. 51(6):535-543. link

Jewkes, R. 2010. Gender inequities must be addressed in HIV prevention. Science. 329(5988):145-147. link

Hampshire, K., Porter, G., Owusu, S.A., Mariwah, S., Abane, A., Robson, E., Munthali, A., DeLannoy, A., Bango, A., Gunguluza, N. and Milner, J. 2015. Informal m-health: How are young people using mobile phones to bridge healthcare gaps in Sub-Saharan Africa? Social Science & Medicine. 142: 90-99. link

Hewett, P.C., Nalubamba, M., Bozzani, F., Digitale, J., Vu, L., Yam, E. and Nambao, M. 2016. Randomized evaluation and cost-effectiveness of HIV and sexual and reproductive health service referral and linkage models in Zambia. BMC public health. 16(1):1-19. link

Ho, F.Y.Y., Yeung, W.F., Ng, T.H.Y. and Chan, C.S. 2016. The efficacy and cost-effectiveness of stepped care prevention and treatment for depressive and/or anxiety disorders: a systematic review and meta-analysis. Scientific reports. 6(1):1-10. link

Ippoliti, N.B. and L'Engle, K. 2017. Meet us on the phone: mobile phone programs for adolescent sexual and reproductive health in low-to-middle income countries. Reproductive health. 14(1):1-8. link

Krugu, J.K., Mevissen, F.E., Van Breukelen, G. and Ruiter, R.A. 2018. SPEEK: Effect evaluation of a Ghanaian school-based and peer-led sexual education programme. Health education research. 33(4):292-314. link

Mavedzenge, S.N., Luecke, E. and Ross, D.A. 2014. Effective approaches for programming to reduce adolescent vulnerability to HIV infection, HIV risk, and HIV-related morbidity and mortality: a systematic review of systematic reviews. JAIDS Journal of Acquired Immune Deficiency Syndromes. 66:S154-S169. link

Mizuno, Y., Higa, D.H., Leighton, C.A., Roland, K.B., Deluca, J.B. and Koenig, L.J. 2018. Is HIV patient navigation associated with HIV care continuum outcomes?. AIDS (London, England). 32(17):2557. link

Mustanski, B., Moskowitz, D.A., Moran, K.O., Newcomb, M.E., Macapagal, K., Rodriguez-Díaz, C., Rendina, H.J., Laber, E.B., Li, D.H., Matson, M. and Talan, A.J. 2020. Evaluation of a stepped-care eHealth HIV Prevention program for diverse adolescent men who Have sex with men: protocol for a hybrid type 1 effectiveness implementation trial of SMART. JMIR research protocols. 9(8):e19701. link

Narasimhan, M., Pillay, Y., García, P.J., Allotey, P., Gorna, R., Welbourn, A., Remme, M., Askew, I., Nordström, A. and Haufiku, B. 2018. Investing in sexual and reproductive health and rights of women and girls to reach HIV and UHC goals. The Lancet Global Health. 6(10):e1058-e1059. link

Obure, C.D., Guinness, L., Sweeney, S., Vassall, A. and Integra Initiative. 2016. Does integration of HIV and SRH services achieve economies of scale and scope in practice? A cost function analysis of the Integra Initiative. Sexually transmitted infections. 92(2):130-134. link

Odendaal WA, Anstey Watkins J, Leon N, et al. 2020. Health workers' perceptions and experiences of using mHealth technologies to deliver primary healthcare services: a qualitative evidence synthesis. Cochrane Database Syst Rev. 3(3):CD011942. link

Palmer, M.J., Henschke, N., Bergman, H., Villanueva, G., Maayan, N., Tamrat, T., Mehl, G.L., Glenton, C., Lewin, S., Fønhus, M.S. and Free, C. 2020. Targeted client communication via mobile devices for improving maternal, neonatal, and child health. Cochrane Database of Systematic Reviews. (8). link

Pleaner, M., Fipaza, Z., Mabetha, K., Greener, L., Ncube, S., Butler, V., Beksinska, M. and Mullick, S. 2021. Uptake of contraception amongst adolescent girls and young women PrEP clients–leveraging the opportunity to strengthen HIV and sexual and reproductive health integration. Frontiers in Reproductive Health. 3:38. link

Qudah, B. and Luetsch, K. 2019. The influence of mobile health applications on patient-healthcare provider relationships: a systematic, narrative review. Patient education and counseling. 102(6):1080-1089. link

Rokicki, S., Cohen, J., Salomon, J.A. and Fink, G. 2017. Impact of a text-messaging program on adolescent reproductive health: a cluster–randomized trial in Ghana. American journal of public health. 107(2):298-305. link

Rosenberg et al. 2017. Using mobile technology to link young people to information and services. link

Salam, R.A., Faqqah, A., Sajjad, N., Lassi, Z.S., Das, J.K., Kaufman, M. and Bhutta, Z.A.. 2016. Improving adolescent sexual and reproductive health: A systematic review of potential interventions. Journal of adolescent health. 59(4):S11-S28. link

Self-Care Trailblazers Group. 2020. Digital Self-Care: A Framework for Design, Implementation & Evaluation. link

Sila, J., Larsen, A.M., Kinuthia, J., Owiti, G., Abuna, F., Kohler, P.K., John-Stewart, G. and Pintye, J. 2020. High awareness, yet low uptake, of pre-exposure prophylaxis among adolescent girls and young women within family planning clinics in Kenya. AIDS Patient Care and STDs. 34(8):336-343. link

Smith, P., Marcus, R., Bennie, T., Nkala, B., Nchabeleng, M., Latka, M.H., Gray, G., Wallace, M. and Bekker, L.G. 2018. What do South African adolescents want in a sexual health service? Evidence from the South African Studies on HIV in Adolescents (SASHA) project. South African Medical Journal, 108(8). link

Smith, P., Tolla, T., Marcus, R. and Bekker, L.G. 2019. Mobile sexual health services for adolescents: investigating the acceptability of youth-directed mobile clinic services in Cape Town, South Africa. BMC health services research. 19(1):1-7. link

Starrs, A.M., Ezeh, A.C., Barker, G., Basu, A., Bertrand, J.T., Blum, R., Coll-Seck, A.M., Grover, A., Laski, L., Roa, M. and Sathar, Z.A. 2018. Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. The Lancet. 391(10140):2642-2692. link

Stover, J., Rosen, J., Kasedde, S., Idele, P. and McClure, C. 2014. The impact and cost of the HIV/AIDS investment framework for adolescents. JAIDS Journal of Acquired Immune Deficiency Syndromes. 66:S170-S175. link

UNAIDS. 2019. Target-Setting, Impact and Resource Needs for the Global AIDS Response: Technical consultation on social enablers. Montreux, Switzerland, June 2019. link

Von Korff, M. and Tiemens, B., 2000. Individualized stepped care of chronic illness. Western Journal of Medicine. 172(2):133. link

Ventuneac, A., Li, D.H., Mongrella, M.C., Moskowitz, D.A., Weingardt, K.R., Brown, C.H., Parsons, J.T. and Mustanski, B. 2020. Exploring potential implementation barriers and facilitators of the SMART program: a stepped-care package of ehealth HIV prevention interventions for adolescent men who have sex with men. Sexuality Research and Social Policy. 17(3): 378-388. link

WHO. 2019. WHO Consolidated Guideline on Self-Care Interventions for Health: Sexual and Reproductive Health and Rights. Geneva: World Health Organization link

WHO 2019b. WHO Guideline: recommendations on digital interventions for health system strengthening. Geneva: World Health Organization link

WHO. 2018. Classification of digital health interventions v1.0: A shared language to describe the uses of digital technology for health. Geneva: World Health Organization link

WHO. 2020. Youth-centred digital health interventions: a framework for planning, developing and implementing solutions with and for young people. Geneva: World Health Organization, July 2020. link

Wood, K. and Jewkes, R. 2006. Blood blockages and scolding nurses: barriers to adolescent contraceptive use in South Africa. Reproductive health matters. 14(27):109-118. link

Ybarra, M.L., Bull, S.S., Prescott, T.L., Korchmaros, J.D., Bangsberg, D.R. and Kiwanuka, J.P. 2013. Adolescent abstinence and unprotected sex in CyberSenga, an Internet-based HIV prevention program: randomized clinical trial of efficacy. PLoS One. 8(8):e70083. link

Zuma, T., Seeley, J., Mdluli, S., Chimbindi, N., Mcgrath, N., Floyd, S., Birdthistle, I., Harling, G., Sherr, L. and Shahmanesh, M. 2020. Young people's experiences of sexual and reproductive health interventions in rural KwaZulu-Natal, South Africa. International Journal of Adolescence and Youth. 25(1):1058-1075. link

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