Demand Side Thinking + Human Centered Design

BILL & MELINDA GATES foundation

WHAT DO WE MEAN BY DEMAND?

Reflecting on the Foundation's investment track record – the uptake of the products, services, and interventions we support have often not resulted in the uptake necessary for impact.

And so several years ago we began to question, how can we better accelerate the uptake and impact of the products, services and interventions we support?

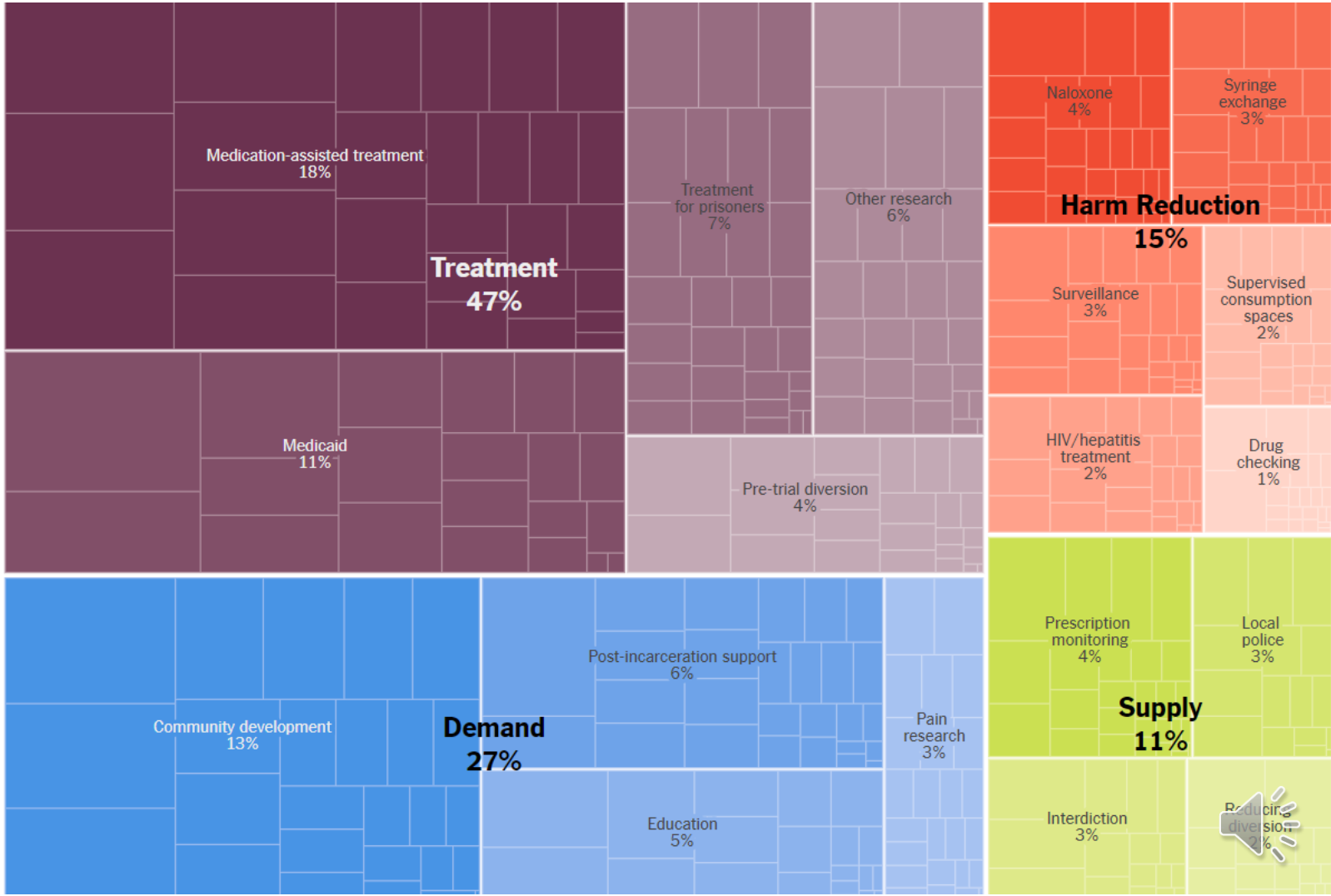
A number of successful projects

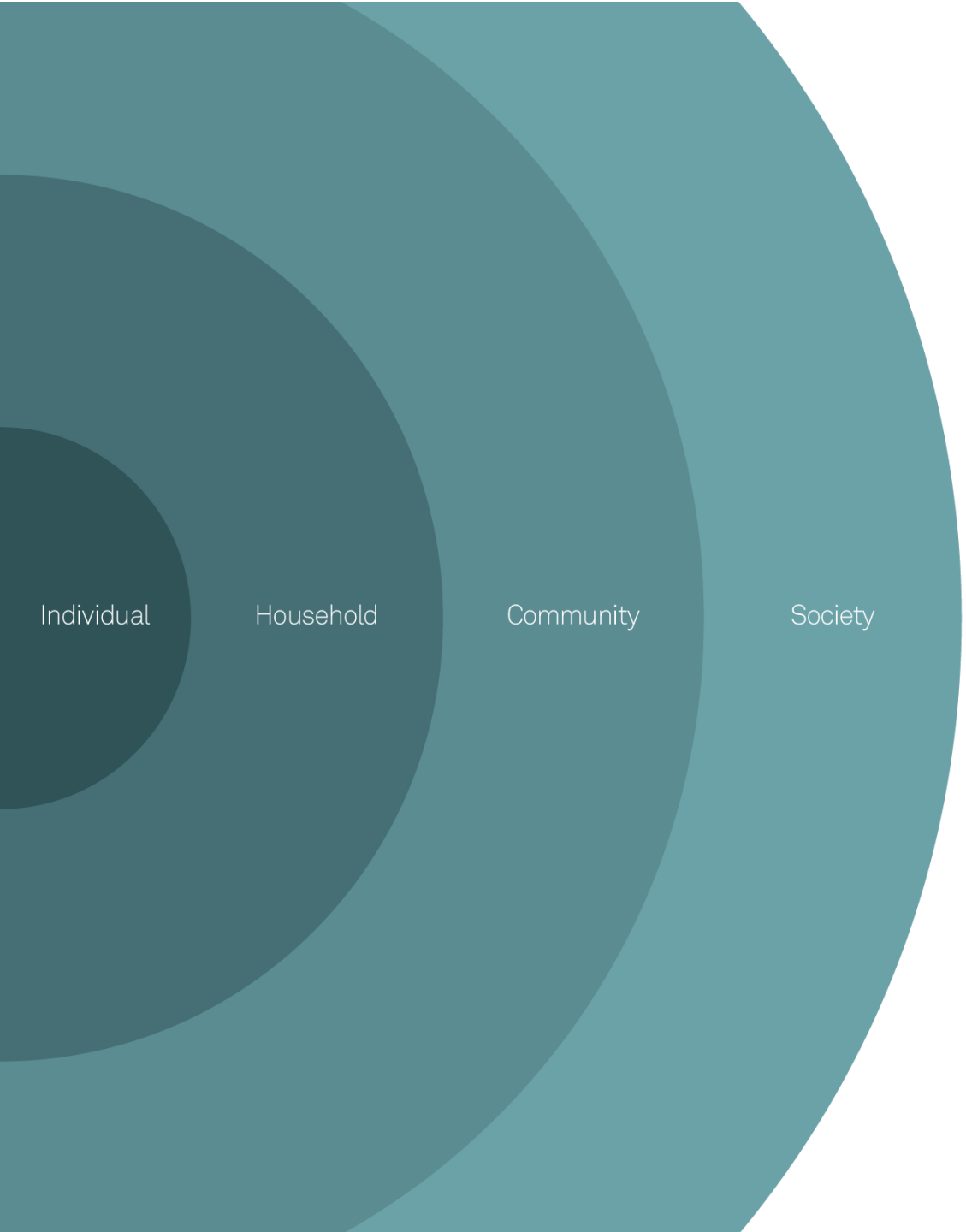
Some that were not game-changers

DEMAND AS AN INTEGRAL PART OF WORK IN HEALTH

The NYTimes asked 30 experts to think big, but realistically, about solutions to the opioid crisis. They were asked, given the opportunity to spend $100 billion over five years — a little less than current federal domestic H.I.V./AIDS spending — how would they spend that money?

This in the aggregate is their answer.





The value of demand-side thinking is in uncovering and understanding the multiple contexts that affect why people behave the way they do and respond accordingly

Definition of demand

Our working definition of "demand-side thinking and actions"

Demand-side thinking and actions increase user uptake and sustain behavior change by understanding and adaptively responding to people in their contexts

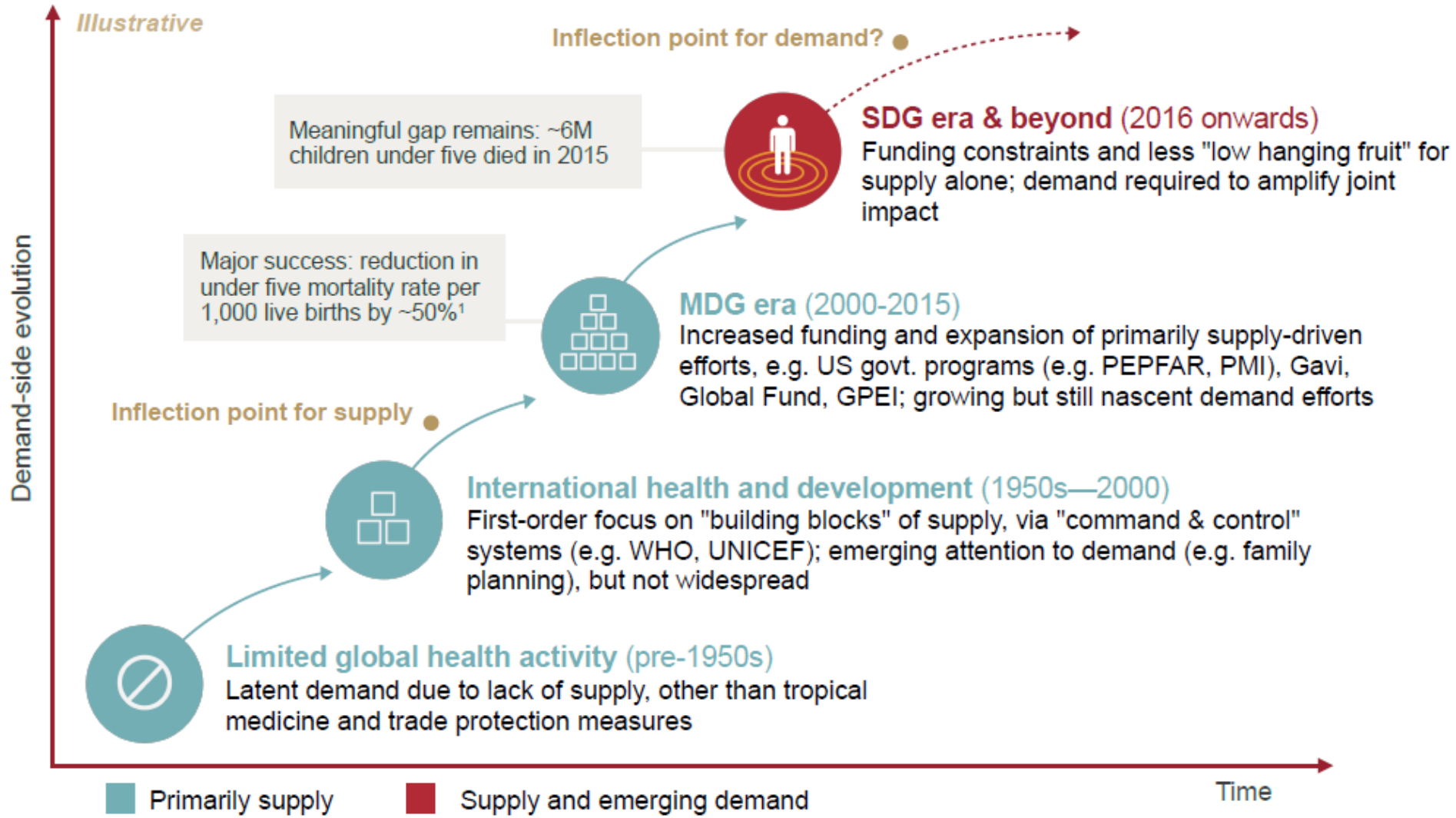
Definition of demand

Demand is complementary to supply; balance depends upon context and changes dynamically over the intervention life cycle

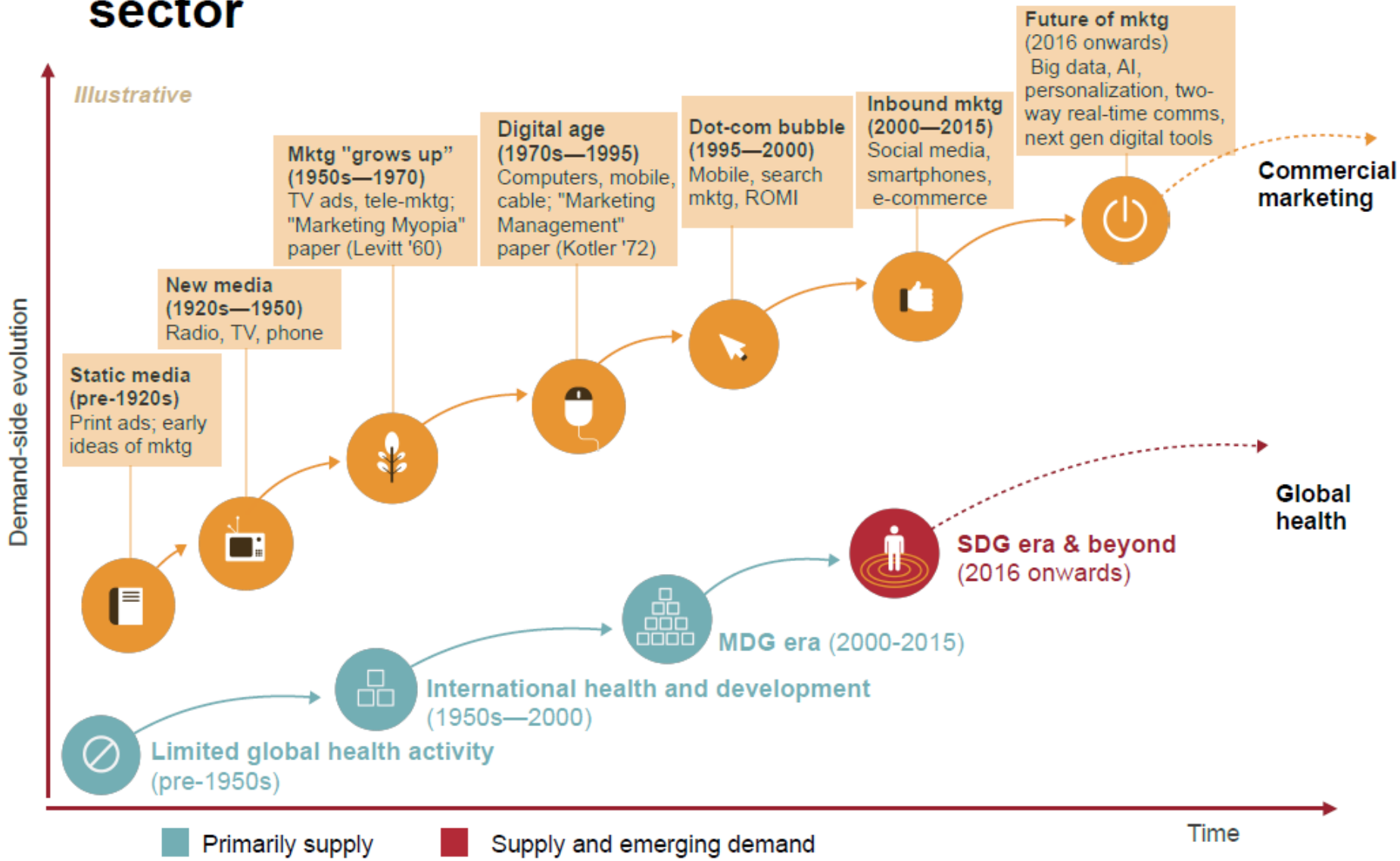
Supply-side	Demand-side
Availability of quality, affordable, and effective global health interventions	Users and influential others empowered, willing and able to take up and benefit from interventions

THE JOURNEY TO DEMAND

Global health historically rooted in supply with some examples of successful demand-side work

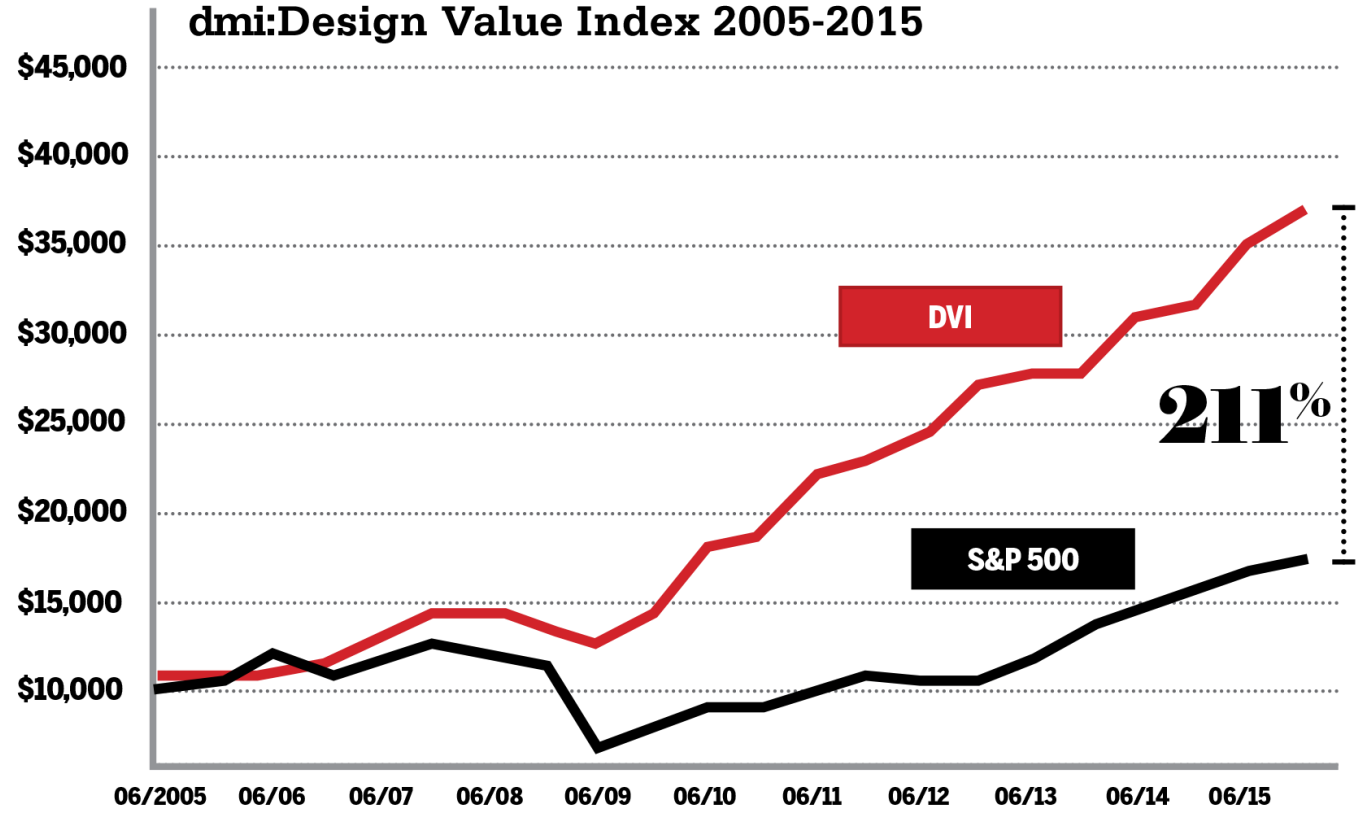


Demand in global health lags behind commercial sector



DESIGN AS COMPETITIVE ADVANTAGE

DESIGN-CENTRIC COMPANIES:
APPLE
COCA-COLA
FORD
HERMAN-MILLER
IBM
INTUIT
NIKE
PROCTER & GAMBLE
SAP
STARBUCKS
STARWOOD
STANLEY BLACK & DECKER
STEELCASE
TARGET
WALT DISNEY
WHIRLPOOL



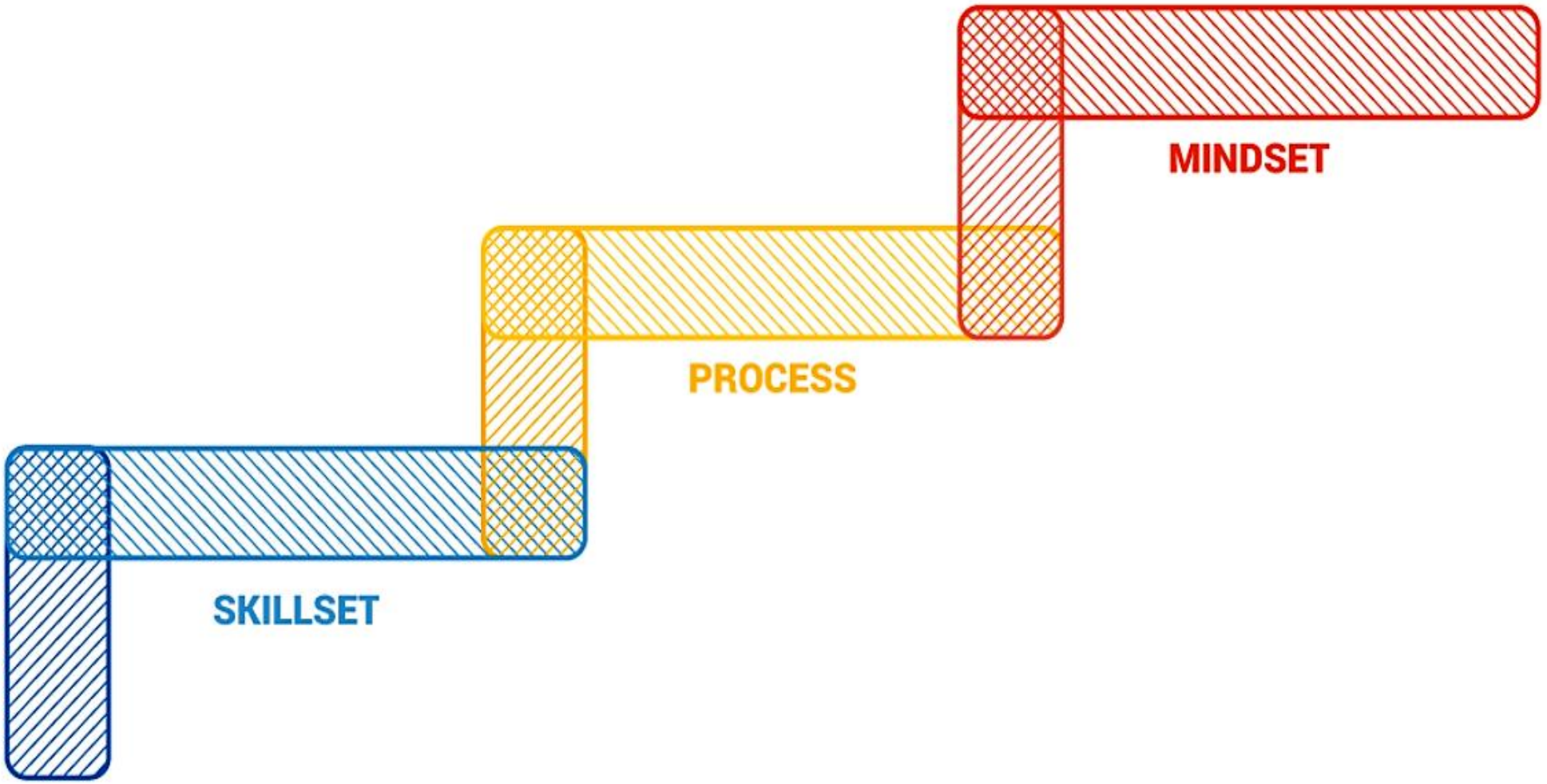
The Design Value Index shows that companies that embrace design understand their customers better than those that don't. As a result, they grow faster and with higher margins and recover faster during economic downturns.

DESIGN FOR REVENUE AND PROFIT

The value of design to business is clear. For every £1 invested in design, businesses might achieve as much as £20 in increased revenues, a £4 increase in net operating profit and a return of £5 in increased exports.

HUMAN CENTERED DESIGN – ONE APPROACH TO DEMAND

WHAT IS HUMAN CENTERED DESIGN?



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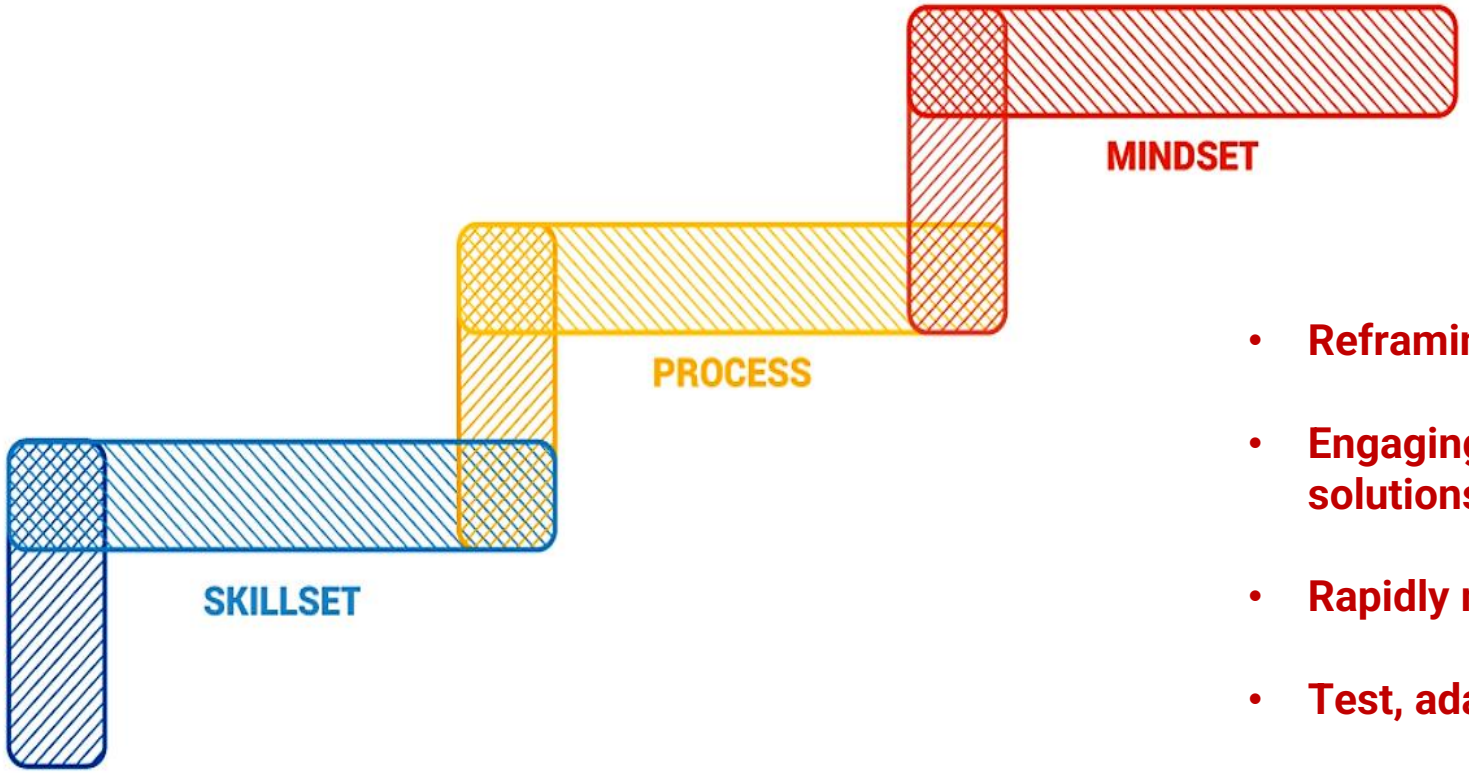
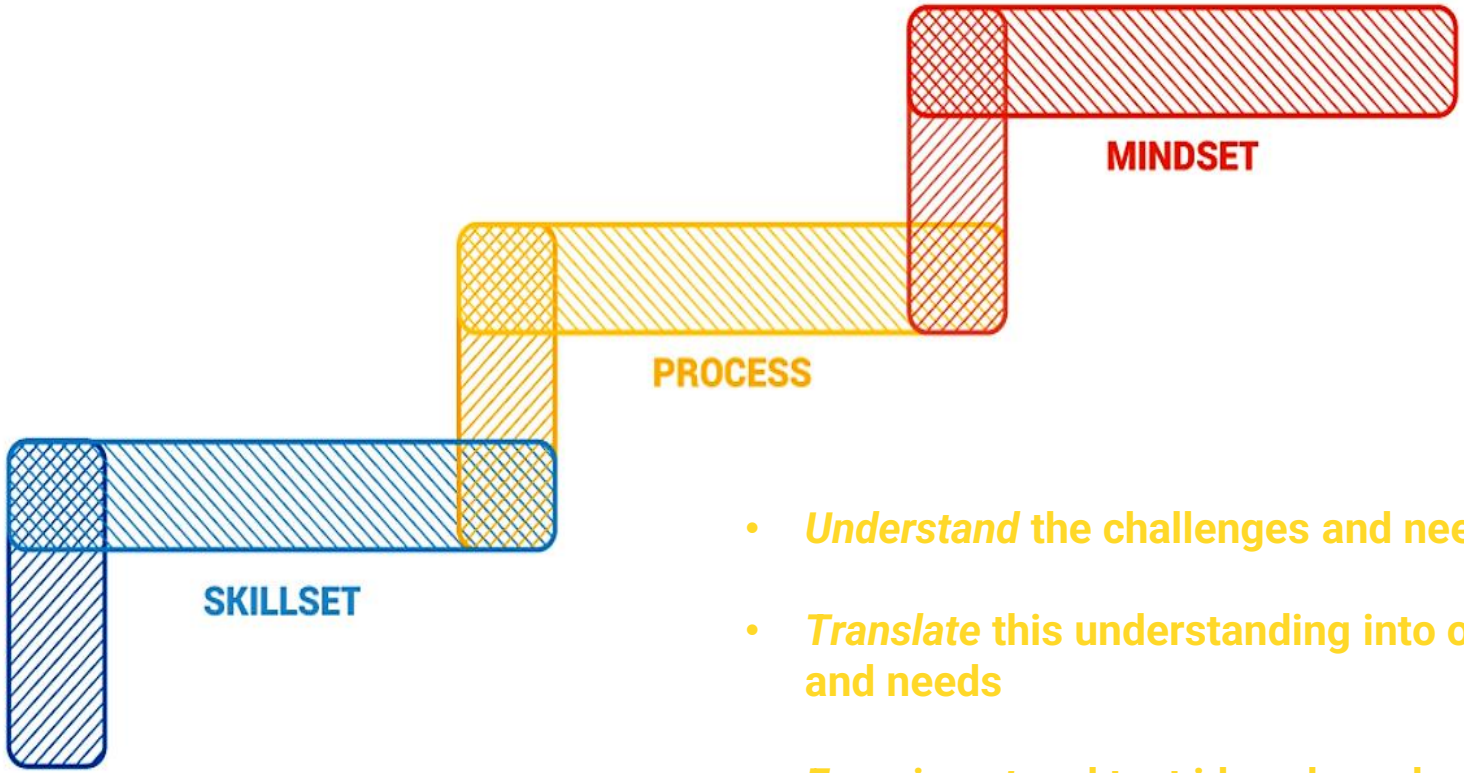


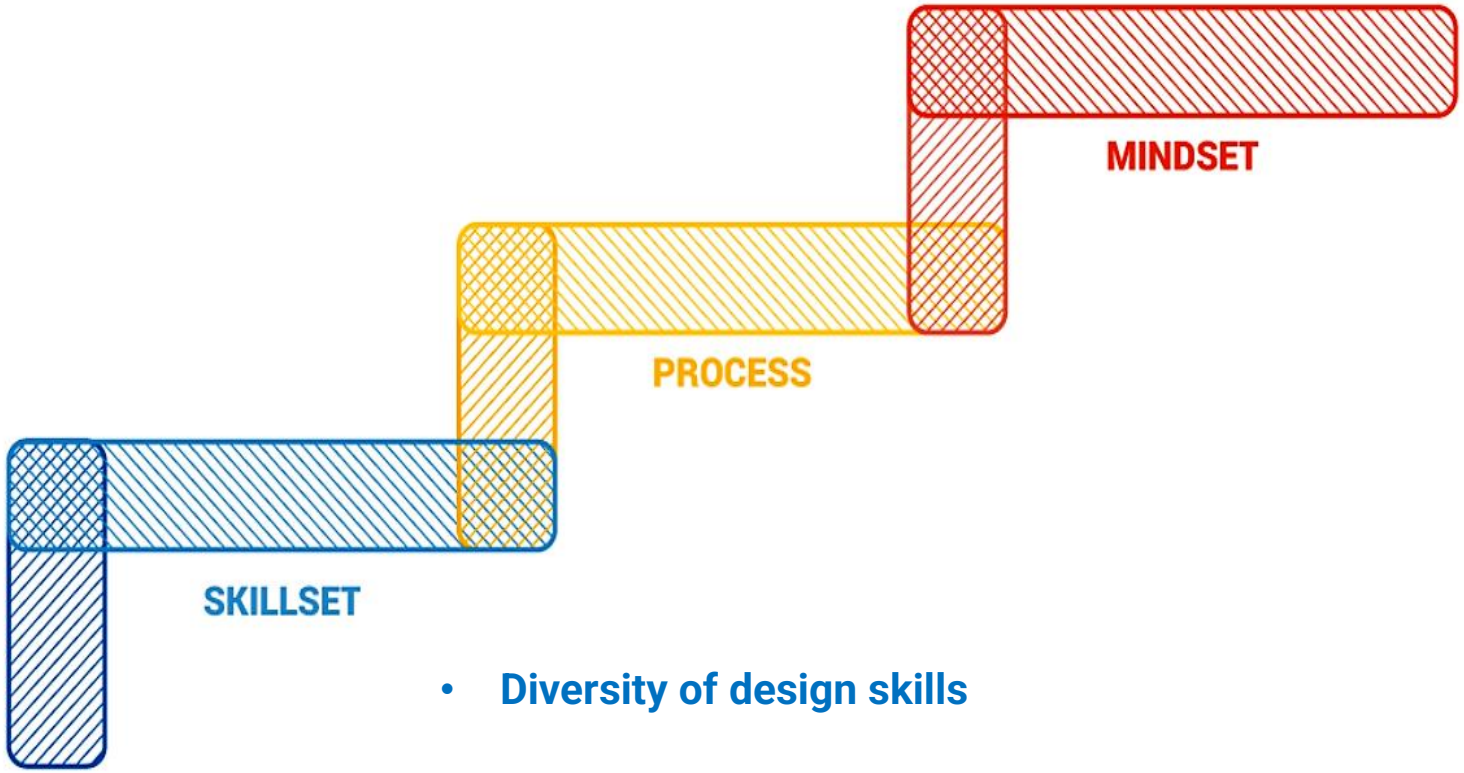
- **Reframing challenges and questioning assumptions**
- **Engaging people in the process of developing solutions**
- **Rapidly move from insights to action**
- **Test, adapt, and improve directly with end users**

WHAT IS HUMAN CENTERED DESIGN?



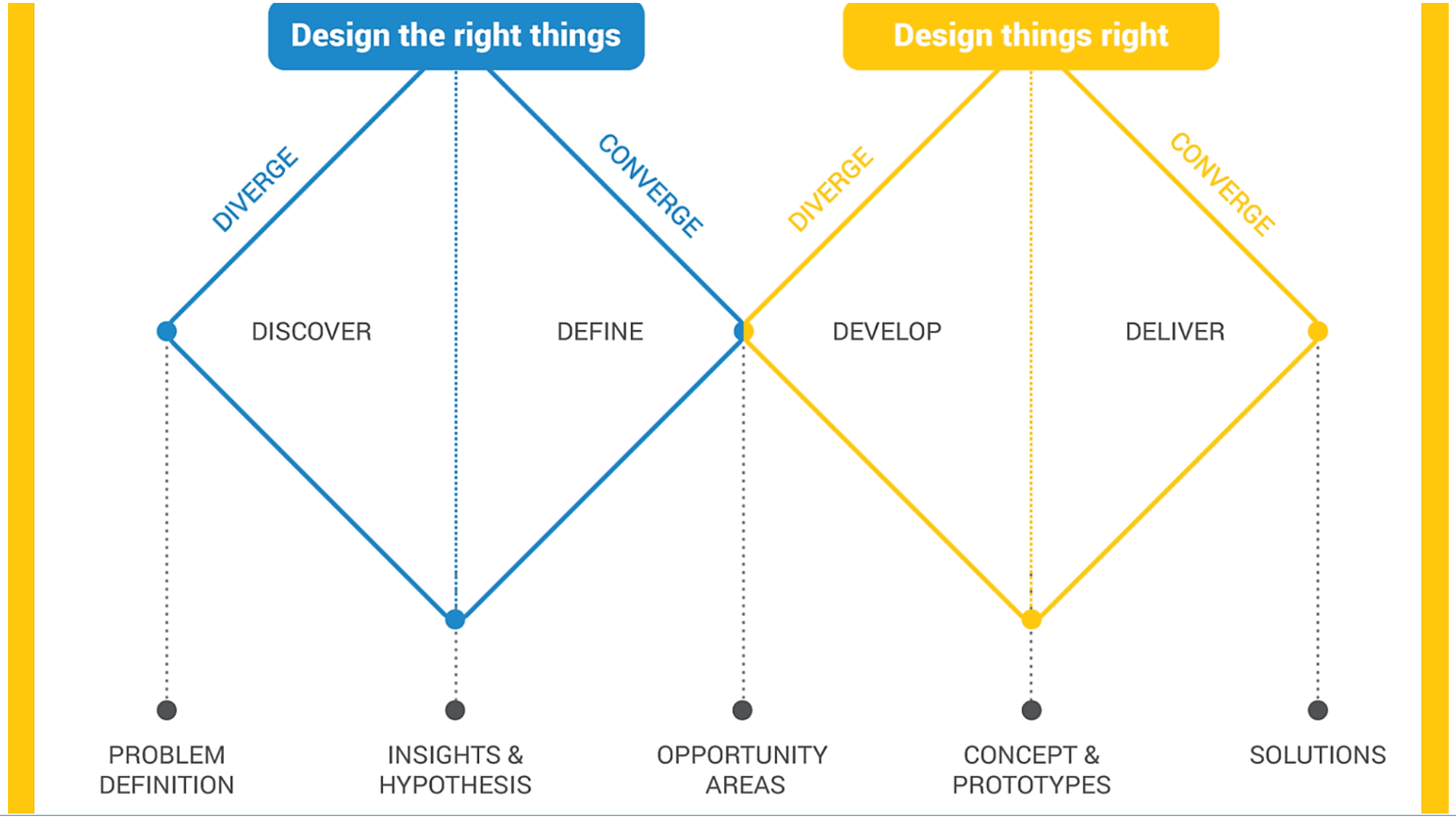
- *Understand* the challenges and needs of people and systems
- *Translate* this understanding into opportunities that address these challenges and needs
- *Experiment* and test ideas based on those opportunities
- *Implement* already vetted solutions

WHAT IS HUMAN CENTERED DESIGN?

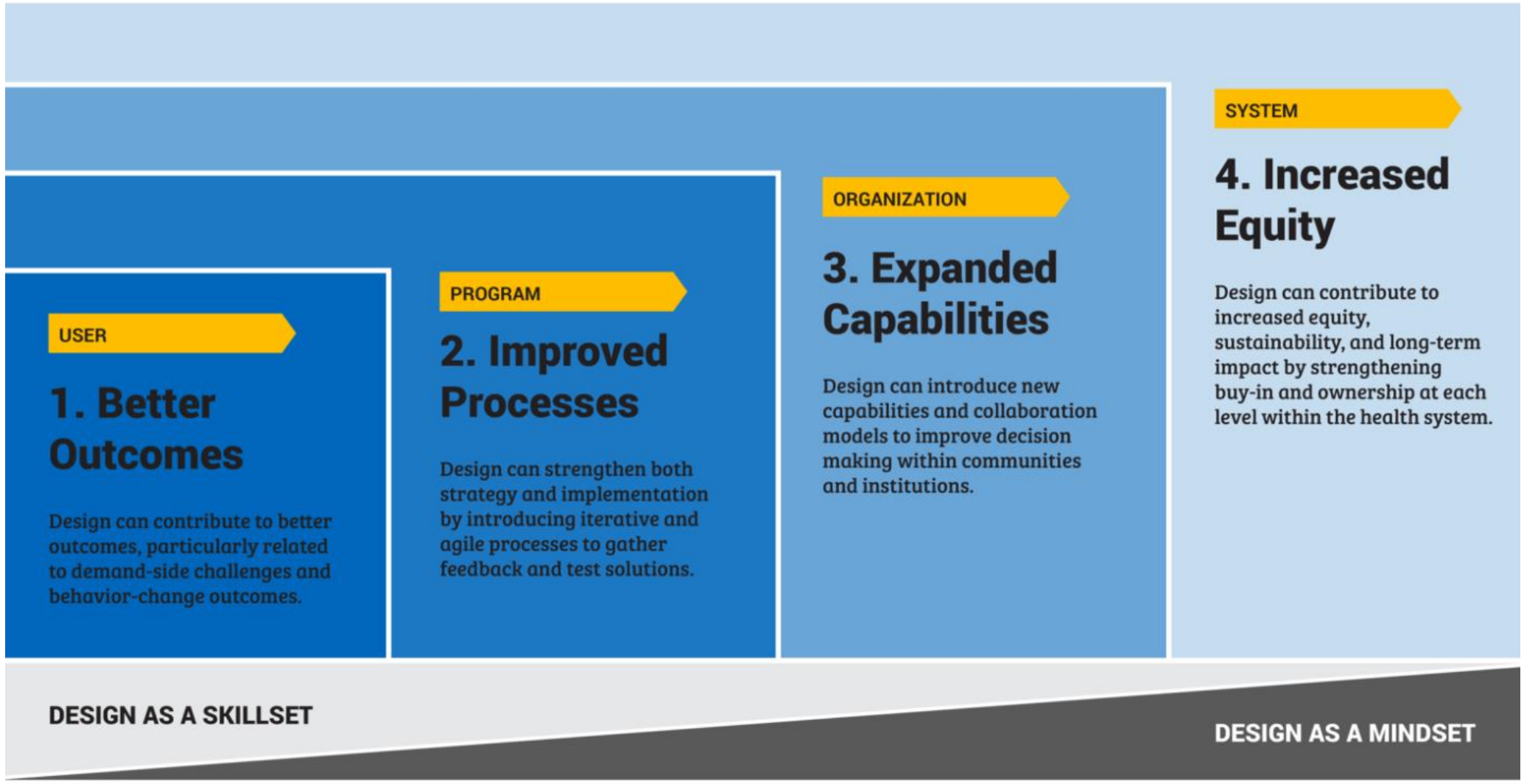


- **Diversity of design skills**
- **Apply different skills, based on specific challenges and across different project stages**
- **Look for a depth of knowledge in one or more design specializations**

WHAT DOES DESIGN LOOK LIKE IN ACTION?



WHAT IS THE VALUE THAT DESIGN BRINGS TO GLOBAL HEALTH?



SOME EXAMPLES

pathways

Revealing social and environmental factors
that impact vulnerable families
on their pathways to improved health

RAPID TRANSITIONS AND THE VULNERABILITIES THAT COME WITH THEM

The fast pace on the road to fulfilling society's expectations

> **We had been dating about four months and we felt that it was now time to start living on our own home. A month later I found out I was pregnant.**

MEET GRACE

We had the opportunity to meet Grace three times.

When we met her for the first time, she grieved the loss of her baby, who died following an emergency delivery during transit to the public facility.

The second time we met Jane, she felt both physically and emotionally stronger, despite being rejected by her mother-in-law who blamed her for the death of her baby. It was at this point that she wanted to share her delivery with us, from her perspective.

The third time we spoke with Jane, she announced news of her second pregnancy.

GEOGRAPHY

Kiambu, Kenya

DEMOGRAPHY

22, Female, Married
3rd born in family of 5,
born 4 hours from her marital home

People at home:
Lives with husband, 24 years old
Lives in his family's compound with her mother in-law (MIL) and grandmother-in-law (who is a TBA).

PATHWAY

Aspirational Pathway

KEY FACTORS

Social
Raised by a single mother
Tension with mother in-law
Lack of husband's advocacy during labour pains

Lack of in-home female companion

Health
Pre-term baby (6 months, 1 week)
Emergency delivery on way to facility
High adherence in ANC
Low understanding of delivery signs
Child death
Verbal abuse due to child death

Environment

Distance to health facility

WHY THIS CASE?

Grace recently lost her first child, after giving birth next to a bus stand on the roadside, on her way to the nearly public facility.

That vulnerable moment was influenced by her new environment after her marriage. During the two visits, she shared how she reflected on the experience, understanding what led up to her emergency delivery, and sharing the many contributing factors with us.

The loyalty and emotional support from her husband helped Grace to heal. All of the learnings from there tragic experience will influence how they approach future pregnancies, incorporating them into better care-seeking strategies.

1992: Born in Kinangop (4 hours from Kiambu)

Third born of 5 children

Father dies during her secondary school years and she is raised by a single mother

Parental loss

Separation from siblings

13

FIRST BORN MOVES FOR WORK

Graduates Form 4

Financial insecurity in the home

LACK OF FUNDS FOR CONTINUED SCHOOLING

18

A Detail Journey: Grace's first year away

Moves to Kiambu to visit family and looks for work opportunities

Lack of employment opportunity in the rural space

Movement for work

High mobility

LOSS OF MATERNAL SUPPORT

18

ABSORBED BY COUSIN

Starts working in a cafe

Financial stability

FINANCIAL INDEPENDENCE

18

Meets a boy who works at a butcher shop while on-the-job. They date and she officially meets his family and moves in with him after 4 months.

Quick transition into marital home

Limited relationship experience

INCREASE EXPOSURE

19

MARRIAGE TO PROGRESS

B Detail Journey: Grace´s pregnancy

Becomes pregnant after one month of living together

Limted time to adjust to new role as wife prior to pregnancy

Lack of knowledge around pregnancy and health

19

LIMITED NEGOTIATION AT HOME

She has an accidental delivery in transit to the hospital at 6 months

Difficulty expressing pain in new environment

Lack of awareness of danger signs

Difference to MIL and husband for decision-making

DELIVERY ON THE SIDE OF THE ROAD

19

Baby is taken to a health facility and dies in the hospital after 24 hours in incubation

Lack of diagnosis and understanding around cause of the baby's death

CHILD DEATH

Grace's mother travels to visit her in the hospital

19

Husband's family blames Grace for the emergency delivery and death of her child

Verbal abuse from her mother-in-law

Grief and immense emotional distress

Ben supports Grace and they plan to move out

20

EMOTIONAL DISTRESS

While taking Grace to a facility visit, her husband injured his foot, keeping him from his job at the butcher shop.

Motorbike accident

FINANCIAL DEPENDENCY ON BEN'S MOTHER

20

Grace and her husband grew closer and she returned to school

Emotional support and investment in her education

Husband returns to work at the butcher shop

21

She found out she was pregnant and started to go to ANC after 3 months

Proactivity around ANC

21

When COVID-19 hit Grace was told not to return until delivery, and her husband lost his job

Lack of financial support

Lack of health system support

21

NO ANC VISITS UNTIL DELIVERY

KEY: IMPACT SOCIAL FORMATION

Social factor *Health factor* *Environmental factor* *Birth*

Mitigating factor *Amplifying factor* *Base vulnerability factor*

Detail Journey A: Grace's first year away: from graduate, to girlfriend, to wife, to daughter, to new mother

After completing her Form 4 education, Grace followed in her sister's footsteps by looking for opportunity in the city. Her cousin offered her a place to stay near Kiambu town, so she took the chance.

1 JANUARY

"When I first came to live with my cousin, it was to have been for just a short visit, not to stay long. But fortunately I got a job so I moved here to work.

-Grace

WHAT IT MEANS

With younger siblings and a mother who was struggling financially, Grace took the opportunity to start earning.

Not long after arriving, Grace was offered a job in cafe and slowly begins to gain financial independent.

2 FEBRUARY

"A friend of my cousin's told her that she knew of someone who was looking for a person to work for her. That's how I ended up working at the café.

-Grace

WHAT IT MEANS

Grace was very used to cooking for her mother in siblings, but working in the cafe was much different, much more exciting, with new people in and out each day.

Grace meets a young man who works in a butcher shop and orders from her cafe often. They get to know each other slowly, and eventually start spending most of their free time together.

4 APRIL

"I am the one who approached her first because it's hard for a woman to approach a man. When she came to the butchery we would chat, and eventually we exchanged phone numbers and continued chatting on the phone.

-Grace's Husband

WHAT IT MEANS

Grace had never had a boyfriend before, and enjoyed the companionship. She felt the most convinced by him when he introduced her to his mother and grandmother.

After four months of seeing each other, they decided to formalise the relationship, which meant moving into his *simba* on his family's compound.

7 JULY

"My age-mates are all married; I felt that I wanted someone to settle down with. So yes, I was searching. We had been dating about four months, and we felt that it was now time to start living in our own home. So she moved into my house and our relationship became official.

-Grace's Husband

WHAT IT MEANS

She was nervous moving into his family's home, anxious about what his family would think of her. They received her warmly, and re-arranged the family kitchen so that the

After one month in her new relationship and new home, Grace discovered she was pregnant.

8 AUGUST

"I waited for my monthly period, and since I am never late, I wondered why. So I went and got a pregnancy kit and tested myself, and I tested positive

-Grace

WHAT IT MEANS

Grace and Ben both felt excited about becoming parents together, knowing that this was the next step in their journey as newly-weds.

Detail Journey A: Grace's first year away: from graduate, to girlfriend, to wife, to daughter, to new mother

After completing her Form 4 education, Grace followed in her sister's footsteps by looking for opportunity in the city. Her cousin offered her a place to stay near Kiambu town, so she took the chance.

1 JANUARY

KEY FACTORS

- *Lack of financial support*
- *Lack of opportunities at her birth home.*

OUTCOMES

No possibility of university education and pressure to secure her future financially.

Not long after arriving, Grace was offered a job in cafe and slowly begins to gain financial independent.

2 FEBRUARY

KEY FACTORS

- *Movement for increased exposure leading to job opportunity*
- *High support network*

OUTCOMES

Financial independence after migration to the city.

Grace meets a young man who works in a butcher shop and orders from her cafe often. They get to know each other slowly, and eventually start spending most of their free time together.

4 APRIL

KEY FACTORS

- *Short dating period prior to a discussion marriage*
- *High communication with boyfriend*

OUTCOMES

Developed trust and shared their respective expectations for a marriage and life together.

After four months of seeing each other, they decided to formalise the relationship, which meant moving into his *simba* on his family's compound.

7 JULY

KEY FACTORS

- *Quick transition into home of her mother-in-law*

OUTCOMES

Limited time to develop ways to express, assert and negotiate with new family.

After one month in her new relationship and new home, Grace discovered she was pregnant.

8 AUGUST

KEY FACTORS

- *New to the in-law home environment*
- *Low emotional support from in-laws*

OUTCOMES

Short time between moving to the in-laws and get to know them and getting pregnant

Detail Journey B: Grace
First pregnancy and delivery

Proactive care-seeking at the beginning at the onset of her pregnancy and accompanied by Grace and her husband

Grace started to experience fluctuating pain in her abdomen and lower back. She was given a scan, was told that all appeared normal, and was sent home.

Grace's level of pain continued to intensify throughout the day. She communicated the pain to her MIL, who told her to wait for her husband to return form work, and to wait to leave for the facility until the morning.

Grace delivered her child while waiting for a matatu to take her to the public facility. Her MIL then took the baby on a matatu to the facility, and Grace was rushed on a boda to the nearest clinic (private).

It is has been said that the baby sustained a fall and head injuries during delivery, ultimately died while in the hospital after about 24 hours.

1 MONTH PREGNANT

KEY FACTORS
- *Open communication with husband*
- *Man accompany woman to ANC visits*
- *Joint investment in maternal and child health*

OUTCOMES
ANC adherence

CARE-SEEKING
Strong desire among couple to do the "right thing" during pregnancy

6 MONTHS PREGNANT: MONDAY

KEY FACTORS
- *Lack of advocate during clinic visit*
- *Lack of conversation about danger signs from health worker*

OUTCOMES
Limited understanding of pregnancy warning signs

CARE-SEEKING
Lack of appropriate diagnosis and identification of danger signs

6 MONTHS PREGNANT: THRUSDAY

KEY FACTORS
- *Lack of agency to go to facility on her own*
- *Separation from maternal family and people who know her best*
- *Lack of trusted female support during crisis*

OUTCOMES
Not able to go to the facility despite expressing the need of her wanting to go.

CARE-SEEKING
Prolonged departure to the facility

6 MONTHS PREGNANT: FRIDAY

KEY FACTORS
- *Lack of communication with Mother in Law*
- *Lack of aligned decision making*

OUTCOMES
Emergency delivery followed by separation of mother and newborn

CARE-SEEKING
Pre-term delivery leading to infant hospitalization

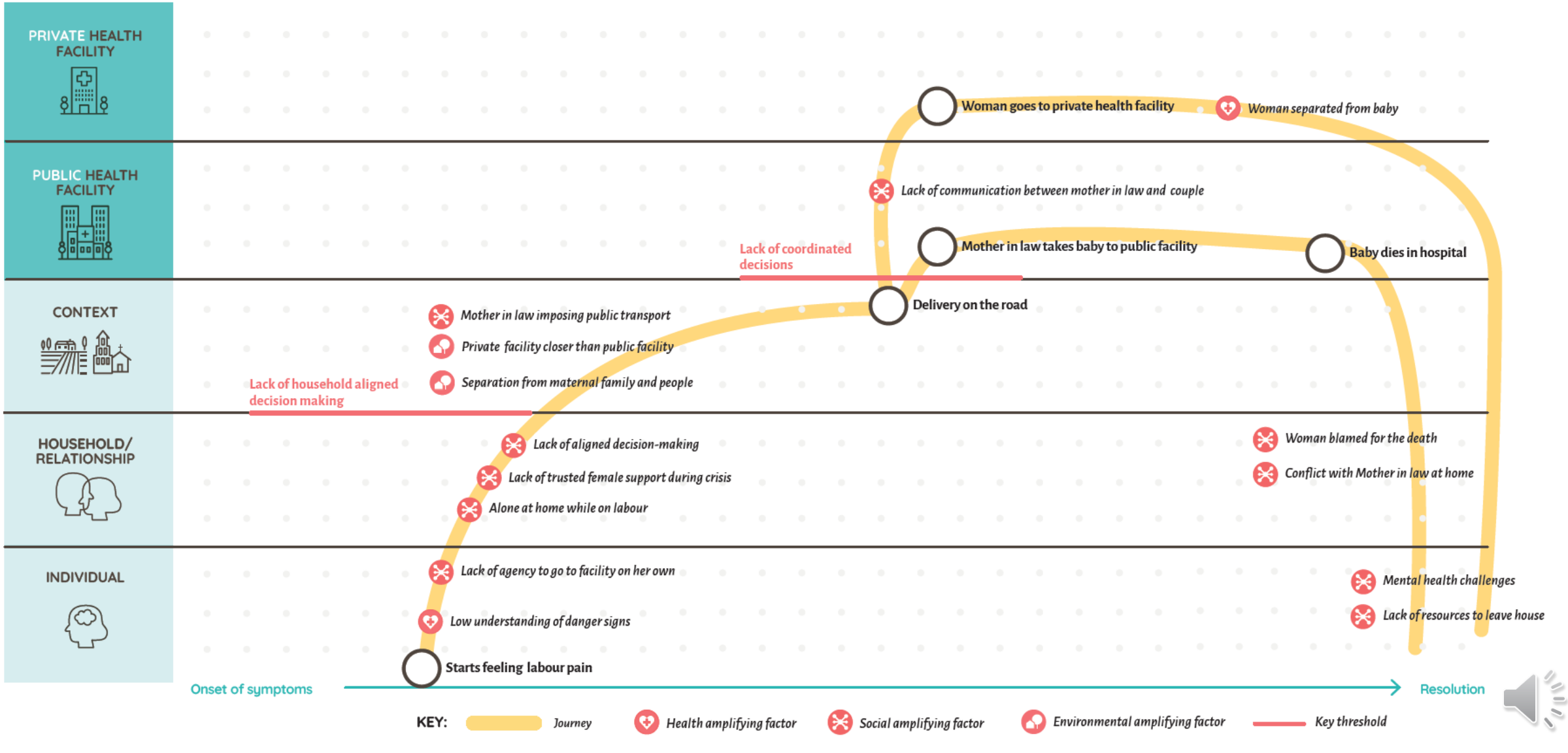
6 MONTHS PREGNANT: FRIDAY

KEY FACTORS
- *Child death*
- *Emotional distress/blame for the death*
- *Conflict with mother-in-law at home*
- *Maternal emotional support*

OUTCOMES
Child death and mental health issues at home

CARE-SEEKING
Lack of follow up for physical and emotional maternal health

Thresholds during labour and delivery



The Next

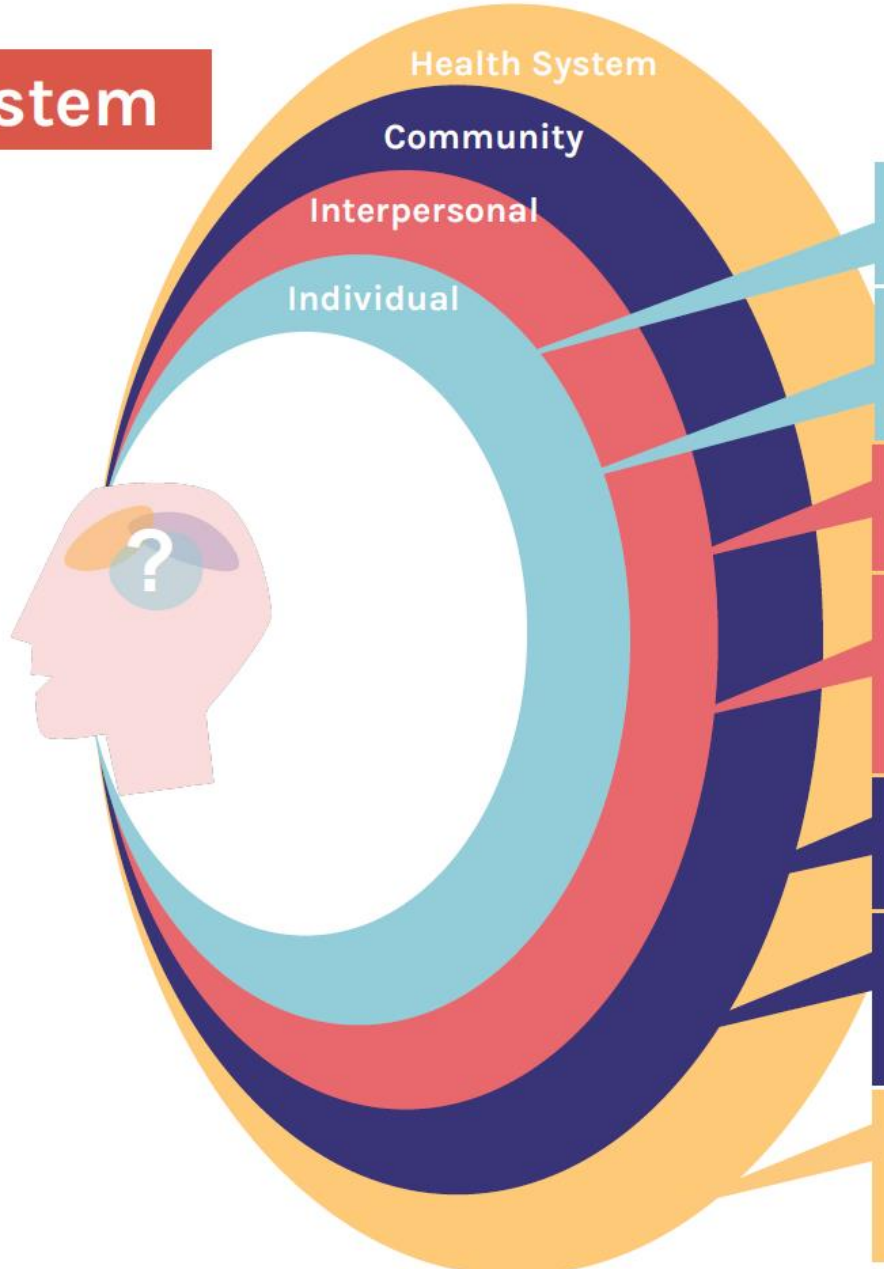
The Next T project

The Next T project uses human centred design and creative problem-solving approaches to:

1. Understand the barriers to testing for HIV, subsequent linkage to care and adherence to treatment for adolescents and young adults in Tanzania.

2. Develop innovative solutions that support stakeholders along the HIV cascade.

Barriers Ecosystem



Learning 1:
People believe HIV is inevitable.

Learning 2:
People believe being HIV+ equates to death.

Learning 3:
A young person's circle of trust is small.

Learning 4:
Danger to relationships: AGYW face abandonment, financial distress & violence.

Learning 5:
Shunned by the community.

Learning 6:
The pressure of societal norms makes girls hide the realities of their sexual lives.

Learning 7:
Confidentiality is compromised at so many levels in the design of testing and care services.

The **bloated perception of barriers** that people believe they will face along their journey to testing and care, prevents them from testing way before they actually face those barriers. As a result **the first test is the hardest. (Learning 8)**

Problem: Loss to Follow Up

Counselor

1. During formal training, counsellors are advised that they should assess the individual needs of clients. However, there are no sessions or exercises to teach them how to do so.

2. During counselling, counsellors provide information about the relevance of medication for living with HIV in terms of its effect on immunity and prolonged life. There is little information about other barriers of the ecosystem that clients face as identified by the Next T research.

Client

2. After testing positive for HIV, fear of death might be one of the primary fears, but accepting the result, inability to disclose to family or partner, inability to provide for family and bear children, stigma etc. are equally relevant barriers, which are not addressed during counselling.

3. If barriers are left unaddressed, many HIV+ clients may find it difficult to start treatment or having started treatment, may not adhere to the required regime. For those who test negative, an unpleasant experience during the test might deter them from testing again.

Session 1

Building the Barrier Ecosystem

1 → 2 → 3

1. Listing down barriers

Participants were asked to reflect on their experiences and write down barriers that clients face in testing for HIV, linking to care and adhering to treatment. Note that in the original format of training PLHIV champions also participate in listing barriers.

2. Classifying barriers into levels

Each participant read out their barriers to the larger group, and through discussion the barriers were then categorised under the various levels - individual, interpersonal, community, and health system. There is more focus and discussion on barriers which overlap across two or more levels to demonstrate the complexity of barriers and how they are interrelated.

3. Finalising the Barrier Ecosystem

Once all the barriers were discussed, participants were provided templates that allows them to create a Barrier Ecosystem. Special attention was given to pointing out that the Barrier Ecosystem was created by the participants themselves.

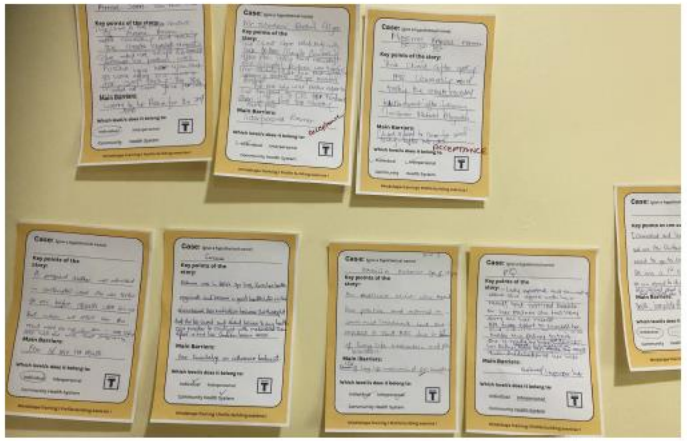
Session 2

Building Client Profiles and Redressal Strategies

1 2 3

Writing down case stories

Participants were asked to write up short cases drawn from their own experiences with clients. They were provided templates to record one case story per template, while identifying the key barriers to testing, linkage to care in that case.

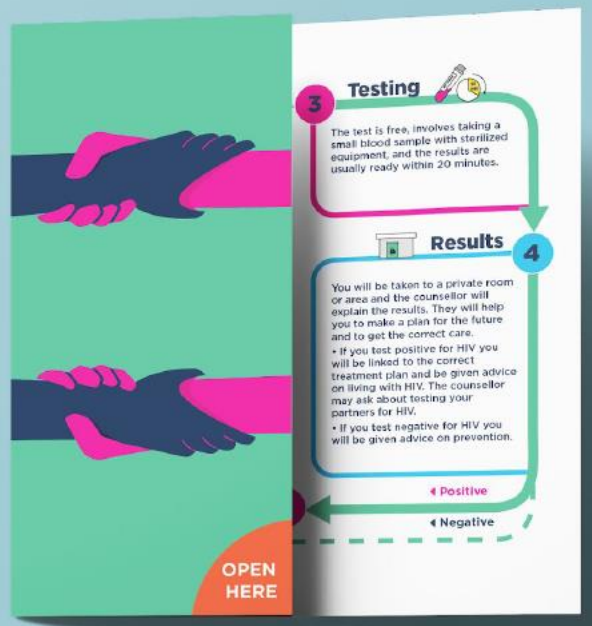


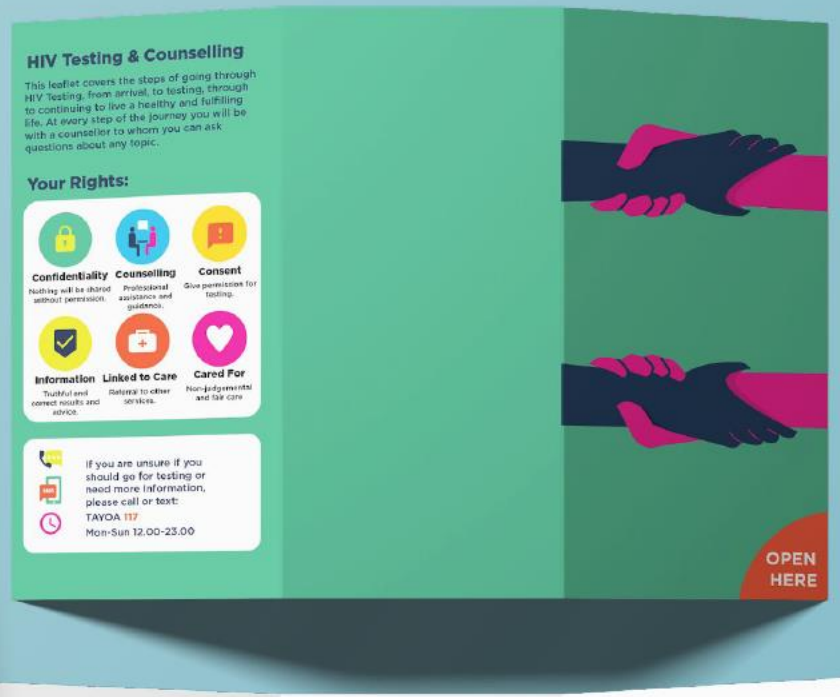
Making case clusters and profiles

Each participant presented the cases to the larger group. The facilitator and participants discussed and agreed upon clusters of cases based on their key barriers. Small groups then drafted client profiles based on the clusters that were formed.

Identifying redressal strategies

Participants in each group discussed the profiles and the main barriers of each. They then identified potential redressal strategies for each profile. Finally each group presented their profile to the larger group for discussion.





You may present this at the front desk to receive discreet service.

ADDRESS:

_____

FULL NAME:

_____

ID:

_____

"I would like to take a HIV Test today"

The Next

Milestones/
Situations:

Now

Future

Barriers:

Strategies:

My Plan

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

Using the canvas and cards, the counsellor figures out the barriers a client faces in linkage to care and adhering to medication and co-draft a plan for addressing them. The client carries the plan with them after the counselling, which is their guiding checklist on their journey towards linkage to care and adherence to medication.

The Next

Thanks for listening

For more resources on design in health please visit: Designforhealth.org