INTERPROFESIONAL PRACTICE & EDUCATION

# OPTIMIZING THE CLINICAL LEARNING ENVIRONMENT

In association with the Nexus Summit 2019

NATIONAL CENTER for INTERPROFESSIONAL PRACTICE and EDUCATION

SMITHGROUP

NCICLE NATIONAL COLLABORATIVE FOR IMPROVING THE CLINICAL LEARNING ENVIRONMENT

# ADVANCING THE INTERPROFESSIONAL PRACTICE & EDUCATION DIALOGUE

Leadership in higher education and healthcare are collaborating to focus on better preparing students to enter the workforce as part of interdisciplinary teams, resulting in the rapid adoption of an interprofessional practice and education (IPE) model. Success in this setting requires more than a solid grasp of technical skills — it also requires a culture of learning from students in other professions and collaborating to improve health outcomes within academic and clinical environments. In an effort to grow the discussion into practice, we bring the clinical learning environment to the forefront, where all health care professionals, staff members, students, and patients and families are educated, trained, and learn together.

The clinical learning environment (CLE) is where collaborative practice and education come together to improve health care, deliver higher value and prepare the workforce for the work today and ahead.

## LEADING THE CONVERSATION

Every year, hundreds of health professionals, educators, learners, patients and community members, systems leaders, and policy makers converge at the Nexus Summit to work together toward better care, better value, and better education. Continuing our focus on co-creating with our clients, SmithGroup and Arizona State University built upon their 10-year partnership to lead a pre-conference workshop at the 2017 Nexus Summit. The workshop focused on how design thinking can improve education, healthcare outcomes and return on investment (ROI).

Based on the success of this workshop, SmithGroup and the **National Center for Interprofessional Education and Practice (the National Center)**

continued to lead the dialogue with action-oriented results at the 2019 Nexus Summit: Optimizing Interprofessional Clinical Learning Environments.

As we purposefully engage the full range of stakeholders, SmithGroup and the National Center teamed with the **National Collaborative for Improving the Clinical Learning Environment (NCICLE)**, co-host of the Nexus Summit 2019**,** to deliver the Clinical Learning Environments (CLE) Innovation Challenge.

Before we dive into the process and findings of this workshop, the following pages provide a synopsis of previous research conducted by NCICLE around interprofessional clinical learning environments.

# NATIONAL COLLABORATIVE FOR IMPROVING THE CLINICAL LEARNING ENVIRONMENT

NCICLE recently hosted a symposium on the IP-CLE to facilitate a national conversation on the role of health care environments such as health systems, academic medical centers, and interprofessional stakeholders in providing a clinical learning experience that enhances interprofessional practice and learning in all services of patient care. The following are select characteristics found through the various discussions.[1]

> "NCICLE's goal is to evolve and advance the clinical learning environment, including the entire continuum of practice."

Steve Singer, PhD, Accreditation Council for Continuing Medical Education, Member of NCICLE

## NCICLE MEMBER ORGANIZATIONS

Accreditation Council for Continuing Medical Education (ACCME)

Accreditation Council for Graduate Medical Education (ACGME)

Accreditation Council for Pharmacy Education (ACPE)

Alliance of Independent Academic Medical Centers (AIAMC)

American Association for Physician Leadership (AAPL)

American Association of Colleges of Nursing (AACN)

American Association of Colleges of Osteopathic Medicine (AACOM)

American Association of Colleges of Pharmacy (AACP)

American Board of Medical Specialties (ABMS)

American Dental Education Association (ADEA)

American Hospital Association (AHA)

American Medical Association (AMA)

American Nurses Credentialing Center (ANCC)

American Organization for Nursing Leadership (AONL)

American Osteopathic Association (AOA)

American Society of Health-System Pharmacists (ASHP)

Assembly of Osteopathic Graduate Medical Educators (AOGME)

Association for Hospital Medical Education (AHME)

Association for Nursing Professional Development (ANPD)

Association of American Medical Colleges (AAMC)

Association of Post Graduate APRN Programs (APGAP)

Association of Post Graduate PA Programs (APPAP)

Council of Medical Specialty Societies (CMSS)

Council on Social Work Education (CSWE)

Health Professions Accreditors Collaborative (HPAC)

Health Resources and Services Administration (HRSA)

Institute for Healthcare Improvement (IHI)/National Patient Safety Foundation (NPSF)

Institute for Safe Medication Practices (ISMP)

Liaison Committee on Medical Education (LCME)

National Board of Medical Examiners (NBME)

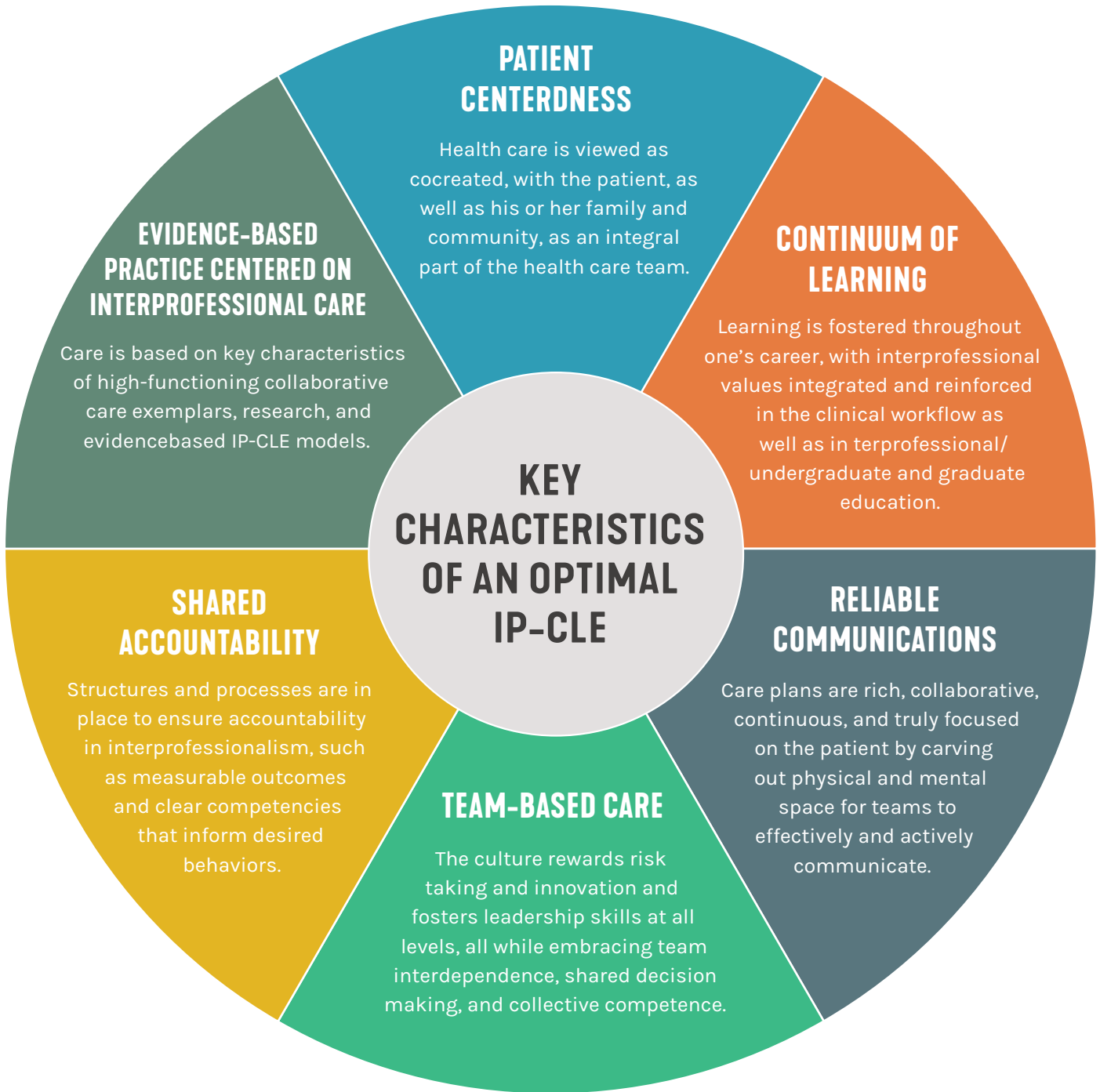Organization of Program Director Associations (OPDA)

Quality and Safety Education for Nurses (QSEN) Initiative

The American Red Cross

The Joint Commission

Veterans Health Administration (VA)

Vizient, Inc.

## KEY CHARACTERISTICS OF AN OPTIMAL IP-CLE

### PATIENT CENTERDNESS

Health care is viewed as cocreated, with the patient, as well as his or her family and community, as an integral part of the health care team.

### CONTINUUM OF LEARNING

Learning is fostered throughout one's career, with interprofessional values integrated and reinforced in the clinical workflow as well as in terprofessional/ undergraduate and graduate education.

### EVIDENCE-BASED PRACTICE CENTERED ON INTERPROFESSIONAL CARE

Care is based on key characteristics of high-functioning collaborative care exemplars, research, and evidencebased IP-CLE models.

### RELIABLE COMMUNICATIONS

Care plans are rich, collaborative, continuous, and truly focused on the patient by carving out physical and mental space for teams to effectively and actively communicate.

### SHARED ACCOUNTABILITY

Structures and processes are in place to ensure accountability in interprofessionalism, such as measurable outcomes and clear competencies that inform desired behaviors.

### TEAM-BASED CARE

The culture rewards risk taking and innovation and fosters leadership skills at all levels, all while embracing team interdependence, shared decision making, and collective competence.

[1] National Collaborative for Improving the Clinical Learning Environment. Achieving Optimal Interprofessional Clinical Learning Environment; 2017

# CLINICAL LEARNING ENVIRONMENTS INNOVATION CHALLENGE

An evolution of the 2017 Nexus Summit "Leveraging Interprofessional Design Thinking" workshop, the CLE Innovation Challenge brought bona fide scenarios to the forefront in an effort to develop implementable solutions for participants to bring back to their institutions. Teams from diverse perspectives/professions were charged with submitting a challenge they are facing at their institution based on specific CLE settings such as acute care hospitals, ambulatory care, and public health settings.

By learning and applying design thinking, teams were able to expand the understanding of the challenge by taking a deeper look into the stakeholders, reframing their challenge by using a unique set of journey mapping tools, and develop a prototype to bring back to their institutions. The result of this rapid prototyping created opportunities for enhanced patient-student dyads, new outlets for uncovering hidden curriculum, innovative curriculum design and much more.

"It [the CLE] is much more than a set of places and resources; it includes the people, their values, and the sense of dedication to team and community."

Wagner R, Patow C, Newton R, Casey BR, Koh NJ, Weiss KB; CLER Program. *The overview of the CLER Program: CLER National Report of Findings* 2016.

# DESIGN THINKING FRAMEWORK

The nature of Design Thinking tools—empathy building with stakeholders, journey mapping, etc.—brings a broader point of view, integrates diverse perspectives, and uncovers roadblocks structurally, operationally and physically.



## PROCESS

**01 EMPATHIZE**

**EXPLORE SHAREHOLDER PERSONAS**
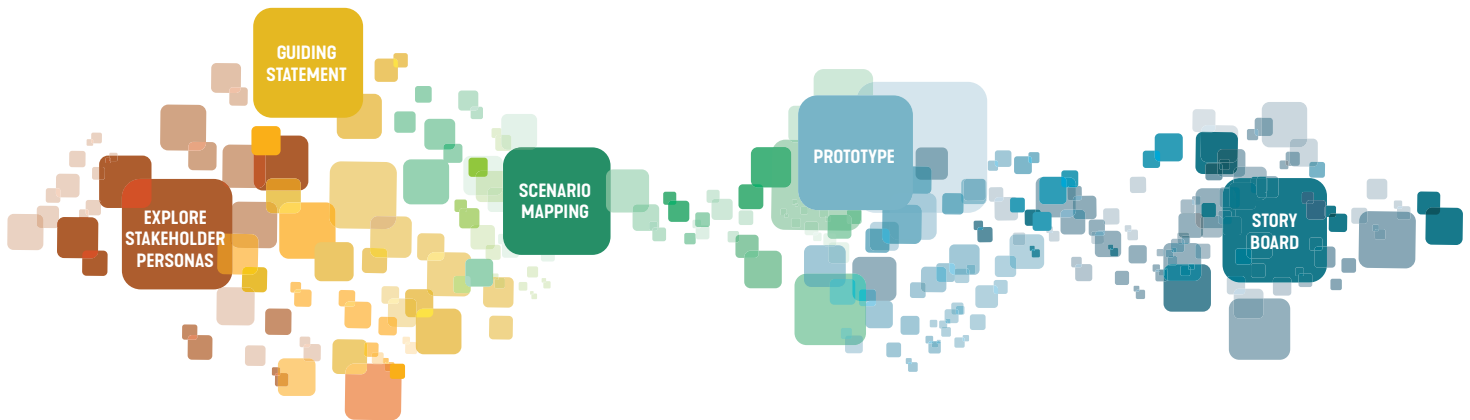
**IMMERSION AND ENGAGEMENT**
Ask...what are fresh insights?

**02 DEFINE**

**GUIDING STATEMENT**

**REFRAME TO FIND THE ROOT OF THE PROBLEM**
Ask...who do you want to be?

**03 IDEATE**

**SCENARIO MAPPING**

**EXPLORE A WIDE SOLUTION SPACE**
Ask...what if?

**04 PROTOTYPE**

**PROTOTYPE**

**QUICK AND ROUGH VISUALIZATION MODELS**
Ask...how might we?

**05 TEST**

**STORY BOARD**

**ASSESS SUCCESS OF PROTOTYPE**
Ask...does this really work?

## EXAMPLE TOOL

**PERSONA**
Stakeholder role-play to deeply understand each user experience.

**THE 5 WHY'S**
If we already know the answer, what was the question?

**EXTREME SCHEMES**
Innovate without judgment. Test the edges to find the center.
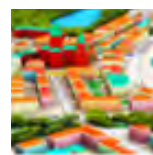
**JOURNEY MAP**
Plot what each user is doing, thinking, feeling and explore areas of user and experience intersections.

**FEEDBACK**
Circle back to users and stakeholders to assess, refine and optimize the solution.

"Project-based learning with interprofessional educational leadership teams was extremely valuable, replicable, applicable and enjoyable!"

Participant Feedback, Anonymous Post Event Survey

# THE POWER OF DESIGN THINKING

Design thinking methodologies can be instrumental in solving the challenges facing healthcare education and delivery, including broader opportunities for learning in patient care settings.
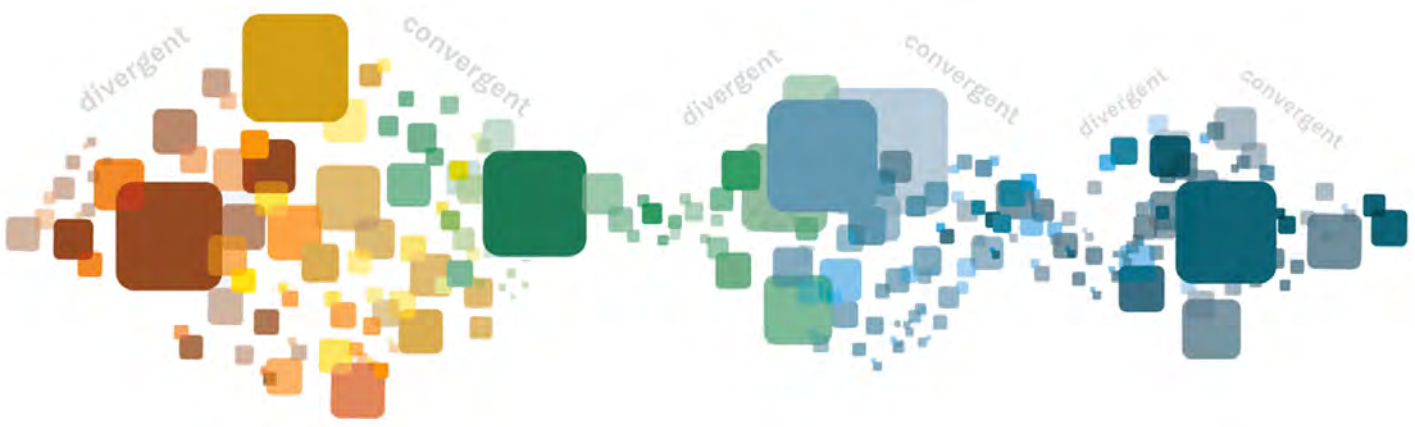
# DESIGN THINKING
# FUNDAMENTALS

## IMMERSION AND ENGAGEMENT

### PRE-WORKSHOP ENGAGEMENT

Before diving into solutions, it is crucial to look at the challenge from a variety of stakeholder perspectives, including those not yet considered. In an effort to make the best use of the 4-hour workshop, our facilitators analyzed the participants' challenge statements and provided considerations for team members to broaden their focus before the Summit through the form of a welcome letter. This proved beneficial in a variety of means; not only did it provide some pre-workshop preparation, it also allowed team members to begin building a rapport amongst each other—many of whom had never collaborated before.

The first step in the workshop was an **empathy** building exercise through the use stakeholder personas. This process helped participants gain unique insights that may not have been understood originally. By interviewing each other, and brainstorming individuals missing at the table, teams are able to broaden their understanding of roles and relationships. Though persona role-playing and asking **"why?"**, we understand that a more empathetic approach could provide not only better patient centered care but a more holistic understanding and culturally connected approach to their challenge.

### DIVERGENT AND CONVERGENT THINKING

Throughout the design thinking problem solving methodology, divergent and convergent approaches are used to broaden the thinking and develop multiple solutions, and then come back to narrow in on the solution.



CLE INNOVATION CHALLENGE AT NEXUS SUMMIT 2019

**GETTING STARTED WITH YOUR CHALLENGE STATEMENT**

SMITHGROUP

Everyone in the clinical environment — not just students and new clinicians— is a learner.

### REFRAME TO FIND THE ROOT OF THE PROBLEM

Using insights gained during the empathy phase, teams then **re-define** their challenge by deeply questioning the premise of the original problem statement. They began this process through the considerations posed in the welcome letter. Defining the challenge based on the insights gained in the empathy stage, the teams narrowed in on the root of the challenge in the form of a guiding statement.

### EXPLORE A WIDE SOLUTION SPACE

In order to **ideate,** we asked participants to start with a blank slate. Using metaphors, similes, and asking **"what if?",** we explored abstract ideas to open new new windows and test the edges to find the center.

### QUICK AND ROUGH VISUALIZATION MODELS

The **prototype** phase explores the problem even further, asking **"how might we?"**. Serving as a canvas, the journey mapping exercise is an exploratory diagramming process of stakeholder experiences to uncover what each is thinking, feeling, doing. This phase of design thinking leads teams to the discovery of intersections between people, values and space.

# JOURNEY MAPPING TOOLS
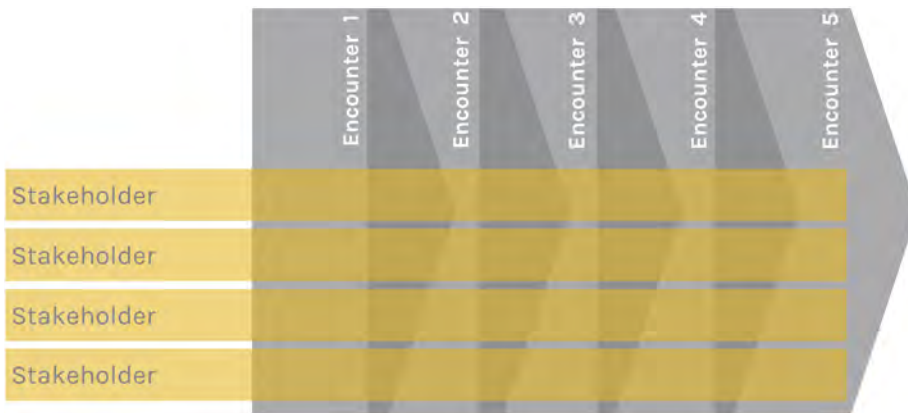


## MAPPING OVER TIME

This approach enables a team to consider very specific encounters or interactions that happen in sequence with one another.
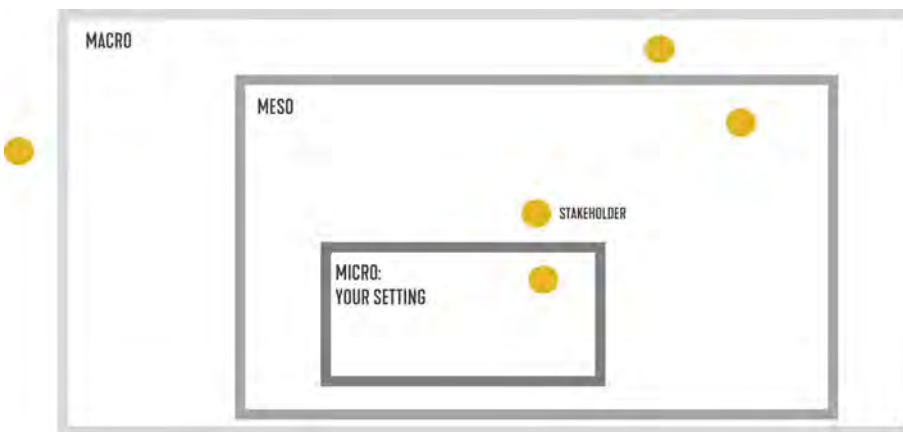


## MAPPING OVER SPACE

Offering a different perspective, mapping over space enables a team to consider physical proximity —current and desired—as part of exploring ideal intersections between stakeholders.



## STORYBOARD THE PLAN

Storyboarding creates a low-fidelity narrative focused on the user experience. It takes the mapping experience one step further by defining metrics of success and showing clear actions towards reaching the solution.
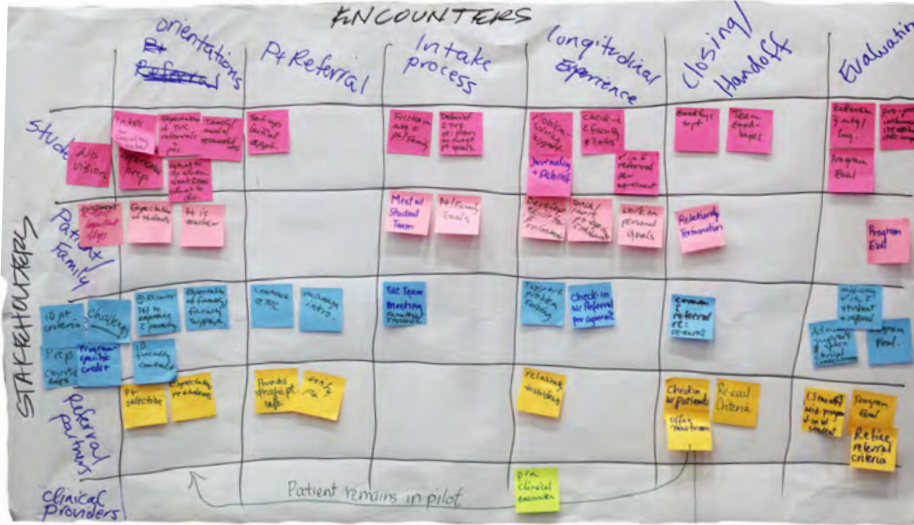
## MAPPING OVER TIME
### TOURO UNIVERSITY

The mapping over time tool guided the team to a more focused look at the orientation phases for all stakeholders. The group had originally started the journey at the referral stage, but quickly realized how much orientation and consensus-building would be required to initiate their pilot program.



## MAPPING OVER SPACE
### UNIVERSITY OF COLORADO ANSCHUTZ

The team used micro, mesa, macro mapping as they typically think linear and this helped to broaden their thinking/exposure to how they might want to solve their problem.
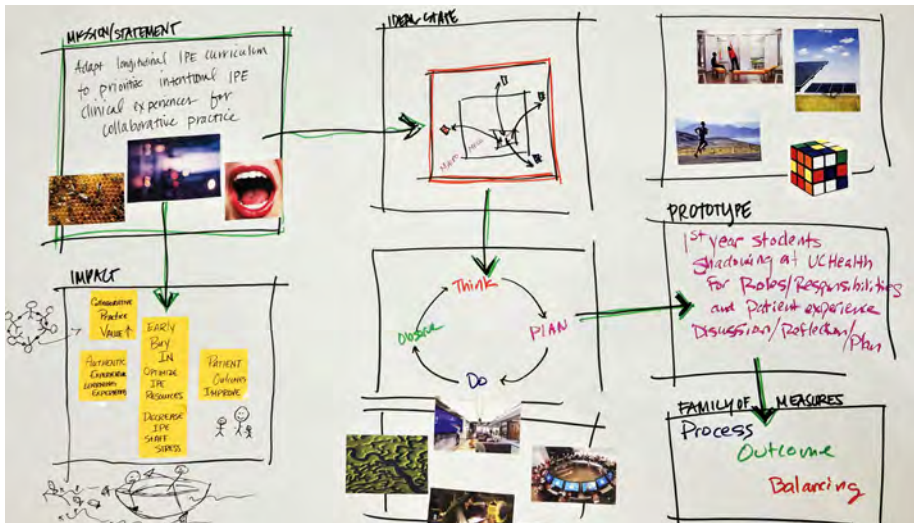


## STORYBOARD THE PLAN
### UNIVERSITY OF COLORADO ANSCHUTZ

By storyboarding their prototype, the team was able to create an implementable solution with an emphasis on the impact of integrating longitudinal IPE curriculum for first year students.

"Coming into the workshop we believed we could come up with a solution to implement over the course of a year or so. After working through our challenge, we are excited we have implementable prototypes with a distinct timeline covering the next 3-4 months."
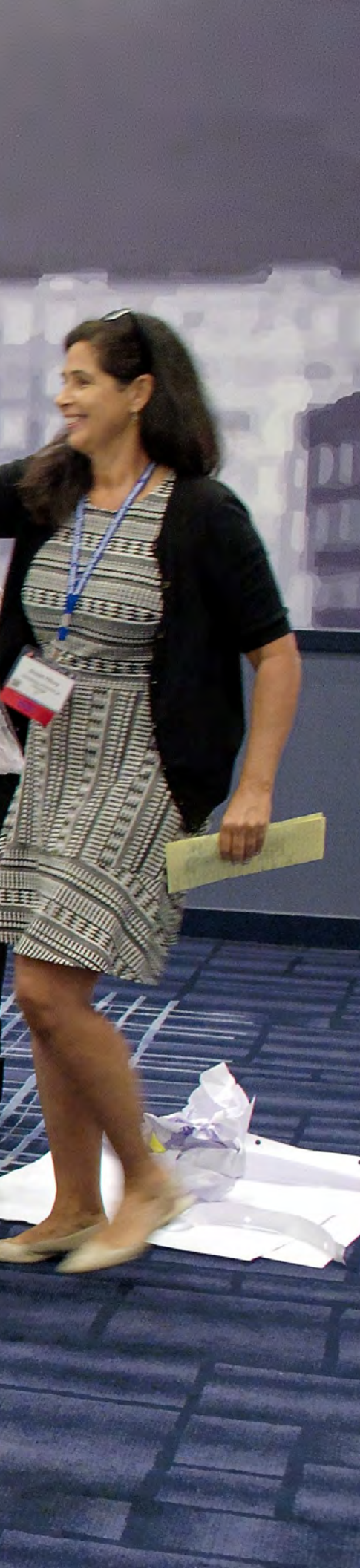
Wendy Madigosky, University of Colorado Anschutz
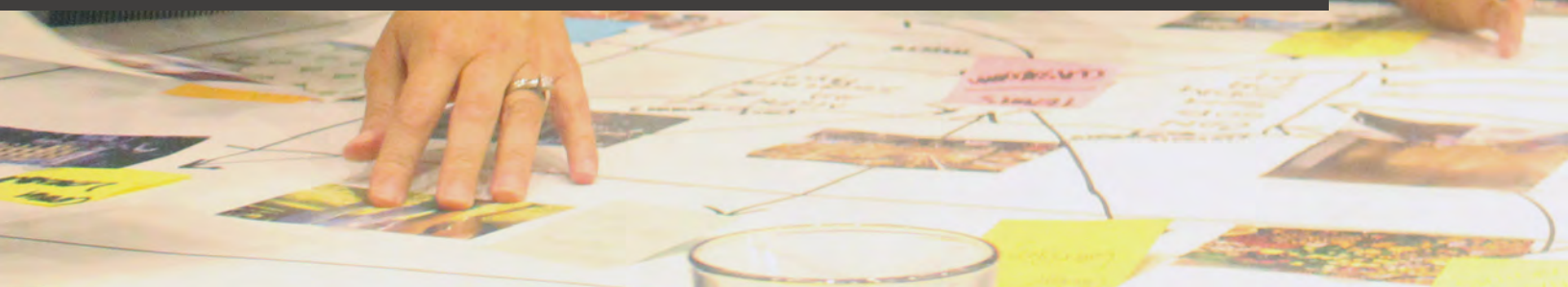
# UNCOVERING INTEPROFESSIONAL SOLUTIONS

Incentives that result from positive experiential education will keep clinicians engaged in interprofessional learning and collaborative practice throughout their careers.

# RESULTS OF THE
# CLE INNOVATION CHALLENGE

The CLE Innovation Challenge was an important opportunity for interprofessional teams to use design thinking tools and strategies to improve CLEs in their home settings. Teams that registered for the Challenge identified the CLE issue they want to tackle and commit to implementing their solution following the Summit.

Following the four hour design thinking workshop, teams were given 10 minutes to present their challenge, prototype and how they planned to implement their solutions to a panel of judges comprised of patients and experts in creating an optimal CLE.

The following pages provides a glimpse into the challenge, the hands-on workshop, and the result of the winning teams, University of Pittsburgh with University of Pittsburgh Medical Center and a paired group of three institutions—Oregon Health Sciences University, Medical College of Wisconsin, and Christian Brothers University—as well as the running up team, Sam Houston State University.

## 12
### INSTITUTIONS

## 40
### PARTICIPANTS

## 13
### PROFESSIONS

| | |
|---|---|
| Social Work | Nutrition |
| Dentistry | Osteopathic Medicine |
| Pediatric Medicine | Public/Population Health |
| Pharmacy | Children & Family Health Science |
| Rehabilitation | Oral Pathology |
| Nursing | Radiology |
| Kinesiology / Athletic Training | |



Oregon Health Sciences University

Medical College of Wisconsin

Massachusetts College of Pharmacy & Health Sciences

University of Iowa

University of Illinois Chicago

Purdue University Northwest

University of Pittsburgh & Medical Center

University of Colorado

University of Virginia

Touro University

Christian Brothers University

Sam Houston State University

Organizations can support such processes by carving out physical and mental space for teams to effectively and actively communicate.

## JUDGING CRITERIA

The following criteria was used to evaluate the teams. Judges used a rating system of Fair (1 point); Good (2 points); and Excellent (3 points).

### IMPORTANCE TO THE TEAM AND KEY STAKEHOLDERS

The prototype solution developed by this team addresses an important topic or issue to create or improve quality clinical learning environments in the team's home setting(s).

### ACTIONABLE

The prototype developed by the team to address their topic or issue can be implemented in their home setting(s) within 6 months.

### EASE OF IMPLEMENTATION

Putting the prototype into action is manageable in the home setting(s).

### PATIENT/FAMILY ENGAGEMENT

The perspective and needs of patients and family are incorporated in the prototype and implementation plan.

### MEASURABLE IMPACT

Expected outcomes associated with implementing the prototype are clearly articulated along with suggested measures.

# UNIVERSITY OF PITTSBURGH +
# UNIVERSITY OF PITTSBURG MEDICAL CENTER
# EXPAND EXISTING MODEL

**ORIGINAL PROBLEM STATEMENT**

We (Pitt and UPMC) are considering strategies to scale up interprofessional learning opportunities in UPMC's clinical learning environments so as to engage increased numbers of learners across the learning continuum (prelicensure through current workforce) to positively impact patient care outcomes with team-based

## 01 EMPATHY
**BROADENING STAKEHOLDER GROUP**

The focus became "stakeholders that bridge" which led to the key groups at the intersection between UPMC's Educational Service Line and Family-Centered Care (PFCC) and Pitt's Center for Interprofessional Practice and Education. Many positives were discussed about the PFCC model: team-based collaborative care; higher acuity patients resulting in higher degree of focus by teams; good process to gather feedback from patients. One significant component missing: students.

## 02 DEFINE
**FINAL GUIDING STATEMENT**

Using the existing PFCC as a guide, we will develop one Advanced Clinical Learning Environment organized around the patient and family and measured by the increase in numbers of students in CLE programs.

## 03 IDEATE
**JOURNEY MAPPING**

The team used mapping tools, beginning with the Mapping Over Time model—this was helpful as it lead to clarity around groupings of stakeholders that aligned with specific steps in the implementation process:
- Hospital administrators and academic program leads
- Clinical educators and clinicians
- Learners and patients (with family).
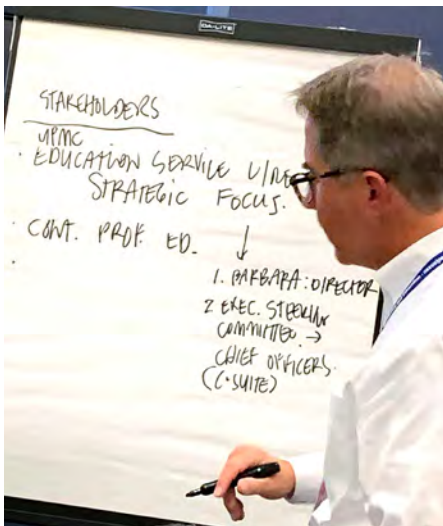
**LOVE THE PATIENT-STUDENT DYAD!**
Judges' Feedback

## 04 PROTOTYPE

### STORYBOARD

The prototype was a new version of the PFCC, but with students added. This was intended to be a model that could then be "scaled up" to other clinical units that were similar. The team journey-mapped how the student would engage within the current PFCC ortho clinic in Magee Women's Hospital. The group identified IPEC core competencies to be measured at each touchpoint along the student's engagement path with patient.

## 05 TEST

### THE PITCH AND JUDGES FEEDBACK

Building off something already in place, the added value through this workshop was for patients through better outcomes and improved care navigation; and for students with real-world clinical learning, including reaching to the patient's home.

DIVERGENT THINKING LEADS TO HOPE: THE POTENTIAL OF AN EXISTING MODEL TO BROADEN ITS SCOPE.



"
The patient gets a student navigator and the student gets the patient perspective and expert faculty debriefing.

Vicki Hornyak, DPT, GCS, Department of Physical Therapy, School of Health and Rehabilitation Sciences, University of Pittsburgh

## CONVERGENCE TEAM
# EXPOSING HIDDEN CURRICULUM

### ORIGINAL PROBLEM STATEMENT

This team was comprised of individuals from Oregon Health Sciences University, Medical College of Wisconsin, Christian Brothers University who signed up for the workshop individually. Following a comprehensive review of their challenge statements, SmithGroup paired the team to focus on: Uncover the hidden curriculum that students experience in the clinical learning environment both uniprofessionally and interprofessionally.

### 01 EMPATHY

#### BROADENING STAKEHOLDER GROUP

By focusing on the student experience, the team discovered more personal approaches could help improve the CLE.

### 02 DEFINE

#### FINAL GUIDING STATEMENT

Uncover the hidden curriculum in the clinical learning environment with the use of self-reflection and debrief.

### 03 IDEATE

#### JOURNEY MAPPING

Stakeholders were identified as students, patients, family, faculty/preceptors, and support staff. A journey map was created to visualize potential positive/negative implications and interactions the hidden curriculum can have on stakeholders utilizing Micro, Meso, Macro approach. From the journey map, an actionable prototype was created.

## 04 PROTOTYPE

### STORYBOARD

Create a universal facilitator's guide detailing how to use online learning platforms to address the following student prompt: "Write about an interprofessional interaction that impacted the patient and/or family." The online learning platform would have two faculty/preceptor monitored discussion boards—one featuring positive interactions and one featuring negative interactions.

## 05 TEST

### THE PITCH AND JUDGES FEEDBACK

Students would be required to post their online response to the prompt for both discussion boards and respond to another student's post for both positive and negative experiences.

AN EMPATHETIC, STUDENT-FOCUSED PERSPECTIVE LEADS TO A NEW WAY OF SHARING AND LEARNING FROM INTERPROFESSIONAL EXPERIENCES.



"

The forum will create teachable moments. We want our students to be change agents.

Cheryl Scott, RN, Director of Clinical Simulation, Assistant Professor, Christian Brothers University

# SAM HOUSTON STATE UNIVERSITY
# CULTURAL COMPETENCE

## ORIGINAL PROBLEM STATEMENT

How can we improve cultural competence in students entering health professions?

## 01 EMPATHY

### BROADENING STAKEHOLDER GROUP

The team's goal was to decrease morbidity and mortality rates and increase interprofessional patient and clinician experiences. The empathy stage was helpful in understanding the broad spectrum of participants in their clinical learning environments. The team decided to focus on preparing students for future work in rural communities. The discussion evolved into how each person or community group would participate or be impacted.

## 02 DEFINE

### FINAL GUIDING STATEMENT

Increase health and wellness by fostering a continuum of growth in cultural competence.

## 03 IDEATE

### JOURNEY MAPPING

Using the Mapping Over Time method, the team outlined the important moments and allowed them to develop an "ideal" experience for all stakeholders.
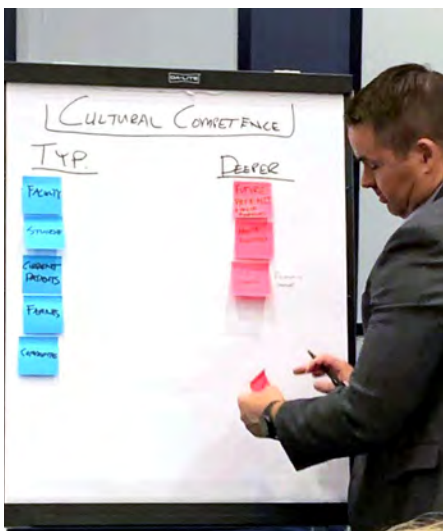
## 04 PROTOTYPE

### STORYBOARD

The prototype became a course or activity that tests students' ability to engage patients through a panic room escape structure. They would utilize standardized patients and questioning to unlock clues, eventually escaping from the room.

## 05 TEST

### THE PITCH AND JUDGES FEEDBACK

Their pitch focused on creating clinical training around cultural competency that was fresh and in the "language" of the student with an emphasis on active learning.

THROUGH COLLABORATIVE JOURNEY MAPPING, AN IDEA FOR A NEW EVENT EMERGES AS A FRESH WAY FOR STUDENTS TO EXPLORE CULTURAL UNDERSTANDING.



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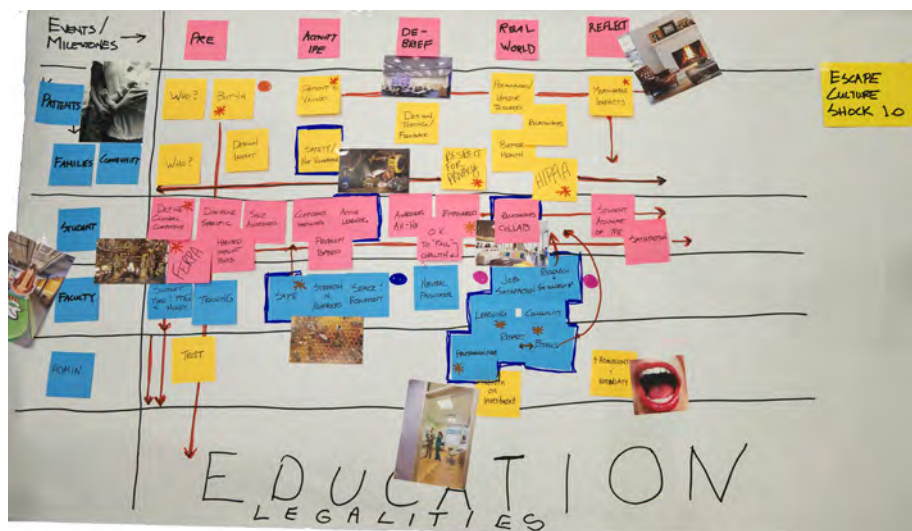
Teamwork is essential, when working with different cultures, not only for patients and families, but also clinicians.
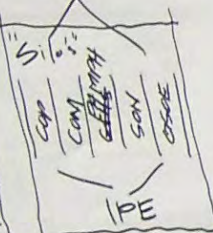
Linda James, RN, Clinical Assistant Professor, School of NursingSame Houston State University

"I came in excited to work across healthcare disciplines but didn't realize the impact of bringing in people from outside the field, such as architects, which really helped us think more broadly."

Doris Tourskiy, Touro University

# IN SUMMARY
# EMPOWERING CHANGE

Envisioning environments where everyone is a learner has the power to inspire change.







Connecting interprofessional education and practice has been an on-going conversation for years. The recent, emerging focus on clinical learning has the potential to tip the scales to create experiences that truly can build the bridge that has been the metaphor so often referenced in these conversations.

Achieving the optimal interprofessional clinical learning environment is about adopting a different mindset coupled with taking action. Both the grassroots level and the leadership level within higher education and healthcare organizations are needed to realize transformational change. The National Center for Practice and Education is tackling this issue through their national Nexus Summit, co-hosted by NCICLE.

As interprofessional teams of educators, practitioners and administrators from across the country came together for the CLE Innovation Challenge, their energy, passion, commitment and openness to explore new approaches was truly inspirational to our teams. As architects, planners and designers, this event was an opportunity for us to learn, in a profound way, the challenges our clients are facing along the spectrum from education to practice, as well as the changes needed to empower healthcare transformation:

- Better integration of one profession into others on campus
- Scaling up more learners across the continuum
- Uncovering the impact of hidden curriculum on learners
- Improving intra-team communication
- Developing more cultural competence
- Moving from periodic didactic events to hands-on community-based groups in need

By diving deeper into these challenges through a different lens, the prototypes that resulted give optimism to the ways in which design can be transformative. We will bring these challenges, when appropriate, to the forefront of planning and designing CLE environments in order to overcome the barriers and provide an abiding, positive impact.

"Our goal for the Nexus Summit was to use creativity to derive at innovative solutions for creating optimal clinical learning environments. This workshop was a perfect example, and exceeded our expections. "

Barbara Brandt, PhD, EdM, FNAP, Director, National Center for Interprofessional Practice and Education
Associate Vice President, University of Minnesota

# SMITHGROUP

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## Better Future

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