



INTRODUCTION

The mission of the Texas Christian University School of Medicine is to inspire Empathetic Scholars®, physicians who care for the whole patient and also have the skills to iteratively problem solve when faced with challenges and inequities noted in the healthcare system.

A novel way to build these skills is to incorporate the process of human-centered design thinking into the medical school curriculum.

OBJECTIVES

- Develop and implement a human centered design curriculum across all phases of the SOM curriculum
- Partner with local under-resourced communities to allow for students to apply the process in the development of Community Impact Projects
- Provide students with a toolbox of skills to be used as they encounter future opportunities for improvement in healthcare and the local community

METHODS

- Project team met with both faculty and community leaders to gather consensus about how to best implement the curriculum and Community Impact Project
- Based on these results, a curriculum was developed that included a design sprint week in the pre-clinical curriculum and dedicated time for the Community Impact Project in the third year of the curriculum
- Pre- and post-surveys of knowledge and skills, as well as evaluations of each component of the curriculum were given to students

Building Empathetic Scholars by Incorporating Human-Centered Design Across a Medical School Curriculum

Jo Anna Leuck, MD¹ Erin Nelson, PsyD¹, Ric Bonnell, MD¹, Stacy Grau, PhD², Tracy Rockett, PhD², Cedric James, MS²

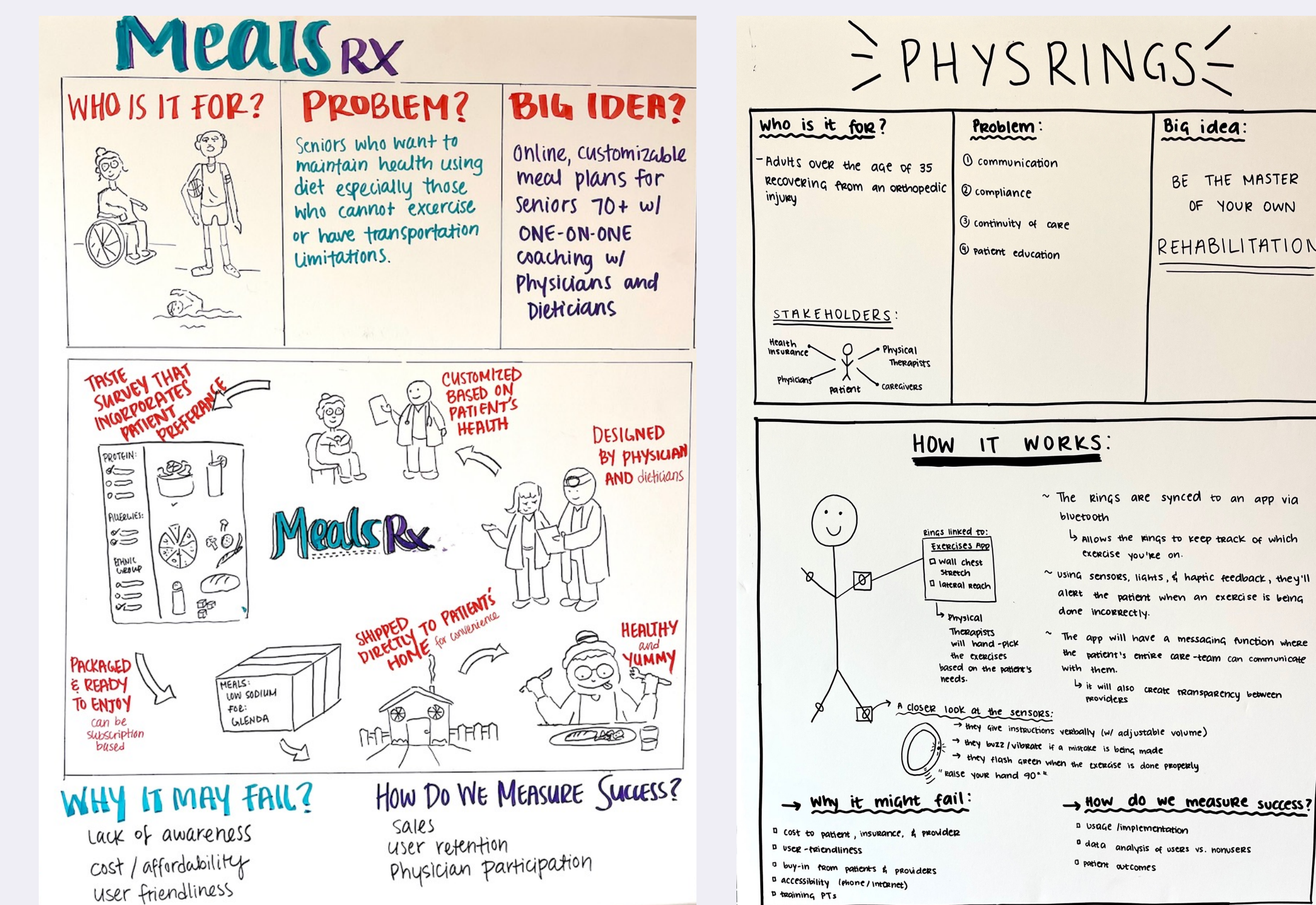
¹Texas Christian University School of Medicine

²Texas Christian University Neeley School of Business

RESULTS

- All initial milestones were met
- Students, faculty, community partners expressed satisfaction
- Multiple projects were completed in March 2022
- Survey analysis is ongoing

Samples of Concept Posters:



Quotes from End-Users

"One of the BEST week's in Phase 1 thus far. Really love the intersection of business and the future of medicine to help create sustainable change via technology and design thinking"- First year medical student

"One thing I have liked is that they've been very flexible to whatever we needed to do in developing ideas. It's been wonderful to work with the students"-Community member Mervil Johnson

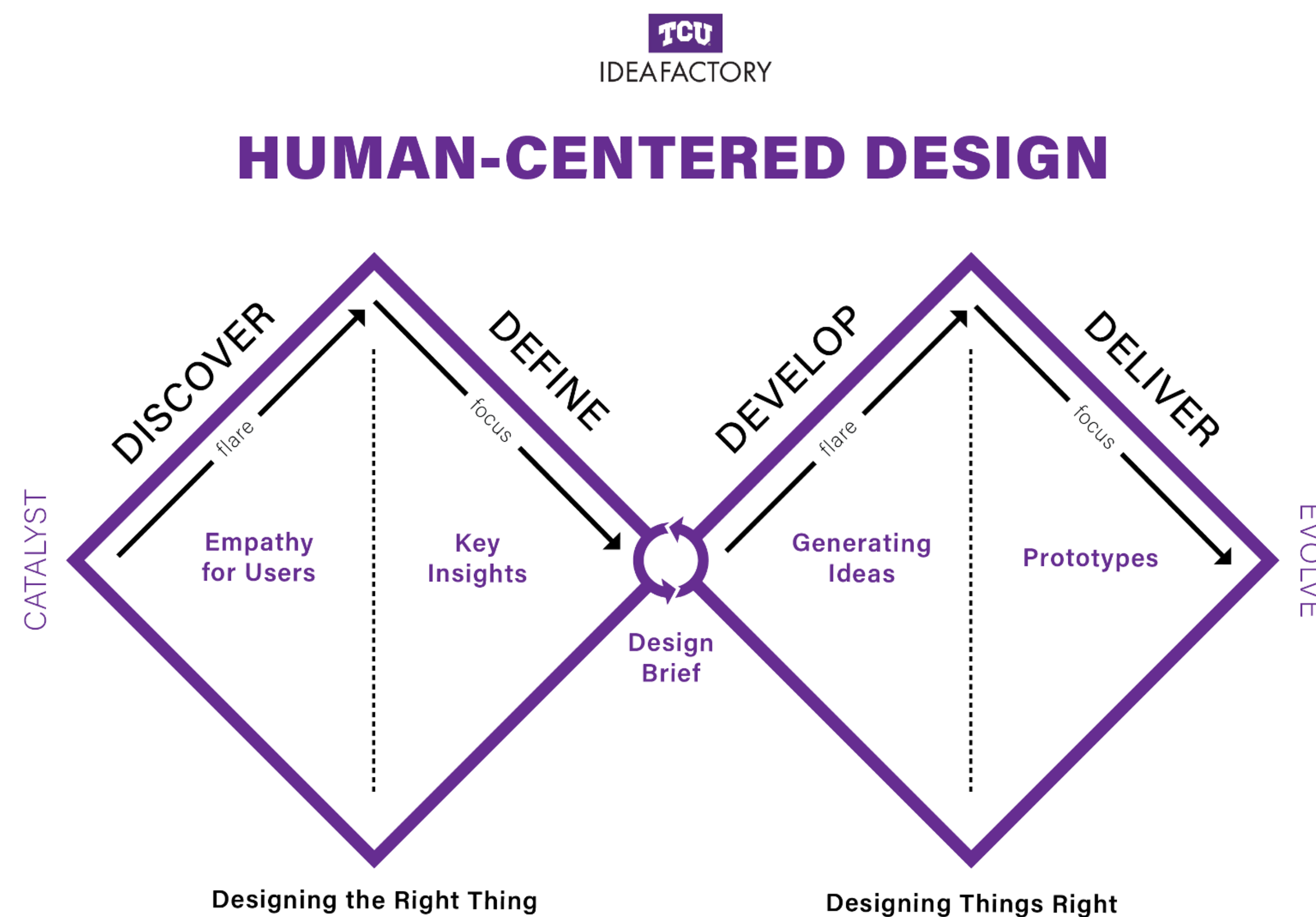
DISCUSSION

The addition of a design thinking component to the medical school curriculum serves to equip students with transferable skills that can be used to address problems or inequities in healthcare and the local community.

This project will also allow future classes of SOM students to partner with local under-resourced communities and develop sustainable, empathetically driven projects to improve the lives of individuals that we care for.

FUTURE DIRECTIONS

- Continued evaluation and iterative improvement of curriculum
- Apply for additional grant funding
- Expand collaboration to include TCU Healthcare MBA students who are assigned a similar project



ABSTRACT: 2022 ELAM Institutional Action Project

Project Title: Building Empathetic Scholars by Incorporating Human-Centered Design Across a Medical School Curriculum: A Collaborative Project with the Neeley School of Business

Name and Institution: Jo Anna Leuck, MD, Texas Christian University School of Medicine

Collaborators and Mentors: Erin Nelson, PsyD, Ric Bonnell, MD, Stacy Grau, PhD, Tracy Rockett, PhD, Cedric James, MS

Topic Category: Education

Background, Significance of project: The mission of the Texas Christian University School of Medicine (TCU SOM) is to inspire Empathetic Scholars®, physicians who care for the whole patient and also have the skills to iteratively problem solve when faced with challenges and inequities noted in the healthcare system. A novel way to build these skills is to incorporate the process of human-centered design thinking into the medical school curriculum. By teaching and applying concepts related to design thinking in a structured, developmental fashion, students will graduate with a tool box of skills that they can utilize to design solutions for issues faced by their patients, other healthcare providers, systems or communities. The SOM has a partnership with the TCU Neeley School of Business, that has allowed for the development of a diverse team of multi-disciplinary faculty for this project, with expertise in design thinking, teamwork, healthcare and communication.

Purpose/Objectives: The purpose of this project is to develop a comprehensive approach to teach medical students the concepts of human-centered design, culminating in a Community Impact Project. While other medical schools incorporate design thinking either in a single course or an optional experience, this project is novel in that concepts are embedded across multiple courses in a progressive fashion and each student is required to design a final group project with direct community impact.

This final project allows for students to apply the design thinking process of empathetically defining the end-user and the problem to be solved and then ideating, prototyping and testing solutions.

Methods/Approach/Evaluation Strategy: The methods used for this project include needs assessment, consensus gathering, curriculum development and implementation, as well as assessment and evaluation of student participants and community partners.

The proposed goals include: **Milestone 1:** Meet with under-resourced community groups to better understand the specific needs of the community and to build projects that impact identified societal problems-these include such topics as nutrition, violence prevention, and healthcare disparities. **Milestone 2:** Develop and implement a week-long design sprint for pre-clerkship students that receives positive student feedback. **Milestone 3:** Develop and implement curriculum for a Community Impact Project that allows for the application of design skills and the human centered design thinking process.

Outcomes/Results: While the project is ongoing, all of the initial milestones were met and students, faculty and community partners expressed satisfaction of inclusion of human-centered design in the curriculum. Students were also surveyed about knowledge related to design and teamwork during the pre- and post- first project iteration. The first set of Community Impact Projects culminated in March 2022 and survey results are currently being analyzed.

Discussion/Conclusion with Statement of Impact/Potential Impact: The addition of a design thinking component to the medical school curriculum will serve to equip students with enduring skills that can be used to address problems or inequities in healthcare and the local community. This project will also allow future classes of SOM students to partner with local under-resourced communities and develop sustainable, empathetically driven projects to improve the lives of individuals that we care for.