



HCD EXCHANGE

Landscape Analysis Summary:

- 1. Generating and Using Insights in ASRH Programs: the role of Human-Centered Design (HCD)**
- 2. Adolescent Needs and Mindsets, Desires and Preferences: Insights from HCD+ASRH Programs**

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HCD EXCHANGE

Since 2020, the HCDEXchange has worked to advance 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 to address sexual and reproductive health needs and fulfill rights in low-resource settings.

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Foreword

This landscape analysis summary is part of a series of learning products completed during the first phase of HCDEXchange (2020—2022). It focuses on the experience of generating adolescent insights in HCD+ASRH programming and applying them in developing SRH solutions and improving SRH outcomes. Findings are based on a selection of projects implemented in sub-Saharan Africa and South Asia from 2015 to 2022. The landscape analysis is intended to fill a gap in documentation and curated learning on the application of HCD to ASRH to guide practice and future investment.

Acknowledgments

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Acronyms

ASRH	Adolescent Sexual and Reproductive Health
AYSRH	Adolescent and Youth Sexual and Reproductive Health
A360	Adolescents 360
HCD	Human-Centered Design
HCD+ASRH	Human-Centered Design in Adolescent Sexual and Reproductive Health
IPPF	International Planned Parenthood Federation
LMIC	Low and Middle Income Countries
MIC	Middle Income Countries
MSI	Marie Stopes International
SSA	sub-Saharan Africa
SA	South Asia
SRH	Sexual and Reproductive Health
UNICEF	United Nations Children’s Fund
WHO	World Health Organization
NGO	Non-Governmental Organization

A Glossary of Terms can be found in Annex 1.

Introduction

The integration of human-centered design (HCD) in global health practice is an emerging area of exploration and learning. To advance learning on the application of HCD in adolescent sexual reproductive health (HCD+ASRH), the HCDEXchange conducted a landscape analysis examining the generation and use of adolescent insights through HCD. The landscape analysis focuses on HCD+ASRH programs and experiences in sub-Saharan Africa and South Asia.

The results of this analysis are presented in two complementary reports:

Report 1, Generating and Using Insights in ASRH Programs: The Role of Human-Centered Design (HCD) addresses the purpose and process of generating and applying adolescent insights through HCD in the context of ASRH programming. It also discusses the value of using an HCD approach and briefly illustrates solutions that have emerged from HCD+ASRH programs in the last ten years.

Report 2, Adolescent Needs and Mindsets, Desires and Preferences: Insights from HCD+ASRH Programs illustrates and discusses the types of insights generated in HCD+ASRH programs reviewed in this landscape analysis, categorizing them as insights related to adolescent needs and mindsets, desires and preferences.

This report summarizes the key observations, conclusions, and recommendations for future learning and exploration from Report 1 and Report 2.

Key Definitions

AN ADOLESCENT for the purposes of this report, is defined as any person between ages 10 to 19. Documents also refer to youth, or persons aged 15 to 24 years and the term 'young people' combines the adolescent and youth age groups to include persons aged 10 to 24 years (World Health Organization, 2006).

INSIGHTS refer to information that helps ASRH practitioners and designers gain a detailed and personal understanding of the target population.

Process and Methodology

Learning Objectives for the Landscape Analysis

- Document adolescent insights from HCD+ASRH projects in sub-Saharan Africa and South Asia and the processes and approaches used to generate and apply insights.
- Identify common themes and learnings, and compare learning across different stakeholders and geographies.

Learning Questions

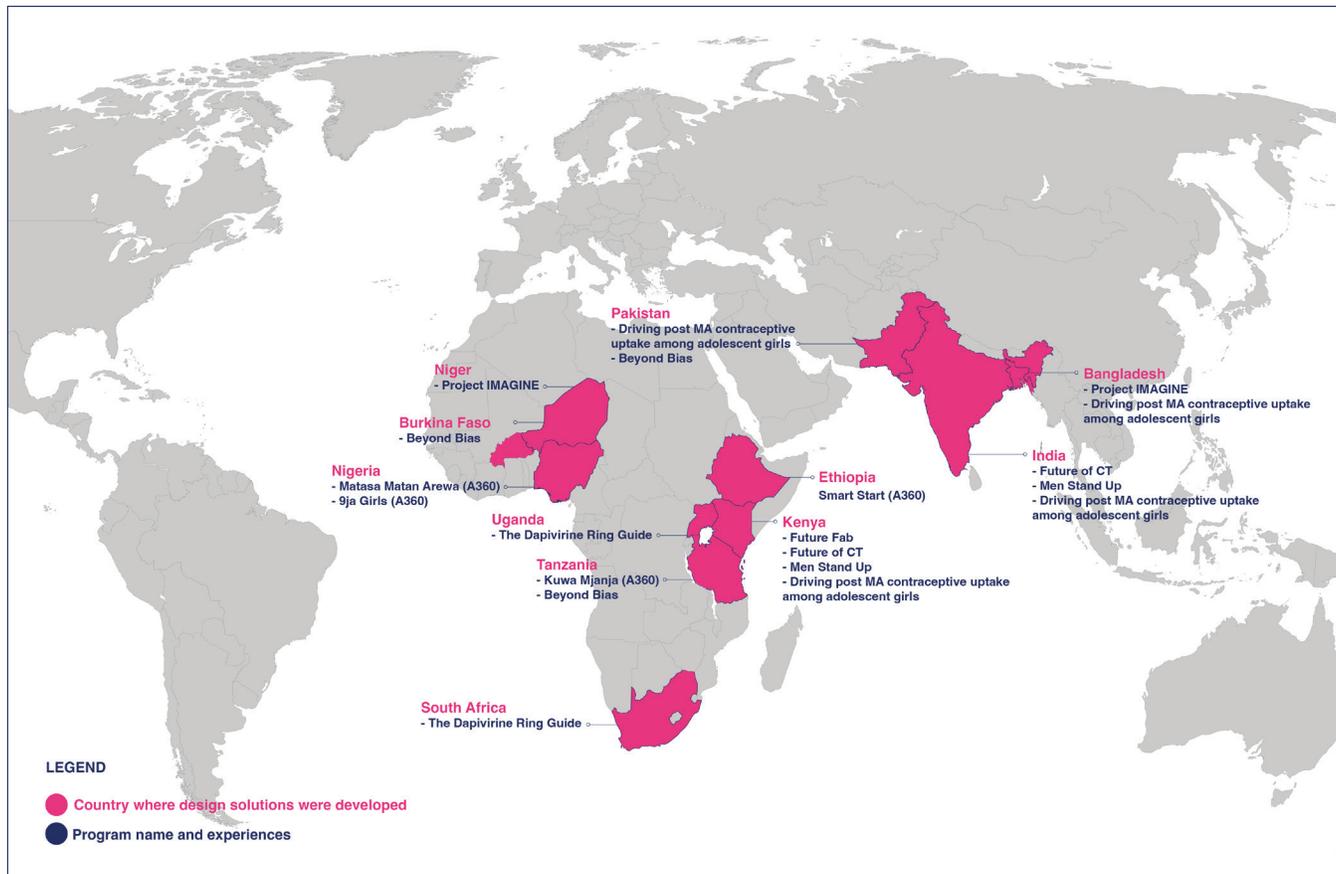
1. How does the generation and use of adolescent insights take place in the HCD process and what kinds of insights emerge at each stage of the process?
2. What ASRH design solutions worked and in which context? How have adolescent insights been used to improve ASRH design solutions?
3. What kinds of adolescent insights have been gleaned over the last 10 years and how have they been used to guide HCD+ASRH programming?
4. How do adolescent insights compare across settings (region/country), gender, age and marital status?

Researchers conducted a rapid review of published and gray literature and identified 28 documents that met the review criteria. They also conducted 11 key informant interviews with experts with experience designing and implementing HCD+ASRH programs. The analysis drew mainly on the experience of 11 interventions in 11 countries in sub-Saharan Africa and South Asia (Figure 1). Limitations included the lack of available written

material that we attribute to the nascent stage of HCD+ASRH programming, as well as the lack of consistent and agreed terminology to describe and study the practice of insights generation in HCD+ASRH. We also observed some institutional hesitancy to share

details around the methods and results of design research and adolescent insights generation, and the contribution of insight generation to ASRH interventions and outcomes.

Figure 1: HCD+ASRH interventions and experiences reviewed by country



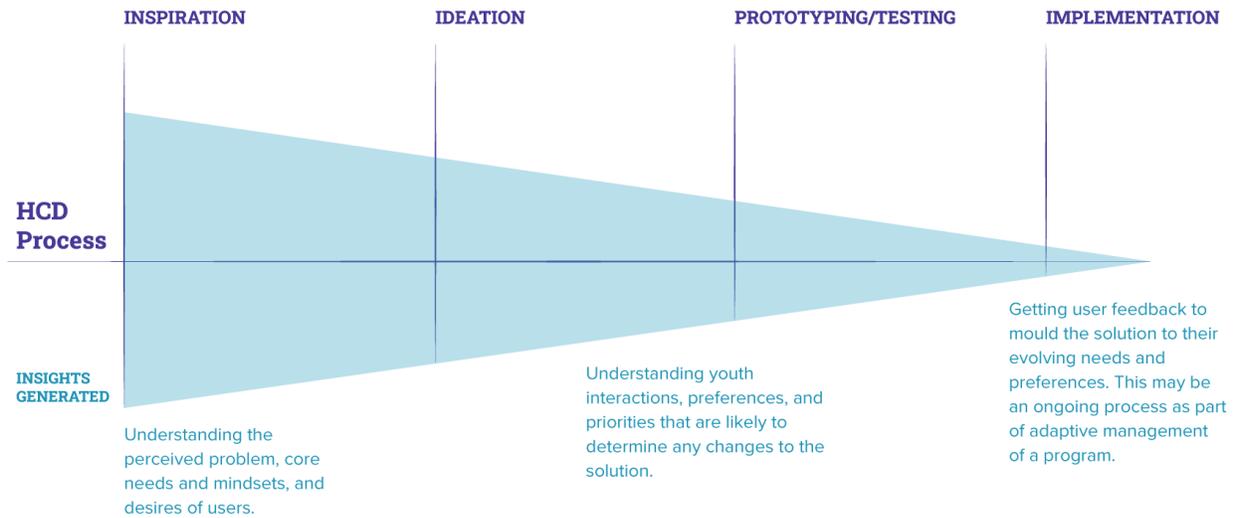
Insights Generation and Use

Insights generation in HCD: The process of generating insights is not a discrete step in the application of HCD. Rather, HCD is often described as a continuous learning approach that integrates both the generation and use of insights throughout each phase of the process (Itad, 2017). Implementers and designers reported that they generated adolescent insights at different stages of the program cycle for different purposes (Figure 2). Adolescent insights generated in the early phases of the HCD process (inspiration and ideation) tend to focus on the users' journey, mindset, decision-making ability, socio-cultural norms, intrinsic and extrinsic motivations as well as barriers to accessing ASRH services and products (Atchison et al., 2018). At the prototyping¹ and

testing phases, insights generated help design teams gain a better understanding of the user in the context of the solution by identifying: 1) their priorities; 2) the solution's advantages and disadvantages and 3) any potential barriers to accessing and using the solution that the adolescent might face within their context (Cole and Mehta, 2018). At the implementation phase, insights, together with monitoring data, user feedback and program learnings, are gathered to keep evolving the solution to make it increasingly relevant for the target group (Newport et al., 2019).

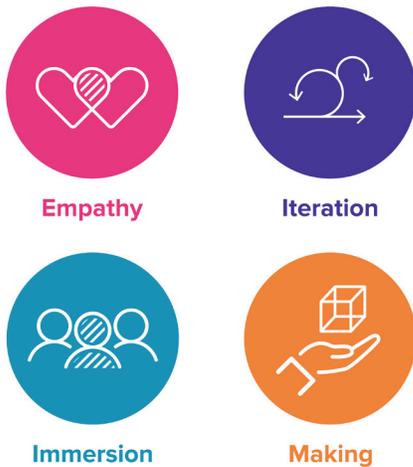
¹ Prototyping is the process of simulating experiences around proposed solutions to explore how people engage in them.

Figure 2: Insights generation in HCD



HCD mindsets and principles in insight generation

Four key HCD mindsets and principles shape the insights generation process.



Empathy

Insights generation through HCD allows practitioners to gain empathy for the end user (Cole, Cutherell, and Phillips, 2020; Itad 2017; IDEO, n.d.). Empathy as a core

design mindset goes beyond the inspiration phase to enrich other design phases. Designers apply HCD techniques and tools that enable them to empathize with the users' needs and desires, which in turn helps them create meaningful solutions.

Iteration

Iteration is core to the design process and is informed by the mindset of learning and failing fast (Itad, 2017; Sutton, 2018). Beyond the formative phases of the design process, designers continuously generate insights by seeking user feedback through rapid prototyping to iterate and refine the solution design. They may also employ iterative learning at the implementation phase to assess community responses for the viability and feasibility of the solution (USAID et al., n.d.; Itad, 2017).

Immersion

Use of immersive techniques help program designers to place themselves in the users' context and to understand their experiences.



Act of Making

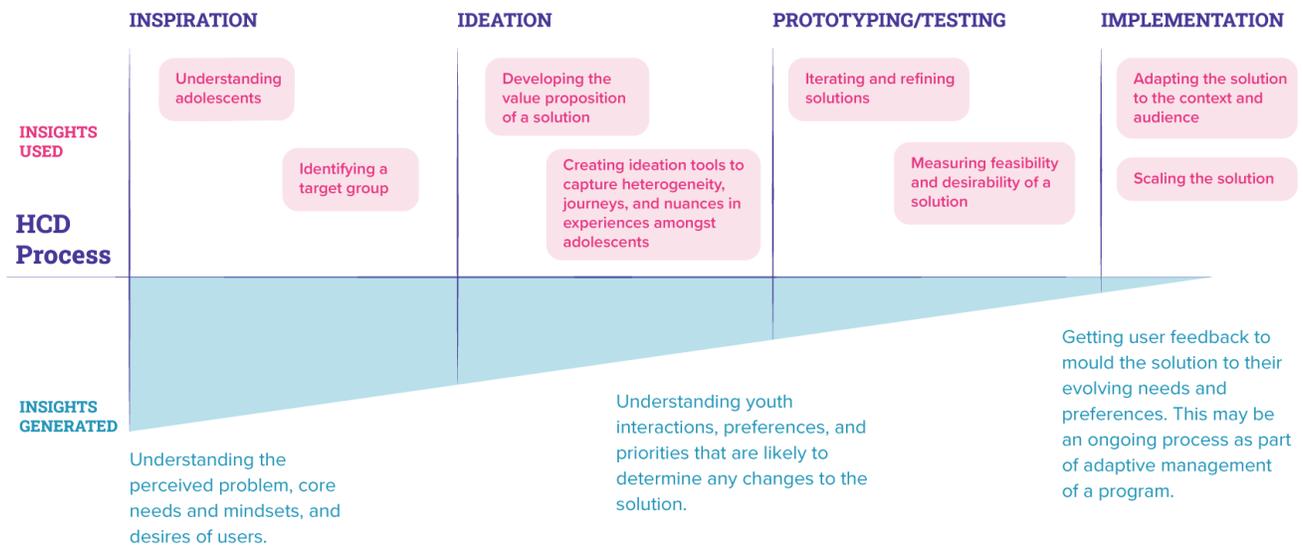
A ‘making’ mindset is defined as the act of creating a solution ‘so that it can be communicated to others’ in a way that helps to test the idea and make it better (IDEO, n.d.). Designers employ the mindset of ‘making’ when creating tools and prototypes to generate and refine insights and inform solutions.

The role of insights across the HCD process

Programs reviewed in this landscape analysis provided numerous examples of how insights are used throughout the HCD process. During the inspiration phase, designers set out to frame problems and understand challenges and opportunities based on adolescent lived experience. They use insights to frame or reframe program objectives and identify and understand specific target groups. At the ideation stage, insights

are framed to help conceptualize early-stage (e.g. low-fidelity) prototypes (Itad, 2017). More specifically, designers and program managers use insights in the ideation phase to develop the value proposition, concept and strategy of a solution, and to develop ideation tools that capture diversity across adolescents along with user journeys. At the prototyping and testing stage, solutions are refined through constant feedback and iteration, moving from low-fidelity to high-fidelity prototypes. Insights are generated through testing of prototypes to iterate and refine solutions. Insights are also used as indicators to understand if a solution is desirable, viable and feasible. At the implementation phase in the HCD process, design solutions are rolled out in the context of a larger project or program (Figure 3). Program implementers may then choose to pilot solutions and use insights from the pilot to adapt the solutions further, depending on how adolescents and their communities receive them.

Figure 3: Role of insights in the HCD process



Case examples of ASRH solutions generated through HCD

The process of generating insights and deriving solutions from insights is not linear or streamlined. Among the programs reviewed, we found little evidence of direct links between one insight and one solution. Rather, insights generation offers a process and a foundation for solution framing and development that evolves over time. **Report 1** presents examples of HCD insights generation approaches segmentation and ASRH solutions that emerged to illustrate the holistic use of insights in the context of HCD+ASRH programming. The list of solutions included in the report are:

- The **Smart Start** solution in Ethiopia
- **Kuwa Mjanja** solution in Tanzania
- **Matasa Matan Arewa** in Northern Nigeria
- **9ja Girls** in Southern Nigeria
- **Future Fab** in Kenya
- **Beyond Bias** in Burkina Faso, Pakistan and Tanzania
- **Project Imagine** in Niger and Bangladesh

Value of HCD-generated insights

HCD was found to add value in the process of insight generation and use in ASRH programming in four ways:

- HCD **takes a 'whole person' approach** when generating insights to develop solutions that are aligned to user needs and desires
- HCD frames insights in a way that **promotes the ideation of solutions**
- HCD-generated insights are **directly applicable to the solution**, particularly at the prototyping/testing phase since they are generated in the context of the solution itself; and
- HCD-generated insights **uncover learnings that define the 'how' of a solution** in the context of the adolescents' life and environment.

Common themes from HCD+ASRH programs

Report 2 highlights common themes gathered from the HCD+ASRH programs reviewed and provides examples of insights generated through HCD. These programs span nine countries including: Kenya, Nigeria, Ethiopia, Tanzania, Uganda, South Africa, India, Pakistan and Burkina Faso. Common themes have been categorized into adolescent needs and mindsets, desires and preferences in the report. It is important to note that these insights have been curated from a selection of HCD+ASRH programs in specific countries and communities. They are not intended for generalization to other settings.



Adolescent **needs and mindsets** are insights that provide a deeper understanding of an adolescents' life and context and are often generated at the inspiration phase of the HCD process.



Adolescent **desires** are insights that are at the center of HCD research and engagement with end users. Understanding these, enables practitioners to view adolescent SRH decisions and considerations in the context of their vision for their future.



Adolescent **preferences** are insights that are solution-specific, often generated when practitioners wish to test concepts and actual solutions or interventions.

Report 2 also discusses ways in which the HCD processes compare insights across different user groups. For example, the HCD process does not approach user group segmentation in the same way as ASRH programs through large-scale surveys. HCD insights generation approaches segmentation through research and engagement with small subsets of users grouped by characteristics that might influence user needs, desires and experience. To support comparison of different user groups, designers often construct personas (semi-fictional characters) to represent different end users. These personas are used to test specific solutions for and with particular sub-groups depending on program objectives.

AT A GLANCE - COMMON ADOLESCENT DESIRES

	<p>Adolescents aspire for a better future with financial security</p>	<p>In Ethiopia's agrarian regions, adolescents desire to become small business owners, participate in income-generation and manage their own money (Cutherell and Cole, 2019). In Northern and Southern Nigeria, girls aspire to complete their education as this is seen as a pathway to stable employment and income (Cole et al., 2020; Malakoff et al., 2021). In Kenya, girls expressed their wish for a better future and plan accordingly (Marie Stopes Kenya, n.d.).</p>
	<p>Young girls aspire to marry and become mothers</p>	<p>Marriage and motherhood exemplify socially-defined gendered expectations related to women and adolescents (UNFPA, 2013). They also mark progression from childhood to adulthood. In Ethiopia and Southern Nigeria, motherhood is a central and enduring aspiration among adolescent girls that aligns with expectations for a socially and financially secure future (Cutherell and Cole, 2019; Cole et al., 2020).</p>
	<p>Young couples and adolescents desire collaborative decision-making with their sexual partners</p>	<p>In spite of cultural forces that promote male dominance in a couple's decisions about SRH, in Ethiopia HCD insights revealed young couples' desire to make joint decisions around health, family and wellbeing. The Smart Start program in Ethiopia reported that married adolescents are often faced with a sudden sense of isolation due to 'severed contact with old friends' and 'supervised social interactions' that are required after marriage. Girls and their partners expressed a desire to counteract this isolation by building meaningful ways to engage with each other and make joint decisions around health, family and overall wellbeing (Cutherell and Cole, 2019).</p> <p>In Kenya, some young men involved in romantic relationships acknowledged the need to make decisions collaboratively, particularly those whose female partners had high levels of education. Men also expressed a desire for wives who are financially independent. According to these men, the trend towards desiring an independent woman has led to more collaboration in relationships (Choi, Pizatella-Haswell and Hope, 2017).</p>
	<p>Adolescents desire safe spaces where they can gather information and discuss sex openly</p>	<p>Adolescents are curious to learn about SRH and would like to have conversations about sex in a safe environment. In South Africa, adolescents expressed a strong desire for safe spaces to learn about SRH. Access to these kinds of spaces are deemed to be critically important but currently limited (USAID et al., n.d.).</p>
	<p>Adolescents want contraceptive methods that fit their lifestyles</p>	<p>Adolescents desire contraception that mirrors the frequency and spontaneity of how they have sex. They reported that the most commonly available contraceptives often require longer-term planning. In India and Kenya, procedure-intensive methods were perceived to be more relevant for 'serious' married groups than for youth (Quicksand and FHI360, 2018).</p> <p>The Future Fab program in Kenya reported that young people often perceived contraception as taboo, a source of fear and only for adults who are planning a family rather than an intervention that can help them achieve their dreams (Marie Stopes Kenya, n.d.).</p>

Conclusions

The generation and use of adolescent insights lie at the heart of HCD and shape its roles in advancing ASRH outcomes and rights. In exploring the HCD principles that guide insights generation and use, this landscape analysis begins to explain how and why HCD adds value to ASRH programming. Detailed documentation on a range of projects and project design processes illustrate and analyze the journey of insights at different phases of the HCD process. Brief observations and suggested areas for further research and exploration in the integration of HCD+ASRH programming can be found below.

Key Observations

The value of HCD lies in how insights are framed

The role of HCD in generating novel insights about adolescents' experience with and perceptions of SRH and health services varies across the programs reviewed in this landscape analysis. The evidence suggests that HCD-generated insights may not always uncover 'new' knowledge about adolescents' SRH challenges. However, HCD adds value in framing these insights as themes, journey maps, personas and opportunity areas (e.g., posing the question: 'How might we?') that builds empathy for adolescents. These insights increase practitioners' ability to view ASRH challenges from the perspective of adolescents' SRH needs, desires and preferences, and to understand societal aspirations, as they move into adulthood. This approach to understanding adolescents' lives provides opportunities to build potential solutions with them that are relevant and appealing.

HCD insights are highly contextualized

A challenge inherent in HCD processes is that insights, and the solutions they inspire, can be highly contextualized. HCD is often used to develop solutions for a specific context or a particular program, or to understand a specific user journey, which may limit the relevance of the solution in other settings and for other populations. However, as the body of HCD-generated insights grows, common themes are emerging across settings and groups that can be validated and refined for new programs, reducing the time needed to invest in a full insights-generation process.

Insights generation goes hand in hand with insight use

Similar to the ASRH field, insights generation through HCD gathers information about the target population to define key perceptions, experiences and influences related to known SRH challenges in a specific context. Although HCD brings many new assets to the process of defining and implementing ASRH solutions, we found that many of the HCD-generated insights reported in the landscape analysis did not contribute remarkably 'new' understanding of adolescent needs and desires compared to adolescent insights that have been gleaned through more traditional forms of research. HCD's unique value is in the way that it weaves insights generation into the development of ASRH solutions. An expert respondent noted that the way in which insights are framed in HCD make them particularly suitable for solution ideation. It inspires teams to think creatively within the boundaries of an adolescents' life. Thus, insights generation goes hand in hand with insight use. As practitioners go through the HCD process, their understanding of the user increases and becomes increasingly solution-focused. At the prototyping and testing phases, the process of insight generation and use happens synchronously through iteration and refinement of solutions to reach high-fidelity options to be integrated in the overall program.

Grounding and explaining HCD principles and mindsets

This landscape analysis confirms that HCD principles and mindsets, such as empathy and iteration, inform the generation of insights and their use in defining solutions that are appealing to adolescents, as well as being contextually relevant and feasible. However, reports that speak about the value of design do not explain how design principles and mindsets drive this process. Without defining the pathways from creative processes that inspire empathy to the progressive refinement of solutions, we can only report on the perceived value of HCD from the perspective of those who have worked alongside designers and in HCD+ASRH programs. The potential for continued integration of HCD into program design requires a clear statement about why design works, supported by systematic documentation of the

link between HCD and effective intervention design. As noted by Itad (2017) and confirmed in this landscape analysis, HCD principles and mindsets have the potential to help program teams develop robust ASRH products provided that there is an effort to explore and explain their usage further.

Areas for future research and exploration

Documenting insights throughout the HCD process

To continue to improve understanding of HCD insights generation and use and their link to ASRH solutions and outcomes, there is a need to document the HCD process at all stages. Most of the insights that were documented emerged at the inspiration phase of the HCD process. It was more difficult to identify and synthesize insights generated at the ideation, prototyping and implementation phases because of limited documentation. Better documentation of insights generated at the ideation, prototyping and implementation phases is required to highlight the unique contribution of an HCD approach and its role in generating desirable, feasible and viable ASRH solutions. Aligning documented insights with the prototypes and solutions they inform, would increase understanding of the role of insights in advancing ASRH.

Defining and using HCD mindsets and principles

This analysis notes that ASRH practitioners may not have a consistent understanding of HCD mindsets and principles and their purpose in the HCD process. This inconsistency relates to: 1) the use of different terminology to explain HCD and the stages of HCD; 2) lack of evidence on how design principles and mindsets are applied and for what purpose at different HCD phases and 3) the abstract nature of design-related concepts such as empathy, informed intuition and being open (Itad, 2017). HCD+ASRH practitioners are expected to use these mindsets and apply them to the development of solutions. They also need to explain their purpose and value to program stakeholders and collaborators. Developing a shared nomenclature around HCD would help practitioners integrate HCD effectively into program design and implementation. Streamlining terminology will also support consistent documentation or evaluation of HCD+ASRH programs to increase the evidence base.

Building knowledge and alignment around HCD+ASRH

There is limited published material on the effectiveness of HCD or the value of adolescent insights generation in the context of HCD-influenced programming (Atchison and Multher, 2017; Murithi et al., 2021). Although the body of evidence on the role of HCD in ASRH programming is growing (Punton and Wallach, 2021), the lack of criteria for what constitutes effective design makes it difficult to evaluate its contribution and its limitations. Recent efforts to define success and the pathways that link HCD to health solutions and outcomes can inform practitioners to conduct additional research to guide future programming (LaFond and Cherney, 2021).

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Annex 1: Glossary of Terms²

Adolescents: any person between ages 10 to 19.

Youth: any person between ages 15 to 24.

Young people: any person aged 10 to 24.

Co-design: Co-designing is a process of creating solutions along with the users you are trying to affect. Activities can be used to define a complete solution or just to gather input and feedback on small features of products or services. (Related terms: co-creation; participatory design)

Design: Design is the process of developing informed, sensitive, inclusive, purposeful and innovative solutions that embody functional and aesthetic demands based on the needs of the intended users and their ecosystem. Design is applied in the development of goods, services, processes, messages, and environments. (Related term: Human-centered design)

Design thinking: Design thinking is an approach to innovation that draws from the designer's toolkit to integrate the needs of people; the possibilities of technology; and the requirements for business success. Design thinking, skills, and practices should be thought of as being appropriate to all disciplines including design.

Insights: any person between ages 10 to 24. Wor anecdotes expressed as succinct statements that serve to interpret patterns in research findings. Insights offer a new perspective, even if they are not new discoveries. They are inspiring and relevant to the design challenge. (Related terms: sensemaking; synthesis)

Human-centered design: Human-centered design (HCD) is the process of integrating human perspectives in all steps of the problem-solving process. The aim is to better understand an issue from the human perspective and focus on how it looks and feels to users and stakeholders within their environment and context

Persona: A representative identity that reflects one of the user groups. It is a representation of a user segment with shared needs and characteristics

Prototype: A model or artifact built to test a concept with users to learn from them and use insights to improve development of the prototype. Prototype development process helps designers reflect on key aspects that determine how well a solution will work in real life conditions rather than theoretical conditions

² Sources: <http://www.designkit.org/methods/33>, Accessed on February 5, 2022; DesignforHealth: Glossary of Terms - Glossary+of+Design+Terms.pdf

“ Insights are pieces of information that allow for new ways of looking at a problem and new understandings about the population we’re trying to reach. It is information that is gathered through talking with that population, and then really listening to them, and trying to get beneath the surface sometimes of what is actually being said to what’s driving behavior and action.”

- Technical Advisor, Ethiopia



HCD EXCHANGE



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