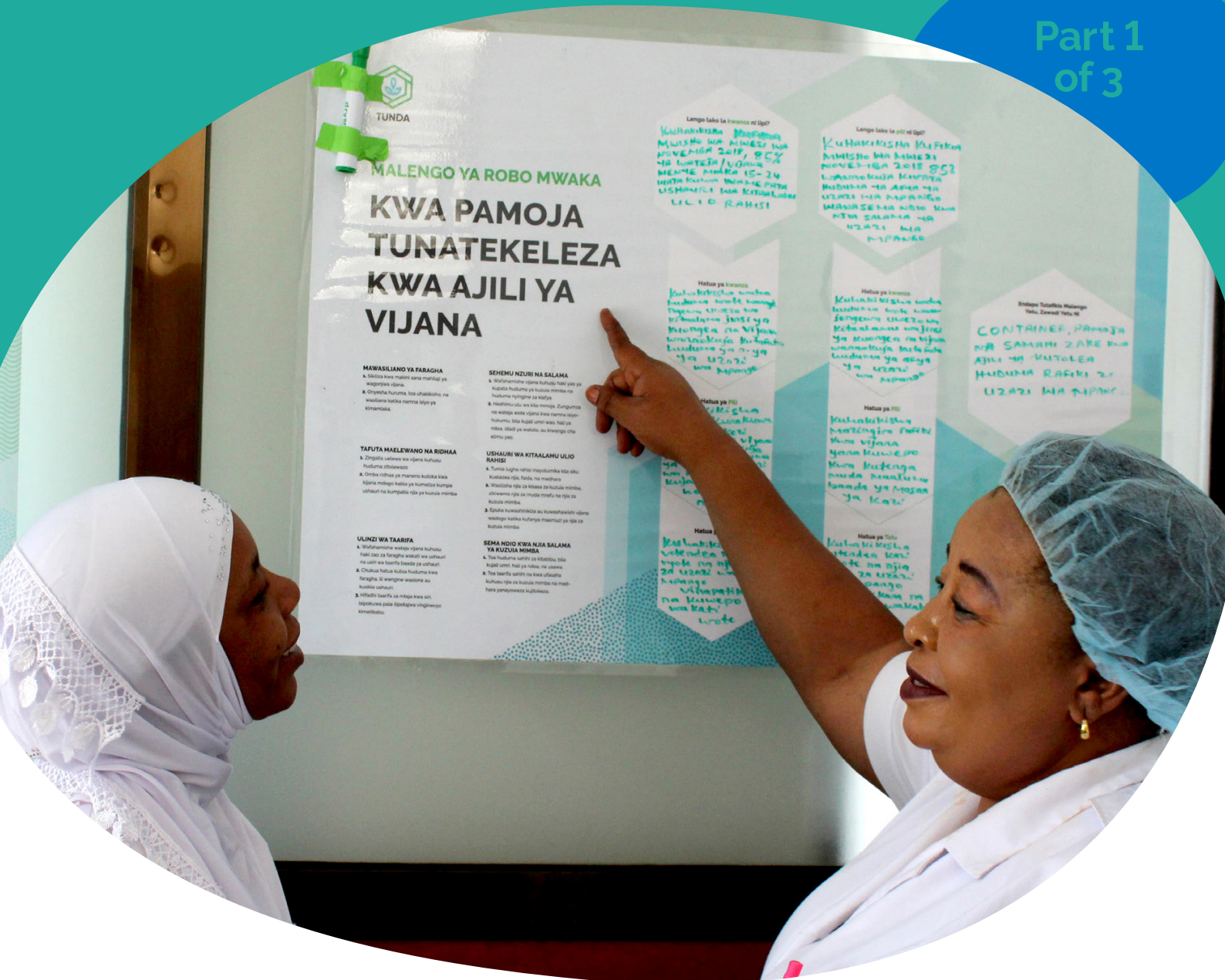# Integrating Human-Centered Design in a Multidisciplinary Effort to Address Provider Bias: The Beyond Bias Experience

AUTHORS: Lydia Murithi, Pathfinder International, Beyond Bias Project Director,

Theo Gibbs, YLabs, Design Director, **Rebecca Hope,** YLabs, Executive Director.

Introduction

The Beyond Bias project seeks to ensure that young people between 15 and 24 years of age have access to empathetic, non-judgmental, quality counseling and provision of a full range of contraceptive methods, regardless of their marital status or parity. By bringing together providers and the young people they serve, Beyond Bias works to design and test scalable solutions that address provider bias and improve contraceptive counseling and services. Led by Pathfinder International, Beyond Bias partners include Camber Collective, YLabs, and the Behavioral Economics in Reproductive Health Initiative (BERI). Beyond Bias is active in Pakistan, Tanzania, and Burkina Faso, with funding from the Bill & Melinda Gates Foundation (BMGF). Beyond Bias is innovative in its multidisciplinary approach, which brings together experts in adolescent and youth sexual and reproductive health (AYSRH), social and behavior change communication, human-centered design (HCD), behavioral economics, and segmentation analysis. These complementary approaches enable a nuanced understanding of the drivers, manifestations, and outcomes of provider bias and inform tailored interventions to address that bias.

Despite increasingly frequent application of HCD in global health programs, there is limited published material on the process of doing so. Aiming to help expand that knowledge base, the Beyond Bias project has documented, in a three-part series, its experience using HCD as part of a multidisciplinary approach to develop effective and scalable AYSRH interventions: (1) This executive summary provides high-level overviews of HCD and how it was applied in Beyond Bias, key lessons learned from the integration of HCD in Beyond Bias, and AYSRH solutions generated and tested by the project. (2) Part 2* of this series, "Application of Human-Centered Design in Beyond Bias," further describes how Beyond Bias integrated HCD and how that experience fits in the larger HCD ecosystem and details the project's key lessons learned from applying HCD. (3) Part 3* of this series, "Adolescent and Youth Sexual and Reproductive Health Solutions Generated and Tested by Beyond Bias," documents the SRH and AYSRH interventions that Beyond Bias is currently implementing and shares key insights, ideas, and solutions that informed those interventions.

* To download part 2, visit: https://www.pathfinder.org/publications/hcd-part-2-application/;
  to download part 3: https://www.pathfinder.org/publications/hcd-part-3-solutions/

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What is HCD?

HCD is a creative, iterative, and participatory innovation process.

Like participatory action research, and drawing on ethnographic research principles, HCD seeks to engage participants in the design, development, and testing of potential solutions. It relies on real-world prototyping and rapid iteration of solutions based on participant feedback. HCD emphasizes a process of rapidly generating and then testing a range of ideas to answer, with minimal material and monetary investment, essential questions about a potential solution's desirability and feasibility. HCD aligns with global health conventional wisdom about the importance of interventions tailored to different contexts and populations and meaningful stakeholder engagement to ensure sustainability. While standardized and well-established in industries such as ergonomics and consumer technology, HCD is relatively new in global health, and its application varies widely among projects, implementers, and donors. To tackle the enduring challenges of provider bias in provision of AYSRH in a new way, Beyond Bias employed a rigorous, multidisciplinary approach that included an intensive HCD process for intervention design.

Photo: YLabs, with written consent from participants

"If you don't meet youth in family planning, you meet them in labor."

—Nurse participant in Beyond Bias prototyping, Tanzania
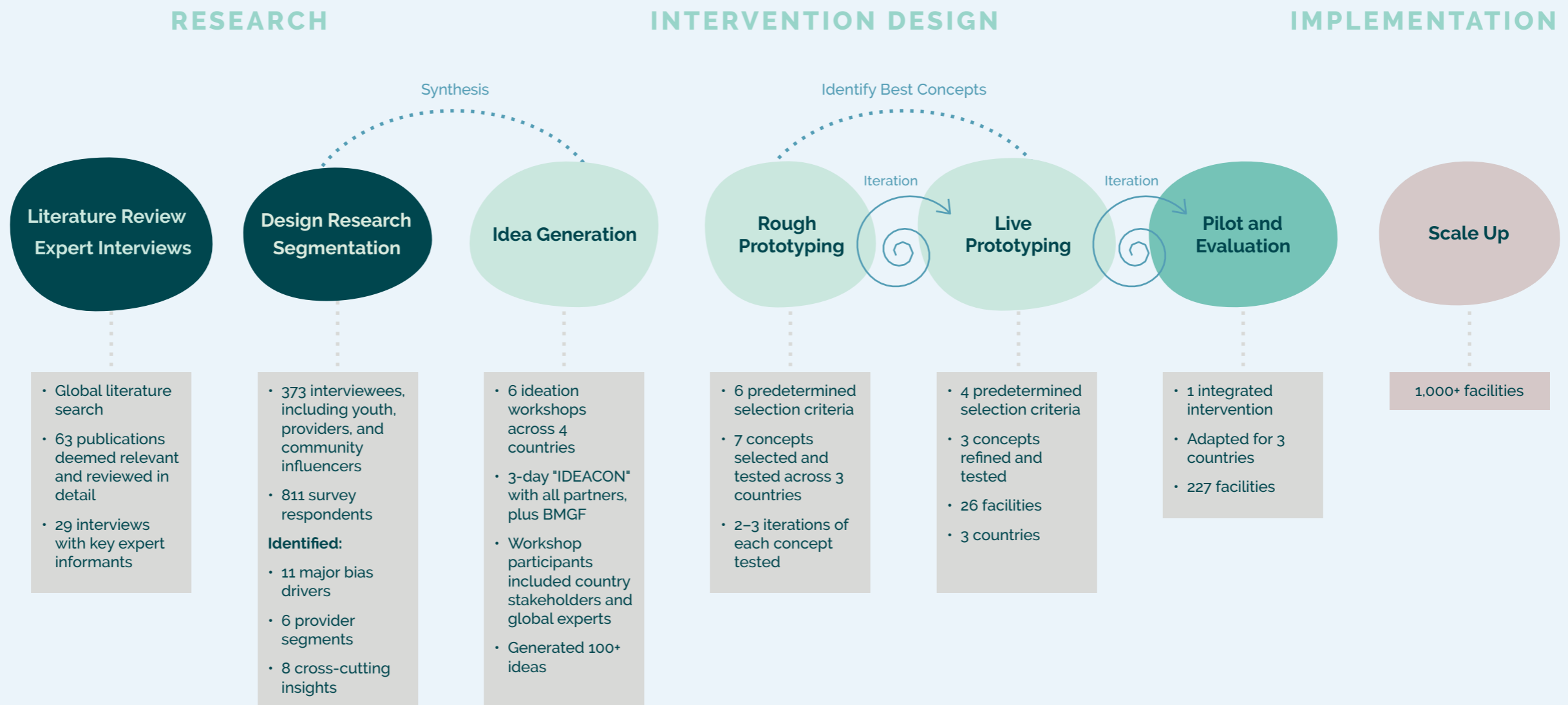
HCD in Beyond Bias

Beyond Bias began with **expert interviews** and a **literature review** of evidence on provider bias and past interventions to reduce such bias. This foundational evidence informed the creation of a quantitative **segmentation survey.** In parallel, Beyond Bias conducted qualitative **design research interviews** in each country.

Based on qualitative and quantitative data analyses, Beyond Bias distilled **key insights** about provider and youth behavior and motivation. Insights are listed in Part 3. Using provider segments, drivers of bias, and qualitative findings, Beyond Bias country teams and partners facilitated structured **ideation workshops** to generate and prioritize ideas for interventions that could address provider bias in AYSRH services. Through a rigorous, multi-stage process, Beyond Bias partners, providers, and youth selected promising ideas for **further development, prototyping, testing, and iteration.** These findings informed the final intervention design and implementation. This overall approach and the HCD process are detailed in Part 2.*

At the time of this writing, Beyond Bias is piloting interventions, after which the project will evaluate their effectiveness in a randomized control trial (RCT) and document and disseminate findings in a separate brief.

* To download part 2, visit: https://www.pathfinder.org/publications/hcd-part-2-application/; to download part 3: https://www.pathfinder.org/publications/hcd-part-3-solutions/

RESEARCH　　　　**INTERVENTION DESIGN**　　　　**IMPLEMENTATION**

Figure 1. Beyond Bias's Integrated Process for Addressing Provider Bias in AYSRH

Synthesis

Identify Best Concepts

Iteration　　Iteration

| Literature Review / Expert Interviews | Design Research / Segmentation | Idea Generation | Rough Prototyping | Live Prototyping | Pilot and Evaluation | Scale Up |

- Global literature search
- 63 publications deemed relevant and reviewed in detail
- 29 interviews with key expert informants

- 373 interviewees, including youth, providers, and community influencers
- 811 survey respondents
- **Identified:**
- 11 major bias drivers
- 6 provider segments
- 8 cross-cutting insights

- 6 ideation workshops across 4 countries
- 3-day "IDEACON" with all partners, plus BMGF
- Workshop participants included country stakeholders and global experts
- Generated 100+ ideas

- 6 predetermined selection criteria
- 7 concepts selected and tested across 3 countries
- 2–3 iterations of each concept tested

- 4 predetermined selection criteria
- 3 concepts refined and tested
- 26 facilities
- 3 countries

- 1 integrated intervention
- Adapted for 3 countries
- 227 facilities

1,000+ facilities

What Worked Well in Using HCD for Beyond Bias?

Several aspects of HCD implementation in Beyond Bias proved to be valuable to the quality of the design outcomes and general project operations:

Interventions grounded in existing evidence. Beyond Bias leveraged existing evidence on AYSRH and provider bias to inform the design research approach and to stress-test HCD findings at every stage of solution development, testing, and refinement.

Design with an ecosystem lens. Beyond Bias recognized that young people exist in an ecosystem of providers, parents, partners, and peers. To be successful, the design process needed to consider and involve these other players from the beginning.

Built-in mechanisms for collaboration among designers, technical experts, and end users. These mechanisms ensured collaboration among multidisciplinary technical experts and designers, and with prospective users (providers) and targeted beneficiaries (youth). By engaging different technical experts (e.g., AYSRH, behavior change, and country-level stakeholders) at key points to press HCD findings against existing best practices and implementation knowledge, Beyond Bias helped to further improve and refine ideas and solutions.

Sensitivity to participation and power. To account for the power imbalance between providers and youth clients and to ensure that both user groups could express themselves freely, Beyond Bias conducted participatory research and prototyping sessions with only providers, only youth, and then a few joint sessions. During design research, Beyond Bias also convened young people and providers in youth-led workshops where young people roleplayed their experiences of talking with a provider about sex and contraception, while providers had the opportunity to observe and better understand young people's experiences.

Intentional efforts to balance context-specific and scalable, cross-context ideas. Throughout research, prototyping, and testing, country-level team members participated in activities in other Beyond Bias countries. This approach enabled rich cross-contextual learning and helped to reveal patterns within the research and opportunities for the intervention design.

Use of risk analysis tools and ethical guardrails at each stage of the HCD process. Namely, the project obtained institutional review board (IRB) approvals and conducting risk analyses with a safeguarding lens at key points.

Use of HCD to explore user-centered data collection modalities. This allowed Beyond Bias to better understand the challenges regarding how to collect adequate and accurate data from youth clients about their experiences with providers.

Part 2* details these lessons.

Photo: YLabs, with written consent from participants

What Were the Challenges? Recommendations?

No project is without challenges. Beyond Bias learned several valuable lessons about integrating HCD into its multidisciplinary work and identified ways to address those challenges:

Managing intense and complex collaborations.

Effective multidisciplinary and multicountry projects require substantial coordination and collaboration among project stakeholders.

RECOMMENDATION: *Carefully plan and allocate resources—more than for a traditional or single-discipline project—to liaise and cultivate shared understanding across technical areas, countries, and partners.*

Adopting a new way of working.

The HCD process is rapid and deliberately open to unorthodox suggestions. Partners may be unsure how to proceed within their context.

RECOMMENDATION: *Ensure that participants and partners understand the process by building a shared vision and expectations of the project, establishing frequent and two-way communication, and documenting decision-making rationale.*

Budgeting for the unknown.

Accurately budgeting for multiple years of project activities is difficult when the exact design of the intervention is deliberately unknown at the start of the project.

RECOMMENDATION: *Sustain momentum from design to implementation by employing flexible funding models and scopes of work.*

Aligning expectations about novelty and innovation.

These terms are often used when people talk about HCD, but it is important to remember that they are not synonyms. Beyond Bias defines novelty as an idea that has not been tried before to address provider bias. An innovation, on the other hand, is a solution that, while perhaps not new, disproportionately outperforms status quo approaches in delivering desired results.

RECOMMENDATION: *Align stakeholders' understanding of novelty and innovation, and encourage participants to explore ways to improve existing solution approaches, in addition to generating entirely new ideas.*

Using the right approach for each situation.

HCD might not be appropriate for every facet of a project, particularly when it comes to development or testing of quantitative tools.

RECOMMENDATION: *HCD is a useful approach to develop engaging and user-centered interventions. However, implementers should not assume that HCD is a panacea for all dimensions of the project, particularly when available classic research and evaluation approaches are proven to be effective.*

Part 2* expands upon these challenges and corresponding recommendations.

*To download part 2: https://www.pathfinder.org/publications/hcd-part-2-application/

AYSRH Solutions Generated and Tested by Beyond Bias

Beyond Bias used HCD to gather key insights into provider bias and to winnow more than 100 brainstormed ideas into provider- and youth-facing solutions for addressing provider bias that the project prototyped, tested, and refined through multiple stages.

This culminated in an integrated, three-pronged intervention that employs concepts that evolved through the HCD process. (The HCD and winnowing process is detailed in Part 2.*)

This refined intervention is designed to support health care providers at every phase of their journey from developing awareness of their own bias to becoming advocates for improving contraceptive services for youth in their community. The intervention uses the Stages of Change behavioral model[1] as an underlying theoretical frame-work. As of the time of writing, Beyond Bias is piloting and evaluating this intervention in 227 facilities across three countries. While not all promising solutions that emerged from the design phase would work within the parameters of Beyond Bias (e.g., project timeframe, budget, and feasibility of measuring in the planned RCT), AYSRH programmers may want to consider them for other programming. For that reason, Part 3* details the insights and the concepts developed and tested through the ideation and prototyping phases but not taken forward into implementation, in addition to those that did advance to the pilot phase of the project.

[1] Stages of Change hail from the transtheoretical model of intentional behavior change that considers an individual's readiness to adopt or act on a new behavior.

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Photo: YLabs, with written consent from participants

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