Comprehensive training

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HOSTED BY GAVI, WHO, UNICEF & US CDC

Human Centered Design Approaches to Intervention Development

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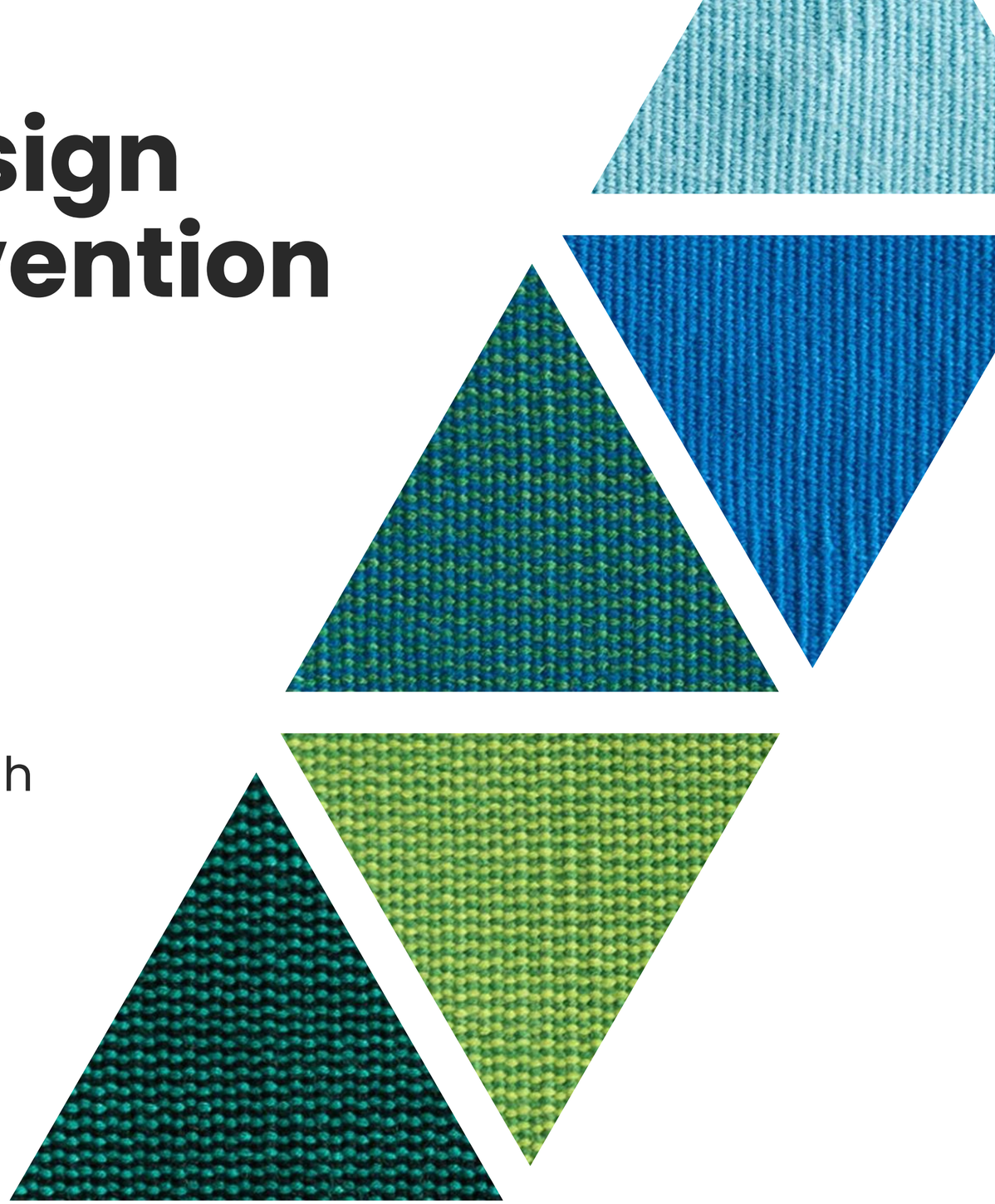


Outline

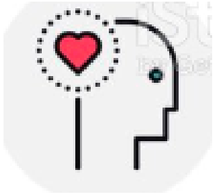
- Learning Objectives
- Key Definitions
- Principles of Human Centered Design
- Methods
- Field Examples
- Hands on exercises

Learning objectives

During this module participants will:

- Develop pathways for understanding human needs

- Application of design thinking to respond to the needs



- Engaging stakeholders through the design process

- Systems approach to designing health interventions

Definitions

Human Centred Design (HCD):

A creative process that starts with people and ends with innovative solutions tailored to their needs.

HCD is a problem-solving approach that utilizes a series of iterative, often non-linear steps to tailor-make solutions for complex problems*

Empathy:

The ability to understand and share in the experience of another person and communicate that understanding

* Brest P, Roumani N, Bade J. Problem solving, human-centered design, and strategic processes. Stanford: Stanford PACS; 2015. p. 1–32.

Definitions

Co Design:

A participatory approach to designing solutions, in which community members (stakeholders) are equal collaborators in the design process.

Prototyping:

A simple experimental model of a proposed solution used to test or validate ideas, design assumptions and other aspects of its conceptualisation quickly and optimal resources.

Problem statement

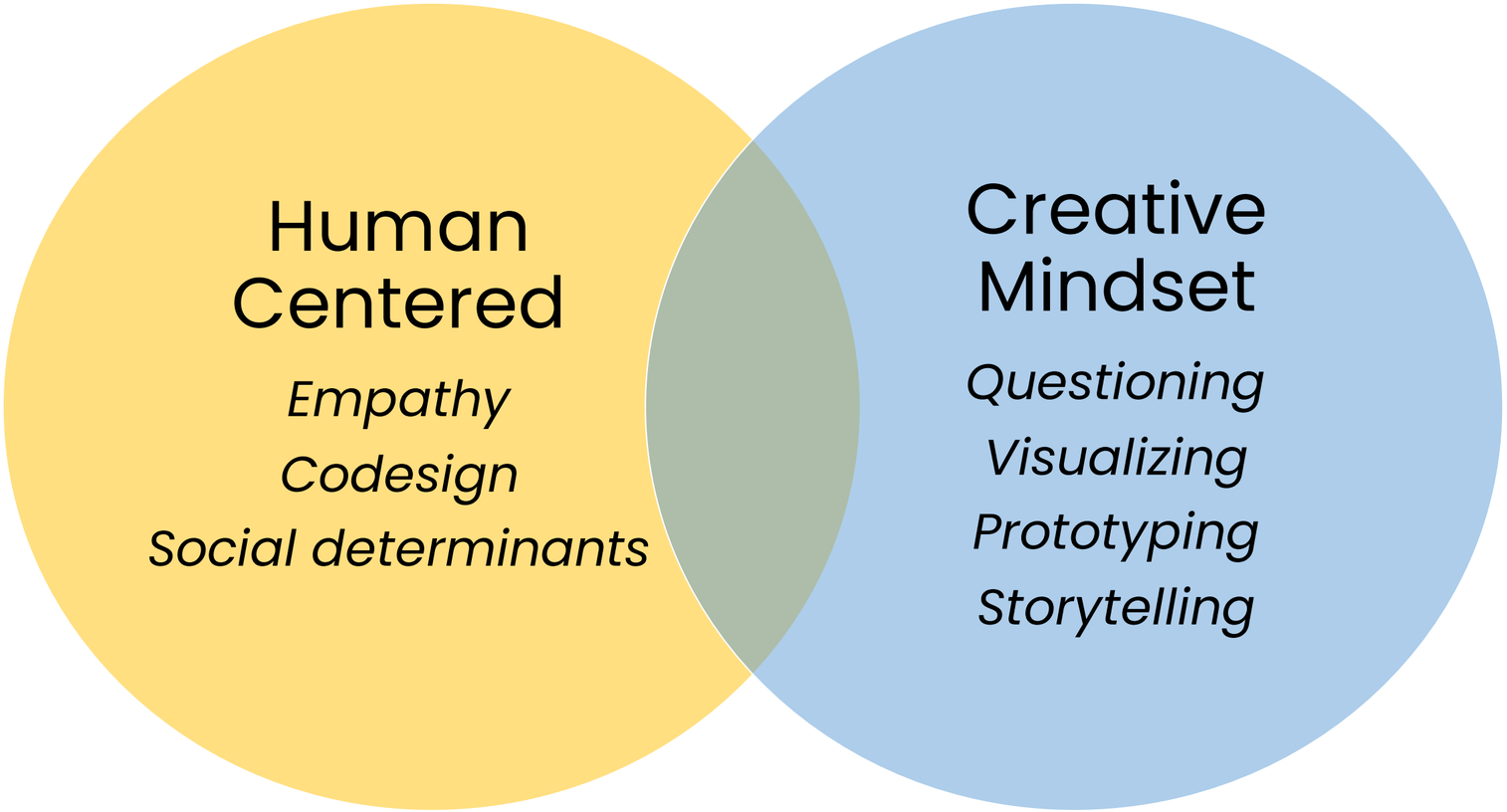
Health Services utilization is influenced by human behaviour

YET…

Health Services design often does not take into consideration the values, beliefs, needs and aspirations of its users

Health Intervention design needs systematic understanding of the real needs and underlying challenges facing health-seeking behaviours

Principles



Bon Ku & Ellen Lupton ; Health Design Thinking 2nd Edition 2022

Principles

Human Centred

NEEDS

DESIRES

Human Centred

Focusing on a key person does not mean we do not include their influences and community in the approach.

We focus both on who is changing and on how to change the context to enable that change.

UNICEF; Human Centred Design 4 Health

How do we understand?

Needs

Desires

Observe

Converse

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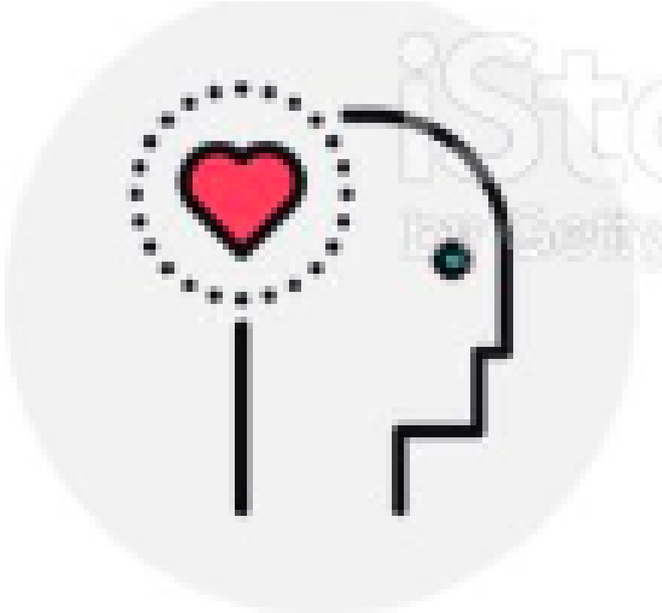
Observe

Conserve

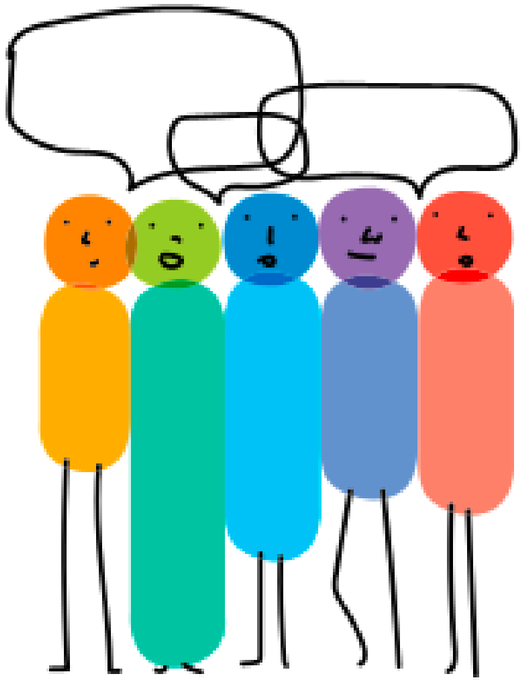
User Interviews builds:

Empathy



Behavioural Insights

The five actions of the human-centred design process:



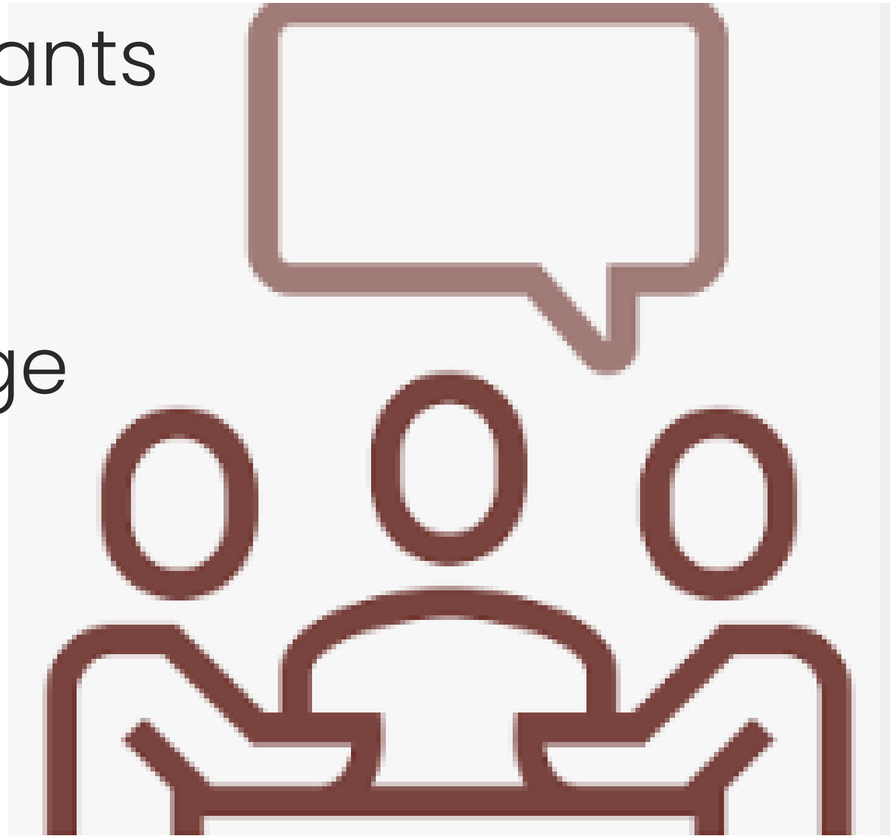
- Keep people at the center
- Plan & solve with a systems view
- Make research quick, interactive, personal, and action-oriented
- Identify solutions that align with habits and motivations
- Test solutions with users, learn, adjust, test again

Codesign

- All stakeholders as active participants
- in the design process

- Each member has deep knowledge
- about their own life experience

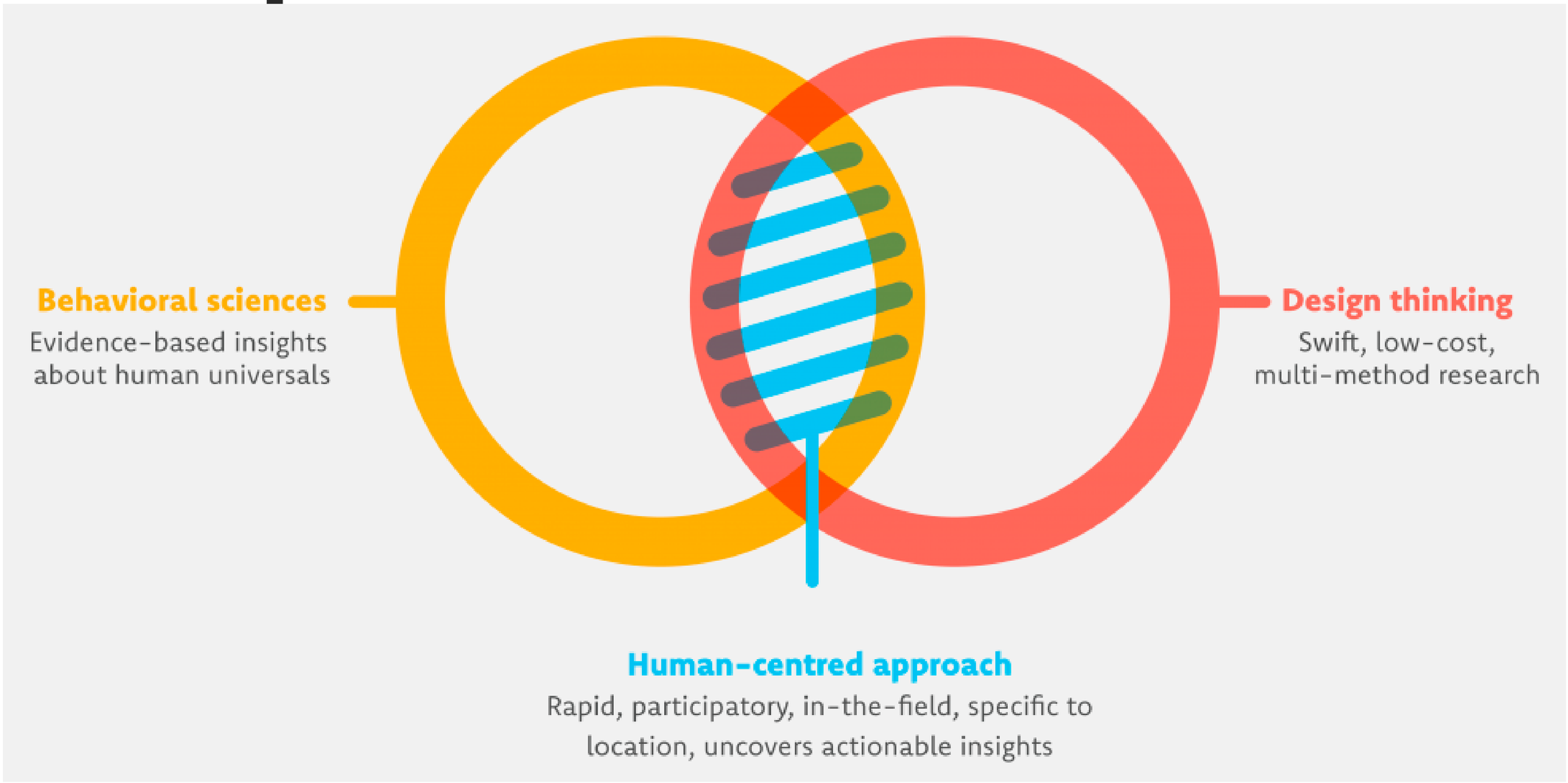
- Collaborative process



Tools for Codesign

- User Interviews
- Photojournals
- Journey Maps
- Brain storming

Principles



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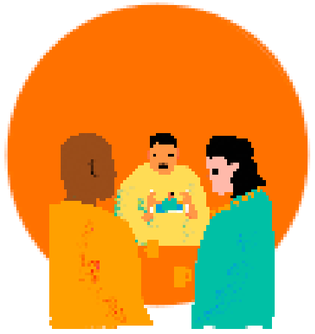
HCD overview

An iterative process with simple tools



Who are we targeting? What is our objective?

TOOLS:

1 OBJECTIVE

2 PERSONAS

What do we think we know? What do we still need to know?

TOOLS:

3 JOURNEY MAP

4 AREAS OF INQUIRY & DISCUSSION GUIDE

What stands in our way? What are opportunities?

TOOLS:

5 RAPID INQUIRY

6 SYNTHESIS

How could we respond? What do people think?

TOOLS:

7 IDEA GENERATION

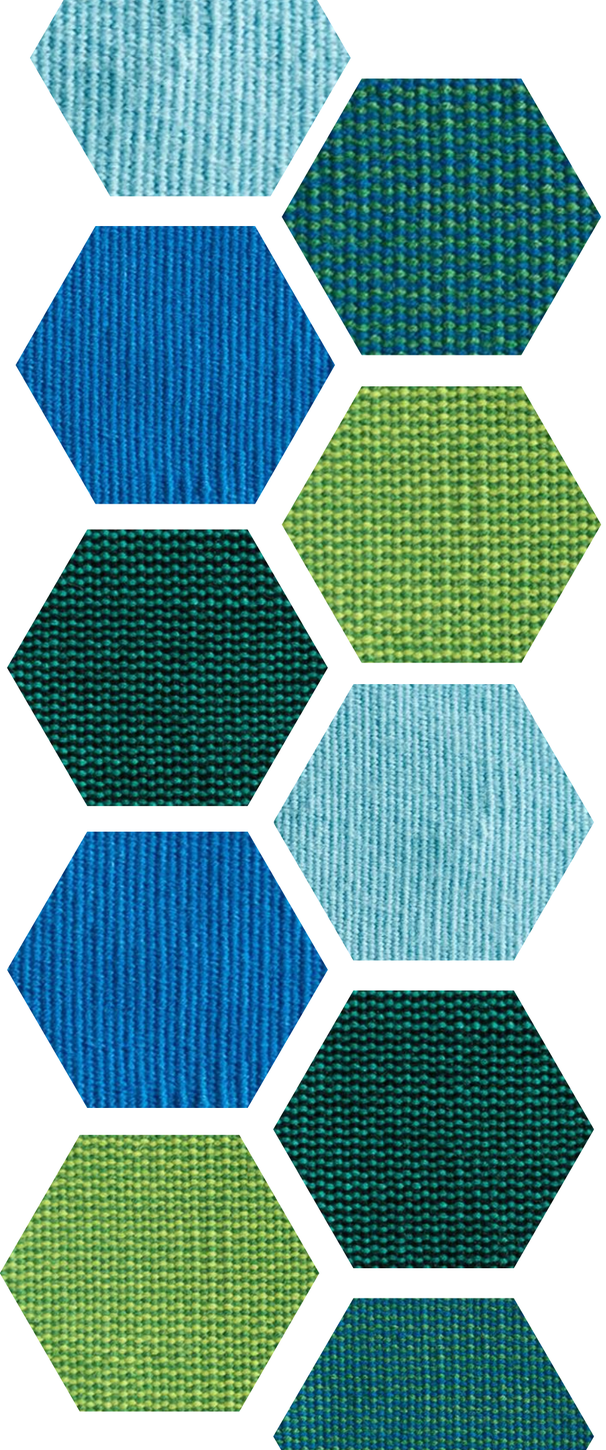
8 PROTOTYPE & FEEDBACK

How could we measure? How could we improve?

TOOLS:

9 PILOTING & ITERATION

UNICEF; Human Centred Design 4 Health



Practices from the field

Making preventative services a normal community practice

FOCUS

Urban poor populations; Immunization and integrated MNCH

PEOPLE

30 remote participants trained to conduct and teach the process

TRAINING

April 2021

LOCAL CHALLENGE

In Ethiopia, reaching zero dose and underimmunized families across vast geographies, languages and cultures requires tailored diagnoses and adapted interventions.

HCD RESPONSE TO CHALLENGE

While equity and coverage reports can show the patterns behind missed populations, HCD compliments to uncover the underlying reasons in order to shift behaviour and social norms.

Oromia Report

ETHIOPIA

SUMMARY OF THE ENGAGEMENT

At the 2019 Gavi Joint Appraisal meeting, a question surfaced: Why are children from the lowest socio-economic status not vaccinated or only partially vaccinated? Understanding the underlying causes was essential to improve EPI programme planning, and would inform MNCH programme planning as well.

A capacity building workshop (5-8 April 2021) was held to support the development of a system of tailored demand-generation interventions. Representatives from eight provinces attended to bring the methods back to their communities.

Throughout the training, human-centred design methodologies and tools were introduced to help stakeholders master community-focused opportunity identification and creative problem solving.

As part of the training preparations, HCD rapid inquiry methods were applied in the Oromia region to demand and supply side EPI/MNCH services. After an orientation and collaborative session to finalize research materials, a local team conducted interviews with 13 caregivers, 10 fathers, eight community leaders and nine healthcare workers to uncover local insights. Synthesized findings were shared with participants during the full training.

Having on-the-ground examples, quotes and perspectives allowed remote participants to understand the importance of hearing voices from the local communities and health workers. It also provided real, local data to practice synthesis, idea generation and prototyping methods during the training.

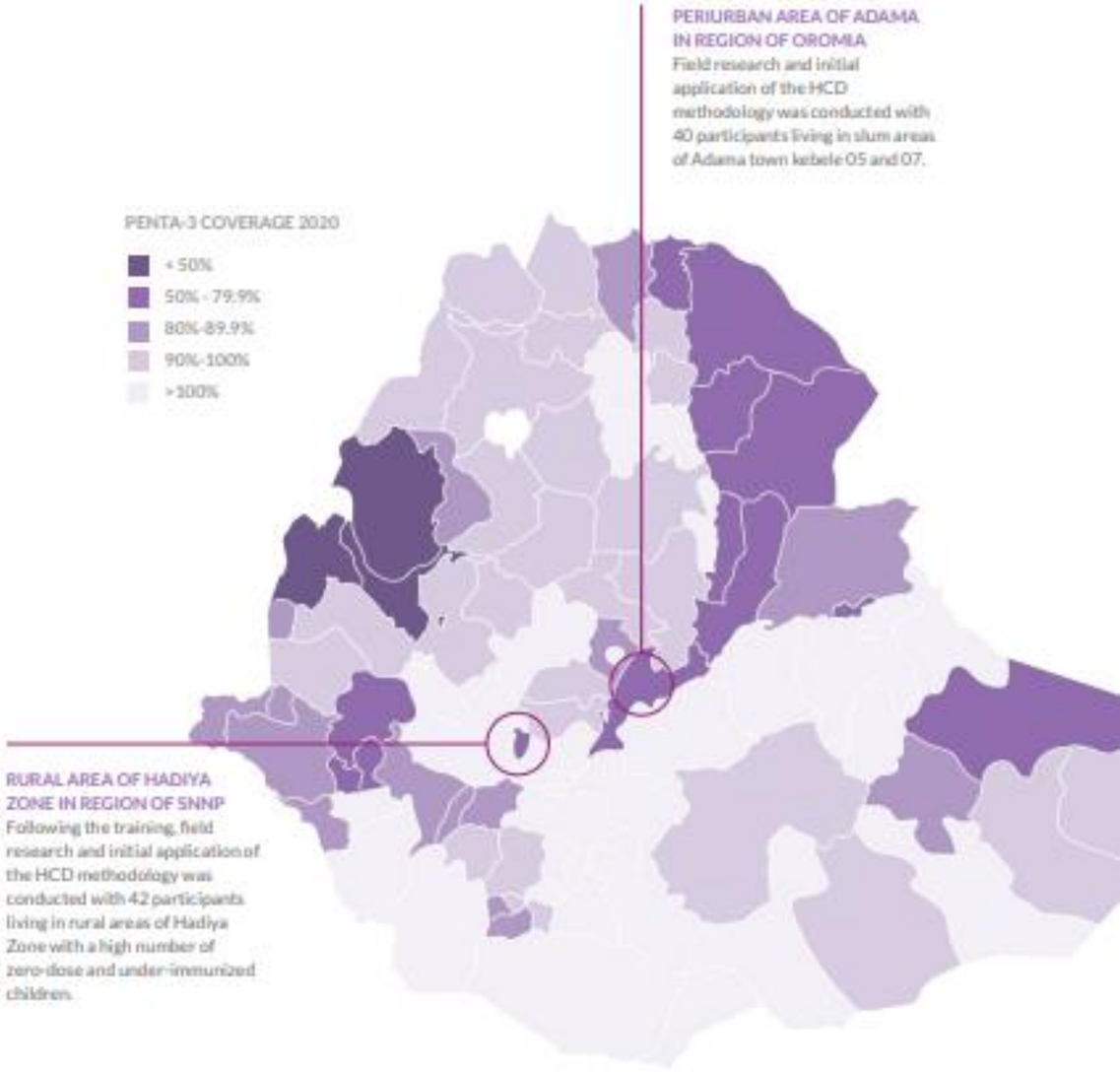


Fig xx: Penta-3 Coverage by administrative regions in 2020. In conjunction with the training, the HCD process was used to address local challenges in Oromia and SNNP provinces.

ETHIOPIA

A system of solutions to promote preventative care in Oromia's urban poor communities

In peri-urban poor communities in the province of Oromia, families often see health services as a worse-case-scenario option once a child is sick and cannot be cured by home remedies. While the overarching challenge is to change community norms from avoiding health services to seeking both curative and preventative services, this requires tailored solutions for each role in the community. The following creative prompts, which emerged from rapid assessment findings, were used to collaboratively generate tailored solutions.

Health worker opportunity: Instigate both the intrinsic drive and extrinsic cues to prioritize compassionate care. Health workers feel overworked, understaffed, and unsupported. They struggle to complete their daily tasks in both MNCH and EPI, so interpersonal skills go unconsidered, leaving caregivers intimidated by the clinic experience.

- How might we incentivize new, or recognize current, health workers?
- How might we design a more welcoming, reassuring, and efficient clinic experience?
- How might we help HCW coordinate with and benefit from outreach programmes and defaulter tracing systems?

Community leader opportunity: Align services with community needs and practices. This means making convenient dates and times for services and community-based reminders. It also meant community celebrations for families who have completed their vaccinations to recognize the importance of prevention.

- How might we involve the community in designing a service experience that is more convenient for them?
- How might we recognize immunization progress and celebrate the completed process?

Field research with heads of family and community leaders, Adama, Ethiopia, 2021

Fig xx: These quotes, gathered during field research, are examples used during idea generation sessions to ensure solutions respond to real people and real situations.

ETHIOPIA

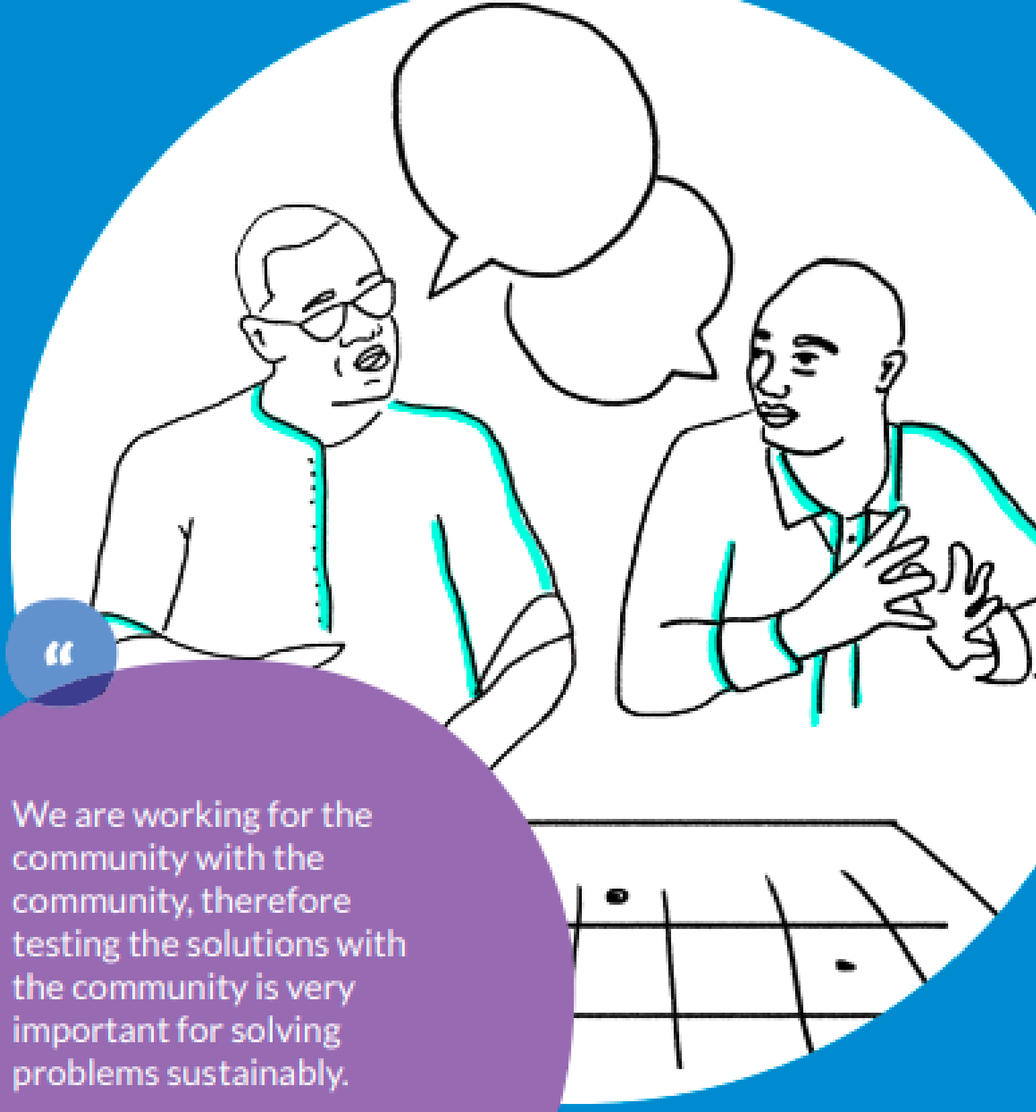
Father opportunity: Discuss health services publicly in the community. Most fathers didn't know when immunization services should be used, including for children and for postpartum women. Due to gender norms, fathers were not taken into consideration by their community leaders or health workers when it came to promoting immunization or pursuing appointments.

- How might we include fathers, religious leaders and clan leaders in health service counseling?
- How might we put fathers at the center of immunization conversations?
- How might we create engaging, helpful reminders for when families must seek health services?

Caregiver opportunity: Alleviate day-to-day tasks so she can prioritize future prevention over immediate loss in productivity. Going to the clinic requires travel time, long wait times, and missed house work.

- How might we reimagine vaccine cards as an object families will not lose? How might we redesign vaccine cards to ensure comprehension with limited literacy?
- How might we reduce the burdens (time and effort) of attending health services?
- How might we help mothers remember the appointment day? How might we make trips to the clinic a social event?

From these creative prompts, 130+ ideas were generated that addressed the issues from a systems-view. This system of tailored interventions solves issues beyond lack of information/awareness and addresses all key members of the community — not just caregivers.



"We are working for the community with the community, therefore testing the solutions with the community is very important for solving problems sustainably."

Mesfin Kassaye
C4D Officer, UNICEF Ethiopia

This illustration is the visualization of one of the prioritized ideas from the idea generation sessions to serve as a base for prototype development.

> The training should be given to health professionals who are providing the services. If they get this training I hope they can solve the challenges in the community from different perspectives.

Mesfin Kassaye
C4D Officer, UNICEF Ethiopia

RESULTS AND NEXT STEPS OF THE ENGAGEMENT

C4D representatives from the different regions within Ethiopia will use the approach to design key interventions for immunization and health as well as child protection, water and sanitation.
Additionally, there are specific initiatives underway:

Oromia: Adugna, a C4D field consultant at UNICEF Ethiopia, further trained local teams of HCW to apply the methods. Findings from rapid inquiry were used to enlighten and inspire idea generation sessions held with the community, including both health workers and caregivers. Next, physical prototypes will be developed for the most promoting ideas, and tested with the Oromia communities.

SNNP: Field research was conducted for rural poor communities in this province, and findings will be used for future idea generation sessions following the completion of work in Oromia.

Capacity building: The team has included HCD in the 2021 TA plans. Training will be held in three regions with the highest number of zero-dose children. EPI and FICO colleagues will be included as participants

Using Behavioural Science & Human Centered Design to Boost COVID-19 Testing and Vaccination

Maharashtra , Punjab : India March – July 2021

PATH

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India case study

- Understand the key enablers and barriers to COVID-19 testing among the target population
- Understand the conscious and non-conscious drivers of hesitancy or refusal towards COVID-19 vaccine for first and second shot
- Identify strategic levers for designing communication and service delivery protocols for boosting COVID-19 tests among the ‘right population’ at the ‘right time’
- Identify strategic levers for designing communication and service delivery protocols for boosting COVID-19 vaccine confidence in the target population to drive uptake

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Phase 1 : User Interviews

	18-29		30-59		60 and above		
	Nagpur Urban	Nagpur Rural	Nagpur Urban	Nagpur Rural	Nagpur Urban	Nagpur Rural	FLW
Barriers to Testing	2	1	2	2	2	1	+3
Barriers to Vaccination	1	1	1		1	1	
Vaccinated once - low intent for second				1	1		

	18-29		30-59		60 and above		
	Bathinda Urban	Faridkot Rural	Bathinda Urban	Faridkot Rural	Bathinda Urban	Faridkot Rural	FLW
Barriers to Testing	2	1	1	2	2	2	+4
Barriers to Vaccination	1	1	1	1		1	
Vaccinated once - low intent for second			1			1	

Phase 2 : Rapid testing and validation

Asha workers / CHWs	2
Vaccination Staff	2
Informal Doctor	1
Panchayat / Local leaders	2
Liaison between the govt and community	4
Barriers to testing	6
Barriers to vaccine	4
Vaccinated once	2

Insights

Opposed to testing

COVID is like a normal flu, we all have had these symptoms in life, no one dies of these things

View test as a mechanism to control

Indifferent to testing

Recognize the risk of COVID in general and to high risk family members but perceive low to no risk for self as they have strong immunity

View test as unnecessary

Delaying testing

Contracting COVID is a big concern which is dealt with by taking several steps to manage each aspect of it

View test as the last resort

Denying testing

Concerns around not being able to deal with a positive test result leads leads to complete avoidance of the chance of contracting COVID

View tests as too costly

Interventions

System Change

Onboarding of the Community Leaders

Leverage the inherent trust in local community leaders (panchayat, religious leaders, NGOs) to drive testing uptake in the community

Heath Focussed Approach

Establish testing as a medical decision that is communicated by local medical experts as compared to directed by state and enforced by police.

Institutional Quarantine Experience Guidelines

New Influencer

Doctor Recommendation

Encourage doctors, both formal and informal to suggest testing at the right time, leveraging goal alignment and the messenger

Medical Store Recommendation

Interventions

Users' Experience

Testing Decision Tool

Introduce a tool to help individuals to recognize the need for a COVID test in a more relatable, engaging manner.

Favourable Testing Narratives

Share category specific stories of people taking a COVID test and their journey reframed as getting a positive test to be a step to control the illness.

Testing Journey: Behavioural Guidelines

Leverage the various touchpoints of the testing journey to encourage positive testing/COVID appropriate behavior and drive coping ability

Caregiver toolkit

Insights

Vaccine is irrelevant

Perceive themselves to be at low risk of COVID, especially of severe illness. They feel the vaccine is irrelevant to them as they may be young, have high immunity and engage in healthy behaviours.

Vaccine is scary for me

Perceive high risk of COVID given the high caseload and death rates around. Their old age, medical condition and comorbidities contribute to high risk of COVID. They anticipate several risks of worsening health condition and view the vaccine as scary.

Vaccine is ‘costly’ alternative

Perceive mid to high risk of COVID but consider their current actions to be sufficient to manage it. They view vaccines as a ‘costly’ alternative, as they see it as merely preventive, and feel the vaccine will disrupt the sense of control and certainty they have managed to achieve.

Vaccine is a scam

Perceive low risk of COVID, this category also consists of individuals who do not believe in the existence of of the disease at all. They view the vaccine as untrustworthy as there is a significant amount of distrust in the government, health system and pharmaceutical companies.

Interventions

Addressing information gaps

Barrier Focussed Communication Campaign

Vivid campaign focussed on relevant emotional benefits of taking the vaccine, customized to 4 barriers narratives and reframing side effects

Managing myths & misinformation

Localized Community Misinformation Management

Create a local committee leveraging trusted people in the community to reduce spread of misinformation through tracking and debunking vaccine myths

Reframe Uncertainty as an Opportunity to Act

Manage AEFI and Related Narratives Locally

Create Positive Stories to Reduce the Dissonance

Enabling better trade-offs

Customized Communication Approach for Field Workers

Transition 1-1 FLW vaccine conversation to start with an understanding of specific barriers and myth and provide customised benefits to drive uptake

Encouraging advocacy and adherence

Vaccine Experience - Behavioural Guidelines

Builds on existing vaccination site guidelines, to ensure a uniform positive experience, extending advocacy to family and 2nd short adherence

3 Truths in incorporating human-centered design in the field

- HCD emphasizes skills that re-frame the relationship between design and implementation.
- While there is no absolute agreement about what the 'human' part means, it often refers to involving stakeholders, boosting human skills, and keeping human values in mind.
- HCD is a flexible but disciplined approach to innovation that prioritizes people’s needs and experiences when designing complex systems.

HCD Environnemental Adaptations

- **Adapt environments to suit people's needs**: When there are long wait times in immunization clinics, people tend not to complete their immunization course. In Lagos, Nigeria a local clinic created a special immunization station for caregivers after checking in at reception. This eliminated the need for the usual procedures of taking a patient's history and administering a physical examination and led to a 24% increase in the number of vaccines administered monthly.

- **Reduce cognitive burden**: In poor areas of Pakistan, low parental literacy is a challenge for vaccination programmes. To address this barrier, researchers redesigned educational materials given to caregivers. The redesigned materials consisted of easy-to-understand pictorial cards with only three messages for mothers to process.

- **Minor details have an outsized impact**: In Pakistan, data showed a significant drop-off between infants' first dose of diptheria-tetanus-pertussis (DTP1) and the 3rd dose. The common challenge was the physical reminder card caregivers received after the first dose – it was difficult to interpret. The standard card was too small when folded; the information was crowded and disorderly. The revised card was larger, used bright stickers w/ larger font, and included only essential information.

Key References and Resources

- Unicef : Human Centred Design 4 healthhttps://www.hcd4health.org/guiding-principles

- Health Design Thinking 2nd edition, Bon Ku, MD & Ellen Lupton , Cooper Hewitt 2022