Product Makes Perfect

Human-Centered Design for HIV Self-Testing and Prevention

USAID MINI-U // 03.04.16 // 2-3PM
Roadmap

- What is Human-Center Design (HCD)?
- How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing
- Let’s Design!
- Wrap Up
● What is Human-Center Design (HCD)?

● How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing

● Let’s Design!

● Wrap Up
HCD is a way of thinking that places the people you're trying to serve and other important stakeholders at the center of the design and implementation process.
The HCD approach to problem solving is iterative, measurable and results driven.

**Iterative Design Process**

**Phase 1**
- **Planning**
  - Understand opportunity area, organizational capacity and feasibility.

**Phase 2**
- **Creating**
  - Design for user needs in a collaborative and participatory manner.
  - Use data to inform a new cycle of creation and testing until you have a refined and validated solution that is ready to scale.

**Phase 3**
- **Scaling**
  - Successful prototypes that have performed well over several cycles of iteration are able to be scaled.
- **Testing**
  - Rapidly test and iterate solutions at multiple levels (products, services, processes).
What does HCD look like?

- Quantitative research
- Qualitative research
- Ethnography
- User testing
- Product & service design
- Prototyping
- Messaging & communication
- Awareness & access
- Co-creation
- Community engagement
● What is Human-Center Design (HCD)?

● How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing

● Let’s Design!

● Wrap Up
Human Centered Design for Microbicides

**Problem:** Microbicide clinical trials faced user non-adherence rates of as high as 22%; moving forward, improving end user acceptability and adherence will be critical to the successful launch of this new class of product.

**Project KAROO (2014): First-ever in-depth human-centered design (HCD) study for Microbicides**

- Snapshot (12-week) collaboration between CONRAD and global design studio IDEO with the goal of:
  1) Encouraging women to adopt and make a habit of using microbicides
  2) Creating excitement/desire for the product
- IDEO researched context, challenges and motivators to microbicide use and turned their insights into tangible, early design prototypes.
- Prototypes focused on illustrating design opportunities and not on demonstrating cost-effective design options for low-income settings.
- CONRAD and IDEO recognized need for more environment-appropriate, higher-fidelity prototypes to be developed through additional analyses.
HCD Research Methodology

• When interviewing women, an effort is made to get a breadth of perspectives; this means talking to women from different ends of the spectrum in terms of:
  - Rural vs urban
  - Less vs more educated
  - Single vs attached
  - Sex as survival vs sex as pleasure
  - Children vs no children
  - Sexually inexperienced vs sexually experienced

• It is also important to get the perspectives of and consider influencers/stakeholders, such as:
  - Male partners
  - Retail experiences
  - Healthcare providers
  - Media
  - Traditional healers
  - Friends & Family
  - Teachers

• Other important HCD research principles are as follows:
  - Interviews should be casual, conversational to elicit user stories
  - Interviews should take place in settings familiar and comfortable to users
  - Be literal when speaking, do not leave anything open to interpretation
  - Have tangible product prototypes present to elicit informed, candid responses
  - Record users’ insights in their own words
HCD converts User Insights into Design Principles

Conversations with potential end-users

Synthesized and categorized insights from users

Applied insights to derive design principles

Developed prototypes to exemplify design opportunities
Prototypes explored different messaging, form factors, and packaging

For Couples
“Intimate Protection For You & Him”

Female Empowerment
“Just For Women”

Hygiene & Cleanliness
“Feminine Care with Flair”
Second, more in-depth Microbicide HCD study underway

Project KALAHARI (2015): In-depth Human-centered design (HCD) study leveraging KAROO pilot findings

- Prototype-driven study on a range of products - including Oral PrEP - across a diverse range of stakeholders, designed to:
  1) Inform and increase user acceptability of early-stage products as they move through the research process
  2) Optimize product form factors, packaging, and messaging for late-stage product introduction planning with goal of increasing user adherence
- Research tested and refined messages around 8 different drug delivery systems in early and late stage development; also included interactive co-creation
- Created new product prototypes, a portfolio umbrella brand, and purposeful packaging for both end users and providers
● What is Human-Center Design (HCD)?

● How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing

● Let’s Design!

● Wrap Up
Human Centered Design for HIV Self-Testing

90% of all living with HIV will know their HIV status

90% of all living with HIV will receive sustained antiretroviral therapy

90% of all receiving antiretroviral therapy will have durable viral suppression

THERE IS NEW HOPE TO END ONE OF THE LARGEST EPIDEMICS OF THE LAST 50 YEARS
Progress on HIV Testing
“First 90”

HIV testing uptake has increased dramatically in the last 10 years.

In 2005, only 12% of people who wanted an HIV test were able & 10% of PLHIV in Africa knew their HIV status.

Now...
In 2014 > 150 MM people in reporting low & middle income countries received HTS.

UNAIDS estimates 51% of PLHIV in Africa now know their HIV status

Source: WHO, 2005 http://www.who.int/hiv/toronto2006/towardsuniversalaccess.pdf?ua=1
Despite progress in the global scale-up of HIV testing, significant gaps in access to universal HIV testing still remains.
To reach the 1st 90 by 2020, there will be a need for:

1) **More testing** that is both strategic and focused,

2) **New and innovative approaches** that overcome social, individual, structural and health system barriers and that are designed with linkage to prevention, care and treatment in mind,

3) Products developed using **Human Centered Design**.

**HIV Self-testing**

HIV self-testing is an emerging HIV testing strategy intended to address barriers to increasing access to preliminary knowledge of one’s serostatus. HCD is a perfect design approach for self-test kits because the focus is on the end-user experience.
What is HIV self-testing?

Reactive results need confirmation by a health provider.
Available Formally:

and Informally...

Credits: David Stanton, Vincent Wong, Cheryl Johnson, Matthew Rosenthal
WHO/UNITAID landscape

Costs range from:

- US$ 28-40 (sale in high-income countries)
- US$ 3.50 – US$ 16 (for research low- & middle-income countries)
- US$ 4-10 (sale informally in low- and middle-income countries)
Current WHO guidance on HIVST

Most current information available on [http://www.hivst.org/](http://www.hivst.org/)
What do we know about HIV Self-Testing?

Acceptability & Willingness

Source: 1 www.hivst.org, Evidence Map, accessed 15 Feb 2016 – 51 reporting studies
Conclusions

• Current HIV testing services are not enough to get to the first 90.
• Additional tool to create demand, it does not substitute HIV testing services.
• Potential to increase reach, frequency & efficiency
• HIVST is an innovation for implementation, could stimulate new technological advances, further optimization and can be empowering.
• WHO guidance is on the way

• Public health response lags behind public demand and we need to catch up.
• Think big. We need visionaries & champions; we need to stimulate technological advances, better tests & innovations in implementation

• Get going!
• What is Human-Centered Design (HCD)?
• How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing
• Let’s Design!
• Wrap Up
Let’s Design!

What should the ideal HIV Self-Test look like?

ASSURED Criteria:

• Affordable,
• Sensitive,
• Specific,
• User-friendly,
• Rapid and Robust,
• Equipment-free,
• Delivered to those who need it.
• Meet the end-user for an HIV self-test kit: Kaya
  – She’s 25-years old or younger;
  – She’s HIV- and sexually active;
  – She’s modern and literate and always has her smartphone in hand;
  – She lives in an area in Southern Africa where 1 in 4 of her peers has HIV.
Ask Away!

- Think like a human-centered designer
- How do you structure your interview so that you elicit the information you need to reveal the key insights into your interviewee’s world?
- What kinds of questions would you ask Kaya?
How would you translate these insights into a test kit design?

- What are the key messages?
- What are important product design attributes?
● What is Human-Center Design (HCD)?
● How can HCD be applied to HIV and AIDS?
  - Microbicides
  - Self-Testing
● Let’s Design!
● Wrap Up
Let’s check out a real world example to see how we did…

**Design Loop 1**

**Design Principles**

Our 6 Design Principles, based on synthesis of research insights, served as our guides.

---

**BE DISCREET & PROVIDE COVER**

Women’s health is private. While women may choose to disclose to partners they trust, some won’t react positively to the gel. Women need the flexibility to make this their own little secret.

**PROVIDE DIFFERENT WAYS IN**

While preventing HIV/AIDS is the aim, it might not be the best hook. Depending on the user, it might be easier to approach the gel through another avenue, like sex, condoms, or hygiene. Also, this isn’t just about the start of the conversation—provider different ways in sets up for engagement over the long term.

**GET LITERAL**

There is a real lack of education—both men and women—around sexual anatomy and health. Clinicians have to get down to the details of sex positions to understand risk. Men often have to explain the gel to each partner, which can be a burden and even prevent some women from using it. Getting explicit about details leaves less room for myths and misunderstandings.

**MAKE THE HABIT YOUR OWN**

Protecting your vagina is a private thing; making the gel adapt to a woman’s life gives her control. Also, piggy backing on existing rituals—like bathing before sex—will make it easier for women to stick to their routine.

**MAKE IT RUMOR-WORTHY**

“Ooh, that really pleases my man.” “They say circumcision makes sex better.” Underground chatter is where real conversations and convincing happens. Use the power of word-of-mouth to turn on desire for the gel. Will also help sell the gel to boyfriends, so women don’t have to do all the explaining.

**SPARK CONFIDENCE & BUILD TRUST**

How do I know the gel works? Am I hot enough to keep my man? Bolster confidence in the product—and in women and men themselves.
MELINDA GATES

“When you let people participate in the design process, you find that they often have ingenious ideas about what would really help them. And it’s not a onetime thing; it’s an iterative process.”
• If we perfect products through human-centered design, will we achieve 90-90-90?
  - What obstacles remain?