Co-Design Report

Community Healthcare Simulation Center

Rochester, Minnesota

Intent and Background

The GRAUC co-design project objectives were to facilitate a co-design effort with the GRAUC Simulation Collaborative and its partners to develop stakeholder-centered strategies and design guidance to equitably, "enhance and expand the Rochester area healthcare workforce by providing access to relevant, effective, and flexible simulation technology for current and future workers."

Co-Design Structure

A co-design structure is an iterative sequence of in-person (or virtual) studio sessions followed by community co-designer exploration sprints. The studios are where a diverse collection of community co-designers (who are all professionally compensated as designers and researchers) come together and collectively interpret information and insights from their community conversations (sprints) as well as co-develop promising solution concepts to test with community members in subsequent sprints.
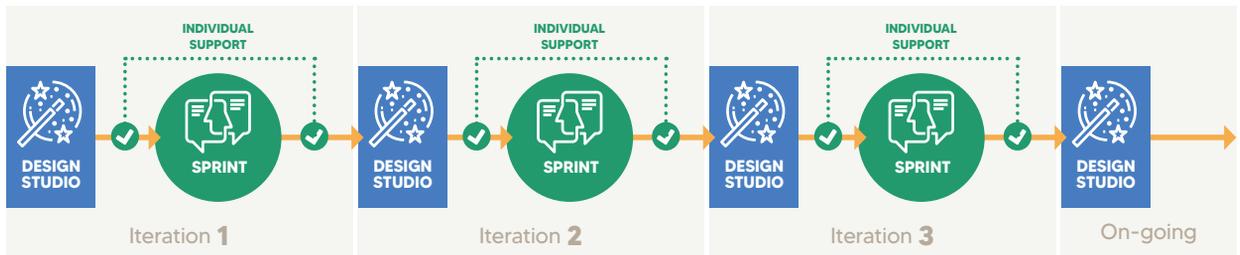
The following impact statement, mission statement, and values and guiding principles built on the previous engagement and strategy work of the GRAUC workgroup. They have been informed and revised through the shared lived experiences of a broad range of stakeholders (between 25-35 individuals), including, but not limited to, practitioners, educators, college students, mid-career individuals, and high school students.

Proposed Impact Statement

Establishing a community resource for healthcare simulation will ensure that our regional education providers and healthcare institutions can bolster Rochester's reputation for quality equitable education and medical care.

Proposed Mission Statement

The mission of the Center is to provide educators and current and future learners an innovative training facility and outreach strategy in Southeast Minnesota which provide competencies and skills necessary to build a proficient and collaborative workforce for the future.

Proposed Values & Guiding Principles

The following guiding principles (in no particular order) are key design criteria that should be used to inform the design, operations, and leadership of the Community Healthcare Simulation Center. The 9 guiding principles have been identified, prioritized, and contextualized through the experiences, hopes, values, and concerns of those potentially most impacted by the Center. While each principle was identified for its unique importance, the principles overlap and should be received and implemented as a collective.

1. Diversity & Inclusion

Create structures for improved recruitment of healthcare providers of color and safe learning spaces to advance cultural humility in the profession and at the bedside.

One of the most significant and persistent gaps in simulation is the ability to include and train for equity (both in the workforce as well as patient population). Simulation, unlike many traditional DEI trainings, offers real and applied opportunities to better understand and respond to differences in race, culture, language, physical and mental abilities, gender, and age.

Examples shared/discussed include:

Moving DEI trainings into the simulation space. Instead of abstract and passive activities occurring in conference rooms, create opportunities for people to tangibly (and safely) confront issues of inequalities as they occur within the workforce and at the bedside so that providers become more effective at recognizing and navigating experiences of inequality and racism.

2. Simulation for Under-represented Patient Populations

Become a regional and national leader in creating simulations for under-represented patient populations such as LGBTQ+, Autism, and Disabled.

Working with underrepresented communities such as non-English speaking patients, LGBTQ+ communities and those with disabilities, autism, and significant mental illness is one of the most significant gaps in current simulation curriculum (this is reinforced in the literature and recent simulation conferences). Many noted that this as a strong opportunity space for the Simulation Center to become a national leader.

Examples shared/discussed include:

A simulation experience for patients, especially patients that are least familiar with current healthcare practices and policies. Patients often deal with significant fear and avoidance because of not "knowing what to expect." A couple of examples would be for patients to be able to "walk through" a future surgical procedure or a screening (breast cancer screening for example) experience.

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Examples shared/discussed include (cont.):

Simulation curriculum that is tailored to expose healthcare professionals to the unique experiences, fears, needs, and hopes of those not currently served well by existing care delivery systems (this should be co-developed with those most disproportionately impacted).

3. Innovation Hub

Develop, test, and spread cutting-edge simulation technologies and practices.

Rochester is home to numerous technology start-ups and incubators, but some noted the opportunity for simulation to be an incubator and/or accelerator for health and equity services. Many noted that simulation, done well, is a safe space where people can try and learn together, which would make a ripe environment to collectively explore persistent health issues and rapidly prototype possible solutions without over-investing or doing unintentional harm to patients/community.

Examples shared/discussed include:

A space and co-design structure to rapidly "prototype" new care delivery models and approaches with colleagues (healthcare and non-healthcare), patients, and community members. An example might include re-designing care management for heart-failure patients or reducing disparities in diabetes management.

3. Innovation Hub

Develop, test, and spread cutting-edge simulation technologies and practices.

Examples shared/discussed include (cont.):

Create an "accelerator" space and structure in partnership with technology and/or medical device companies looking to get rapid and real-world input and feedback from patients and providers (this was a stated challenge for MedTech companies not yet at the implantation/controlled study-scale, and could be an additional source of revenue for the simulation center).

4. Community Informed

Create on-going opportunities for community to collaborate in the design and practice of the center will ensure that persistent and emergent challenges are appropriately prioritized.

The Rochester region has gained significant regional and national attention for its broad-based investment in equitable community engagement strategies such as co-design. Many recognized that this is a power brand for a region looking to become "America's City for Health," for all, especially when making a long-term investment such as the Simulation Center. Additionally, many shared anxieties in creating a simulation center that would be too rigid to adapt to the rapidly changing healthcare landscape that includes, a population that is becoming older and more diverse, rapidly evolving healthcare technologies, and a significant workforce shortage to name a few.

Examples shared/discussed include:

Build authentic and equitable community engagement into the DNA (mission and operations) of the center. This might include involvement of community members on boards and key advisory councils, regular co-design opportunities such as to inform strategic planning and curriculum design/revision, and the creation of formal community fellowships.

5. Autonomy & Purpose

Establish opportunities that promote employee wellbeing and offer regular opportunities for individual growth and team collaboration.

One of the most reliable drivers of job burnout and dissatisfaction is a lack of purpose and autonomy (being micromanaged). Most recognized that simulation experiences tended to be well received not just for the education opportunity they offered, but for the space and opportunity to try something new and reflect on those experiences (how might this offer more valued care). While simulation is unlikely to solve burnout in providers, it is a highly time and resource efficient way to help manage stress and burnout and promote creative thinking and collaboration.

Examples shared/discussed include:

Pilot loosely structured opportunities for individuals and teams to explore and practice issues they find interesting/challenging (modeled after the 3M 15% culture that allows employees to spend unstructured time collaborating and exploring issues that can offer unique value but are not part of their daily duties). This example would likely overlap with the "Innovation Hub" example.

6. Mental Health Focus

Respond to the growing mental health strain of both providers and patients.

Healthcare providers and patients were facing significant and persistent mental health challenges prior to the COVID-19 pandemic. In the almost three years since the pandemic hit data is showing that the problem has reached crisis levels. The reasons for these mental health challenges are complex and many noted that simulation can play a significant role in not just practicing technical procedures, but in learning how to 1) recognize mental illness in their colleagues, patients, and self, (especially the diversity of ways it might be expressed in underrepresented communities), 2) be able to respond to and navigate those scenarios, and 3) normalize self-care and wellbeing within the healthcare field.

Examples shared/discussed include:

Create simulation curriculum focused on creating safe spaces to explore and navigate mental health issues, specifically how they will express within the workforce and within patient care (including family dynamics), paying particular attention to trauma, anxiety, and substance misuse.

7. Highly Trained & Supported Instructors
Recruit and develop a diverse and well-trained bench of simulation instructors.

One of the non-negotiables (outside of equity) identified by the co-designers was the recruitment and training of highly skilled and humble instructors for the simulation center. All noted that the simulation center is just space, and that the instructor's ability to make the space and lessons come alive is absolute to the success of the center. Many noted that the most important skillset is the ability of instructors to create authentic learning environments that are interactive, engaging, and do not feel punitive (a safe space to fail and learn). The ability to (and focus on) debrief was identified as the differentiator between effective and less than effective instructors.

8. Proactive Recruitment

Broaden healthcare workforce recruitment opportunities through proactive and hands-on exposure to simulation.

Given the existing and growing workforce shortage facing healthcare, many noted the opportunity to expose new and younger individuals to the profession through simulation. While some exposure exists today some recognized the need to tailor simulation experiences for a younger and more diverse audience, especially those that may not have been exposed to the profession otherwise (boys, immigrant communities, etcetera).

Examples shared/discussed include:

Create simulation experiences for Rochester (and other area) middle and high schools to create proactive and consistent opportunities for students to identify with healthcare professions (this could include mental health simulation experiences for students where mental illness has been significantly impacted by the pandemic). These opportunities should be specifically targeted to racial groups currently under-represented in the profession and should occur when/where these students feel most comfortable (and should look to include student parents/guardians to reinforce the opportunity).

8. Proactive Recruitment

Broaden healthcare workforce recruitment opportunities through proactive and hands-on exposure to simulation.

Examples shared/discussed include (cont.):

Similar to creating simulation experiences for middle and high school students, create simulation experiences for mid-career professionals through community education channels, where professionals from other sectors may be looking for a change of career.

9. Broaden Opportunities
Increase opportunities for simulation across the region, including at smaller health systems.

While everyone agreed to the value of simulation, the access to reliable simulation learning experiences were inequitable, specifically by geography. Just as healthcare has been adapting to better meet patients "where they are" many noted the importance of having a decentralized model and approach to simulation that expands the opportunity and application of simulation to individuals in out-state settings.

Examples shared/discussed include:

A mobile simulation center to bring simulation curriculum and technology to smaller clinics/hospitals. This wouldn't be a fully mobile space to facilitate simulation, rather a van that would transport simulation center instructors, curriculum, technology, and tools to deploy on-site at smaller clinics/hospitals. Curriculum should be tailored to what smaller communities are facing, specifically aging, increasing diversity, and less available services, including healthcare.