

# James S. Brown Simulation Center

## Annual Report





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*Cover photo: Mike Froeberg, Clinical Nurse Specialist; Carmen Spalding, Director for Simulation and Innovative Learning; Daniel McConnell, Simulation Operations Coordinator*

## Introduction to the Brown Simulation Center

In the early days of the James S. Brown Simulation Center, our small but mighty team embarked on a journey to develop our mission and vision statements, aligning them with Sharp HealthCare's overarching mission, vision and values. We were driven by our shared commitment to excellence in creating the highest quality simulation activities, knowledge generation and meaningful systems integration. As with everything we do at Sharp, our primary focus is on delivering The Sharp Experience to our customers.

Our vision was created from our desire to become a community leader in health care simulation, pushing the boundaries of innovation and collaboration. We recognized the importance of incorporating evidenced-based best practices to simulation activities, and through accreditation preparation, ensuring that the structures and processes we were developing met the highest standards.

Our mission statement is: The Brown Simulation Center at SHC works through collaborative partnerships to provide innovative learning experiences, lead meaningful systems integration, and generate new knowledge to benefit those we serve.

Our vision statement is: Through simulation, we will support Sharp HealthCare's pursuit to be the best health system in the universe. We will use simulation to help Sharp HealthCare be:

- The best place to work.
- The best place to practice medicine.
- The best place to receive care.



## Message From the Vice President

It is with great pride that I reflect on the journey Sharp has undertaken to establish a center for learning and innovation – a vision our leaders have long cherished. This vision began to materialize in 2020 with the adoption of a design-build strategy, a method that synergizes the expertise of designers and builders from the outset. The advantages of this collaborative approach include enhanced efficiency and cost-effectiveness, ensuring all parties are aligned throughout the project, from conception to completion.

Sharp selected HGW Architecture and McCarthy as the design-build partners, and the groundbreaking for the Sharp Prebys Innovation and Education Center (SPIEC) took place on September 30, 2021. This milestone was followed by the “Steel Topping Out” ceremony on December 9, 2021. Throughout the subsequent year, construction progressed on the exterior and interior of the SPIEC, while planning occurred for the operational aspects of the various spaces, departments and services.

I am personally honored to have participated in the review of proposals, presentations and plans that ultimately led to the selection of our design-build partners. This process afforded us the unique opportunity to thoughtfully design the Caster Nursing Institute space, incorporating four centers of excellence and the leading-edge simulation center.

Walt Disney once articulated a profound truth: “You can dream, create, design and build the most wonderful place in the world, but it requires people to make the dream a reality.” This sentiment resonated with us as we welcomed Carmen Spalding to Sharp in February 2023 as the director of simulation and innovative learning. Her arrival, preceding the official move-in at the end of March 2023, was a pivotal step in bringing the James S. Brown Simulation Center to life. The SPIEC building was dedicated on April 14, 2023, and the Brown Simulation Center officially commenced operations on May 1, 2023.

John Ruskin once observed that we seek two kinds of goodness from our buildings: practical utility and aesthetic grace. The Brown Simulation Center embodies both, with spaces meticulously crafted to reflect patient care areas across Sharp, ensuring practicality of the spaces. Moreover, the SPIEC itself is a testament to grace and appeal, with its lofty ceilings, abundant sunlight and welcoming spaces.

We cordially invite you to visit us on the second floor of the SPIEC and to use this space to support Sharp’s enduring vision to be the best place to work, the best place to practice medicine and the best place to receive care.

Warm regards,



**Laurie Ecoff, PhD, RN, NEA-BC, CNL**  
Vice President, Caster Nursing Institute and  
Brown Simulation Center



## Message From the Director

As we reflect on the last six months, it is with immense pride and gratitude that we share the progress and achievements of the James S. Brown Simulation Center (BSC). Our brand-new, state-of-the-art Sharp Prebys Innovation and Education Center stands as a testament to Sharp HealthCare's unwavering commitment to advancing health care education through leading-edge simulation technology.

We are fortunate to have welcomed two exceptional team members, Mike Froeberg, MSN, CNS, AGCNS-BC, CEN, and Daniel McConnell, MBA, whose expertise and dedication have been instrumental in shaping the success of the BSC. Mike, a clinical nurse specialist, has led the development of innovative simulation events that not only replicate real-world health care situations but also foster critical thinking and clinical reasoning skills. As a seasoned simulation operations coordinator, Daniel has brought his wealth of knowledge and experience to create lifelike scenarios that challenge and engage our participants.

Throughout the year, we have focused on developing a diverse range of simulation events that cater to the needs of various health care disciplines. From mental health nursing to pharmacy and interprofessional team training, our center has become a hub of learning and collaboration. Additionally, as with any startup department, we are working diligently to create structures, processes and outcome measures to ensure best practices are maintained.

We are deeply grateful for the support and generosity of the Brown Family, the Sharp HealthCare Foundation, and the Terrence and Barbara Caster Institute for Nursing Excellence for the visionary leadership and financial support that made the BSC a reality. Without their unwavering commitment to advancing health care education, none of this would have been possible.

As we look toward the future, we remain steadfast in our mission to provide exceptional educational simulation activities that prepares health care professionals for the complex challenges they will face. We are excited to continue pushing the boundaries of innovation and excellence, and we invite you to join us on this remarkable journey.

With heartfelt appreciation,



**Carmen Spalding, PhD, RN, CHSE-A**  
Director for Simulation and Innovative Learning  
James S. Brown Simulation Center





## Message From the Educator

It has been an absolute pleasure to help launch the simulation program for Sharp HealthCare. Prior to starting at the James S. Brown Simulation Center, I had a basic understanding of simulation and its applications. However, over the past several months, my mind has been opened to the vast potential we have to advance Sharp's mission and vision by incorporating simulation throughout the organization. Simulation is not only a fun and effective way to improve individual and team performance, but it also has applications in assessing and improving processes, identifying latent safety threats, and testing proposed innovations. The simulation program provides invaluable tools for advancing The Sharp Experience and accelerating our journey to becoming a high reliability organization.

I am incredibly proud of our team for what we have accomplished in our program's inaugural year, and I look forward to the future with great anticipation.



**Mike Froeberg, MSN, CNS, AGCNS-BC, CEN**

Clinical Nurse Specialist

James S. Brown Simulation Center



## Message From the Simulation Operations Coordinator

I wanted to take a moment to express my sincere gratitude for the opportunity to be a part of the team in the role of the simulation operations coordinator. It is truly an honor to be involved in bringing the idea of being a premier simulation center to reality, and I am incredibly grateful for the chance to contribute to such an endeavor for Sharp HealthCare, and more importantly, improved patient care.

I am constantly inspired by the dedication and hard work of Carmen and Mike. Each day, we face new challenges and obstacles, but it is the collective of ideas, collaboration, effort and determination from everyone involved that allows us to overcome these challenges, better prepared for the next.

It should never be underestimated what the right group of people can accomplish when given the opportunity, and I am incredibly proud to be a part of this team.



**Daniel McConnell, MBA**

Simulation Operations Coordinator  
James S. Brown Simulation Center



## Strategic Plan

The BSC staff believes it can most closely mirror the vision of Sharp by striving to be the “Best Simulation Center in the Universe.” Our five-year plan is to be recognized as the best simulation center in both the local San Diego and international simulation communities. Our near-term goal is to become accredited by the Society for Simulation in Healthcare and endorsed by the International Nursing Association for Clinical Simulation and Learning. Our long-term plan includes advanced accreditation as well as sharing our expertise with the community in the form of long-term partnerships and knowledge sharing.

With our mission and vision statements in place, we are working to transform our aspirations into reality, contributing to Sharp’s mission and making a positive impact on health care education, patient care, and the broader health care simulation community.



Located in the new Sharp Prebys Innovation and Education Center, the BSC opened its doors for training on May 1, 2023. The 4,000-square-foot space houses:

- Eight patient care spaces
- Four debriefing rooms
- A control room
- Storage spaces



We offer a host of simulation modalities, including high-fidelity manikins, simulated participants and partial task trainers. We are excited to highlight the various simulation activities our team has supported and their associated outcomes.

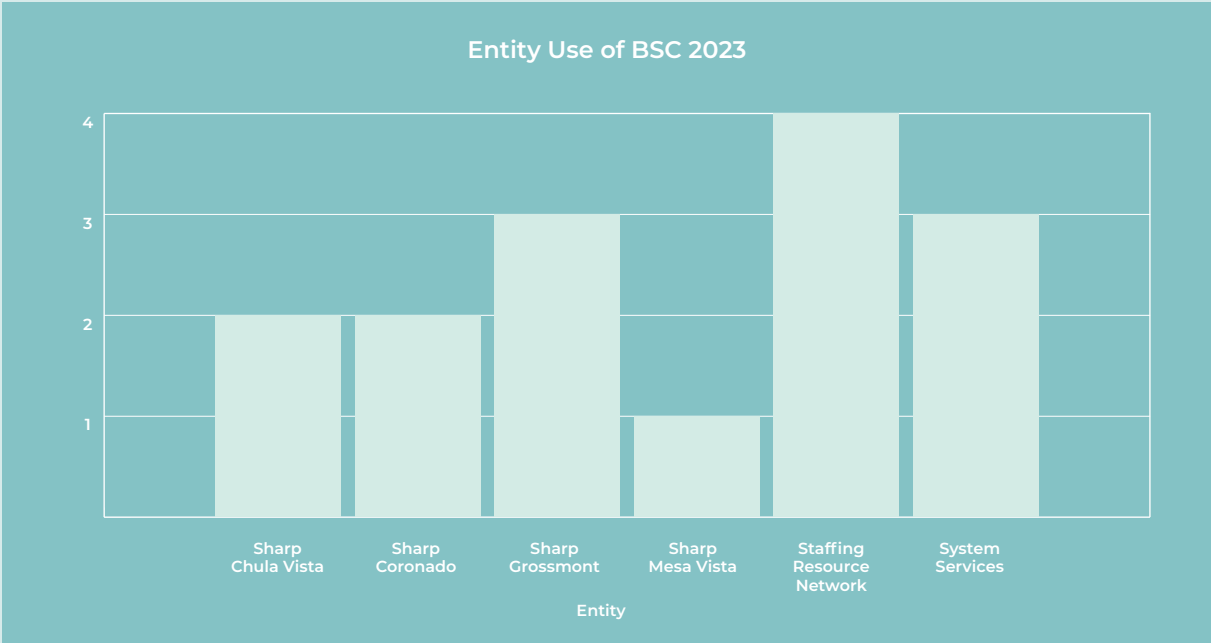


# Simulation Activities

Since the BSC opened, we have helped create 17 unique simulation activities for 114 individual sessions and 1,381 participants. The following is a breakdown of the events the BSC has developed and implemented.

The BSC has supported simulation activities from several (held on-site at the BSC or remotely at the entity). **Fig. 1** shows the breakdown by entity.

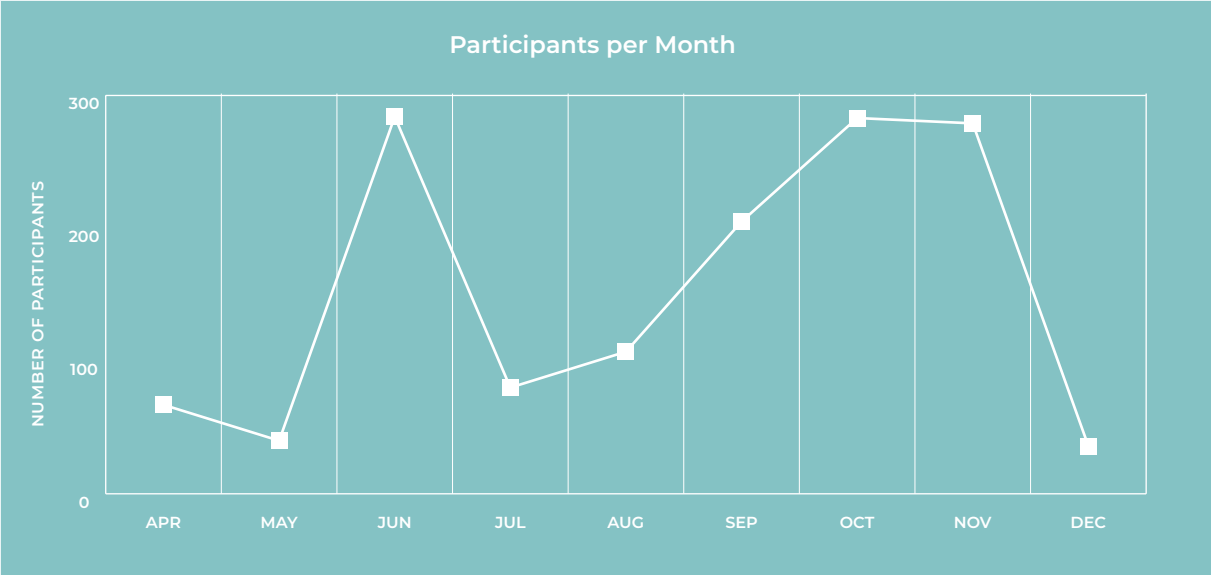
**Fig 1.** Simulation Activities by Entity



We are also in the process of developing new simulation activities for Sharp Mary Birch Hospital for Women & Newborns and Sharp Memorial Hospital.

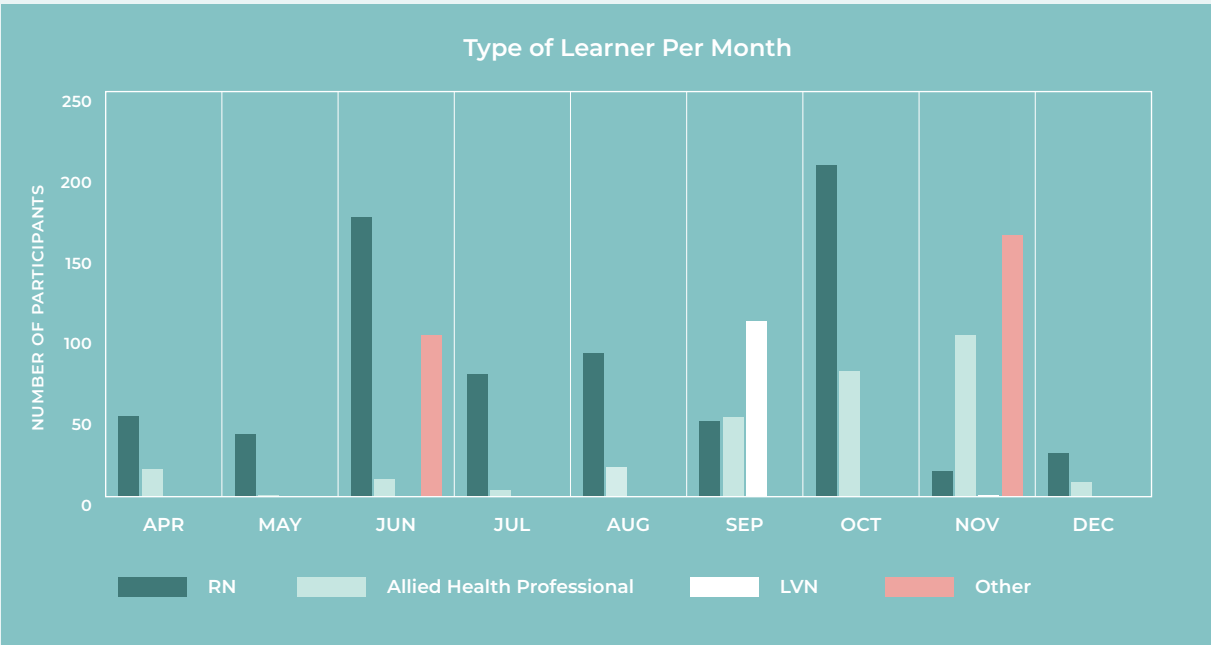
The number of participants in various simulation activities has increased steadily over the months since the BSC opened (see **Fig. 2**).

**Fig 2.** Number of Participants per Month

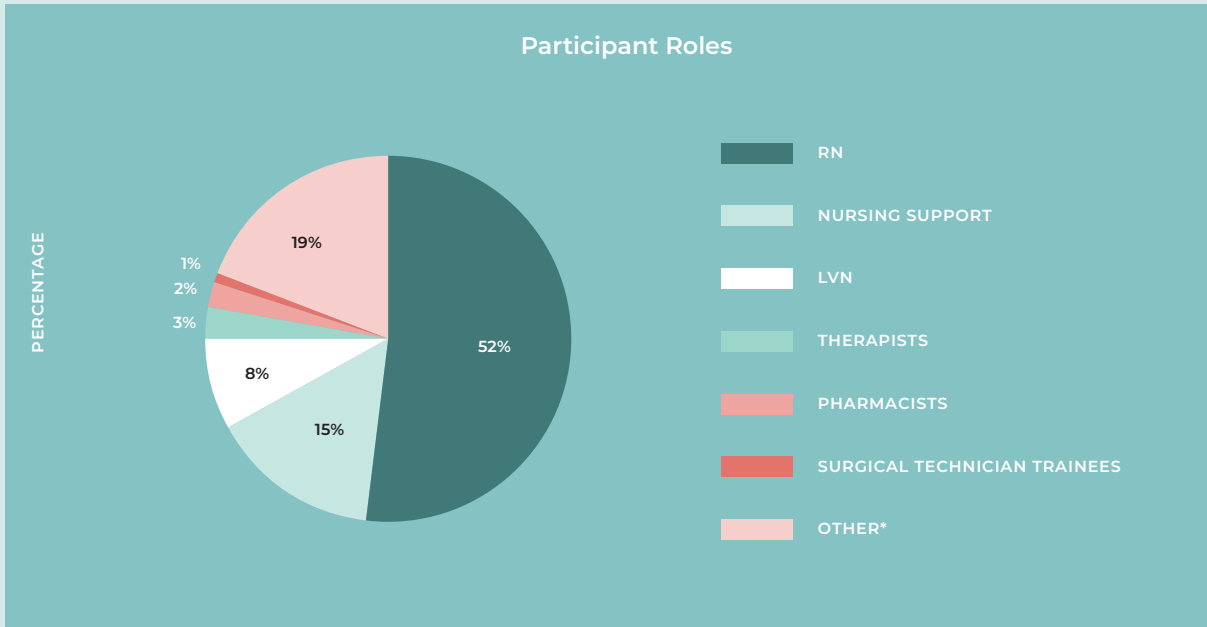


The BSC staff has worked with various interprofessional participants throughout SHC. Various nursing roles have participated in simulation activities. **Fig. 3** shows the type of participant per month. The percentage of various participant roles can be found in **Fig. 4**, the largest percentage being RNs (56%).

**Fig 3.** Type of Participant per Month



**Fig. 4.** Percentage of Participant Roles



\*Other includes pharmacists, physical therapists, surgical technicians, rehabilitation aids, security, occupational therapists, respiratory therapists, radiology/imaging techs, administrative liaisons and recreation therapists. Thirty-five percent of simulation activities included interprofessional roles.

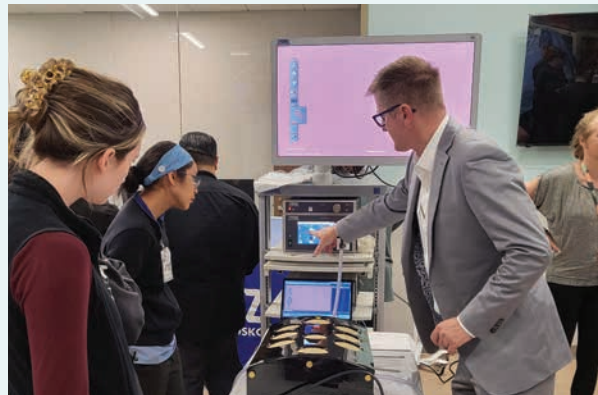
For the reporting period April through December 2023, our total contact hours were 8,374. The simulation activities used task trainers, manikins, simulated participants and hybrid simulation modalities. Thirty-four simulation instructors were trained to implement and evaluate simulation activities. Of 75 respondents that participated in simulation activities in the BSC, 100% reported that simulation increased their knowledge, skill, attitude and/or confidence and will apply lessons from simulation into their clinical practice.

## Simulation Exemplars

A few simulation activities we would like to highlight that exemplify our evidence-based, best practice approach and describe their impact:

**Peri-Op 101** — There is a nationwide shortage of operating room nurses. Sharp was filling several vacant positions with travel RNs, at a considerable expense. Other positions remained vacant for extended periods. Peri-op 101 was a systemwide effort to train current nurses to work in the OR. The instructors were seasoned OR nurse educators who worked at several SHC entities. Before the BSC was available, these nurses were training small numbers of nurses at a time, in their respective facilities, which created duplication of efforts. Also, without a dedicated training space, the educators had to block off a clinical space, which has additional negative fiscal impacts. The BSC staff partnered with the OR nurse educators, who identified and implemented an evidence-based curriculum that included skills and scenario-based simulation. The course lasted eight weeks and included in-person lectures and discussions, online training modules, skills review, and scenario-based simulation.

Nine nurses successfully completed the first cohort. All graduates of this cohort filled positions held by travel RNs or that were chronically vacant. As the educators could concentrate their efforts, they realized a decrease in staff days off the unit by over 50% (21 to 10 days). The fiscal impact of this effort is difficult to precisely measure, but the estimated cost savings to SHC is well over \$1 million in the first year.







**Surgical Technologist Training** — As with OR nurses, there is a shortage of surgical technologists across the nation. Staff unfamiliar with the OR environment can create safety concerns related to sterility that the team believed simulation could help alleviate. Partnering with the SHC Guild education program, we worked with OR subject matter experts to develop a simulation-enhanced course. The inaugural group of 12 Sharp employees completed this 3-week immersive course. They are continuing to complete their clinical placements, but this group has received high praise among Sharp colleagues on their OR comportment. We are continuing to collect data on their long-term performance, including hiring and retention rates.

**Sharp Coronado Hospital Emergency Department Security Training** — The health care industry is seeing an increase in workplace violence across the United States. The BSC staff partnered with an emergency department subject matter expert to create a simulation-enhanced violence de-escalation course. A total of 67 participants attended the training, which consisted of skills review and de-escalation technique practice using simulated participants. The goal of the training was to reduce Code Green (assaultive patient or visitor) activations and reduce employee injury due to combative patients. After this training, the ED saw a decrease in the number of injuries due to combative patients from 18 to 7 (a 61% reduction).

Oftentimes, a simulation activity can prove to be a very timely refresher for clinicians. A newly hired NICU nurse at Sharp Grossmont Hospital participated in a simulated resuscitation and subsequently had a very similar experience in the clinical setting. She told her CNS that she felt more confident because of her simulation activity.

## Tours and Friends of the Foundation

Supporting tours of a newly established simulation center is of utmost importance as it plays a crucial role in developing partnerships with both internal and external customers, as well as fostering philanthropic efforts. Our tours showcase the BSC's advanced facilities, innovative programs, and leading simulation technology and recognize the importance of the team that helps bring our simulation training to life. Tours for internal stakeholders, such as health care professionals, administrators and staff members, can provide a deeper understanding of the BSC's capabilities and how it can enhance their work.

External customers, including health care organizations, educational institutions and industry partners, can witness firsthand the value and impact of the BSC, fostering collaboration and partnership opportunities. Moreover, tours can serve as a platform to engage philanthropic individuals and organizations, highlighting Sharp's commitment to lifelong learning and performance improvement, and how their support can make a meaningful impact. By offering these tours, the BSC can forge strong relationships, garner support, and create a network of advocates who share in the vision of advancing quality and safety health care education and patient care. Since the BSC opened, we have hosted over 92 tours and 1,600 visitors. Our team provides a customized tour experience for each group, tailoring it to their specific needs and interests. We are grateful for the opportunities these tours create, as they foster new collaborations and partnerships. By experiencing firsthand the impact of charitable donors' support, many generous individuals have been inspired to make significant donations to Sharp following their visit to the BSC.

## Community Outreach

The BSC was proud to partner with members from the San Diego community to support two high-visibility events.

- **EmERge** — This event, which hosted over 100 teens interested in careers in the health care industry, involved several simulation breakout sessions. The BSC staff provided the space and logistical support, and a staff member even filled in as an instructor. Feedback from the attendees and the organizers was overwhelmingly positive.



- **ReAnimate** — The BSC was proud to host the ReAnimate conference for its ninth annual offering. Over 160 attendees from around the world spent two days learning and practicing various aspects of extracorporeal membrane oxygenation (ECMO) for use in resuscitation. The BSC was also able to provide the spaces for a single-day event geared specifically toward Sharp HealthCare team members. We received glowing feedback from the course organizers and are already looking forward to hosting this event again next year.

The estimated value to the organization for hosting external activities that benefited the community was over \$17,000.

In addition to community events, we offered the use of our spaces to Sharp-sponsored vendor demonstrations, internal and external marketing video shoots, and conference sessions. In all, the estimated value of hosting these events in the BSC spaces was over \$16,000.







## Safety Partners

Simulation can be used to identify latent safety threats in health care settings. Also known as in-situ, this type of simulation activity allows health care professionals to identify potential risks and hazards that may not be evident in traditional simulation settings or during routine care. This approach allows for the observation and evaluation of the entire health care system, including equipment, processes and communication, to identify areas for improvement and mitigate potential risks.

By proactively identifying and addressing latent safety threats through in-situ simulation, health care organizations can enhance patient safety and improve the overall quality of care provided. The BSC team is proud to partner with our patient safety subject matter experts from across the SHC system. We are developing two new projects that will employ the use of simulation to address known safety concerns in the coming year. We also supported the annual patient safety “Do No Harm” conference, where the BSC hosted patient safety-themed “escape rooms.” We had over 40 participants work in teams to solve the patient safety-related puzzles and “save the patient.” Participants reported they had a wonderful time and learned the value of simulation as it relates to patient safety.





## Research

Just as safety and simulation make good partners, simulation and research align well. Well-designed simulation research projects can be effective in different ways. Most typically, we can use simulation as part of a research project if the project would otherwise present ethical issues with human subjects. For example, testing a new technology or device might be better done in a simulated setting prior to using it in the actual clinical space.

Another way simulation uses research is to advance the profession. Health care simulation as a formally recognized profession and modality is relatively new. Simulation is also a resource-intensive educational modality, and the current research on simulation is not very robust. We need more rigorous simulation research with higher impact outcome measures to be able to better demonstrate the value of simulation. To that end, the BSC is hoping to develop a simulation research program as part of our five-year strategic plan.



## Summary

We are proud of our outcomes thus far as described in this report:

- 20 unique simulation activities for 114 individual sessions and 1,381 participants
- 8,374 simulation participant hours
- 100% of respondents reported that simulation increased their knowledge, skill, attitude and/or confidence and will apply lessons from simulation into their clinical practice
- 34 simulation instructors trained
- Peri-op 101 simulation decreased days in staff off the unit by 50% and saved a projected \$1 million in the first year
- Security simulation training accounted for a 61% reduction in injuries from combative patients in the ED
- 92 tours with 1,600 participants
- 40 participants working in teams to solve the patient safety-related puzzles and “save the patient”

The BSC staff would like to thank you for your interest in our success. So many of you have been champions for the BSC and for simulation in general; we are grateful for your partnership and support. We also extend our deepest thanks to SHC and nursing leadership for their guidance and encouragement in bringing the BSC to fruition and driving our department forward. Finally, we are immensely grateful to our philanthropic partners at the SHC Foundation, and especially to the Brown Family for their incredible generosity and partnership in helping us make a difference in the lives of patients and health care professionals. We are grateful for the support we have received.



## Testimonials

“Having the equipment and realistic rooms helps us to provide more realistic education to the nursing assistants. The staff appreciate the reality, and all have had a positive response to the new way we are training them. Having the center to teach in and the center’s team has made my life much easier as a leader! I know we have the support we need. Mike and Daniel are amazing to work with and really make teaching easier!”

**Patty Argente**, *SRN Manager for the Central Staffing Office, Nursing Assistant, Radiology, and Vaccine Tech Float Pools*

“I loved that we got to do things hands on in the new simulation lab, the new mock code blue really made me feel like I was in a code blue, and feeling that more often makes me think I’ll be more confident in the real thing.”

**LVN** from *Grossmont*

“The sim center benefited over 70 researchers from the NIH to demonstrate the use of resuscitation with an intact cord in newborn babies.

The space allowed for more than a normal group to be able to see the simulation together, which was helpful saving time, space and money.”

**Anup Katheria**, *MD, Neonatologist*

“I chose the Sim Center for the expertise of the team and state-of-the-art, high-fidelity equipment. The team is very supportive and knowledgeable on how to make the experience the best that it can be. I hope to expand the use of the simulation center for all my future cohorts as time permits. I hope to include end-of-life care, incivility and skills practice.”

**Sara Wren**, *Nursing Workforce Professional Development Specialist, Sharp Chula Vista*

“We recently used the sim center to conduct escape room challenges as part of our annual Do No Harm Conference. Our theme was Safety II, and how simulation can help us achieve excellent patient outcomes under varying conditions. The escape rooms were intended to reinforce in a playful manner some of the principles learned at the conference, and what a success they were! We had so many people show up that we had to run all rooms simultaneously. It was so great to see how everyone was eagerly participating, collaborating and exchanging information (not to mention people smiling and genuinely enjoying the activity). It was a delightful end to an action-packed day!”

**Alexandra Perreiter**, *Director of Patient Safety*

“Access to the Brown Simulation Center has been pivotal for the SRN leadership team. With access to the simulation center, we are able to complete a large portion of the RN Orientation Pathway in-house. This streamlines the orientation process for our nurses and helps us do what we do best: provide vital workforce support throughout our organization, with innovation and a commitment to excellence.

We have received overwhelmingly positive feedback from our training attendees. Our new hires

love having an opportunity to put their hands on and train with the actual equipment they will use once they reach our hospitals. Receiving that training and working with the equipment in a built-to-spec hospital room makes the training that much more meaningful.

First impressions matter, and we are thrilled to host our new hires at the Brown Simulation Center.”

**Jonathan Argento**, *Advanced Clinician, Staffing Resource Network*

“The Brown Simulation Center, a unique convergence of health care and technology, has positioned us as digital health leaders in San Diego. Showcasing our 3D eye camera microscope here has impressed many local eye care professionals and underscored the innovation potential right in our backyard. This initiative not only elevated our project but has also paved the way for continued innovation, promising to bring exciting advancements to Sharp HealthCare.”

**Tommy Korn, MD**, *Ophthalmologist, Sharp Rees-Stealy Digital Health Innovations Lead*

“The Brown Center has been amazing with both collaboration and coordination to help increase competency and familiarity in the ECT Department, particularly revolving around malignant hyperthermia crisis. My team left the in-house mock scenario having increased confidence and reported that they feel more prepared to handle a MH crisis should one arise. This training also helped our team identify and correct a minor gap in process/flow. Thank you to this amazing team for all of their hard work, guidance and dedication to increasing our knowledge and practice!”

**Jacob Pfister**, *SMV ECT Supervisor*

“The Brown Simulation Center offered a unique and valuable opportunity for participants at the 9th Annual Sharp Interprofessional Research and Innovations Conference in September. With the help of palliative care clinical experts and simulation center staff, we were able to provide the opportunity for Sharp clinicians to practice difficult conversations with seriously ill “patients” in a safe and supportive environment. Those who participated were enthusiastic and grateful for the dedicated time to rehearse what can be an emotional dialogue when patients and families are facing difficult decisions.”

**Caroline Etland**, *PhD, RN, ACHPN*

“Practicing skills in a real-life hospital setting was a complete game changer in providing our staff with comprehensive information and examples of their required skills. In the past, we utilized makeshift equipment requiring our staff to utilize their imaginations. Now, having access to the Brown Simulation Center, the staff were able to show their level of competency in a more accurate way for the instructors to provide constructive feedback. Our NA staff made glowing remarks about this new experience and was also reflected through their “excellent” review within their evaluation of the program.

The resources provided from the simulation center also facilitated the instructors and leadership team with a more clarified evaluation of what skills need to be reinforced throughout the coming year so that we can support their efforts to provide the excellent care we all aspire to offer our Sharp patients.”

**Barbara De Fulvio**, *SRN Educator*

“Our time at the Brown Simulation Center has truly elevated our training, making it a standout and invaluable experience for us. The use of higher-fidelity equipment and the availability of options for recording and reviewing our simulations have significantly enhanced our learning process. The immersive training environment has significantly enriched our skills, providing a hands-on learning experience that is both engaging and effective. The Brown Simulation Center has not only met but exceeded our expectations, making it an invaluable resource for anyone seeking top-notch health care simulation training.”

**Lauren Brady**, *SGH NICU CNS*

“Sharp HealthCare’s commitment to medical excellence is quite evident when you tour the James S. Brown Simulation Center at the Sharp Prebys Innovation and Education Center. This wonderful resource is showcased frequently by Sharp HealthCare Foundation during tours for community members, prospects and donors who are inspired by this example of philanthropic investment well spent.

Experiencing the labs often motivates our guests to inquire how they too can invest philanthropically in Sharp. The Simulation and Innovative Learning team has conducted dozens of tours for hundreds of people over the last six months, which has had a positive impact on our fundraising efforts. The effort made by the team to provide a meaningful experience has resulted in multiple gifts. When the impact of giving is witnessed firsthand, the desire to be a part of it is contagious.”

**Beth Morgante**, *Vice President, Sharp HealthCare Foundation*



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