

Designing for Behavior Change: A Human-Centered Approach to Research and Intervention

American Heart Association
Health Care by Food

Designing for Behavior Change: A Human-Centered Approach to Research



1

Foundations of Human-Centered Design and Behavior Change

Understand the principles of HCD and systems design, apply the COM-B model, and differentiate between systemic and individual interventions.



2

Mapping the Journey: A Human-Centered Approach to "Food is Medicine"

Apply journey mapping to reframe "Food is Medicine," focusing on user experiences and integrating insights into research.



3

Designing Targeted Interventions: Combining COM-B and Journey Mapping

Create nuanced behavior change strategies by merging COM-B and journey mapping, refining the "Food is Medicine" journey to enable critical behaviors



4

Personas in Action: Driving Insights for Behavior Change

Develop and apply personas within the COM-B and journey mapping frameworks to generate actionable insights that inform your research strategy.

 Disclaimer

Statements, opinions, and study results presented in this presentation may not reflect the policy or science position of the American Heart Association, unless otherwise noted.

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The background of the slide features a repeating pattern of a heart with a torch inside, rendered in a lighter shade of red than the background.

Session 2

Mapping the Journey: A Human-Centered Approach to "Food is Medicine"

American Heart Association
Health Care by Food

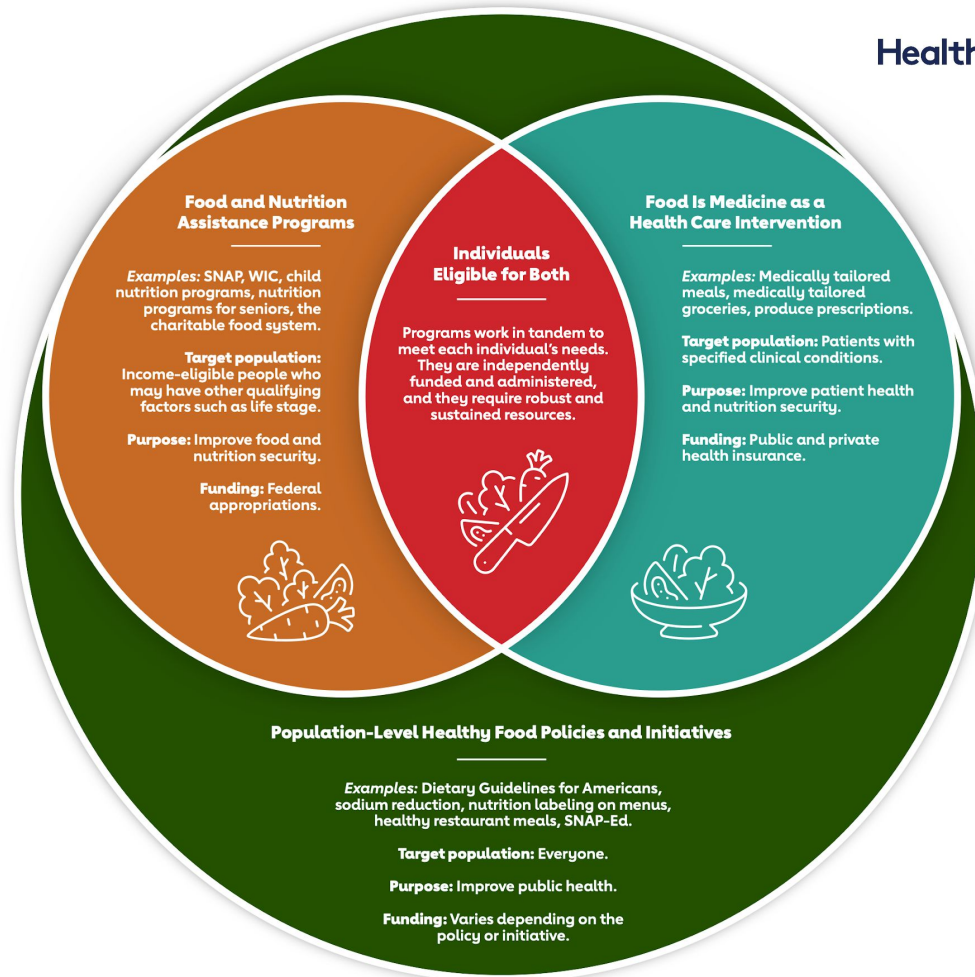
Session 2 goal:

Apply journey mapping to reframe "Food is Medicine," focusing on user experiences and integrating insights into research.

Designing for Behavior Change: A Human-Centered Approach to Research and Intervention

Learning Objectives:

1. Understand and apply the journey mapping framework, a core human-centered design (HCD) tool, to analyze user experiences.
2. Reframe "Food is Medicine" using a human-centered journey, focusing on the user experience and needs.
3. Integrate the "Food is Medicine" journey into your research, utilizing insights from the journey mapping process to inform your research strategy, planning and approach.



A representation of the **individual's end-to-end experience**, highlighting their goals, actions, emotions, and interactions.

Journey maps are an essential tool for ensuring that **solutions are grounded in real user needs and experiences**, enabling more empathetic, effective, and human-centered intervention and study designs.

Health care journey



Clinician
Interaction



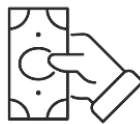
Prescription
by provider



Prescription
Filled



Pharmacy
Prepares



Purchase



Acquisition



Consumption



Health
Outcomes

The Last Mile:
From bottle to mouth

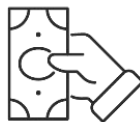
Food journey



Food & meal
planning



Food
selection



Purchase



Acquisition



Preparation



Consumption

Food journey



Clinician
Interaction



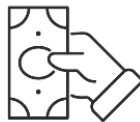
Prescription
by provider



Prescription
Filled



Pharmacy
Prepares



Purchase



Acquisition



Consumption



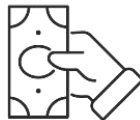
Health
Outcomes



Food & meal
planning



Food
selection



Purchase



Acquisition



Preparation



Consumption

Food journey



Clinician
Interaction



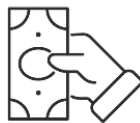
Prescription
by provider



Prescription
Filled



Pharmacy
Prepares



Purchase



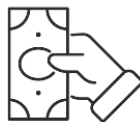
Acquisition



Food & meal
planning



Food
selection



Purchase



Acquisition



Preparation



Consumption



Consumption



Health
Outcomes

Health Care x Food journey



Clinician
Interaction



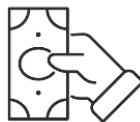
Prescription
by provider



Food & meal
planning



Food
selection



Purchase



Acquisition



Preparation



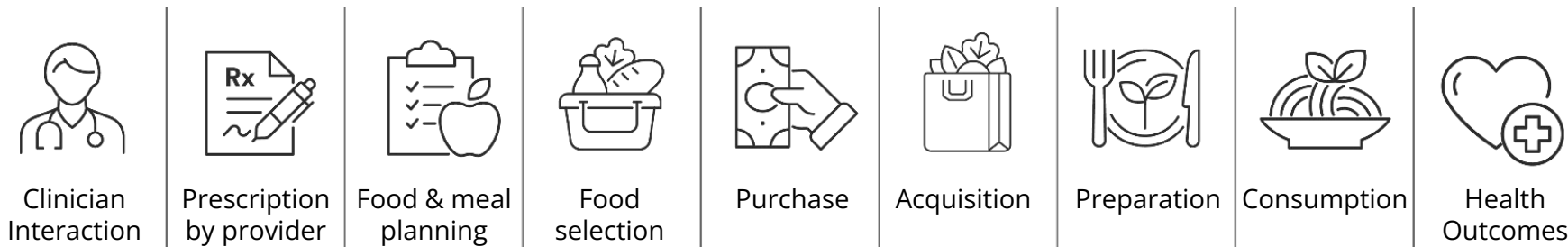
Consumption



Health
Outcomes

The Last Mile:
From fridge to mouth

The journey as an anchor

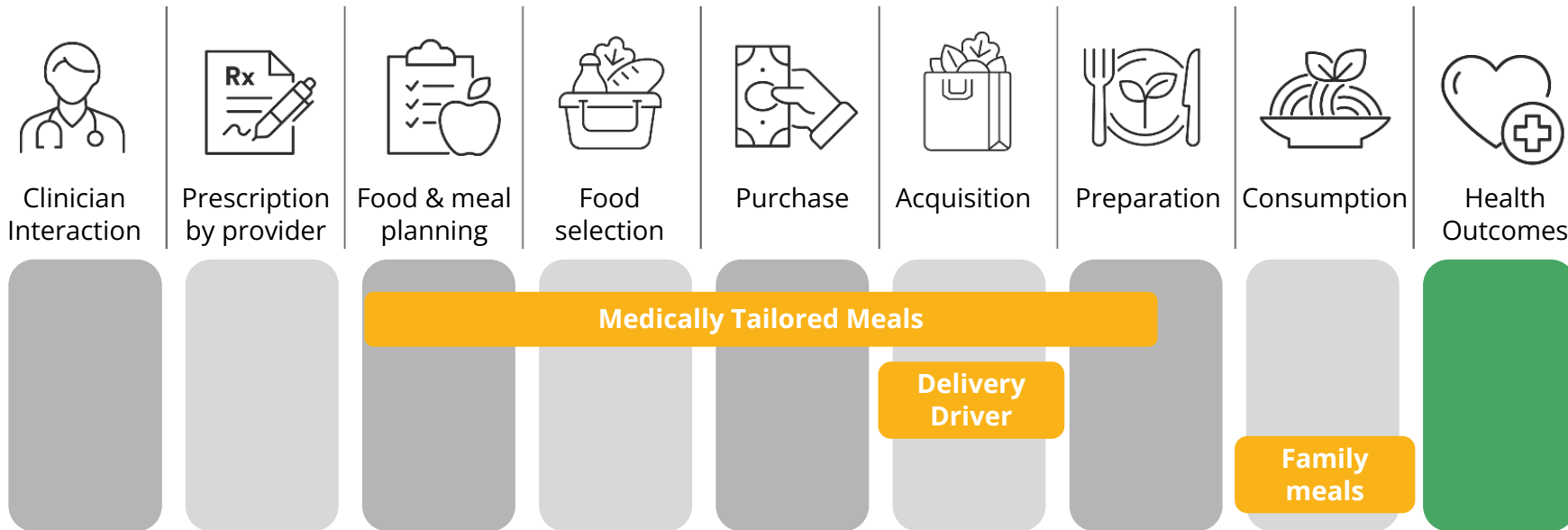


Every stage of the journey is **critical** and **contingent** on the one before it.

We must consider how **our research** advances our understanding across the journey.

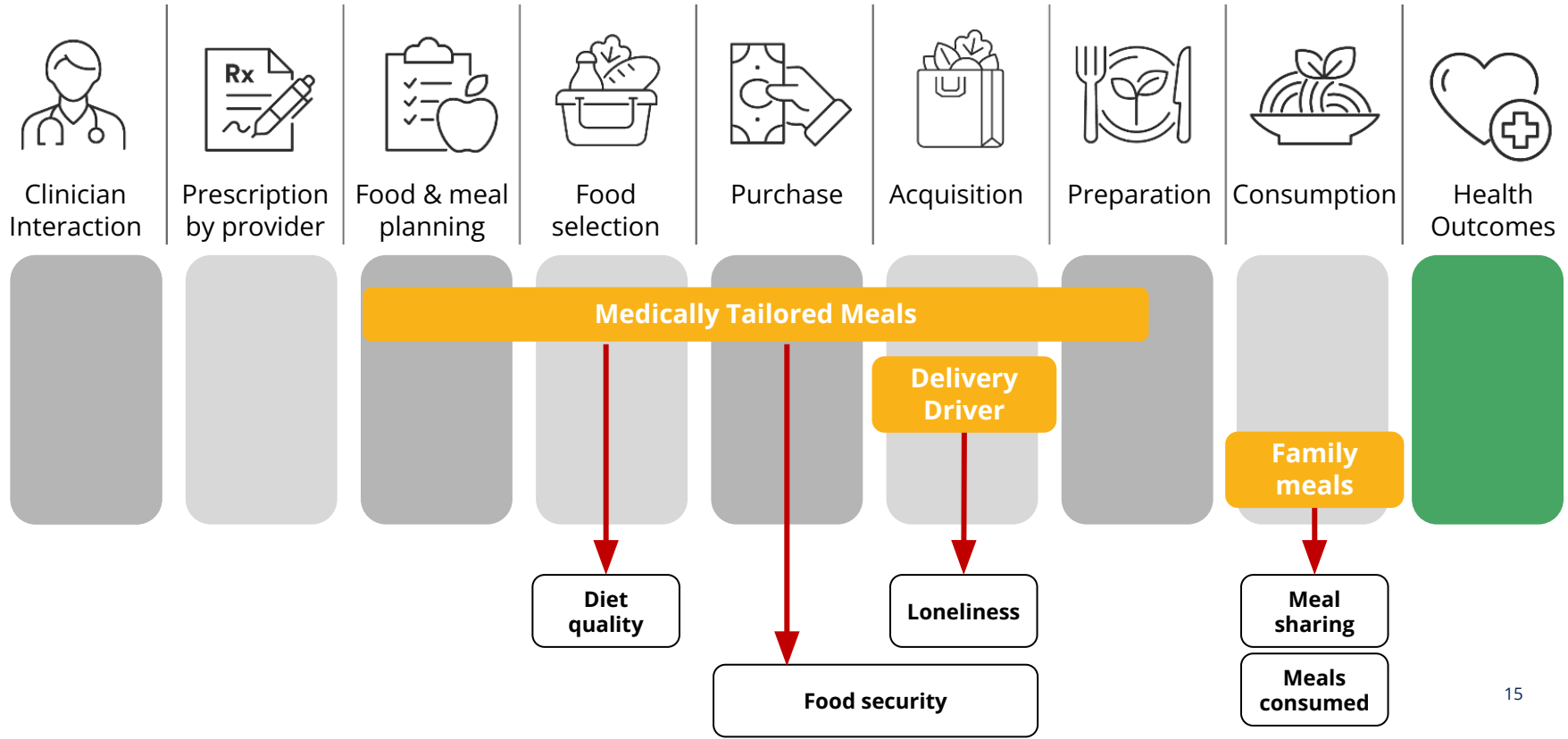
Examples from the early studies

Pilot study 1



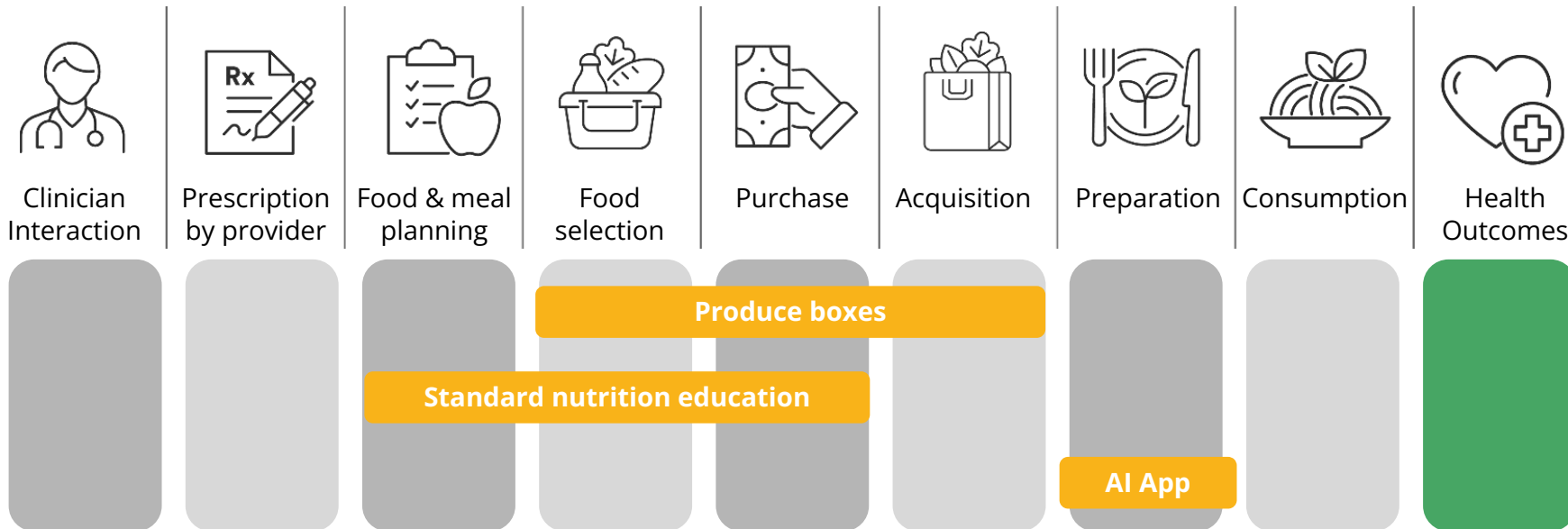
Examples from the early studies

Pilot study 1



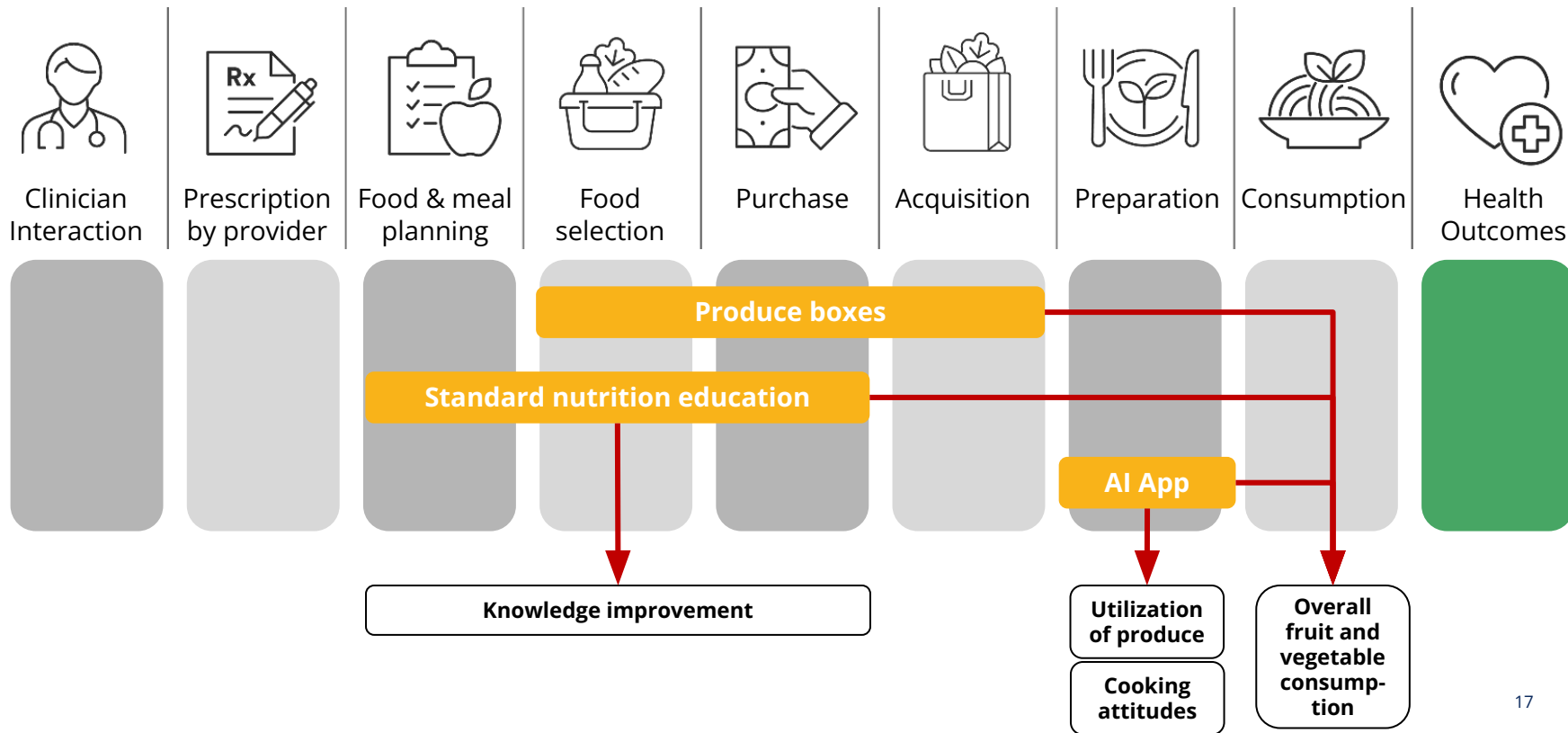
Examples from the early studies

Pilot study 2



Examples from the early studies

Pilot study 2



Exercise



Clinician
Interaction



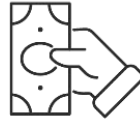
Prescription
by provider



Food & meal
planning



Food
selection



Purchase



Acquisition



Preparation



Consumption



Health
Outcomes

In your study teams, identify which stages of the Food is Medicine journey each element of your intervention acts upon.

Also, indicate how you are thinking about outcomes.

Session 2 Exercise

Designing for Behavior Change: A Human-Centered Approach to Research and Intervention

Session 2 Exercise: Mapping Interventions to Journey Stages



Health Care  Food™
Accelerating the integration of Food is Medicine in Health Care

1 INTERVENTION ELEMENTS

What are the elements of your intervention?
Use another worksheet for additional elements.

Element 1

Element 2

Element 3

2 JOURNEY STAGES

Check the stages that each element is acting upon.

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Health Outcomes



What health outcomes are you measuring? What is the measure?

3 OUTCOMES

What evidence are you looking to generate at each stage of the journey, including health outcomes?

The pictured worksheet is available for download.

We encourage teams to complete this collaboratively.

INTERVENTION SPECIFICATION

- Support elements (e.g., education, counseling) are often too broadly defined
- Useful specifications include
 - Goal
 - Implementation
 - Integration

JOURNEY GAPS

- Limited focus on health care provider interactions
- Measuring consumption relies on proxy measures

HUMAN CONTEXT

- Preparation and Consumption stages are often overlooked
- In-home context and lived experience are underexplored

Session 2 Exercise

Mapping Interventions to Journey Stages



Health Care  Food™
Accelerating the Integration of Food is Medicine in Health Care

1 INTERVENTION ELEMENTS
What are the elements of your intervention?
Use another worksheet for additional elements.

Element 1

Element 2

Element 3

2 JOURNEY STAGES
Check the stages that each element is acting upon.

Healthcare Provider Interaction	Prescription by Provider	Food & Meal Planning	Food Selection	Purchase	Acquisition	Preparation	Consumption
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐

3 OUTCOMES
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Human-Centered Design Task Force



Stacey Chang is a designer of new creative solutions to age-old dilemmas in health. He focuses on building complex adaptive systems that can respond to the dynamic challenge of producing health in human society, and currently advises a broad array of efforts seeking to build more sustainable, equitable, and effective models. Prior to founding New Origin

Studio, Stacey served as the Founding and Executive Director of the Design Institute for Health at the University of Texas at Austin. The Design Institute was a first-of-its-kind institution, dedicated to creating systemic human-centered solutions in clinical and community contexts.

Embedded as an integrated part of an operating health system and a medical education and training program, the Institute considered topics as broad as the design of products and services, the built environment, integration of social and medical interventions, the structure and strategy of national health systems, and new models for societal health at a global scale.

Before his academic tenure, Stacey served as the Managing Director of the Healthcare practice at IDEO, the global design and innovation firm. Clients included governments, research institutions, hospitals, pharma, insurance, medtech, and all the upstarts trying to rewrite the script, in both established and emerging markets.

Stacey presents frequently and is widely published, including in the New England Journal of Medicine, NEJM Catalyst, Harvard Business Review, and Politico. He has served as a TEDMED Editorial Advisory Board member, a Thought Leader for NEJM Catalyst, an Eisenhower Fellow, and an advisor to the Global Delivery arm of the Bill and Melinda Gates Foundation. He holds degrees in engineering from MIT and Stanford.



Natalie Privett PhD leans into messy challenges and complex systems. She leverages deep expertise in systems theory, design, and health systems to reframe tenacious problems and design transformational action to advance health. Across her professional roles, Natalie has advanced systemic opportunities at every

level of health and care while also training future health systems change agents, from physicians to policy makers to designers.

Before joining New Origin Studio, Natalie was Director of Systems Design at the Design Institute for Health at the Dell Medical School at the University of Texas at Austin, a first-of-its kind academic institution dedicated to developing and applying creative design approaches to solving complex large-scale health system challenges. Concurrently, she also launched and taught in the Masters of Arts in Design in Health. Prior to University of Texas, Natalie served as Lead System Design Engineer and Assistant Professor of Health Systems Design & Global Health at the Mount Sinai Health System and Icahn School of Medicine at Mount Sinai in New York City. She was also previously Assistant Professor at New York University's Wagner Graduate School of Public Service.

Natalie has a MS and PhD in Management Science & Engineering from Stanford University and a BS in Industrial Engineering from Texas A&M University. She was a Global Health Research Fellow at the MIT-Zaragoza Logistics Center.