

Foreword



Over the last decade, great strides have been made in slowing the HIV epidemic: the number of HIV-related deaths dropped by 45% between 2005 and 2015, 18 million people living with HIV are receiving treatment, and many countries are on the verge of eliminating transmission from mother to child.

Yet since 2010, declines in new HIV infections among adults have stalled. In sub-Saharan Africa, the burden of HIV/AIDS falls disproportionately on young women. Every day, more than 1,000 women between the ages of 15 and 24 are infected with HIV, and HIV/AIDS is the leading cause of death for women of reproductive age. To meet our goal of an AIDS-free generation, a focus on treatment isn't enough—we also need new tools for prevention. To that end, significant investments have been made to develop microbicide products for HIV prevention among women. While multiple products have demonstrated protective efficacy in clinical trials, consistent use among young women has been troublingly low. Without consistent use, these products cannot protect women from HIV infection.

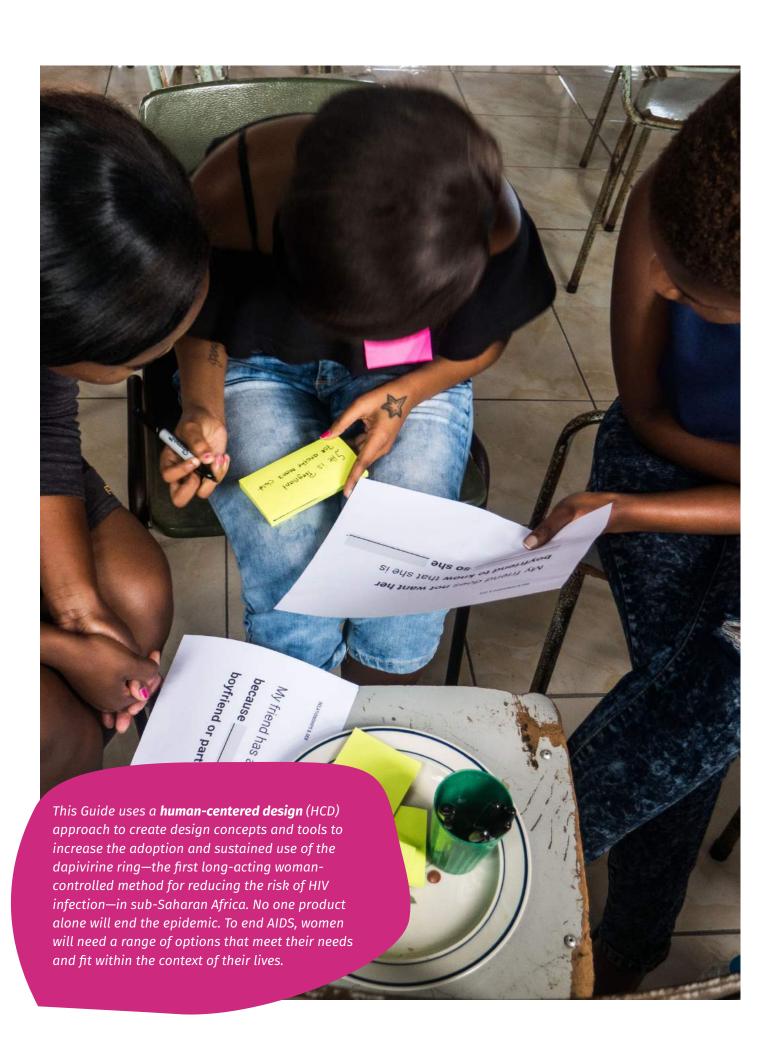
To encourage use, young women need product user experiences designed with their values, needs, and lifestyle in mind. To that end, the U.S. Agency for International Development's (USAID's) Office of HIV/AIDS (OHA) and USAID's Center for Accelerating Innovation

and Impact (CII)—along with the International Partnership for Microbicides (IPM)—sought to better understand the daily lives of at-risk young women using a human-centered design approach. While our partnership focused on encouraging use of the dapivirine ring, our aim is for this research to be broadly applicable to reaching young women with HIV prevention products. In addition to the insights and design concepts detailed here in the Guide itself, a supplementary asset library is available for download. This library contains editable templates and images for adaptation to other contexts, regulations, and products.

Our partnership came together to contribute concepts and designs that could help address the problem of inconsistent use that has plagued many prevention methods and products. As with all of our work, we encourage you to put these designs to the test especially the most important test of how young women respond to these concepts—and give us feedback so we can continue building, iterating, and sharing the lessons learned.

Together, we can provide young women the tools they need to protect themselves from HIV infection. We look forward to hearing from you.

Amy Lin, Elizabeth Russell, and Nikki Tyler
USAID



Contents



Approach

6

Describes the **approach** used to better understand young women's day-to-day lives in sub-Saharan Africa and create concepts that fit their needs, desires, and behaviors.



Journey & Insights

16

Immerses readers in the lives, needs, and behaviors of young women that will likely shape their responses to new HIV prevention products through a user **journey map**.



User Personas

40

Understand young women through representative **personas** used to design diverse concepts that meet a range of user needs.



Design Concepts

56

Translates insights into design concepts to support uptake and adherence among young women in sub-Saharan Africa.

This Guide was created in two parts.

First, this publication gives an overview of design concepts and how they were developed through user research, journey mapping, and persona development. Second, a supplementary asset library provides resources such as editable templates and supporting visuals for select concepts. These assets are a starting point for individuals to adapt existing concepts according to the needs of the communities and stakeholders served.

Download the asset library: https://www.usaid.gov/cii

Primary Guide



Supplementary Asset Library



Overview

Why this Guide?

In sub-Saharan Africa, women and girls are disproportionately burdened by HIV/AIDS and account for nearly 60% of all HIV infections. Young women aged 15–24 are twice as likely to be infected than men of the same age.¹

While a broad range of factors contribute to the vulnerability of young women in sub-Saharan Africa, a new generation of 'women-initiated technologies' has the potential to shift dynamics and give women more varied options to manage their own sexual health. These options include the dapivirine (DPV) ring developed by the International Partnership for Microbicides (IPM). The monthly DPV ring is the first long-acting, woman-controlled product proven effective in Phase III clinical trials for reducing the risk of HIV infection. Additional vaginal rings, such as longer-acting HIV prevention rings and multipurpose prevention technology (MPT) rings that prevent both HIV and unintended pregnancy, are also in earlier phases of development.

The DPV ring can help protect young women from HIV infection, but only if used consistently and correctly. Two pivotal Phase III studies have shown that the DPV ring is both safe and effective in reducing the risk of HIV infection in women during vaginal sex. Modest efficacy observed in both studies was due to low adherence among women under 25—the population at the highest risk for HIV infection in sub-Saharan Africa. Though these clinical studies have proven the safety and efficacy of the DPV ring, real-world use is only beginning to be understood through open-label extension (OLE) studies, a crucial transition point between the supported context of clinical research and the realities of organic market dynamics. To maximize the potential for impact, it is crucial to understand how the DPV ring might function outside of the research environment, in young women's real lives.

To bridge clinical research with ongoing market entry and planning, this work employed a robust set of HCD approaches and methods designed to support the development and adaptation of tools to encourage uptake and correct use of the DPV ring-and other rings in the pipeline—among young women. It builds upon previous work to increase uptake and adherence to microbicides, as well as other comparable products.² Insights were generated by reviewing existing research and supplementing it with targeted user research that provided a holistic understanding of the lives of the women at highest risk for HIV. Insights, in turn, formed the foundation for creating and prototyping design concepts that leveraged opportunities for introducing and sustaining the use of the DPV ring, including user education, improved service delivery, and novel communication methods. User research was conducted in South Africa and Uganda, countries where the DPV ring can make a significant impact in preventing HIV infections and in which clinical trials for the DPV ring took place.

This Guide walks through the process of understanding potential users of the DPV ring and other HIV-prevention products. A ring *journey map* (page 18), *user insights* (pages 16–39), and *personas* (pages 40–55) help illuminate the lives of young women, highlighting target users, their needs, and their behaviors to inform *design concepts* (pages 56-93) that encourage uptake and sustained use of DPV rings and MPT rings.

For more detail on the human-centered design process, please see page 94.

UNAIDS Fact Sheet November 2016, UNAIDS Global AIDS Update 2016.

² AVAC. (2017). End-User Research Landscape Mapping & Findings. Retrieved from http://www.avac.org/resource/end-user-research-landscape-mapping-findings



Who is this Guide for?

Implementers

Implementers include public sector agencies, such as ministries of health and large non-profit organizations that specialize in healthcare delivery. This Guide can help implementers understand which women are most likely to use the DPV ring—as well as ideas on how to reach these key segments and their corresponding needs and behaviors. The Guide also provides a set of tested concepts and tools that can be customized to the local context and integrated into programming.

Donors & Funders

Donors and funders are development agencies, public and private financial institutions, and philanthropic entities that fund interventions in sexual and reproductive health (SRH). This Guide can help donors and funders design programming that more effectively addresses the **needs** and **behaviors** of their target populations from program inception. It can also help donors understand the enhancements that can be incorporated into programming to increase the likelihood of sustained impact in target populations.

Healthcare Providers

Healthcare providers are local non-profit, for-profit, and public organizations that directly provide SRH information and services. This Guide gives healthcare providers additional ideas and approaches on how to inform their target populations about product choices around HIV prevention, contraception, and SRH more broadly.

Other Stakeholders & Partners

This Guide can be of use to a variety of other stakeholders, including manufacturers, suppliers, and governments. Manufacturers and suppliers, for example, can leverage **insights and design concepts** to better understand how products are used on the ground and design the product and packaging accordingly. Governments, as organizers of healthcare delivery, can customize design concepts and incorporate them into implementation planning at a national and subnational level.

Approach

This section walks through the HCD methodology applied in this work, which includes a mix of user research through qualitative interviews, workshops, and prototyping with women aged 18–24 and their influencers in South Africa and Uganda. This work has built on insights from past sociobehavioral research in the microbicide field and will inform open-label extension studies, demonstration projects, and product launch planning for the DPV ring.



Participants

How were participants selected?

A defining characteristic of HCD is that it prioritizes speaking and collaborating throughout the process with the people most likely affected by a new intervention or program. Behavioral insights from HCD can inform how a product can be best designed so that it is intuitive, useful, and easy-to-use for the target group. It can also identify creative ways to reach users and maximize the appeal and relevance of products in their everyday lives.

Local community partners recruited and screened participants according to specified criteria to ensure

that they represented likely targets of the DPV ring. Researchers focused on young women with key risk factors—education: incomplete to secondary only, income: socioeconomically deprived households within high HIV prevalence communities, and sexual history: active and may have multiple partners or periods of high-risk behaviors. Children and relationship status were not filtering criteria, though local teams were advised to engage a diverse mix of backgrounds and life situations. Researchers also spoke with influencers of young women—including young men, healthcare workers, and community leaders.

PRIMARY PARTICIPANTS

INFLUENCERS

	YOUNG WOMEN 18-21	YOUNG WOMEN 22-28	YOUNG MEN 18-30	HEALTH PROVIDERS	COMMUNITY LEADERS
RATIONALE	Better understand lives, values, and barriers to ring use given high risk for HIV/ AIDS infection coupled with low adherence demonstrated in the trials	Better understand drivers for higher adherence in older women	Illuminate the perspectives of the men who may influence a young woman's SRH choices and are representative of male partners of women that may use the ring	Understand the barriers and best practices of clinical providers and community health workers who provide health services in SRH	Connect with local leaders and nonprofit organizations that build awareness for health campaigns and initiatives within the community or have expertise in SRH or youth engagement to gather insights and
	Younger women may be less likely to have children, and those without children may be more difficult to reach outside of school settings	Slightly older women may be more likely to have children and subsequently have access to SRH information and services through prevention of mother-to-child transmission programs			preferences
	Gap in understanding of the challenges to adherence and why the youngest women had low levels of protection	Slightly older women may also have increased autonomy and agency around personal health and the ability to influence younger populations			
OCUS	HIGHEST	HIGH	MEDIUM-HIGH	MEDIUM	MEDIUM-LOW

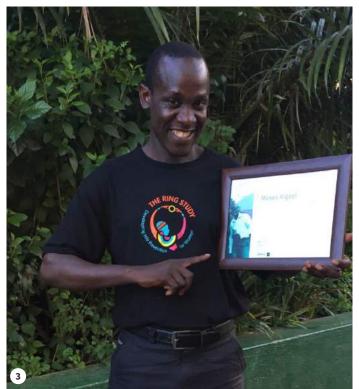
How were partners engaged to build trust in local communities?

No matter where you are in the world, uncovering insights and collaborating on design concepts requires cultural sensitivity, local savvy, and a deep understanding and ownership of the process. Local collaborators are the key to in-country interactions. Research and design teams worked together with local teammates from the start to ensure appropriate, respectful introduction to

communities and to develop trust and support among the people who live and work there. Local collaborators served as guides, translators, negotiators, and, above all, partners in design. The approaches developed with them both facilitated constructive interaction with research participants and also expanded the individual capacity of local team members.







(1) A local facilitator leading discussion during a workshop with young men in South Africa; (2) a collaborator from MRC testing prototypes with young women in Uganda; (3) a lead facilitator from CHEDRA with his HCD certificate at the end of research.

Geography

Where was research conducted?

The research was conducted in two countries with high HIV prevalence among young women: South Africa and Uganda. Both countries have DPV ring trial sites for the IPM and Microbicide Trials Network (MTN) and are targeted for early DPV ring launch. These countries also represent a range of contexts for introduction planning. South Africa has the highest HIV burden, more comprehensive HIV market understanding and programs, and receptiveness to HIV-prevention product introduction (e.g., Pre-exposure prophylaxis, or PrEP). Uganda has unique high-risk contexts such as fishing villages, and there is less understanding about target users and service delivery as compared to South Africa.

In selecting communities to focus on, the design team chose communities proximate to DPV ring research sites but not the primary focus of awareness or recruitment efforts. Similarly, the team was mindful to work in communities that were not oversaturated with HIV research, as they may have a heightened HIV knowledge as a result of multiple research programs. This project focused on peri-urban and rural areas to complement ongoing research within the Microbicide Product Introduction Initiative (MPii).

UGANDA

LAMBU

Rural

Region: Central **Population**: 8,700¹

Density: Data not available

Large, remote fishing village on Lake Victoria. Crowded, informal housing and poor sanitation. Highly transient community with high-risk populations. HIV prevalence within fishing communities is three to four times that of the general population.

LYANTONDE

Semi-rural

Region: Central **Population**: 8,900

Density: 111 persons/sq km2²

Transit hub for onward travel to neighboring countries. Transient community with high-risk

populations.

KAMPALA

Urban

Region: Central **Population**: 1,507,080

Density: 7,928 persons/sq km³

Densely populated communities with varying levels of sanitation

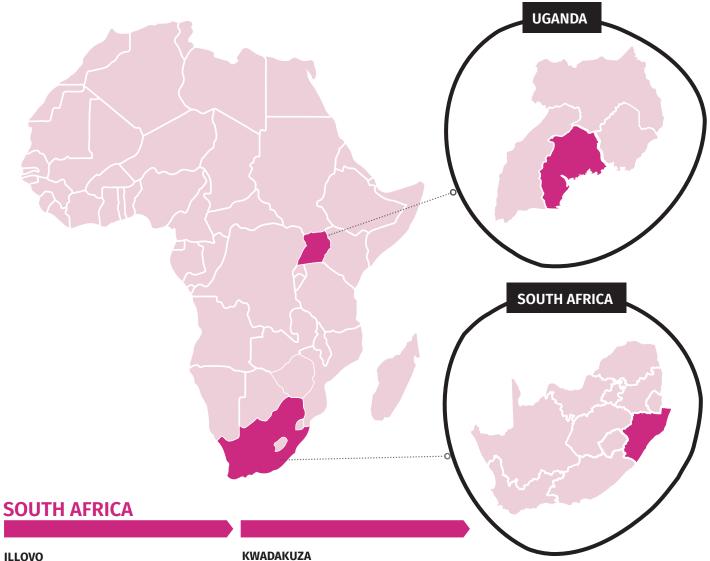
quality.

^{1 &}quot;HIV knowledge, attitudes, practices and population size estimates of fisherfolk in Uganda," IOM, 2013.

² For district level only. Lyantonde town is higher density

^{3 &}quot;National Population and Housing Census 2014 Main Report." UBOS, 2014.

⁴ Statistics South Africa, 2011.



Peri-urban

Province: KwaZulu-Natal **Population**: 24,728

Density: 2,982 persons/sq km⁴

Outlying Durban township with formal dwellings connected to water and electricity.

Semi-rural

Province: KwaZulu-Natal **Population**: 231,187

Density: 310 persons/sq km

North Coast KwaZulu-Natal municipality is set among sugar cane farms. Government housing with limited municipal service delivery.

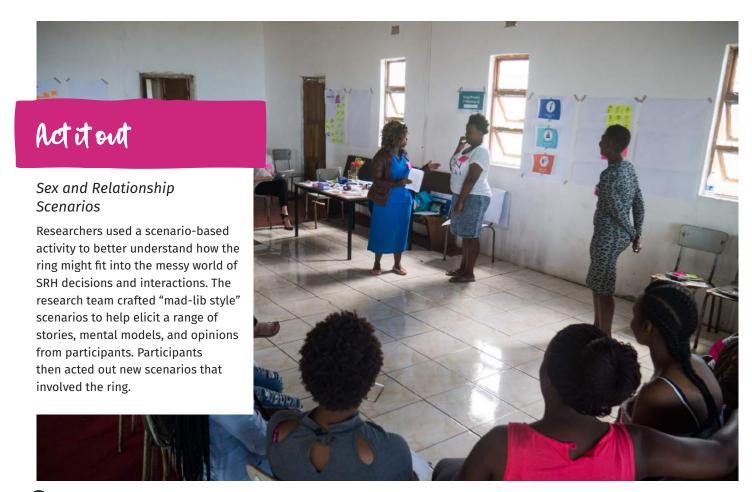
Approach

What methods were used to effectively engage young women?

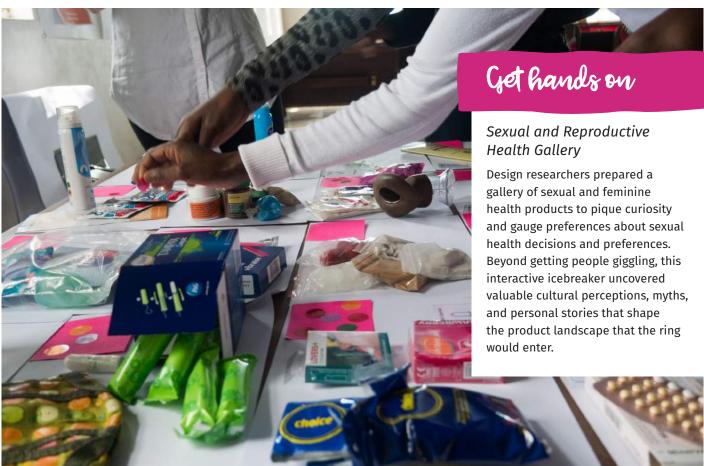
Starting conversations about sexual health can be challenging. For this project, the design team worked with ring-naive populations—those with no firsthand experience (and in most cases, knowledge) of antiretroviral (ARV)-based prevention options, including the DPV ring. With this limitation, researchers had to creatively uncover how to support ring introduction and use.

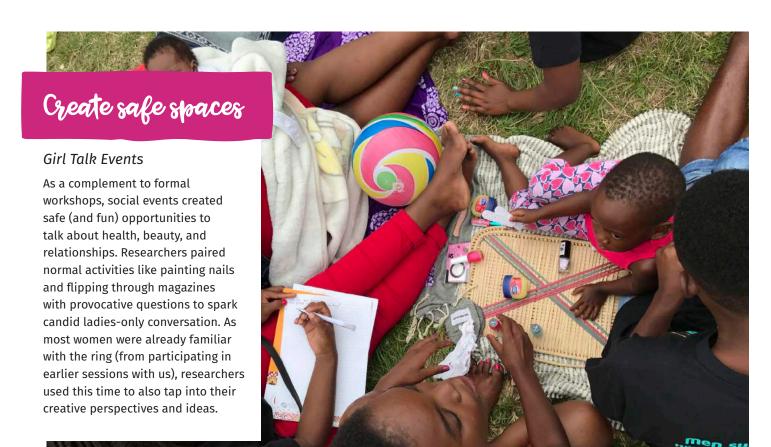
Therefore, the design team looked holistically at young women's SRH lives (e.g., family planning attitudes and usage, relationships, sexual health and sexually trasmitted infections [STIs], and vaginal care) to find parallel insights. Researchers paired interactive HCD methods and digital engagement tools (like Whatsapp) with existing knowledge from clinical research trials to better understand design opportunities for the ring.

See the following pages for brief highlights of some of the methods used.





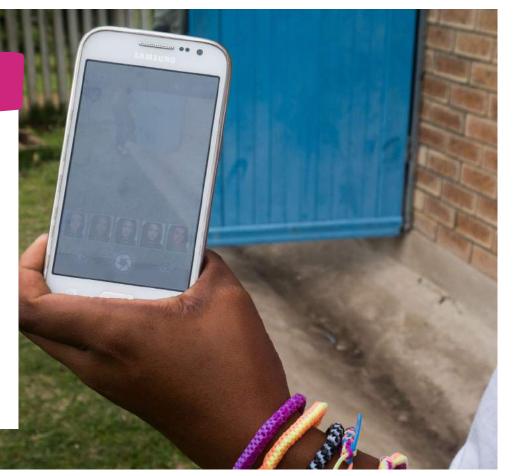




Chat it up

Lady Talk Whatsapp Group

Intimate conversations take trust and time. To unlock additional insights from young women participants, researchers created local Whatsapp Lady Chat groups and a chat challenge with simple questions about life, beauty, health, and relationships. Women shared back answers and pictures in response. This research method also validated that in certain contexts, such as urban and peri-urban South Africa, women were receptive to lightly moderated peer-to-peer support communities.



Prototyping and Co-creation











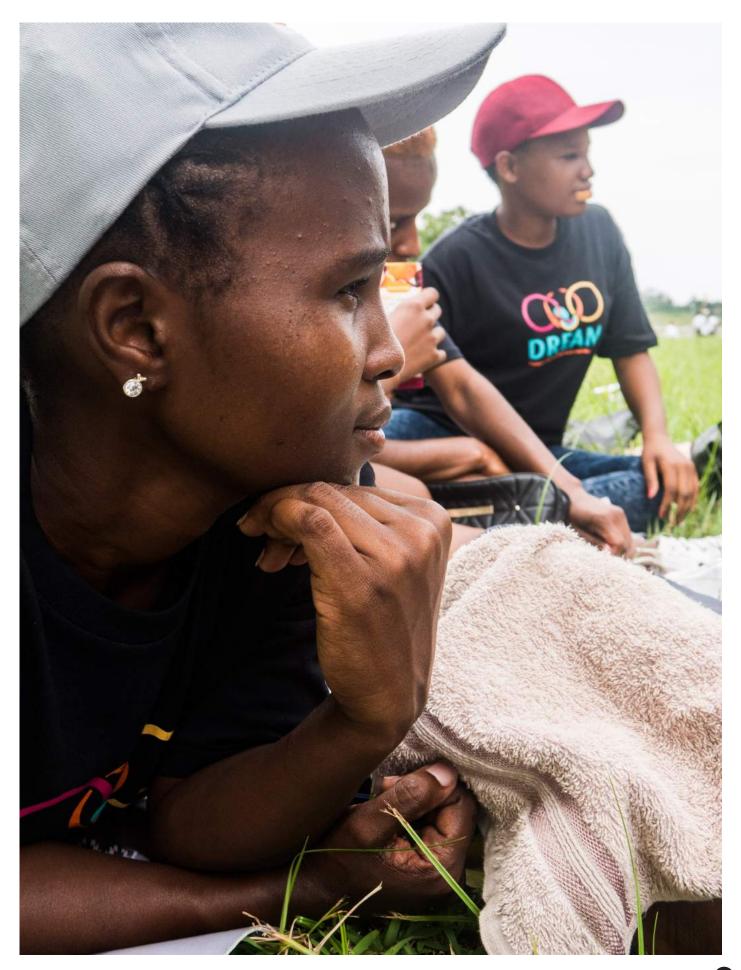


- (1) Local facilitator testing the "Health Hub" concept in Uganda;
- (2) women providing insight on "Everyday Explanations;"
- (3) men creating posters targeted at other men at a workshop in South Africa; (4) a woman entering a prototyping workshop;
- **(5)** testing ring event and introduction ideas; **(6)** choosing between different messaging approaches for women.

See page 56 to learn more about design concepts.

Journey & Insights

This section highlights key insights that shape the SRH journey of potential DPV ring users. These insights and subsequent personas serve as key jumping off points for the design concepts and strategies in Section Four.



Journey & insights

AWARENESS Learning about options INTRODUCTION Choosing the DPV Ring

EARLY USE Trying it out

Relevance is everything.

There are numerous SRH awareness campaigns delivered through a variety of channels, but the messages do not always sink in. Prevention competes with other pressing priorities, unless it feels relevant to her life

Knowledge is power.

SRH choices, such as long-acting contraceptives, are often initiated in health settings with little explanation, opening the door for confusion and suspicion. New HIV prevention options, especially the DPV ring, may face similar uncertainty and skepticism.

Firsts are unnerving.

The DPV ring is a new, unfamiliar product that requires women to engage with their bodies in new, unfamiliar ways. Beyond learning the basics of using the ring, she also must integrate it into her life and routines.



THE CHALLENGE

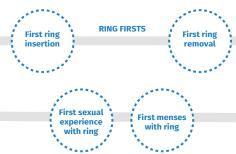
KEY RING MOMENTS

YOUNG WOMEN'S EXPERIENCE



First required HIV Ring use demo

Distribution in health setting



Clinical (Visible) Personal (Private)



Women might be more concerned with pregnancy than HIV prevention.

Fear of external judgment may prevent women from seeking information about their health.



Women often leave clinics with partial information and fill the gaps on their own.

Both women and men may lack understanding of anatomy basics.



Side effects, or perceived disruption to hygiene or menses, cause suspiscion and concern.

Women have few trusted advisors whom they can turn to with intimate issues.



"Girls don't fear HIV. They only fear pregnancy."

"Other students... they would talk about you"

"After I gave birth, the nurses just gave me the [contraceptive] injection. They didn't explain it to

"If [the female condom] goes too far in, won't it disappear?"

"Sometimes you feel like it is not your body [when you have side effects]."

"My cousin is a friend to me .. she helps me find a solution instead of just chiding me'



Evaluating her risks

SUSTAINED USE
Staying on track

5a ADVOCACY
Sharing with others

5b SUSPENSION Discontinuing or pausing

Life is in constant flux.

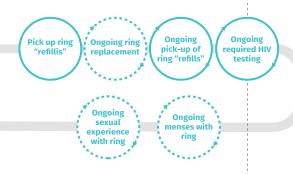
New circumstances and influences that can disrupt sustained ring use will arise frequently. A woman's discomfort or lack of knowledge in these circumstances can lead to a lapse in use.

Referrals mean risk or reward.

Referring others to an HIV prevention product could open the door for judgement or create personal conflict. However, referrals can also be a powerful promotion.

Discontinuation is discouraging.

Drop-off may create feelings of failure or guilt. Getting back on track can seem like an insurmountable hurdle.



Recommend the ring Test HIV positive Choose to discontinue or pause

Sharing experiences and health burdens can reduce anxiety and promote positive behavior

Women and men seek symbols of loyalty, even casually, to ensure partner trust.

Parents can be barriers, but parent support is a missed opportunity.



powerful—it helps fill gaps in knowledge and lessons learned.

Positive social gatherings and safe spaces for discussion on women's issues are rare.

Woman to woman sharing is



Prevention methods are often used on an "as-needed" basis or change based on life interruptions

Health practitioners' biases may be discouraging to women who discontinue or face adherence challenges.



"Everybody is on these medications. It's like a game (hiding ARVs, reminding friends)." "[Parents] can relate information about what drugs are being used for what reason." "My friend was sexually active and I told her about the injectable, because I had a baby and didn't want her to have one too."

"I stopped going for injections after I lost my baby... that's how I have my daughter now."



Evaluating her risks

THE CHALLENGE

Risk is tricky, but powerful.

Young women's lives are complicated by a host of practical challenges—both immediate and on the horizon—across health, social, and economic aspects. In this landscape of risk and opportunity, HIV often does not register at the top. It can feel distant, especially in contrast to other risks that feel more present—such as conflict, poverty, stigma, pregnancy, or violence. In addition, a woman's perception of her own risk may be in flux or inaccurate. In a study of risk and prevention behaviors among young women in South Africa, over 50% of participants underestimated or were unsure of their HIV risk. Finally, women may feel resigned to HIV risk because they do not see a means of protecting themselves.¹ Risk can also be motivating when she thinks about her future, her family, and her relationships.

HOW CAN DESIGN HELP?

Leverage moments and relatable stories that make risks feel real in her life.

Connect ring introduction to moments when she is considering her health proactively or feels at risk, such as after a health scare, unplanned pregnancy, or relationship discord.

¹ Brady, Martha, Saiqa Mullick, Barbara Friedland, Marlena Plagianos, Linda Du Plessis, and Thabiso Mango. 2015. "Learning from women about HIV risk, HIV testing behaviors, and prevention practices in Mpumalanga, South Africa: a descriptive study to inform microbicides introduction." New York: Population Council.

1. Motivating Events

Life is messy—women are moved to action only when the risk feels real.

Numerous risks and personal issues compete for priority, suppressing those which are not immediately important. When gauging and navigating a life with many risks, it often takes a significant health event or personal intervention to increase perceived risk and bring it to the forefront. Catalytic life events that can significantly shape a woman's outlook or behaviors include unplanned pregnancy, a risky sexual encounter, partner infidelity, or a health scare, either personal or that of a family member or close friend.

"My sister got HIV, and I saw her get sick and see her get her treatment. I don't want HIV."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

2. Social Isolation

Social isolation, whether self-prescribed or enforced, is often a mechanism for protection from risky situations or conflict.

It is easier to be removed from the equation than to fight battles every day. Women may see isolation as their only recourse against risk for a variety of reasons—because they lack local social networks (e.g., from moving), fear dangers in their local environment (e.g., violence), or are trying to focus on current goals (e.g., education, raising children). When enforced by parents, isolation is often used to shield young people from reality and the "temptations of sex." As a result, women who are socially isolated may have a narrower range of influences and access to information. They may regard new products or treatments with greater suspicion.

3. Relationship Risks

Acknowledging risk may create conflict and disrupt the guise of male control; women do not want to rock the boat in relationships.

In relationships, men must at least feel in control, so women may not protect themselves during sex or may assert personal preferences in secret, concealing choices (e.g., contraception, HIV testing) that may create conflict or threaten their relationship. Decisions that women make independently, without consulting their partners, are regarded with suspicion.

Because male partner infidelity is a common concern yet most women lack access to discreet prevention options—women are often left to worry about HIV, with little control over prevention

"Women know what they want for themselves, but it is not easy to say no to their partners."

COMMUNITY CARE GIVER, ILLOVO, SOUTH AFRICA



AWARENESS Learning about options

THE CHALLENGE

Relevance is everything.

There are numerous SRH awareness campaigns delivered through a variety of channels (such as radio and print media), but the messages do not always reach her. Prevention competes with other pressing priorities unless it feels relevant to her life and is reinforced by sources that she can relate to and trust. She may not actively seek out prevention information independently or feel comfortable asking about it openly.

HOW CAN DESIGN HELP?

Engage her when she is most receptive to new personal health options and integrate with her choices.

Awareness is about more than promotion, it is about meeting a young woman in the right moments and fitting with her motivations. For young women, this often means connecting prevention to family planning and other priorities in her life—like her relationship, children, social life, or future.



A young woman holds her infant as she shares her story of an unplanned pregnancy.

INSIGHTS

1. Pregnancy Priority

Pregnancy is top of mind for young people and communities—but comprehensive SRH conversations and services are often initiated only after a pregnancy.

The impact of a baby on one's life, relationships, and plans is palpable and immediate—not to mention visible. While safe sex might be discussed, contraception choices, HIV testing, and HIV prevention are often only undertaken after a pregnancy, whether planned or not. This includes HIV testing, a routine part of antenatal care.

With widespread HIV awareness and greater access to free HIV drugs, young people may see HIV/AIDS as less mysterious, more manageable, more discreet, and less devastating than in the past

"I started [HIV] testing regularly when I was pregnant."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

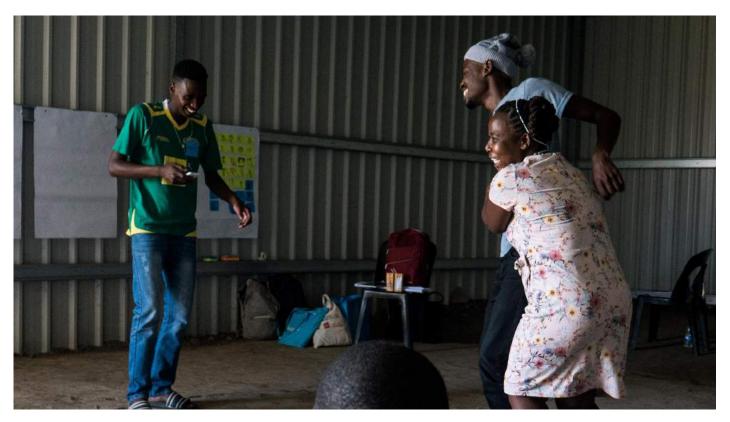
2. Judgment Barriers

The specter of gossip may discourage young women from seeking valuable health information and support and acts as a barrier to building trusted relationships.

The ubiquity of gossip in social groups, and even in health services, may discourage women from seeking information about new options and promote secrecy. This fear of judgment means young women have limited sources of crucial information, and these sources may be unreliable. Women (and men), especially adolescents and young adults, crave safe, judgment-free opportunities to talk about SRH issues and get information.

"Nurses are too talkative... Maybe [I'd ask] other students [about SRH], but then they would talk about you."

YOUNG WOMAN, ILLOVO, SOUTH AFRICA



A local facilitator plays a "Sugar Mama" as young men in Illovo perform a skit on various sex and relationship scenarios.

3. Male Hurdles

Where there is mystery, there is room for myth especially with men. Male perceptions of SRH choices can act as a barrier for women in personal relationships.

Women's SRH is a mystery to men, with much of their exposure through incomplete or secondhand sources. Men may come into relationships with myths and misperceptions that directly or indirectly impact women's selection, disclosure, and use of contraceptives. Without accurate information from sources they rely upon, men may block access to new HIV prevention options (such as the ring) or spread negative information about these products.

"She [my partner] was supposed to tell me earlier [about her contraception]. Maybe if she told me earlier I could understand her. That's why I got upset."

YOUNG MAN, KWADUKUZA, SOUTH AFRICA

"They [men] will come up with a lot of stories that this [product] causes problems."

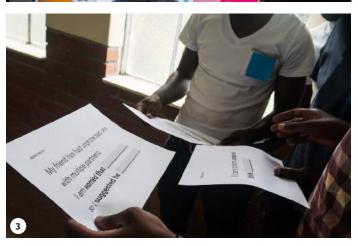
YOUNG WOMAN, ILLOVO, SOUTH AFRICA













(1) Asking a question about the ring; (2) unpacking views about family planning methods and disclosure; (3) reviewing scenarios;(4) expressing skepticism about the ring; (5) performing a skit;(6) deliberating on male messaging concepts.

2 INTRODUCTION Choosing the DPV ring

THE CHALLENGE

Knowledge is power.

SRH choices, such as long-acting contraceptives, are often initiated in health settings with little explanation, opening the door for confusion and suspicion. HIV prevention options, especially unfamiliar options such as the DPV ring, may face similar uncertainty and skepticism.

HOW CAN DESIGN HELP?

Use approachable, familiar explanations to ensure women feel confident in their choice.

With user-friendly introduction and more accessible explanations, a young woman can better understand the ring and her life with the ring. Empathizing with and addressing her concerns and perceptions not only helps her make a confident choice but also helps her communicate that choice to others.



A young woman explains how a female condom does not get lost to fellow participants.

INSIGHTS

1. Partial Information

Clinics are credible for general SRH services, but rushed patient interactions and limited counseling often create more questions than answers. Women are left to fill in the gaps on their own.

Young women often walk out the clinic door with unanswered questions or partial truths. This is not only due to resource constraints but also shaped by incidents of provider bias. Younger women may be afraid to ask sensitive questions, and providers may be reluctant to share SRH information with minors when they don't condone their choices. Older women with more experience in health settings may persist in these interactions while younger women may be discouraged. Whatever the cause, these gaps in knowledge are often filled with misguided logic or hearsay, often making little distinction between fact and fiction.

"After I gave birth, the nurses just gave me the [contraceptive] injection. They didn't explain it to me."

2. Anatomy Basics

Both women and men often lack basic understanding of the female reproductive anatomy. This creates doubt and fear around vaginal inserts of any kind.

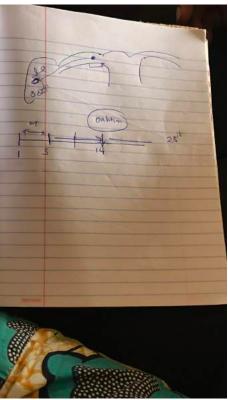
Many young women lack an understanding of their reproductive anatomy, making it difficult to comprehend vaginal products. Placement, function, and confidence in the ring may be clouded by a vague understanding of the vagina.

Injections and pills are more familiar medical interactions with straightforward explanations. Novel products like IUDs and vaginal rings raise uncertainty and suspicion.

Additionally, cultural norms around virginity and vaginal tightness may impact early impressions of vaginally inserted products.

"If [the female condom] goes too far in, won't it disappear?"





A pharmacist outside of Masaka sketches to explain to his patients in lieu of an anatomical diagram

3. Ring Reactions

The ring is provocative and complex to unfamiliar users—which can result in information and emotion overload during introduction.

Women (and men) react to the ring in very visceral and varied ways—"It's big!" "It goes where?" "Will he feel it?" "That must hurt." First impressions range from confusion to curiosity and from skepticism to hope.

As users are processing their emotional reactions, they are also taking in novel and nuanced information about the ring. Understanding information about a new drug, a new product, and new routines/precautions can be overwhelming—easily leading to incomplete or inaccurate understanding. During use, this can lead to improper use (e.g., removal), false confidence (e.g., unprotected sex in discordant couples), or misattribution of side effects (e.g., confusion with side effects from contraception).

4. Provider Empathy

Successful health practitioners supplement their traditional tools with savvy shorthand to translate "health speak" to "people speak."

Next to trust and relatability, a healthcare practitioner's ability to convey information to people in a way that sticks is crucial to his or her success. Experienced and empathetic practitioners use tools, hand gestures, sketches, comparisons, or stories to help patients understand medical information.

"I don't have any [health posters], so here [in my notebook] I drew a picture of her cycle and ovaries to explain fertility."

PHARMACIST, LYANTONDE, UGANDA













(1) A woman squeezes the ring; (2) two women investigate how it works; (3) a woman smells the ring; (4) asking clarifying questions about how the ring works; (5) "Are you serious? This goes inside me?!"; (6) gently holding the ring during discussion.

3 EARLY USE Trying it out

THE CHALLENGE

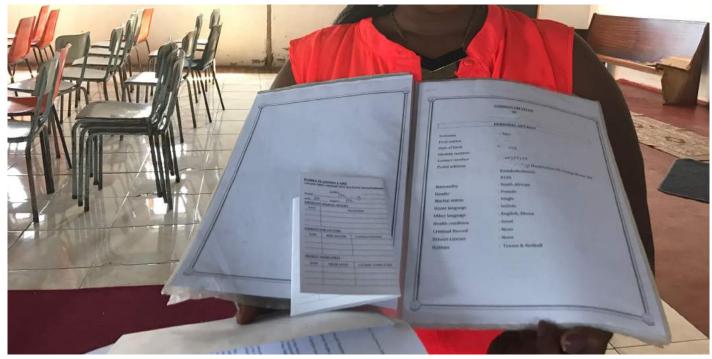
Firsts are unnerving.

The DPV ring is a new, unfamiliar product that requires women to engage with their bodies in new, unfamiliar ways. Beyond learning the basics of using the ring, she also must integrate it into her life and routines with minimal interruption to build confidence in future use.

HOW CAN DESIGN HELP?

Invest in initial use to cement good habits and build her confidence.

When embarking on something new, firsts can be scary and questions are abundant. A woman must feel like her questions and concerns about intimate and awkward topics are answered and acknowledged as normal and valid so that they don't become barriers to ring use.



A woman keeps her family planning clinic card tucked in her portfolio of resumes.

INSIGHTS

1. Limited Support

Trusted advisors and confidents are limited. Larger social circles are influential, but when women face intimate challenges, direct personal support is sought from a select few.

While women may have larger social groups, those that they trust with personal questions, advice, and support during risky situations are limited. These trusted advisors and confidants may be a mix of friends, family, or local role models. With a new product that may be unfamiliar to people in her close circle, getting accurate information and support from the usual channels may be difficult.

"My cousin is a friend to me... she helps me find a solution instead of just chiding me."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

2. Imprinting New Rituals

Health practitioners have the power to influence patient behavior. Requirements such as clinic cards and charts, when enforced consistently, can become welcome rituals.

Clinic cards for young women and/or their children can transform necessary paperwork into an indispensible health tool. These tools provide meaningful opportunities to capture ongoing health conversations and share crucial information; they can make adherence a tangible, and sometimes social, experience. Women often shared rituals around the keeping and storage of health paperwork—tucked under mattresses, in makeup bags, hidden in wardrobes, or bundled next to employment curriculum vitae—that illustrated the personal importance of these tools.

"This clinic card is so important for me to remember. I keep it under my mattress for safety, because I cannot lose it."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA





A woman shares beauty and health products she carries with her.

3. Health Signals & Side Effects

Natural cycles, like menses and hygiene routines, are crucial to the perception of good health. Disruptions or irregularities are regarded with confusion and concern.

Women value hygiene. Bathing and normal menstruation are simple ways, at little cost, for women to ensure they are clean and healthy. When infections or medication disrupt these processes, women and their partners may become concerned.

Limited knowledge of reproductive anatomy and function exacerbate confusion and concern. Even when properly explained, side effects associated with some contraceptives, like excessive bleeding, spotting, or missed periods, are disconcerting and may push women to discontinue use of family planning methods. Women also tend to assign health challenges or frustrations more generally to new medications. As HIV may be less of an immediate priority, discontinuation of a new microbicide product may be more likely.

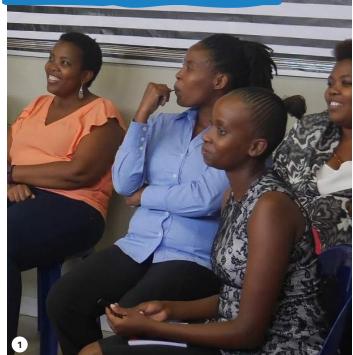
"Sometimes you feel like it is not your body [when you have side effects]."

YOUNG WOMAN, ILLOVO, SOUTH AFRICA

"I bathe three times a day [to feel healthy & beautiful]."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

Engaging Providers and Communities













(1) A workshop with a team of HIV-research staff; (2) testing messaging with clinical trial site staff; (3) community leaders in Lyantonde; (4) two health care providers in Illovo; (5) a community meeting in Lambu; (6) a midwife asking a question in Lyantonde.



THE CHALLENGE

Life is in constant flux.

New circumstances and influences that can disrupt sustained ring use will be introduced frequently. These may be practical (e.g., a move or money troubles) or relationship-driven (e.g., disclosure of DPV ring or contraception use). A woman's discomfort or lack of knowledge in these circumstances can lead to a lapse in adherence.

HOW CAN DESIGN HELP?

Give her a support system and flexible tools as she navigates her relationships and unfamiliar situations.

Anticipate new or difficult life circumstances and provide support to prepare women so they can continue using the ring through or after these changes.



Young women in Illovo, South Africa perform a skit about relationships.

INSIGHTS

1. Partner Trust

Women and men seek symbols of loyalty and commitment, even in casual relationships—in certain dynamics, the ring can be seen as a symbol of distrust.

In many relationships, trust is used as a tool to negotiate what one partner or the other wants. Condoms are inherently linked to distrust, and partners, especially male partners, will frequently pressure women to "just trust them" and skip the condom. To most women, the DPV ring represented trust and care—keeping both themselves and their partners safe. However, some men viewed the ring as a symbol of potential infidelity when used by their partners. The ring as a symbol of distrust may shift when both partners are assumed to have multiple partners—such as in casual relationships or transactional sex. He may also see the ring as a positive when it is introduced as protecting his sisters or female friends.

"If a woman finds a condom in the pocket of her man and he says, 'it's just for protection...' It will be the same for the ring."

2. Parent Support

Overlooking parents is a missed opportunity. They often provide critical guidance and support, especially for younger women, yet have been largely excluded from SRH outreach and programming.

SRH programming is primarily targeted at young people, sidestepping parents completely. Stakeholders reflect that there is a risk that SRH education and outreach programs "build a wall" between children and parents.

"My mom went with me to get my implant."

YOUNG WOMAN, ILLOVO, SOUTH AFRICA

5a ADVOCACY Sharing with others

THE CHALLENGE

Referrals can mean risk or reward.

Referring others to an HIV prevention product could open the door for judgment or create personal conflict. However, they can also be a powerful currency for social capital—and, in turn, be invaluable for new health products.

HOW CAN DESIGN HELP?

Provide a range of options for sharing, from outspoken advocacy to discreet suggestion.

Women's comfort levels with sharing personal health choices vary—for some it is second nature while for others it is a private matter.

Regardless, close female friends and family take care of one another.



Young women draw portraits of each other during a workshop in Kampala.

INSIGHTS

1. Woman to Woman

Women look out for one another. They fill gaps in knowledge and support by sharing secondhand information and lessons learned through personal experience, both good and bad.

Many women learn through experiences—either their own, or experiences of those they trust. When a woman has a success or misstep in her SRH life, she may feel compelled to share. Lessons learned, tips, or referrals are passed socially.

Safe spaces to learn about sex and SRH are limited, inhibiting intimate channels that are critically important.

"My friend was sexually active and I told her about the injectable, because I had a baby and didn't want her to have one too."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

2. Safe Spaces

Positive social gatherings and forums for discussion on women's issues are rare. Women are hungry for safe spaces to open up to share stories, information, and personal aspirations.

Positive social groups are rare, especially those outside of a school setting, and are hard to come by for young women. Personal relationships may promote healthy behavior, but when women gather in a tavern or at a party, the environment around them is predominantly "negative" or "risky." In these settings, women socialize and may keep each other safe (e.g., walking each other home), but do not have the opportunity to connect more deeply or around shared aspirations (e.g., health, wellness, employment, personal goals).

"We become friends because of something bad, not something good."

YOUNG WOMAN, ILLOVO, SOUTH AFRICA

5b SUSPENSION Discontinuing or pausing use

THE CHALLENGE

Discontinuation is discouraging.

Drop-off may create feelings of failure or guilt. Getting back on track can seem like an insurmountable hurdle.

HOW CAN DESIGN HELP?

Make it okay to falter—encourage her when she falls off track.

way of prevention.



A young woman stands with her youngest inside her door in Lyantonde, Uganda.

INSIGHTS

1. Life Interrupted

Women don't always feel at risk. Prevention methods may be used or discarded on an "as-needed" basis.

Mobility, distance, depression, or dissolution of a relationship may lead to an interruption in health access or a proactive choice to discontinue treatment or prevention (e.g., contraceptives). These circumstantial changes can make beginning again challenging and leave women exposed to risk in the moment.

"I stopped going for injections after I lost my baby... that's how I have my daughter now."

YOUNG WOMAN, KWADUKUZA, SOUTH AFRICA

"I had a problem using the injection. I was never helped, so I just chose to go off of it and then I got pregnant."

YOUNG WOMAN, LYANTONDE, UGANDA

2. Bias & Judgment

It is difficult to put social and cultural norms aside and provide objective care. Even trained health professionals may be biased by personal beliefs or the status quo.

It is difficult to think past the hardwired, personal norms around sex and SRH. Some health workers may struggle to provide objective care and keep social and cultural norms and beliefs at bay.

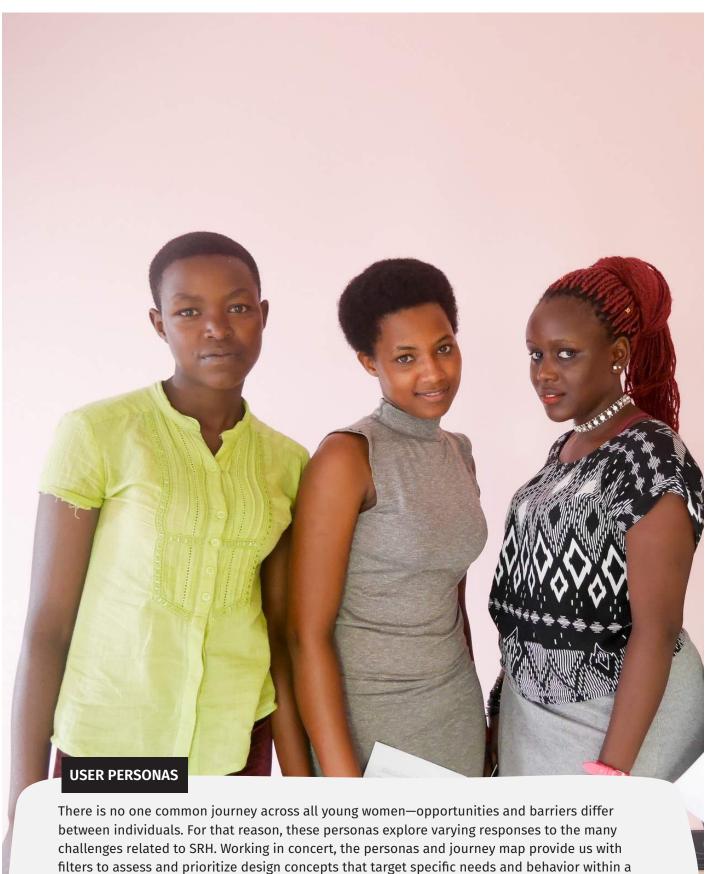
This can come in the form of personal judgment of patients for risky choices or in the form of clinical alienation—judging failure or "non-adherence."

"[That was the mistake.] Telling her [the client] what to do destroyed the relationship that we had."

COMMUNITY CAREGIVER, ILLOVO, SOUTH AFRICA

User Personas

This section introduces stylized personas based on user research to illustrate the diverse range of responses to SRH experiences across the health journey.



varied community of users.

specific fleeds and behavior within a

Persona Model



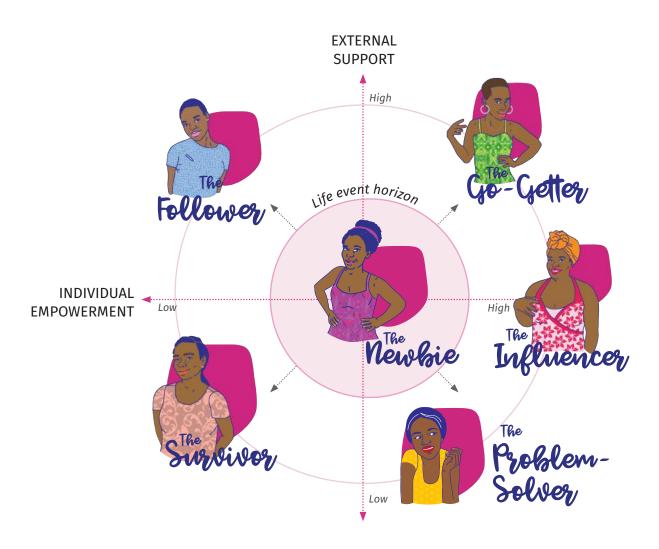
What are personas and how are they organized?

Personas are stylized descriptions of target user profiles, each with clear and differing needs, motivations, and behaviors. They help us understand how key variables (e.g., family structure, relationship status), beliefs, and behaviors might influence attitudes towards the DPV ring. Personas can serve as an important guide when developing design concepts that are more in-depth and tailored to particular user groups. Personas may contribute to a product launch strategy by pinpointing users that might be more receptive to a new prevention product or more influential within their community. In subsequent sections, the Guide will explore how personas inform design concepts and launch planning.

The personas are organized by a simple framework of key factors that may influence ring access and use: level of individual empowerment and level of external support. These factors shape personal outlook and trusted relationships as women navigate SRH decisions.

Personas complement market segmentation. They capture a variety of unique user behaviors and needs across market segments. Personas are rooted in qualitative research intended for product or service design, while market segmentation is built on demographic analysis, primarily focused on market introduction.

Pair personas with segmentation analysis to give a robust picture of designing for, and providing access to, target populations.



PERSONA MODEL

Individual Empowerment

Does she feel confident, effective, and hopeful in her life? This horizontal axis represents internal self-efficacy and confidence.

External Support

Does she feel that she has access to trusted personal support? This vertical axis represents her support system and relationships.

Life Events

Personas are shaped by life experiences. Significant events, as well as smaller moments, may influence user behaviors or act as intervention opportunities. While each persona occupies a specific position within the framework, a given individual may shift between different personas over the course of her life. Younger or less experienced women, like the Newbie, may begin in the center and move outward, evolving into one of the more developed personas.

The Newbie

Curious Experimenter

Newbies are exploring sex and relationships for the first time, learning as they go. This new world is both exciting and confusing.



A NEWBIE'S STORY

Gift is in her third year of high school. She has always performed well in school, until this year. Her boyfriend consumes much of her free time and distracts her from studies. Gift knows this relationship will not last forever, but she likes having a boyfriend and getting attention from other guys too.

Gift lives with her older sister, aunt and one cousin. She and her cousin are very close—they share stories and advice and help one another with everything from school to sex and relationships. Gift only trusts her cousin. She shares very little with anyone else. They

have learned about some sexual health issues in school and during youth events in the community but still have many questions.

Gift knows it is important to use condoms to prevent HIV and other STIs, but she is also intrigued by sex itself. Sometimes she listens to the girl talk at school or considers advice from her neighbor, an older woman with more relationship experience. Gift is generally timid and most of this talk makes her blush, but occasionally she tries something new.

CHARACTERISTICS

Relationships & behaviors

- Receives some information on sex and relationships from school or outreach events
- Strong influence from stories and tips shared by peers
- Some interest in hormonal contraceptives, but relies primarily on condom use

Barriers

- · Avoids clinics and intimidated by health practitioners
- Low body awareness and uncomfortable interacting with her vagina
- · Hides sexual activity from parents or other adults
- · HIV risk does not feel real

Male partner influence

 Desire to please partners and maintain relationships has a strong influence over decisions about sexual health and safety



SUPPORT INTRODUCTION

Newbies are especially sensitive to new information and experiences related to sex and their SRH. **Everyday Explanations** help Newbie women feel more comfortable with the ring and provide a baseline understanding of female anatomy. **Learn more on page 60**.

DESIGN CONSIDERATIONS

Access and influence

- · Leverage the existing influence of teachers and in-school sexual education
- Deliver messages through trusted influencers that she will listen to—older sister or female family member
- Get her attention in places where she feels free and comfortable—community or sports events and malls

Support

- · Help her understand her body and feel confident with intimate interactions
- · Provide support for conversations with parents and partners

The Go-Getter

Early Adopter

Go-Getters take charge of their own health and encourage others to do the same. They lead by example, demonstrating good habits in relationships and health.



A GO-GETTER'S STORY

Zama grew up in a poor neighborhood, raised by her mother, to whom she is very close. As a teenager, Zama had a "rebellious phase" where she partied and went out all the time. She managed to finish school, but not before she had become pregnant with a child, which changed her life forever.

After her daughter was born, Zama vowed to get her life back on track. She had never talked to her mother about much before, but now they are best friends and still live together. Zama's mother helps her with general health and well-being and takes care of Zama's daughter while

Zama is at work. Zama works part-time at a store in town, but she hopes to become a nurse one day. Zama's three closest friends do not live very far from her, and she sees them fairly often.

Zama's current boyfriend lives nearby. He is supportive of her aspirations, and together they are very responsible about their sexual relationship. Both Zama and her boyfriend get tested for HIV and STIs together every few months, and they both agree that using condoms is important.

CHARACTERISTICS

Relationships & behaviors

- Accesses health services at her own discretion.
 Proactively asks questions of health practitioners until she is satisfied with the answers.
- · Regularly goes for HIV testing
- Uses a long-acting reversible contraceptive (LARC).
 May have tried more than one to determine the best option for her.
- Discusses health and relationships with trusted friends and family—both considers their advice and shares her own
- Distrusts traditional healing and is not easily influenced by myths and gossip in the community

Barriers

- · Trusts her partner to be faithful
- May not perceive herself to be at risk

Male partner influence

 Healthy, balanced relationship with partner, with open discussion on sexual health issues. Maintains one relationship faithfully, and has the confidence to walk away from an unhealthy relationship.



SUPPORT SUSTAINED USE

Sustaining use of a new sexual health product can be challenging for any woman. Go-getters may be encouraged to continue using and sharing with others if they are directly engaged with the product and organization. **Ring Report** is a lightweight way to engage users in a ring community with fun prompts and information—and offers an onramp into other forms of social media support and engagement.

Learn more on page 78.

DESIGN CONSIDERATIONS

Access and influence

- · Leverage existing contact with health facilities—HIV testing and family planning visits
- Find her at community events, searching for employment, or studying at tertiary institutions, including nursing schools

Support

- Leverage her proactivity and willingness to try new things, potentially by targeting Go-Getters for demo projects
- Empower her as an advocate and peer educator

The Influencer

Big Sister

Influencers empathize with other women. They are hardened by difficult first-hand experiences and are determined to shape a better future for themselves and others.



AN INFLUENCER'S STORY

Lindile is the friend that everyone goes to for advice. She lives with her mother, younger sister, her son, and her sister's two children. Lindile did not finish school—she dropped out during her pregnancy. As a result, she still lives at home and has had difficulty finding steady work.

Lindile has a strong relationship with her mother and sister. They have always relied on one another for support and stability. Lindile was deeply shaken when her sister tested positive for HIV at the beginning of her second pregnancy. She resolved to stay strong and ensure her sister was well-supported, contributing both emotional fortitude and practical support with

treatment and clinic visits. Lindile became the rock for her family during this time.

This was a difficult, sobering experience that changed Lindile's perspective and behavior. She now takes HIV prevention and personal health seriously, and spends much of her time counseling other women on relationships, children, and ladies' health issues, including HIV and family planning. Although Lindile has faced hardships, she has resolved to make the best of her experience, helping others to make good decisions.

CHARACTERISTICS

Relationships & behaviors

- Learned hard lessons from intimate experiences with HIV and takes prevention and testing seriously
- Accesses health services when necessary and only seeks or shares information from select health providers she trusts
- Discusses her personal health and relationship issues with a select few trusted family members but shares advice openly with women throughout the community
- · Distrusts traditional healing

Barriers

- Few positive role models and wary of advice or information from outside her trusted circle
- Mistrustful of most professional health services prefers informal channels or select providers

Male partner influence

 May be in a committed relationship or have multiple partners, but always walks away from someone who refuses to use condoms



SUPPORT ADVOCACY

Influencers thrive on connecting with others, sharing experiences, and the fulfillment or validation that comes with being "in the know." The opportunity to be a **Ring Couple or Peer** will help women (and men) who want to spread new knowledge to their communities. Learn more on page 88.

DESIGN CONSIDERATIONS

Access and influence

- · Capture her at a moment of personal significance—an HIV test or a family planning visit
- · Reach her through informal channels, like salons

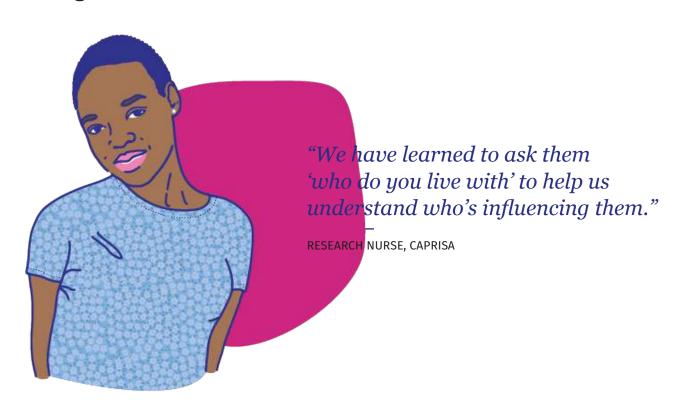
Support

- Leverage the influence she has on other women through one-on-one guidance and conversation for awareness, adherence, and advocacy
- Build out informal channels for sharing and distribution

The Follower

Dependent Listener

Followers take their cues from others. They lack internal motivation to seek solutions on their own, but will faithfully follow guidance from trusted influencers.



A FOLLOWER'S STORY

Samke spends most of her time at home. She lives with her parents, older sister, and two young children. Her boyfriend (and father of her children) lives nearby and visits at her family home from time to time, but she wonders when they will marry and have a home of their own. Samke thought that the birth of their second child would come with a marriage proposal, but her boyfriend only became more distant. This worried her older sister, who advised Samke to begin using a long-acting contraceptive, like the injection or implant, to prevent additional pregnancies.

Samke trusts her sister and knows she has her best interests in mind, so she decided to go ahead with the injection. Her sister reminds her about appointments and accompanies her to the clinic on occasion. Samke hides this from her boyfriend for fear that it may upset him and ruin their chances of a future together. Her boyfriend was unhappy when she brought condoms to the bedroom, insisting that if she trusts him, there is no need for protection.

CHARACTERISTICS

Health-seeking behaviors

- Hesitant to access health services for herself unless there is an emergency or advised to do so by a trusted friend or family member
- Accesses clinic for necessary child health visits but does not feel entitled or empowered to ask questions
- Relies primarily on advice and secondhand information shared from a few trusted sources
- May use a long-acting reversible contraceptive (LARC), like the implant or injection, as directed by a nurse postpartum

Barriers

- Easily influenced by myths and stories shared by other women
- · Lack of future orientation, personal goals
- Socially isolated—limited engagement with community or public support services

Male partner influence

 Often submits to partners' preferences. May knowingly put herself at risk to avoid conflict.



SUPPORT EARLY USE

Cementing good habits may require some gentle nudging, especially for Followers, who have difficulty making decisions or taking action without prompting or guidance. **Ring Ping** is an easy first step, providing simple reminders to encourage consistent ring use and opening the door for more robust support and guidance if needed. **Learn more on page 76**.

DESIGN CONSIDERATIONS

Access and influence

- Leverage existing contact with health facilities—child health visits
- Go to where she is. Deliver messages through trusted friends or family members at home, knock on her door, or approach her in the community.

Support

- · Provide support for conversations with partners
- · Help her to feel a part of something bigger—a supportive network of other young women like her
- · Bridge the conversation with parents and other family members

The Survivor

Lonely Fighter

Survivors live day to day without the bandwidth to think about the future. They may feel alone or marginalized, but have a resilient spirit, doing what they can to provide for themselves and their children.



A SURVIVOR'S STORY

Grace has faced significant hardship in her young life. Born to a poor mother and absent father who were unable to provide much for her, Grace moved around to several different neighborhoods growing up. As a result, she has very few friends or family members on whom she can rely. She has had several boyfriends in the past, but the relationships have often been short-lived, and they tended to be with controlling, even abusive men.

Grace had her first child when she was 17 and still in school. The pregnancy forced her to stop school temporarily, which left her behind her classmates. Grace was unable to pass her final exams and could not complete school. At 19, she had a second child. Grace now lives in a small, one-room apartment with her two children, doing the best she can to make ends meet. She loves her children dearly, but is resigned to her lot in life, believing that things cannot and will not change much. However, Grace continues to look for steady employment, filling in the gap with small jobs here and there. She is involved casually with a man who lives nearby, but his support is inconsistent and unreliable.

CHARACTERISTICS

Relationships & behaviors

- Regularly accesses health care center for child health visits
- Relies heavily on public health services for both health needs and social support. Trusts health practitioners' care and advice, but is afraid to ask questions or seek clarification.
- May use a LARC, such as the injection, but sustained adherence is tough given the practical pressures of her day-to-day life
- Open to advice from other women in the community, but avoids disclosing too much personal information
- · May consult a traditional healer

Male partner influence

Financially dependent on one or more partners.
 Attempts to exert personal preferences, especially when it comes to her children, but decisions are most often made by her partner.

Barriers

- · Unsure of HIV status and afraid to test
- Easily influenced by myths and stories circulating throughout the community
- · Lack of future orientation and personal goals
- Limited socioeconomic support—may feel alone or marginalized
- May have significant concerns about creating conflict with sexual partners



SUPPORT EARLY USE

Survivors need extra support that they may not be able to find in their immediate network. **Ring Point People** act as personal support for women who may have questions or challenges that, if left unresolved, can be discouraging in early use. **Learn more on page 74**.

DESIGN CONSIDERATIONS

Access and influence

- · Leverage existing contact with health facilities, especially child health visits
- · Go to where she is. Reach her at home or in the community through community health workers or local events

Support

- · Leverage her devotion to family to encourage HIV prevention and positive health practices
- Acknowledge and celebrate her resiliency and resourcefulness and offer ways for her to feel proud when she gets back on track

The Problem-Solver

Cautious Partner

Problem Solvers are crafty. They seek out solutions that support their individual needs, but take care to avoid anything that may create conflict or disrupt existing relationships.



"I test for HIV, but I can't make him do it. I worry... but what can I do?"

YOUNG WOMAN, UGANDA

A PROBLEM-SOLVER'S STORY

Winnie is no stranger to keeping secrets. She was raised in a devout and conservative family that was fairly supportive through her younger years, but increasingly strict as she came of age. She hid her relationships from her family and discovered contraception from overhearing female neighbors. Her earliest independent health care experience was sneaking a ride to the neighboring town to get tested and treated for an STI—a secret that only her closest cousin knows to this day.

Winnie got married at 19 to an older man who is also a truck driver. She quickly took charge of his two children and had one of her own. Overwhelmed at managing a household and growing family, often times on her own, she started receiving contraceptive injections without telling her partner and hides the clinic card with her beauty products. Her mother-in-law is curious when the next baby will come. Her husband often returns home late with alcohol on his breath. Winnie worries about what he may be bringing to the bed—infections or worse. She convinced him to test for HIV when she got pregnant but has little faith that he has tested since.

CHARACTERISTICS

Relationships & behaviors

- Accesses health services and HIV testing discreetly, often going out of her way to utilize a health facility in another community or seek service from a private clinic or pharmacy
- Open to advice and guidance from health practitioners, but avoids disclosing any personal information
- Encourages partner to go for regular HIV testing, but does not press the issue with him
- May hide her use of LARC from partner or family members to avoid conflict or judgment

Barriers

- · Keeps health service interactions to a minimum
- Limited social support and somewhat isolated—keeps community engagement to a minimum

Male partner influence

In a committed relationship or married. She aims
to keep the peace and support her partner's
preferences, but is unwilling to sacrifice her own
needs. As a result, she may seek certain health
services in secret or hide use of family planning, etc.



SUPPORT SUSTAINED USE

Problem-solvers may have challenges navigating new options within their relationships. **Talk Tools** will support her during difficult conversations with her partner, preventing suspension or drop-off due to relationship dynamics.

Learn more on page 86.

DESIGN CONSIDERATIONS

Access and influence

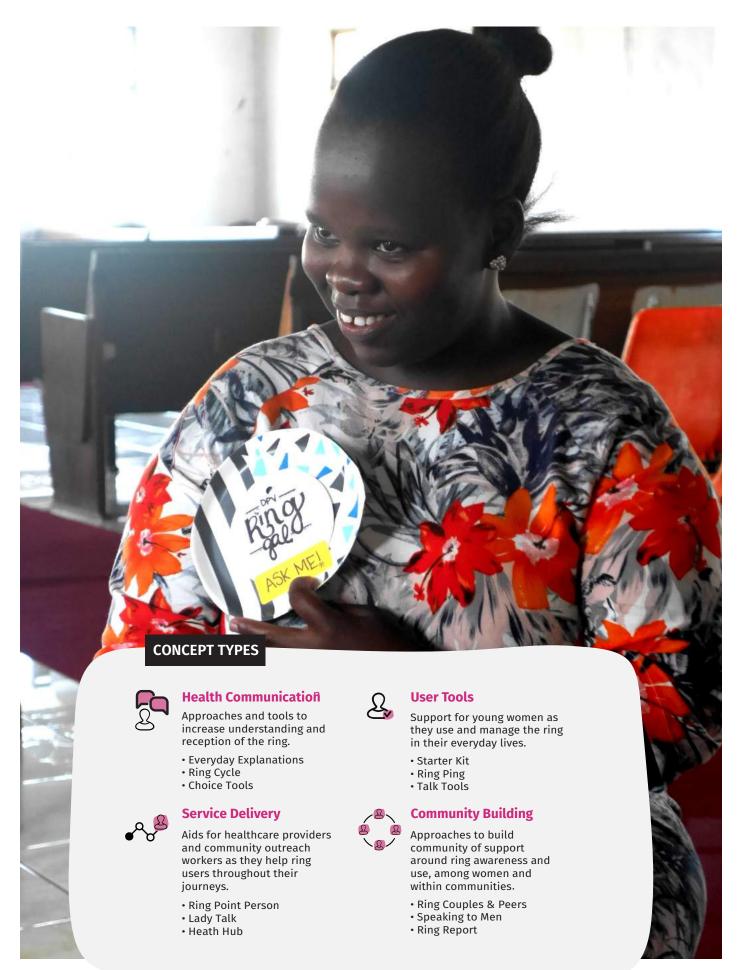
· Reach her through pharmacies and private health facilities and informal channels, like salons and markets

Support

- · Support preferences for discretion and individual choice
- · Provide support for conversation with partner and other family members

Design Concepts

Design concepts are used to illustrate a wide range of opportunities to more effectively reach the target user and support the adoption and sustained use of the SRH options that are right for her. These concepts were tested and validated with users and her influencers and encompass key elements of the experience from communications to user tools to service delivery to community support. While the concepts in this Guide are tailored to the DPV ring, they can be adapted for a broader range of programs related to sexual and reproductive health.



Journey & concepts

AWARENESS

Learning about options

INTRODUCTION Choosing the DPV Ring

EARLY USE Trying it out

Relevance is everything.

Engage her when she is most receptive to new personal health options and integrate with her choices.

Knowledge is power.

Use approachable, familiar explanations to ensure she feels confident in her choice from the start.



Everyday Explanations

Simple, relatable descriptions to help women "get it."



Ring Cycle

Visual overview of the monthly ring cycle and how the ring fits into a woman's everyday life to avoid challenges that might surface later



Speaking to Men

Messaging to motivate men to become ring champions, rather than barriers.



Choice Tools

Integrated presentation of options for both HIV prevention and family planning to place the ring in the context of other choices

Firsts are unnerving.

Invest in initial use to cement good habits and build her confidence.



Starter Kit

Supplies and information for new ring users to instill good habits from the start



Ring Point Person

Distributed, personalized support for women in the form of a trusted peer or counselor in their community



Ring Ping

A simple SMS reminder system to reinforce monthly habits and help keep users on track



Evaluating her risks

4

SUSTAINED USE

Staving on track

5a ADVOCACY
Sharing with others

5b SUSPENSION Discontinuing or pausing

Life is in constant flux.

Give her a support system and flexible tools as she navigates her relationships and unfamiliar situations.



Ring Report

A digital survey and community-building program for the ring



Lady Talk

Adaptable and approachable scenario-based counseling tools



Health Hub

Recognizable places for ring support paired with women's health information and digital programming

Referrals mean risk or reward.

Provide a range of options for her to share, from outspoken advocacy to discreet suggestion.



Ring Couples and Peers

Ring users advocate and their partners promote and provide guidance as a pair

Discontinuation is discouraging.

Make it okay to falter—encourage her when she falls off track.



Talk Tools

Conversation starters for partners and parents

Risk recognition insights were incorporated into the design of concepts at each stage.



Everyday Explanations

Simple, relatable descriptions to help women "get it"

In many countries, vaginal rings are an entirely new product category and formulation that interact with a woman's body in unfamiliar ways. Women have fundamental concerns about how the ring works. This is often driven by a lack of familiarity with their own anatomy and negative experiences or associations with other SRH products, like long-acting reversible contraceptives.

Ring study staff and community educators often use simple analogies and anatomical models or drawings to successfully explain the ring and how it works. When women are overwhelmed with new information and

questions about the ring, simple, familiar analogies provide an efficient way to deepen their understanding. They have a higher likelihood to 'stick' when they leave the clinic. These analogies also provide a baseline vocabulary for ring users to make it easier to explain the product to other women in their community. By framing a new and unfamiliar product in familiar ways, Everyday Explanations help reinforce that the ring is 'normal' and 'relatable.' In support of this approach, a starter set of explanations and visuals will address common questions and concerns about the ring in a manner that is both accessible and easy to remember.

KEY FEATURES

- Set of familiar analogies and explanations with simple language and supporting visualizations
- Framed as questions and answers between a young woman considering the ring and a nurse
- Flexible application across posters, job aides, and digital tools
- · Can be further tailored to low-literacy populations
- Applicable to other vaginal rings and inserts

KEY PERSONAS

Most valuable to:

- Newbies
- Followers
- Survivors

MOVING FORWARD

Implementation considerations

Different countries and communities will have different concerns and contexts, and as such they will need to use alternative analogies that could be incorporated into this concept. One example is a fence for *rural communities* versus a gate for *urban communities*.

Activities to pursue

- Test and categorize explanations for various users by factors such as gender, age, literacy, cultural context
- Expand library of explanations: work with research site staff and community educators to identify additional questions and concerns, as well as analogies and visuals that support user comprehension that are already in use with clinical staff
- Explore multimedia options, such as digital slideshows, videos or audio recordings

EVERYDAY

concerns

B. CLEAR **EXPLANATION**

A simplified

explanation of her

body or the ring in

familiar terms

C. REINFORCING

A clear metaphor

that helps women

remember and

MODULARITY

Questions and

analogies are

adaptable based on context, audience, or format

understand their bodies or the ring

ANALOGY OR

VISUAL

better

EXPLANATIONS

A. REASSURING **ANSWER**

Clear answers to a

user's immediate

APPLICATIONS

CHARACTERS A. RELATABLE USER Young women are comforted by seeing peers using

the ring

B. HEALTH FIGURE

Women expressed

a preference for a recognizable

health authority to give them

Grace" is a friendly,

knowledgeable

QUESTIONS

Women may be

reluctant to ask

questions that

make them feel

Normalize and

clearly answer

the most pressing

questions first, so

women can take in

new information

uncomfortable or unknowledgeable.

figure

- · Poster in clinics, pharmacies or other health centers
- · Digital slideshow or animations on a smartphone or tablet
- · Job aid or waiting room resource to address common questions and introduce the ring
- Training module on user-friendly explanations for health practitioners and advocates

The Riv information. "Nurse There is nowhere for the ring to go. Will it At the top of the vagina there's a small passage called the cervix, which the ring cannot fit through-O...... like a partially open gate. get lost? 2 Will it The vagina hugs what's fall out? inside it. Your vaginal is a muscular canal. The ring shouldn't fall out during normal use because the vaginal muscles 0 gently hold or hug what's inside you. Do I take The ring is like a goalie. If she's not at the goal post, the other it out? team can score. Keep the ring in to help protect you from HIV.

Assets



- Full sample poster
- Library of explanation and visuals to be extended
- Written explanations
- Vector art of visualizations











Opposite Page: (1) A nurse with a ring poster answering frequently asked questions with Everyday Explanations; **(2)** using an Everyday Explanation—the gum analogy—while explaining the ring in person. **This Page: (3)** Everyday Explanations in the form of a flip-chart with a menu of common questions; **(4)** Everyday Explanations as viewed on a smartphone; **(5)** Everyday Explanations as part of the Digital Health Hub application on a tablet.



Ring Cycle

Visual overview of the monthly ring cycle and how the ring fits into a woman's everyday life to avoid challenges that might surface later

A number of issues can contribute to inconsistent ring use or drop-off, especially if users are not prepared for them. During clinical trials, concerns about a few specific scenarios largely drove non-adherence—menstruation, ring expulsion while bathing or using the toilet, interference with sexual intercourse, and potential conflict with sexual partners. Ring naive participants also echoed these concerns during initial user research for this project, along with additional questions about ring removal and how it affected their level of protection.

Ring Cycle is a simple visualization that addresses common barriers to consistent ring use up-front, in the context of the one-month ring cycle. It underscores that life with the ring is life as usual, and consistent use is the key to protection. By investing in proactive visualizations of ring use in daily life, Ring Cycle aims to minimize the need for follow-up counseling on the basics and to help users stay on track by feeling confident that the ring will fit with their lifestyle.

KEY FEATURES

- Timing—one-month ring cycle showing when to insert a new ring and remove a used ring
- Common causes for ring removal with descriptions that reinforce these activities as safe and comfortable during ring use
- Can be personalized to include a space for ring users to record their personal monthly ring change date
- Incorporates issues addressed in the IPM Adherence Counseling tool for DREAM study participants

KEY PERSONAS

Most valuable to:

- Newbies
- Followers
- Survivors

MOVING FORWARD

Implementation considerations

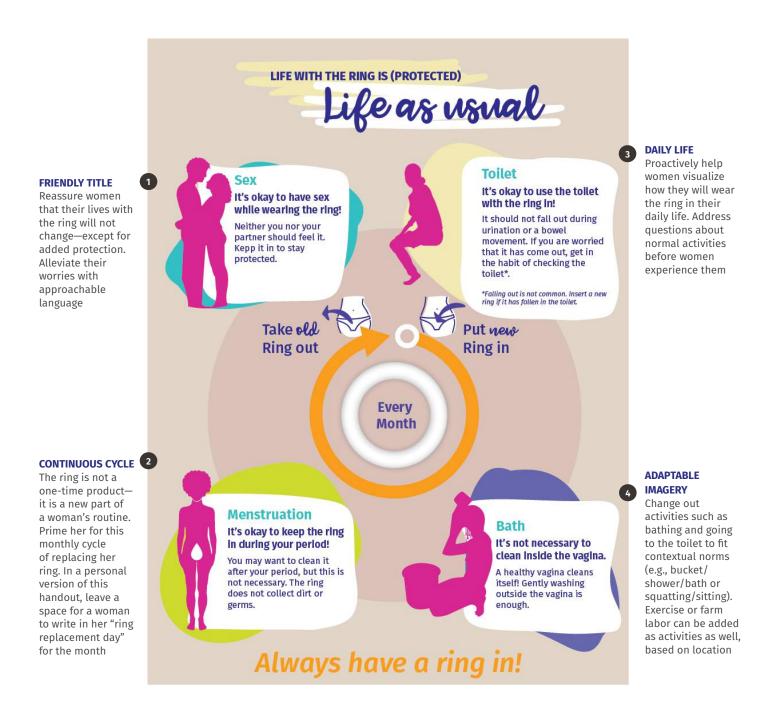
Different life activities will be more relevant in different countries and communities. For example, in rural areas, users will have more concern about strenuous farm labor rather than jogging for exercise. Additionally, visual representations of activities will shift to fit the culture and context.

Activities to pursue

- Work with partners to determine the best use-cases and delivery methods, such as posters, counseling tools and multimedia formats, including video or digital interaction
- Reflect on ongoing lessons from OLE study participants to refine content, such as which life activities to highlight and related questions or concerns to address

APPLICATIONS

- · Poster in clinics, pharmacies, or other health centers
- · Video or digital applications on a smartphone or tablet
- · Job aide or waiting room resource for addressing common questions and introducing the ring
- · Incorporated with monthly calendar in starter booklet for new ring users



Assets

- · Full sample poster
- Individual snapshots of each life activity with supporting details
- Vector art of visualizations



Speaking to Men

While the ring is an HIV prevention product for women, their male counterparts play an important role in building overall acceptance and support for the ring in the community and in relationships. Conversely, men who are not supportive of the ring also serve as significant barriers for women. In general, women believe that it is ultimately their choice to use the ring, as it is their choice to use long-acting reversible contraceptives. However, support from male partners is

essential to ring awareness and sustained ring use.

Likewise, men want to be a part of the conversation—excluding them generates suspicion, distrust, and even resentment. Ring messaging and placement tailored to male interests will ensure that men become ring supporters, rather than barriers. To encourage male support of the ring, appealing to pleasure, mutual safety in couples, and protecting family and community are key.

KEY FEATURES

- Three messaging approaches: couple (mutual safety), community (protection), pleasure (dual protection)
- Supporting imagery, with sensitivity to social and cultural norms
- Connection to male-controlled protection, like male condoms and circumcision
- · Calls to action and information channels

KEY PERSONAS

Most valuable to:

- Followers
- Problem-Solvers

MOVING FORWARD

Implementation considerations

Different countries and communities will have different social and cultural norms that influence how and where messages are delivered. For example, provocative imagery is more appropriate in **South Africa** and in urban areas than in rural **Uganda** and other conservative locations. There, community and family protection messages would resonate more.

Activities to pursue

- Identify regulatory limitations on messaging for promotional materials on the ring and prevention options in various countries
- Test secondary messaging for acceptability and clarity and test sample posters in a diverse range of community-based contexts

APPLICATIONS

- Posters displayed in various places around the community where men congregate, such as sports grounds, taverns, spaza shops (informal convenience stores), and health centers (especially male medical circumcision facilities)
- Integration with community-based men's health organizations
- · Features on local radio
- 1. PRIMARY MESSAGE Main takeaway
- 2. SECONDARY MESSAGE Relatable "male voice" message
- 3. RING INFORMATION Customizable based on context
- 4. PICTURE OPTIONS Customizable based on context
- 5. CALL TO ACTION Customizable action for more information
- 6. PARTNERS Logos of campaign partners



STORYBOARDING

Sample poster positioning at a tavern



Taverns or bars are selected for campaign and bar owners are informed.

Pleasure and protection posters are placed near condom dispensers with an SMS number as a call to action.

A man or woman sends an SMS to a number to get more information about the ring.



Assets

- · Copy and visual recommendations for three messaging approaches
- Sample posters
- Poster template

APPROACHES

Three messaging approaches to appeal to different audiences and contexts.

COUPLE MESSAGING

"Her safety is your safety"

Men want to feel a part of the ring and often expressed desire for new male prevention options during prototyping. Appeal to a sense of shared responsibility and the mutual benefit to a relationship when a woman is protected.

WHERE: Clinics, voluntary male medical circumcision campaigns, spaza shops





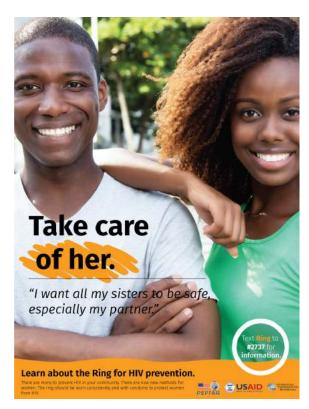
Banner at VMMC clinic, where men are taking action to protect themselves.

COMMUNITY MESSAGING

"Take care of her"

Men reported that they want other women in their life to be protected—sisters, mothers, friends, and neighbors. Use a universal "her" to help men connect community messaging to their own relationships. Releationships in pictures may be deliberately ambiguous and could be interpreted as sibling, platonic, or romantic.

WHERE: Places of worship, sports fields, community halls, streets, parks





Community messaging at local soccer fields.

PLEASURE MESSAGING

"Sex is better protected"

Men do not want options to infringe on their sexual experience—and women do not want a new option to replace condom use. Connect the ring to pleasure and messages that emphasize dual protection.

WHERE: Taverns, taxi stands





Pleasure messaging near a condom dispenser at a tavern.



Choice Tools

Integrated presentation of options for both HIV prevention and family planning to place the ring in the context of other choices

Women often bear the burden of SRH decision-making, from family planning to prevention, testing to treatment. New prevention options offer new opportunities and new complexities for women to navigate. Combined family planning and HIV choice tools will offer insight into the different options a woman has for protection and how they work together, and ensure that women have a complete and accurate picture of their choices when it comes to SRH. This approach is particularly useful when introducing a novel product category, as it contextualizes the ring within a broader set of familiar choices. Recommended choice tools include a simple demonstration kit and integrated choice visual (e.g.,

brochure or poster) that show SRH choices across family planning, prevention, or both. Existing demonstration kits for contraceptive choices can be expanded upon to include new HIV prevention options.

Because HIV status influences the types of choices a woman makes about family planning and prevention, the kit includes integrated information about the way in which methods may affect each other. Those who are HIV-negative will have the ring included as an option for HIV prevention (and PrEP if locally approved). Clinicians and counselors can utilize the choice kit to better illustrate a woman's choices for her.

KEY FEATURES

- Physical kit with HIV and prevention options for demonstration and accompanying information cards
- Patient takeaways to navigate choices (e.g., pamphlet, booklet)
- Provider aide for navigating choices (e.g., job aid flip chart, poster)

KEY PERSONAS

Most valuable to:

- Influencers
- Go-Getters
- · Problem-Solvers

MOVING FORWARD

Implementation considerations

There may be country-specific sensitivities around funding and developing dual family planning and prevention materials. As a result, integrated family planning and prevention choice materials may require additional approval. Additionally, *Uganda* and other conservative contexts will likely prefer to highlight natural family planning methods (e.g., fertility awareness) alongside medical options.

Activities to pursue

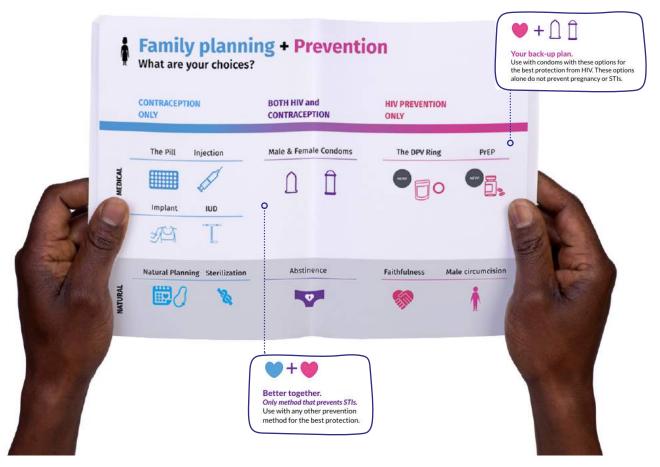
- Identify a partner with existing family planning choice tools and programming for collaboration
- Test and refine choice kit with providers, outreach workers, and young women
- · Develop provider training tools and support

- Kit with example contraceptive and prevention options (e.g., IUD, condoms, PrEP, anatomical models) used in women's outreach to educate about choices
- Brochure given to women seeking family planning options to encourage adding on an HIV-prevention option like the ring
- Job aid poster used during family planning counseling to support addition of HIVprevention options (e.g., the ring or PrEP)
- Co-sponsorship of integrated choices outreach program with a family planning clinic or NGO



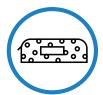


CHOICE KIT+ - A portable kit that helps women clearly navigate between options for both contraception and HIV prevention. Image from a prototyping session with a family planning clinic in Masaka, Uganda



CHOICE+ BROCHURE -

Shown is a simplified brochure with medical and natural options, which may be more appropriate in conservative contexts. Simple integrated pamphlets and brouchures will help women navigate a new landscape of options



Starter Kit

Supplies and information for new ring users to instill good habits from the start

The Starter Kit consists of cues to help women to develop and maintain good health habits. Some of these cues come from the formal health system, such as clinic cards, and some are from informal or personal systems, such as a separate cloth that a woman keeps to clean herself. As a new offering, the ring is both a product and an interaction that requires new habits to fit in a woman's life.

The kit contains a variety of components that reinforce

particular aspects of ring use (e.g., cleanliness, protection). The simple storage sleeve for both clinic cards and ring resources (e.g., a ring guide with SRH information) signals a holistic approach to women's health. Secondary components, ranging from soap and condoms to chewing gum and inspirational messages, are fun artifacts that also support specific behavior or messages associated with the ring, while increasing awareness and building enthusiasm among early ring users.

KEY FEATURES

- · Durable or disposable bag, playfully discreet
- Primary components: ring guide and ring clinic card, with storage sleeve (includes prompt to store other clinic cards in the same sleeve)
- Secondary components: soap, small facial cloth, condoms, gum, mirror, and Starter Kit overview
- Kit could also include nail polish, sticker or bracelet, feminine products, and female condoms as part of a promotional launch or special ring advocate kit
- Ring guide could expand to include other key women's health themes and body familiarity

KEY PERSONAS

Most valuable to:

- Newbies
- Followers
- Survivors

MOVING FORWARD

Implementation considerations

Products, brands, and selection of components included will vary based on availability and cost, as well as social and cultural norms in different countries and communities.

- Work with partners to identify scenarios in which investment in a kit would be most valuable to drive successful early use and adoption
- Identify potential sources of funding or partners who can donate products
- Explore other women's health topics that could be valuable to include
- Test sample kits with open label extension study participants or include in early demonstration projects

- Basic kit for all ring users, containing only primary components—ring guide, ring clinic card, and storage sleeve
- Enhanced kit for ring launch and ring advocates, containing both primary and secondary materials



STORAGE SLEEVE - Protective pouch to store clinic card, ring guide booklet, and associated materials. Women can put other clinic cards and charts into this same sleeve.



STARTER KIT-

- 1. Primary materials: sleeve, clinic card, guide (not pictured).
- 2. Secondary materials: stylish pouch and products to reinforce good health habits and safe sex.



Assets

- · Sample ring clinic card and Starter Kit component card
- · Recommended kit component list



Ring Point Person

Distributed, personalized support for women in the form of a trusted peer or counselor in their community

Young women and health practitioners alike expressed the value of follow-up and personal relationships— especially when trying something new. To ensure personalized support for the ring, each ring user will be assigned a "ring point person" who serves as their consistent point of contact should they have questions or concerns about the ring during early use.

The Ring Point Person is especially important in the first three-month cycle and year of use as they are a tangible touchpoint for women to lean on. This support person will be responsible for checking in with the user during the first, and most sensitive, phases

of ring use, such as through phone calls. Ring Point Persons can be staff/counselors at clinics, or they can be assigned to a distributed system of health workers, such as peer educators or ambassadors—all depending on the community context. Ring Point Persons also have the flexibility to support women assigned to them individually or in small groups, depending on what is most comfortable for them. Formal models of digital/remote support, such as through Facebook or Whatsapp (beyond day-to-day use), may be promising enhancements to a Ring Point Person program but will require further research and prototyping.

KEY FEATURES

- Point Person calls during first week, month, and three-month period to bolster new users
- Light kit of resources to help Ring Point Persons support users (and digital tools if available)
- Optional use of WhatsApp broadcasting feature—or WhatsApp messaging groups—to engage with ring users in their community

KEY PERSONAS

Most valuable to:

- Newbies
- Survivors
- Followers

MOVING FORWARD

Implementation considerations

Explore the models and networks that are best suited to support women in each location, whether it is community health workers, NGOs, and/or peer educator programs. It is important to consider appropriate ways to prepare and incentivize Ring Point Persons who are trusted within the community but may have a host of other responsibilities. It will also be important to consider scalability of this model, taking into account how many new ring users a Ring Point Person can cover, incentive costs, and other constraints.

- Identify local partners with the capacity and local trust for initial pilot
- Define how patient opts into program and any privacy issues
- Prototype and test models for augmenting in-person support with digital tools (e.g. call center, Whatsapp groups, broadcast lists for first month information, etc.)
- Create lightweight version of clinical support tools for point person use

- A Ring Point Person program added onto an existing peer educator network
- Local Ring Point Persons pictures displayed in clinic, assigned to individuals after a woman chooses the ring
- Monthly Lady Talk hours hosted by a Ring Point Person for local women, where the point person can use his or her tools to support conversation and answer questions
- A local chat group on Whatsapp where women share stories and questions with the Ring Point Person





VISUAL SIGNFIER

Ring Point Persons have recognizable branding to signal trust and reliability.



Ring Ping

A simple SMS reminder system to reinforce monthly habits

One of the most practical barriers to sustaining any new habit is remembering to do so. Young women often use a mixture of social reminders, clinic cards, and cell phone alarms to organize their lives. As many cell phones have limited calendar functions, women expressed interest in other forms of digital reminders. Ring Ping is a service designed to help women with mobile phones, or access to mobile phones, receive monthly SMS messages to remind them to change their ring. Sign up is voluntary, and done by the user herself by sending the word "Start" to the number providing the service. After providing her ring change date, which

will also be given by the clinician prescribing the ring, the reminders will begin.

Because Ring Ping is an opt-in service, the user can also opt herself out of the service anytime. If a user drops off and stops using her ring, and then wishes to restart the reminder service, she can simply unsubscribe and then sign up again, with her new date. Ring Ping messages can be kept intentionally vague, so that women wishing to be discreet about their ring use can still take advantage of the service (e.g., "Hey beautiful! Today's your day! Take charge of your life.").

KEY FEATURES

- · Monthly reminders on a predetermined date
- · Discreet language to ensure privacy
- · Opt-in and opt-out functionality
- Easily adaptable to other messaging tools with open APIs, such as Facebook
- · Language customization options
- Ability to link to other information services
 (e.g., Ring Report, women's health information, safe sex tips)

KEY PERSONAS

Most valuable to:

- Newbies
- Followers
- Survivors

MOVING FORWARD

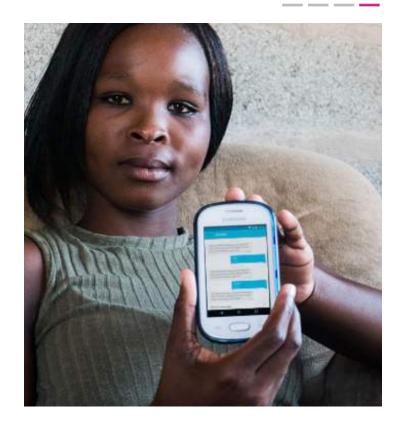
General

In all countries, a reverse-billed shortcode will be needed to ensure that messages are free and not mistaken for spam. In **South Africa**, literacy may be higher than the average sub-Saharan African country, but language customization will still be needed. Additionally, smartphones are more common, so media messages (MMS) or links with photos or videos can be sent for the recipient to download if they choose, although these media must include the size of the file. In **Uganda**, both literacy and mobile penetration rates are lower than in South Africa. As such, basic SMS will remain ideal, and

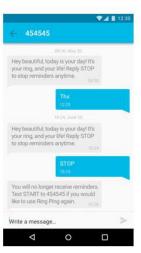
language barriers will not only include the variety of languages spoken in Uganda but also the ability to read.

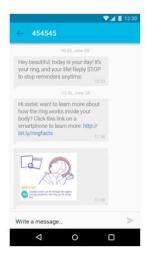
- Purchase a shortcode for each implementing country (allow at least six months for finalization with different providers)
- Identify appropriate tool for message distribution engine and translation (e.g., RapidPro, Vumi)
- Create and test custom message flows for each country, with language specific option

- Country-specific sign-up information included in the ring guide as part of the basic starter kit, where the attending clinician can help the patient sign up for the reminder service
- Providing country-specific information about enrollment for the reminder service, as part of the guide included with the basic starter kit











*All basic services can be done on a simple or feature phone; smartphone used to showcase range.

SIGN-UP

- Short code used here as an example; can be any number
- User can opt in to service at any time
- User sends in the date that their clinician has given on the clinic card

REMINDER

Instructions for how to turn off reminders included in each message

CONNECTION TO RING TOOL

Linked services could include information during a woman's first month for simple, feature, or smartphones

LINK TO OUTSIDE RESOURCE

User can click if she is interested and has enough data to support the interaction



Assets

- · Sample screens and sample flows
- · Guidelines for digital tools



Ring Report

A digital survey and community-building program for the ring

Young women are interested in "what's normal" and "what's popular" with other women—especially when it comes to relationships and sex. The novelty of the ring triggers many questions women want to ask of peers and professionals. Ring Report builds on the idea of creating a digital community of users who will provide opinions and suggestions for the ring via existing lightweight technology. Ring Report supports both ring providers and ring users and provides almost real-time reactions from ring users, thereby informing future programs and support for the ring. A program such as Ring Report can play an especially significant role early

in the community introduction phase, when there are fewer local resources to turn to in the community.

The Ring Report program, similar to its precedents such as U-Report, will poll users about any topic related to the ring. It will also provide information about poll results to bolster a sense of community, and show the user that they provide value. Doing so will result in a stronger sense of support for ring users, in addition to brand enhancement. It will also increase confidence among early adopters during introduction by exposing them to a broader community of adopters.

KEY FEATURES

- Can be built on open source RapidPro software
- Offers information about the community in exchange for participation in a survey
- · Opt-in and opt-out functionality
- Language customization options
- Potential links to other social media platforms (e.g. Facebook and WhatsApp groups)

KEY PERSONAS

Most valuable to:

- Influencers
- · Go-Getters
- Survivors

MOVING FORWARD

Implementation considerations

In *South Africa*, given the ubiquity of social media, Ring Report could be implemented through a Facebook group that also provides a community for ring users to ask questions, get answers, etc. Those without Facebook can participate via SMS. In *Uganda*, since social media is less common, but U-Report Uganda is fairly well-known, SMS would be an appropriate channel to gather feedback from users and share information with them. However, the literacy rate in Uganda is not as high, and language customization will be needed.

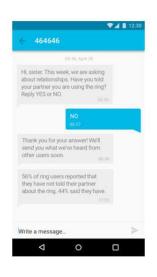
- Purchase a shortcode for each implementing country (allow at least six months for finalization with different providers)
- Assess RapidPro, Vumi, and other digital engagement platforms
- Identify top priority questions to poll, and information that will be offered in exchange

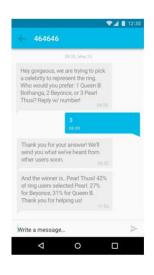
- Clinician-led sign-ups during ring followup visits, where if a clinician feels that a ring-user would be willing to participate in the Ring Report community, then the clinician could update the user and lead her through the sign-up process
- Quickly testing ideas and sharing information about both the ring and participation statistics, useful for members of the team responsible for managing ring distribution and use



Versatile—works on both feature and smart phones.









SIGN-UP

Reminder included at sign-up for how the user can opt out of the program

SURVEY EXAMPLE: RING USE

Offers the user information of interest in exchange for participating in the poll. Freeform comments can also be collected if so desired

SURVEY EXAMPLE: FUN

Pop culture and novelty questions can be used to drive engagement

CONNECTION TO SOCIAL MEDIA

Users who have access to Facebook will be able to enhance their Ring Report SMS experience



Assets

- Sample screens and sample flows
- · Guidelines for digital tools
- RapidPro base code



Lady Talk

Adaptable and approachable scenario-based counseling tools

Women lean on one another for support, and sharing experiences and talking through ladies' issues together reduces anxiety and helps women work through problems. However, safe opportunities for open, honest discussion on feminine health are rare. In healthcare settings women have difficulty asking questions and discussing intimate or uncomfortable issues. Furthermore, time for counseling on women's health is scarce.

Lady Talk counseling cards are a facilitation tool that creates a window for ring discussion in a range of settings. The cards act as an icebreaker, describing potential challenges during ring use as everyday scenarios/situations to prompt discussion and uncover user questions and concerns. A health worker, peer educator, or ring advocate can facilitate these discussions.

KEY FEATURES

- Organized by category for easier navigation
- Front: Ring-related scenario with illustration
- Back: Facilitator support—points for discussion and key guidance
- Content can be tailored to unique needs and common situations in different community contexts
- Cards translatable to digital application, such as smart phone or tablet

KEY PERSONAS

Most valuable to:

- Newbies
- Followers
- Survivors
- Problem-Solvers

Potential facilitators:

- Go-Getters
- Influencers

MOVING FORWARD

Implementation considerations

Scenarios may differ contextually, especially those related to relationship dynamics. For example, in *Uganda* and more conservative areas, relationship scenarios will focus on married couples or family dynamics. In *South Africa* or urban areas, scenarios will include more single or unmarried women. Additionally, details such as the names of fictional characters may vary to best fit the audience. Smartphone engagement is best suited for urban or peri-urban application in South Africa.

- Crowdsource additional scenarios based on common counseling needs from research sites, with input from clinical study staff
- Work with IPM and partners to build out facilitator information on the back of each card

- A deck of cards used to facilitate a small group discussion or one-on-one counseling session
- A digital tool on a tablet or smartphone, accessible by healthcare providers or select ring advocates, to navigate topics for discussion within a health center or during community outreach
- Individual scenarios used for public engagement through local media sources, including magazine or newspaper columns, radio programming, or TV

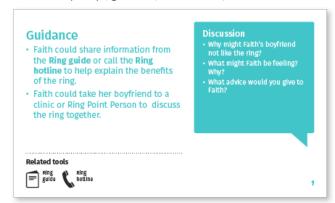


FRONTSimple illustration, scenario, category tag



BACK

Discussion prompt, guidance, related tools, card number





Assets

- Starter pack of sample cards
- · Vector art of illustrations and graphics
- Library of scenarios to build upon



Health Hub

Recognizable places for ring support paired with women's health information and programming

Women express the need for supportive, safe, and reliable places to seek health information, whether in a clinic or an online forum. Health practitioners face time and resource burdens during introduction and counseling for SRH choices. Ladies' Health Hubs can be flexible physical spaces within clinic waiting rooms that cater specifically to women and their health needs. These spaces are designed to be warm and welcoming areas that invite women to explore topics about their own health while waiting, either through physical materials or digital tools on a smartphone or tablet. A ladies' Health Hub is an ideal place to introduce the ring, in addition to providing information about family

planning, relationships, and other issues that are important for women.

In situations where young women may not feel comfortable discussing certain topics in a clinic setting, Health Hubs can be made mobile, through the use of pop-up spaces within clinics, at public events, or other locations in the community, such as pharmacies or salons, which would be visibly branded ring signifiers. These extensions can be augmented through the availability of a digital tool (on an outreach worker's smartphone or tablet) to broaden access to critical information during early introduction.

KEY FEATURES

- Basic set of design guidelines and assets for clinics and pop-up Health Hub areas
- Branded visual signifiers to denote official Health Hub (e.g., sticker or vinyl with "Ring Spot")
- Core set of SRH issues and ring overview visuals (e.g., Everyday Explanations, Ring Cycle)
- Digital application accessible through tablet or smartphone with aggregated content for both ring-familiar and ring-naive users

KEY USERS

Most valuable to:

- Newbies
- Survivors
- Problem-Solvers

MOVING FORWARD

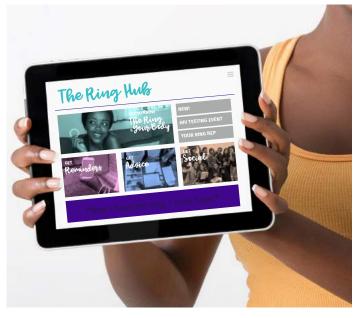
Implementation considerations

Site selection and partnerships will vary across regional and country contexts. In *South Africa*, there are opportunities to pilot partnerships with established women's health clinics and youth-friendly programs to refine the idea before piloting in a wider set of clinics. In *Uganda*, women reported preference for getting information from private clinics, pharmacies, and NGO outreach programs. For these contexts, it may be more appropriate to start outside of government-sponsored clinics.

- Research existing interventions in clinics for women or adolescent health to identify partnership and demo project opportunities
- Test lightweight or pop-up versions in demo projects with select pharmacies or non-clinical locations
- Test and refine smartphone application with sample content to support community outreach during demonstration projects
- Develop baseline set of materials for health hubs including tools and visual branding

- An NGO partnered with IPM to set up Health Hubs in several larger community clinics. NGO peer educators are also trained as ring point people and host regular demonstrations
- A trained group of mobile outreach workers with the Health Hub digital application and rich media content cached on basic smartphones or tablets
- A trained group of local pharmacists who are able to provide ring support and can set up an information corner in their shop





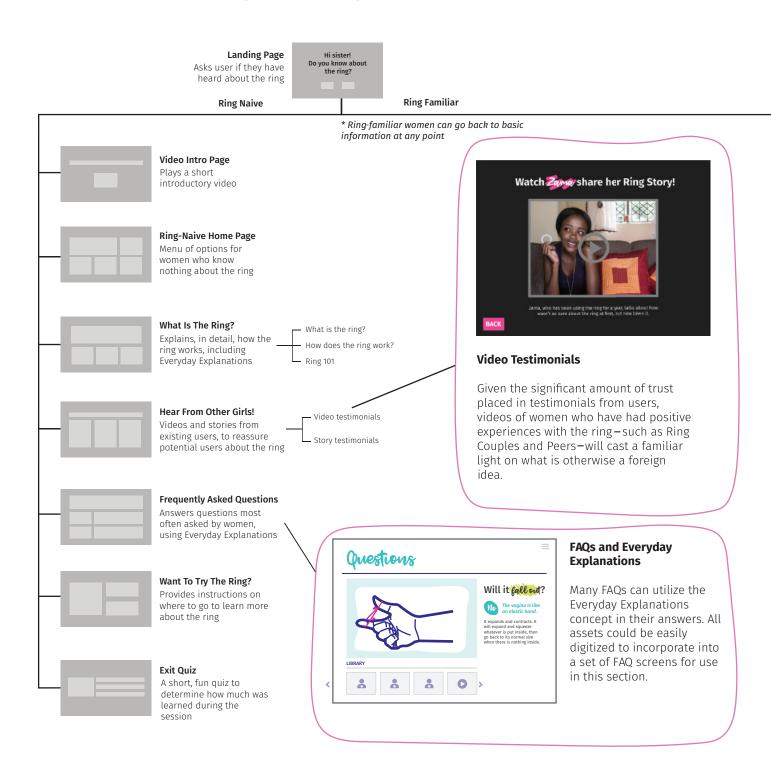
DIGITAL HUB - Virtual ring communities and digital support tools



PHYSICAL HUB - Permanent or pop-up women's Health Hub with ring and SRH resources

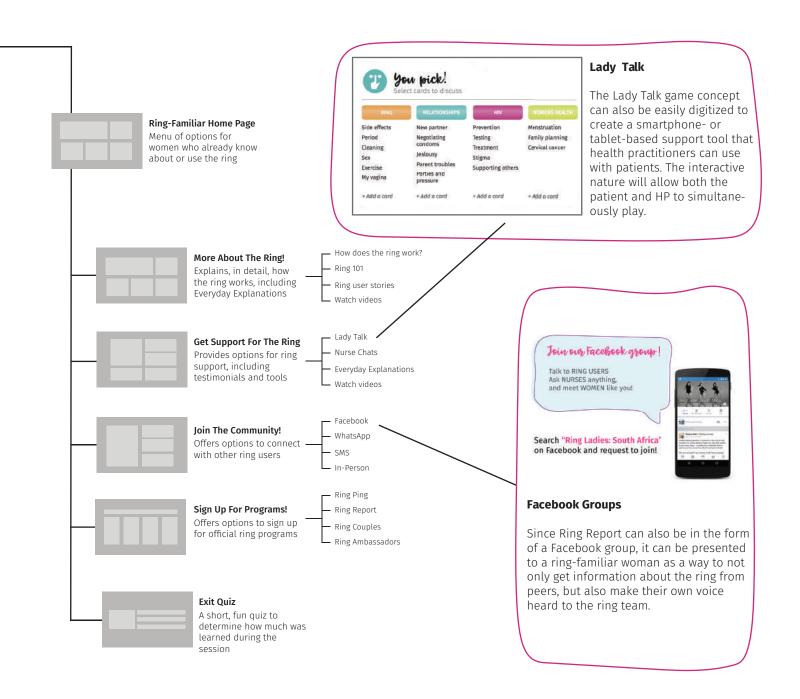
EXAMPLE

The site map below describes one way to structure the app, with sample screens illustrating how other concepts can be integrated in digital form.



There are two ways we recommend implementing a Digital Health Hub, in order of preference:

- 1. A smartphone application for healthcare practitioners could be used by health practitioners as a teaching tool, whether this is during in-clinic visits or during outreach visits.
- 2. A tablet application available in clinics could encourage individual use, as well as being on hand for health practitioners to use during consultations.





Ring Couples and Peers

Candid conversations from ring advocates, both as individuals and couples

Peer referral is powerful, whether through formal channels or informal recommendation. The ring comes with new bodily interactions that may cause concern or uncertainty. As such, candid conversations with, and reassurance from, more experienced peers becomes central to building confidence with a novel product. With men in the community, slightly older female advocates are seen as ideal spokespeople to introduce the ring, but men hunger for a reassurance from their own perspective as well. Ring Couples are advocate pairs that can speak to the perspectives of both men and women,

answering questions and sharing stories related to sexual intimacy and trust from dual perspectives. Adding a Ring Couple program to an existing peer advocate program is an extension that may bolster acceptance in communities and among men in general. Ring Couples can also be implemented alongside other concepts, such as sharing testimonials through Ring Report and utilizing Ring Point Persons to host events where Ring Couples can share their stories.

KEY FEATURES

- Ring Peers program for ring user advocates
- · Ring Couple representative program
- Communication materials that speak from both perspectives to use in community and male outreach

KEY USERS

Most valuable to:

- Followers
- Problem-Solvers

Potential facilitators:

- Go-Getters
- Influencers
- · Male partners and brothers

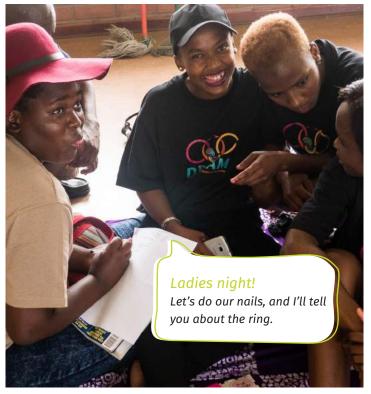
MOVING FORWARD

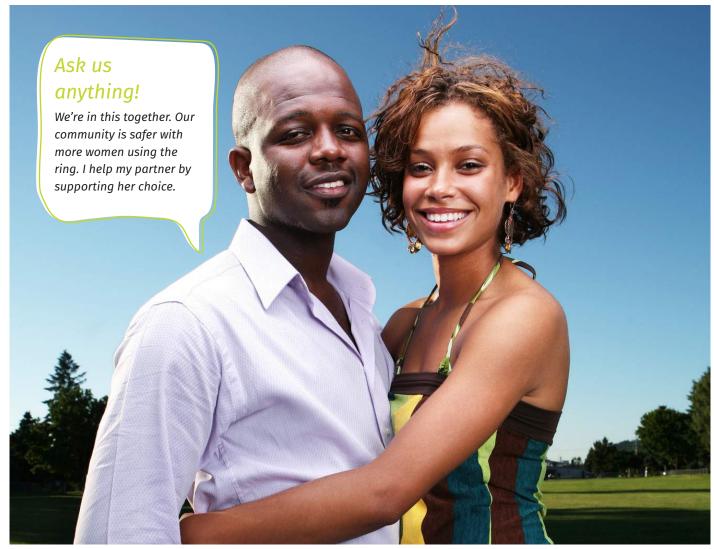
Implementation considerations

The recruiting of Ring Couples needs to fit the cultural norms of each location. In *South Africa*, couples will need to be recruited that are relatable and may represent a variety of living arrangements (e.g., a boyfriend that travels, etc.). While women may also be interested in reassurance from Ring Couples, in both locations, these programs should complement women-only outreach.

- Identify other successful advocate/representative programs that involve couples
- Review clinical and OLE trial participants to identify potential couples as candidates for a Ring Couple pilot program
- Test Ring Couple representatives in a variety of settings (community meetings, MMC programs, and informal settings)

- A radio show or magazine testimonial by a Ring Couple
- A males-only meeting at a community hall or park where a Ring Couple can do a Q&A







Talk Tools

Conversation starters for partners and parents

Women often find it challenging to speak with their partners or parents about intimate health issues. These conversations can seem daunting and risky; oftentimes, this perception leads to discouragement or drop-off. To help break down this barrier, Talk Tools offer ways to begin conversations with important people in women's lives. Conversation aids and FAQs support women who are concerned about broaching the subject of ring use with parents or partners, especially those who fear having these discussions.

KEY FEATURES

- Simple, straightforward strategies for women to use (e.g., enlist a friend, take loved one to the clinic, share key information, start with a text/ note)
- Clear messages and conversation starters for women to apply to their own lives and relationships
- Concrete tools (e.g.,. pamphlet or hotline) to mediate conversations with loved ones

KEY USERS

Most valuable to:

- Newbies
- Problem-Solvers

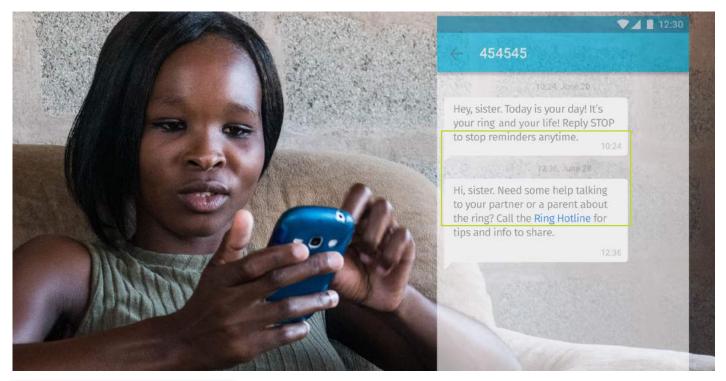
MOVING FORWARD

Implementation considerations

Collaborate with health messaging specialists and local experts to fit messages to cultural norms. In *Uganda*, additional caution is required around partner and parent interactions, focusing on ways to support married women and conservative religious contexts. In *South Africa*, consider a range of relationship situations, as marriage is less common among young women.

- Collect stories from trial participants of both successful and unsuccessful parent and partner interactions
- Codify and simplify best strategies for women into a basic set of approaches and examples
- Create key takeaway messages for parents and partners to test in an integrated pamphlet for young women

- · Simple strategies, examples, and conversation starters included in a starter kit booklet
- Tear off for parents or partners included in a ring pamphlet
- · A ring hotline with options for simple explanations to parents or partners
- A hotline with a recording from health practitioners reinforcing messages about the ring, accessible to anyone (parents, partners, etc.) who needs more information
- Conversation starters and text messages to be used independently by young women to guide conversations with their partners
- · Fact sheets that can be torn off and given to parents who are cautious about the ring





DIGITAL TOOLS

Build upon the Ring Ping platform to connect to conversation tools like a hotline to explain the ring

PHYSICAL TOOLS

Use common tools, like a clinic card or brochure, as an opportunity to support a woman's conversations with her partner, parents, sisters, or peers

"It's better to come with something they can see [pamphlet, visual]. They [parents, partners] don't believe it if they can't see."

YOUNG WOMAN, ILLOVO, SOUTH AFRICA

Concept Staging

How do you incorporate concepts and personas into launch planning?



HEALTH COMMUNICATIONS

Support launch with a core set of user-friendly introduction tools (anchored in the Everyday Explanations and Ring Cycle). These can be adapted into formats for both providers (e.g., posters, job aid) and users (e.g., Starter Kit guide). As ring acceptance increases and prevention choices proliferate (e.g., PrEP), consider partnerships to create **Choice Tools** during broader rollout to help place the ring in the context of other prevention and contraception options.



SERVICE DELIVERY

During launch, pilot the concept of Ring Point People in key markets to ensure success of early adopters. Refine the role of Ring Point People in early introduction to prepare for scaling this concept during Broader Rollout. As broader rollout continues, gradually scale tools, such as Lady Talk or Health Hubs, to support women in and out of the clinic.

TARGETING PERSONAS

Target Personas

LAUNCH

The Go-Getter

- Access through health services, schools. emplovment. organizations
- Natural early adopter
- Associates ring with aspirational & savvy brand

The Influencer

- Access informally through salons, small businesses, neiahborhoods
- Natural "big sisters" who like to share
- Make champion of ring & buster of myths

The Problem-Solver

EARLY INTRODUCTION

- Access through health services
- Successful user if supported
- May be married or in long-term relationship
- May need additional support with troubleshooting and discretion

The Follower

- Access through friends and sisters
- May be more successful if tries ring with a friend
- Ensure supportive start and watch out for interruptions in



USER TOOLS

Build brand awareness and enthusiastic new users at launch with *Starter Kits*. Invest in "deluxe" kits for key influencers or markets. As early introduction continues, equip women with *Ring Ping*, a simple reminder tool to support adherence. Ring Ping acts as an SMS platform for linked services in the future (e.g., Ring Report, information blasts). Finally, as the ring proliferates, give women *Talk Tools* to support conversations with parents and partners. Begin with simple physical tools and expand to digital formats if appropriate.



COMMUNITY BUILDING

Leverage OLE participants to support introduction through a *Ring Couples and Peers* program. Additionally, to complement outreach to women and community sensitization, roll out select *Speaking to Men* messaging. More risqué messaging can be rolled out in test markets in early introduction. Finally, begin to create virtual support communities in early introduction through social media platforms, introducing *Ring Report* in markets where Ring Ping was successful. Where possible, collect data to better understand which messaging and platforms are most successful.

BROADER ROLLOUT

The Newbie

- Access through older peers
- Young women may be more likely to use if already on a contraceptive
- Successful use more likely with broader community acceptance

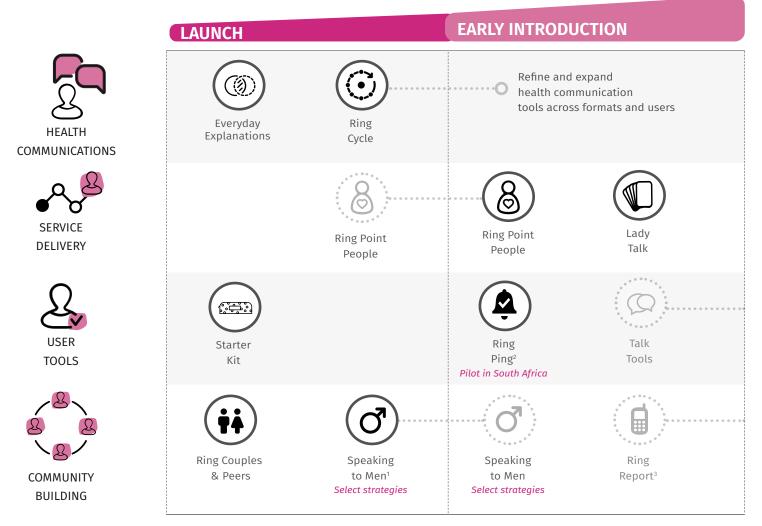
The Survivor

- Initially access through exisiting health services (e.g., childcare)
- High touch outreach may be required (e.g., door to door)
- Requires additional support adhering

Concept Staging

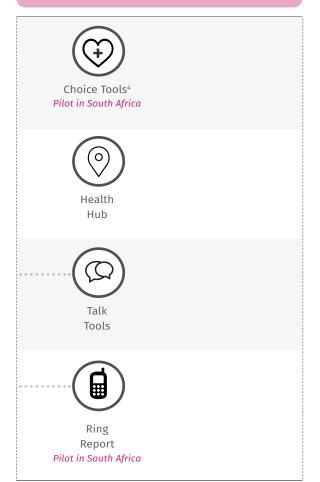
How might you incorporate these design concepts and strategies into your launch planning to drive adoption and use?

Launch planning for a new product or drug is a complex collaborative process across marketing, supply chain, policy, and community engagement. These concepts will enhance and strengthen this process when paired with a formal market entry plan. Below are initial recommendations on how to stage the design concepts across launch and introduction of the product in a new market.



- 1 Speaking to Men: Begin with couple and community messaging. Test pleasure messaging in select markets (e.g., urban areas, peri-urban South Africa, etc.).
- ${\bf 2}$ ${\it Ring\ Ping:}$ Pilot in South Africa before expanding more broadly. Expand to urban markets first.
- 3 Ring Report: Begin with simple social media communities (e.g., Facebook group) and add Ring Report to markets where Ring Ping has been successful.

BROADER ROLLOUT



4 - Choice Tools: Explore in areas where family planning and new prevention options are accepted and available (e.g., South Africa). Works best in markets receptive to PrEP and the ring.

= Denotes early partial introduction or ongoing evolution of a concept

SOUTH AFRICA CONSIDERATIONS

In general, South Africa is a better place to introduce concepts because it has the dual advantages of a better healthcare infrastructure and higher rates of literacy. A more advanced health system, combined with a literate population, can more easily adapt to and scale up a new product. Additionally, South Africa has higher smartphone and social media penetration rates, which better lends itself to piloting digital concepts beyond SMS (e.g., on Facebook, WhatsApp, and other tools).

UGANDA CONSIDERATIONS

Uganda's healthcare system is not as developed as that of South Africa, meaning that piloting concepts in Uganda will require a slower, steadier approach than it would in South Africa. Additionally, tools and protocols may need to be simplified to accomodate lower literacy rates. Ideally, the Uganda approach would incorporate local health NGOs in addition to the public healthcare system, given the prominence and reliance on NGO healthcare. Additionally, given that the culture is generally more conservative, the ring will require some additional sensitization; consideration of faith context; repeated stakeholder engagement, especially in rural areas; and government approval, especially of materials that involve anatomical depictions.

HCD Process

A defining characteristic of the human-centered design process is that it prioritizes speaking and collaborating with the people who are most likely affected by the development of a new intervention, program, or product.

For this project, the design team interviewed young women and their partners, healthcare providers, community leaders, and implementing partners. Researchers visited local communities, clinics, and

young women's homes and held workshops with young women and their influencers to understand the issues and concerns informing decisions about SRH, generally, and HIV prevention products, specifically. Insights from these activities informed design concepts. At each step, the design team engaged and solicited additional feedback from users, communities, and collaborators through rapid prototyping.



IMMERSIONGathering Insights

To establish a baseline understanding, the design team interviewed experts, reviewed secondary research, including landscaping and stakeholder analyses, and conducted literature reviews to understand young women and their influencers. This input informed the research approach for the next phase.

RESEARCHIdentifying Opportunities

In the research phase, researchers emphasized deep, participatory engagement through qualitative research methods to understand the lives, needs, expectations, and behavior of different users and stakeholders across the health system. We synthesized our observations into insights about the barriers to and opportunities for the uptake (and consistent use) of the DPV ring.

CONCEPTINGGenerating & Testing Ideas

In the concept phase, the design team translated opportunities into concepts, making heavy use of participatory and collaborative sessions with end users and key stakeholders. Together, the design team and partners generated and voted on concepts, constructed rapid prototyping of promising ideas, and then took these ideas into communities to get additional feedback and inspire new concepts.

STRATEGYRecommendations & Materials

In the strategy phase, the researchers translated the most promising concepts into tangible solutions and recommendations. The team captured this portfolio of designs as part of a strategy that includes ideas on how to identify key segments and their corresponding needs and behavior.













Acknowledgments

A warm thank you to the passionate and dedicated local team, whose work in communities of South Africa and Uganda makes a difference daily and who provided critical collaboration during this project.

Most importantly, the team acknowledges the young women, young men, health practitioners, and community leaders who shared their lives, ideas, insights, and hopes throughout research. This work is meant to honor their voices and connect them with new options in creative ways.

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Community of Illovo, South Africa

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Community of Lambu, Uganda

Community of Lyantonde, Uganda

Community of Masaka, Uganda

Community of Kampala, Uganda

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Dalberg Global Development Advisors

Desmond Tutu HIV Foundation

FHI360

Females Rising through Empowerment, Support and Health - South Africa - South

Africa

IDEO

IAVI - International AIDS Vaccine Initiative

International Partnership for Microbicides

Johnson & Johnson Global Public Health

Madibeng Centre for Research

MUJHU - Makerere University - Johns Hopkins University Research Collaboration

Marie Stopes International - Uganda

Matchboxology

MaTCH Research Group - South Africa

MTN - Microbicide Trials Network

Ndlovu Care Group - South Africa

North Star Alliance - South Africa

OPTIONS Consortium - MPii

Patient Revolution

Pharma-Ethics Research Ethics Committee - South Africa

PLHA Forum - Lyantonde

Population Council

POWER - MPii

Qhakaza Mbokodo Research Clinic

Reach a Hand Uganda

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