

How has Human-Centered Design Contributed to Youth Engagement in Adolescent Sexual and Reproductive Health Programming?

A Technical Brief
April 2023





HCD EXCHANGE

Since 2020, the HCDEXchange has advanced learning and practice related to the integration of human-centered design and adolescent sexual and reproductive health (HCD+ASRH). We are a Community of Practice that brings together young people, program implementers, designers, evaluators and funders. It is our collective mission to uncover, drive, and share learning in this emergent area of global health programming, address sexual and reproductive health needs, and fulfill rights in low-resource settings.

JSI and inSupply Health are the grantholders. JSI is a global health consulting and research organization dedicated to advancing health equity and improving the health of individuals and communities. inSupply Health is a JSI affiliate based in East Africa. inSupply designs people-centered, scalable, sustainable health solutions.

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Introduction

Objective

Human-centered design (HCD) offers a framework to leverage people’s perspectives in a process to solve a specific problem. It focuses on developing empathy to better understand how people experience the problem and its proposed solutions (HCDEXchange, 2022). In the last decade, HCD has demonstrated the potential to increase youth engagement in adolescent sexual and reproductive health (ASRH) programming by incorporating young people’s perspectives and ideas in developing ASRH solutions. However, there is limited systematic analysis or documentation of the role that HCD has played in promoting youth engagement in ASRH programs. This technical brief addresses that gap by describing how HCD has been employed to enhance youth engagement in the design, implementation, refinement, and evaluation of ASRH programming.

Methods

Figure 1: Rapid Review Methodology



Youth engagement in adolescent sexual and reproductive health programs

Within ASRH programs, youth engagement is a critical strategy applied to meet the unique needs, desires, and preferences of young people and ultimately, to improve ASRH outcomes (High Impact Practices in Family Planning (HIPs), 2022; Sebastian et al., 2014; Engel et al., 2019). Young people may meaningfully engage in the design, implementation, and evaluation of activities, products, strategies, and policies intended to promote healthy behaviors and increase access to, quality, and uptake of ASRH products and services. However, youth engagement in ASRH programming requires organizational commitment. This can be challenging due to:

- cultural barriers and stigma related to adolescent sexuality
- limited time and financial resources
- lack of organizational and adult facilitator buy-in
- lack of relevant youth-oriented tools and trainings
- biased involvement of youth (i.e. engaging youth that are ‘easy’ to recruit as opposed to those who fully represent the target population)

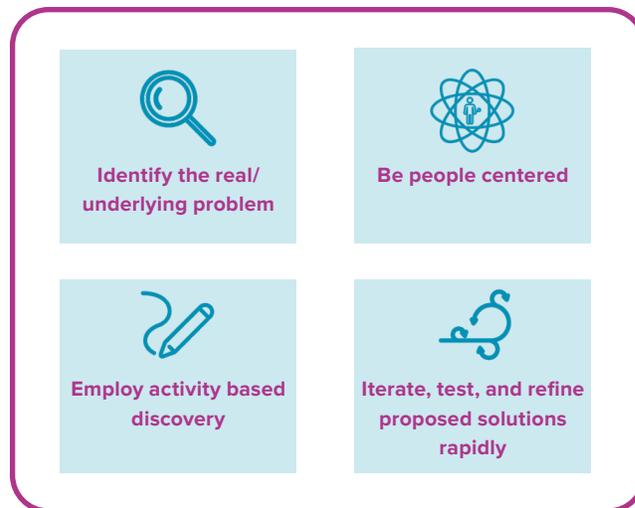
Meaningful adolescent and youth engagement is an “inclusive, intentional, mutually-respectful partnership between adolescents, youth, and adults, whereby power is shared, respective contributions are valued, and young people’s ideas, perspectives, skills, and strengths are integrated into the design and delivery of programs, strategies, policies, funding mechanisms, and organizations that affect their lives and their communities, countries, and the world” (WHO Partnership for Maternal Newborn and Child Health UHL, 2020).

As a result, few ASRH studies, policies, or programs are developed, implemented, and evaluated in true partnership with young people (Chidwick et al., 2022; Wilson et al., 2022). Further, ensuring engagement that is representative of and meaningful to different kinds of young people (differently abled, LGBTQIA, out-of-school girls, adolescent mothers, those living with HIV, etc.), is particularly challenging. Inadequate or tokenistic engagement of young people in ASRH programming may result in program designs that do not respond to the diverse needs, aspirations, or desires of young people and thus do not contribute to improved ASRH.

HCD: a powerful approach to increase youth engagement

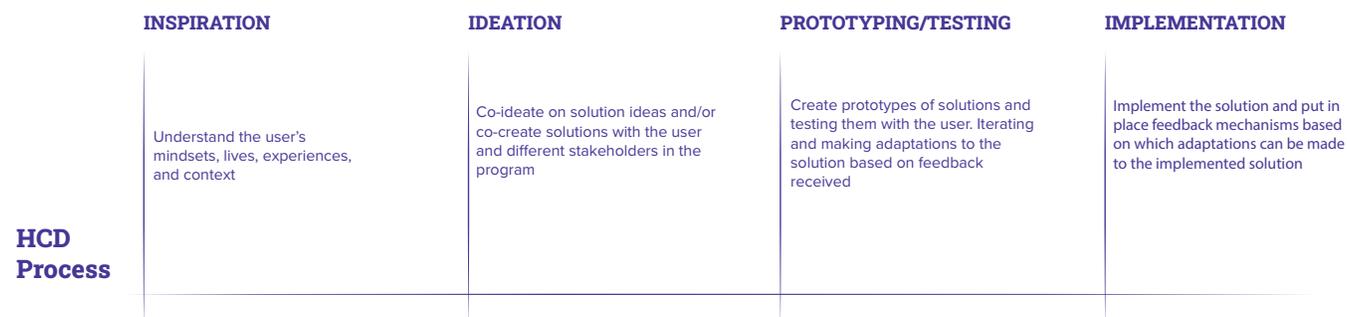
IDEO describes HCD as a “process that starts with the people you are designing for and ends with new solutions that are tailor made to suit their needs.” (IDEO.org, n.d.). HCD offers principles, a process, and mindsets that may be leveraged to increase youth engagement in ASRH programming (HCDEXchange, 2022). Within the context of ASRH programming, HCD has the potential to increase youth engagement by seeking and actioning the insights of young people and encouraging them to generate and test solutions to address their needs and challenges.

Figure 2: HCD's four fundamental principles



HCD operationalizes its fundamental principles (Figure 2) in a process that includes four main phases: inspiration, ideation, prototyping (testing), and implementation (Figure 3). Through these phases, participants (e.g., intended users, designers, program managers) share and deepen their understanding of context-specific challenges and generate, refine, and test solutions prior to implementation. Participants refine questions in each iteration by testing hypotheses and validating insights at each stage of the process. Involving youth in the iterative refinement of hypotheses is central to HCD. This brief highlights ways that organizations have used HCD to engage youth in ASRH programming.

Figure 3: HCD process



Throughout the process, HCD encourages participants to cultivate four main mindsets (Figure 4): empathy, learn from failure, embrace ambiguity, and creative confidence.

Figure 4: HCD mindsets



Empathy: Cultivating empathy is critical to HCD. Putting oneself in the shoes of the users of the solution and understanding the context from their perspective

Results

This study found that HCD facilitates youth engagement in a variety of ways, including:

- Enabling practitioners to engage young people throughout the ASRH solution development journey.
- Encouraging the mindset of empathy.
- Utilizing approaches and tools that appeal to young people and enable them to participate in program development.

Figure 5: Programs that informed our learning

A360: The Adolescent 360 (A360) program aims to design, develop, implement, and scale girl-centered ASRH programs across Nigeria, Ethiopia, Tanzania, and Kenya. A360's approach includes uncovering the link between contraceptive use and girls' futures so that, through an increase in voluntary uptake of contraception, girls are supported to pursue the lives they want to live. The A360 program is designed and implemented by

is essential to build solutions that speak to their actual needs and desires.

Learn from failure: Failure is considered a stepping stone to a better solution. Trying things out, failing, and iterating to create something that is more in sync with the needs and desires of young people is encouraged in the HCD process.

Embrace ambiguity: HCD encourages practitioners to find comfort with ambiguity and let the users of the solution define the solution and guide the process.

Creative confidence: Trust the learning process, build confidence to develop and test solutions with users, and embrace the opportunity to change and refine solutions based on user feedback.

Population Services International (PSI), in collaboration with IDEO.org, Society for Family Health Nigeria, and Center on the Developing Adolescent.

FAYA: The FAYA project seeks to find solutions that make comprehensive sexuality education engaging and accessible to young people. The partners on this project include Ylabs, Amref Health Africa in Kenya, Straight Talk Foundation Kenya, and Kenya Muslim Youth Development Organisation.

YPE4AH: The Youth Powered Ecosystem for Adolescent Health's (YPE4AH) goal is to improve the health and well-being of urban, underprivileged, out-of-school, and unmarried adolescents by increasing voluntary family planning uptake and continued use. It is a USAID-funded project implemented by Development Alternative Incorporated (DAI) in partnership with YEDI, Yellow Brick Road, Women Friendly Initiative, and Grassroot Soccer.

CORE: CORE co-creates new services for women's sexual and reproductive health in India, Kenya, Tanzania, and Nigeria. It is led by Scope Impact in partnership with other global and local partners.

HCD enables practitioners to engage young people throughout the ASRH solution development journey

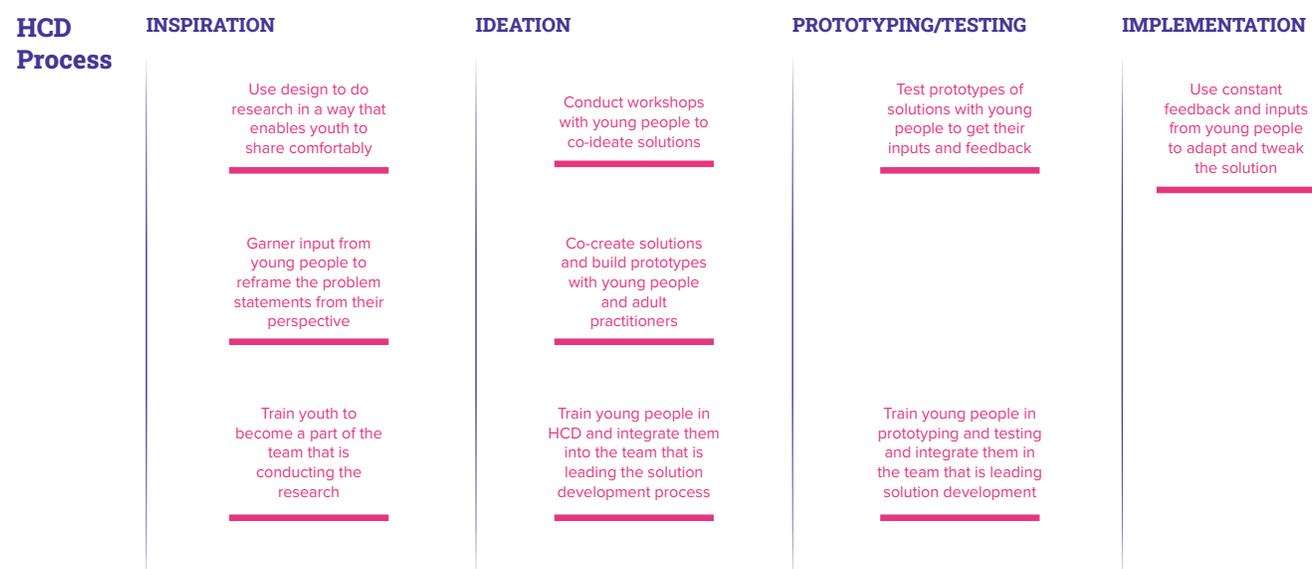
HCD incorporates touchpoints with the users throughout the process of solution development. If done effectively, the approach involves young people across different phases to constantly elicit their inputs and feedback on the solution. Figure 6 highlights some ways in which approaches used in the HCD process engage youth in program design and implementation.

At the inspiration phase, HCD approaches and tools build understanding of youth and frame the problem statement from their perspective. At the ideation phase, design workshops enable co-ideation and co-creation of solutions with youth and adult practitioners. At the prototyping phase, prototypes serve as tangible solutions on which youth can provide feedback. At the implementation phase, through regular engagement with the solution, youth continue to give feedback

and inputs to refine and tailor the solution. Across all phases, programs may engage and train young people to be part of the core team that is designing and implementing the solution. For example, the A360 program employed public health practitioners in their twenties to implement the solution and worked with youth champions to mobilize adolescent peers (Newport et al, 2019). The HCD process ensures active youth participation in the creation of solutions. Integrating young professionals onto the team encourages youth in the communities to feel more comfortable interacting with the team.

YLabs described this strategy in their article ‘Youth-driven, youth-centered or youth-led design? Which approach are you taking?’, which states “we predominantly use youth-driven or youth-led approaches to guide the process of designing, testing and implementing interventions to support young people’s health and economic futures. We believe a youth-driven design methodology puts young people’s voices and perspectives at the center of decisions that will affect their bodies, health and futures.”

Figure 6: Youth engagement in the HCD process



During the initial phase of the A360 program that tested participatory ethnographic research in Ethiopia and Tanzania, youth program participants helped to draft interview questions and collect data through interviews with their peers as part of the HCD process (ITAD, 2018). The young people then worked with adult researchers to contextualize findings from the inspiration phase. This ensured a balance between thematic expertise and young peoples' perspectives. The process of generating prototypes also involved youth-adult teams that worked per established design standards, and iteratively tweaked their prototypes based on adolescents' feedback (A360, 2018b).

“

In HCD-based programs, young people are part of the whole process and HCD is used as a means to achieve that. We really engage them from the beginning of the development of the project. This allows them to also suggest changes to design [and] builds creative confidence [and] helps us understand their community better.” - Program Implementer

HCD processes encourage empathy

In HCD, empathy involves “stepping into the shoes” of the end user to identify design opportunities. It entails adopting a mindset that prioritizes the needs and experiences of the target group during the design and development of the solution. Throughout design activities, cultivating empathy is a core focus that informs data collection and decision-making (Fakoya et al., 2021).

During key informant interviews, A360 cultivated empathy for young girls by using visual tools alongside interview guides to generate insights about their lives and aspirations (Fakoya et al., 2021). This approach helped to create empathy by giving practitioners a more complete understanding of the girls' lives even outside the realm of ASRH. Following the interviews, young people and adult researchers collaborated on the coding process through in-person deliberations rather than through individual coding (Fakoya et al., 2021). The use of in-person deliberations enabled young people to engage more deeply without limita-

tions from the lack of data coding expertise. Additionally, to guide the design process, the designers created a persona with whom participants could empathize as they made design-related decisions. Throughout the design process, participants could identify with the persona's needs, challenges, dreams, and aspirations. Designers encouraged the participants to make design decisions in alignment with the perspectives, needs, and desires of the persona.

The design research team also used methods like storytelling and direct field observation of adolescents in their ecosystem to cultivate empathy and better understand the world as experienced by the girls with whom they were designing. These approaches allowed designers to uncover deep insights into girls' lived experiences—inclusive of and beyond SRH—as they understood the feelings and motivations that drive girls' behaviors and decisions (A360, 2021).

“

During initiation [of the design process] the first stage, we put young people at the center to install customer empathy (e.g. we create a name and put a girl at the center). And really knowing who they are, their dreams, aspirations, etc. to guide the design process.” - Program Implementer

“

First thing that comes to mind is going to the community and engaging them directly. Before we try to build any program, we try to build empathy – we try to immerse ourselves into the lived experiences and this is key to any HCD program – we learn and design by going into the community. HCD does not just try to solve community problems but what we do here is to try and learn from their experience, dreams, aspirations and then really observing their lifestyles and see ways to engage the community actively with strong feedback loops – prototype testing, piloting, etc. Really centering the community in our work.” - Program Implementer

“

The first thing we appreciate is that designing interventions for young people means that we need to take time to better understand their challenges and to put yourself into their shoes. It helps that I am also a young person and in a position to understand key situations, scenarios that affect them. If you engage them in the beginning to really understand some of their roles, and to not just look at them as beneficiaries but as key partners this helps youth integration.” - Team Leader

HCD utilizes approaches and tools that are relatable to young people and enable them to participate in the development of a program

Design and research tools and approaches creatively engage young people in the design research process

ASRH programs use design tools like card sorting, storytelling, role plays, scenarios, and other exploration and play-based formats to encourage young people to share their experiences. These tools also make the experience of design research itself more engaging and enjoyable. For example, Scope Impact used innovative tools in the CORE Project across India, Tanzania, Kenya, and Nigeria to understand goal setting and motivation amongst adolescents.

“

We had probes and [a] general outline of what we wanted to cover in the research, but the content sort of led the discussion. [For] example, we used a tool, which we call the Goal Game, which was essentially to figure out the goals that adolescents are framing for themselves because one of the key critiques that we heard was that “adolescents have no goals”. So we [tried] to unpack that a lot more. That’s where the whole resilience angle came up because we said it’s not that they don’t have goals, it’s just that stuff happens and stuff that they’re not prepared for. A lot of the information we learned was like existing mitigation strategies that girls use. The

control [of the game] came from the girls themselves and it [the research sessions] turned into this social space. Those research sessions engaged them in the most optimal way to have them participate as deeply as they can, without feeling self-conscious or leaving them with any leftover feelings of “why did I just talk about that?” - Designer

“

We created a game that involves what is called coupling. . . it’s about the pathway, you know, two people getting together. And there were scenarios where we offered exits, you know like when the breakup happened and so on and so forth. So if the game gets you to a breakup, then the participants had to come up with scenarios for the two sorts of personalities [that] were playing, and then you know there were really fun discussions around love and sex and behaviors and all of that.” - Designer

Youth engaging youth

Stemming from the mindset of empathy and an understanding that young people may find it difficult to share their experiences with adult practitioners, CyberRwanda and A360’s programs engaged and trained young people to become peer researchers and/or facilitators to engage other young people (A360, 2019; Newport et al., 2019). The A360 program in Ethiopia and Tanzania drew on principles of Participatory Ethnographic Evaluation and Research (PEER). This method entailed training members of the target group to become peer researchers for the program, which enabled them to carry out in-depth conversations and interviews among their peers. In the A360 program in Ethiopia, young designers played an important role by participating in formative research. They were trained at a bootcamp on ethical research, data collection skills, and the process of uncovering findings (Newport et al., 2019).

HCD methods were used to co-create interview questions with peer researchers, hold group reflections and promote dialogue, enhance understanding of interview questions, and unpack issues raised during data collection processes through role plays. Visual storytelling through drawings was used to explore and validate the findings from peer research (A360, 2018b).

In the A360 program, young researchers and designers were instrumental not only in collecting data, but also analyzing, contextualizing, and validating it. A practitioner notes:

“ Our program targets 15–19 [years old] married adults and girls. And our young designers fit the demographic. Because of their age and proximity, we felt that including them in the research would yield greater insights... Usually, [in] traditional programs, research is conducted by someone who does not match the beneficiary demographic... For us they [youth designers] are the center of our research process and they correct us many times. When we are going through the design phase of prototype testing our young designers tell us what will not work very quickly. They will know what youth will respond to. The methods are also under question by youth—they can tell us based on their unique position and lived experience whether a method will be engaging or not.” - Program Implementer

In the A360 program, young people in design teams were also valued as “cultural interpreters” and were involved as experts on youth insights and meaningful youth engagement (Newport et al., 2019). The “cultural interpreters” worked alongside health workers to make in-person counseling spaces more comfortable for their fellow youth (e.g. A360 Ethiopia). In Tanzania, they mobilized their peers to join community events organized by the project (Newport et al., 2019). Young girls from the community, called Kuwa Mjanja Queens, were engaged to aid mobilization efforts for the A360 Tanzania program (Newport et al., 2019). Evidence of the relevance of including youth team members prompted A360 to hire them as full-time staff in Tanzania and Nigeria (A360, 2018b, 2020).

HCD workshops to ideate and create with young people

HCD workshops across programs used exploration and creation-based activities to engage young people in ideating concepts that informed solutions. CyberRwanda held interactive design workshops to mold young people’s ideas into the design of potential digital health interventions that could provide age-appropriate SRH

information to youth. Young people engaged with and refined the changes to the digital prototypes. Observations from these sessions, along with the changes made to the prototypes, helped inform which solutions would actually be implemented (Nolan et al., 2020). In A360 programs, collaborative theming workshops were used to conduct data analysis. In these workshops, youth-adult teams worked together to build consensus on the meaning and significance of findings (Cole et al., 2020). Facilitators in the workshops ensured that both groups contributed so that the synthesized insights reflected both the disciplinary expertise of the project’s consortium as well as perspectives of youth researchers. These insights informed prototypes of potential solutions (Cole et al., 2020).

As part of the YPE4AH program, Grassroot Soccer held program design workshops, where members of a youth advisory committee participated in a “dream programming” session to brainstorm ideas about solutions to a service delivery ecosystem for SRH services. They conducted a “gallery walk”, where mixed groups of both youth and adults ideated for solutions on specific topics. The youth actively led this session, gathering ideas on flip charts, while workshop facilitators ensured that youth voices were heard and prioritized. At the end of the workshop, youth reviewed the final solution designs recommended for the service delivery models through a “youth stamp of approval” session. Based on the stamp of approval, innovations and solutions progressed to implementation.

HCD approaches to build youth-adult partnerships

ASRH programs used innovative HCD techniques to create youth-adult partnerships to build effective solutions. During program design workshops, Grassroot Soccer facilitators consistently reminded adult participants to use youth-friendly language and give the Youth Advisory Committee (YAC) members opportunities to share their perspectives and experiences. Youth-friendly videos helped the YAC to introduce the workshop objectives and their value. Grassroot Soccer and other organizations in the YPE4AH program consortium also guided adults on how to communicate and work with

young people during the workshop. They shared a youth participation brief with all participants prior to the program design and curriculum development workshops. The brief outlined guiding principles such as intentionally sharing power, communicating in a way that does not alienate young people, and using language that is familiar to young people (HCDEXchange, 2021 October).

Solution prototyping to enable inputs and feedback from young people

A prototype of a solution is a model or artifact built to test a concept with users to learn from and gain their insights in order to further refine and improve its development. The understanding that prototypes evolve as insights about young people are uncovered promotes youth engagement in program design. The principle of iteration and an open mindset to refining solutions throughout the process is important to ensure that adolescents are continuously engaged in the design process and are able to inform specific aspects of the solution (Fakoya et al., 2021).

Prototype development helps designers reflect on key aspects that determine how well a solution will work in real life conditions. (Fakoya et al., 2021). Programs used prototypes to enable youth to see and interact with a

potential solution and provide inputs or feedback. One young designer stated:

“ We included young people from the time we started user testing to the time we went to launch. We also collaborated with the youth through a mechanism called the Youth Advocacy board, which is made up of young people to help us disseminate ‘AskDoki’, a comprehensive sexuality education mobile application to people, and also help us recruit some people for user testing. Alongside the testing of AskDoki, the media within AskDoki was also created with young people. We approached young people, did scripts, and then did videos or photos for AskDoki with young people. We created the initial drafts of the scripts for them, and then they reviewed them and worked out the nitty gritty to reach a final draft on their own, based on what they would be most okay with.” - (HCDEXchange, 2021 December)

The CyberRwanda project refined multiple prototypes through user feedback (Nolan et al., 2020). An ITAD evaluation of the A360 program across countries notes that rough and live prototyping iteratively uncovered what adolescent girls desired in a solution and what was feasible, scalable, and sustainable (Newport et al, 2019).

Conclusion

ASRH programs have the potential to improve service delivery and health outcomes by intentionally centering the circumstances, perspectives, needs, desires, and aspirations of young people. This is a complex task best achieved by meaningfully engaging young people in the design, implementation, evaluation, and refinement of programs.

This brief provides examples of how — through its principles, process, and mindsets — HCD can play a vital role in increasing youth engagement in ASRH programs. Specifically, this review found that HCD approaches and tools used across projects helped to stimulate creativity amongst young people and adults when co-designing solutions and enabled young people to actively participate and provide their feedback to solu-

tion development. In doing so, HCD facilitates better understanding of the needs of young people while also increasing young people’s understanding of those the program is being designed and implemented with. The ultimate goals of any approach or tool used within an HCD process are to better understand how individuals experience a problem and to enhance how well an intervention or solution meets the desires and needs of its users. Therefore, ASRH programs informed by HCD-facilitated youth engagement may contribute to improved health outcomes by appealing to and better meeting the needs of young people.

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Annex 1: Resources Included in Rapid Review

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