THE EXPANSION OF THE SIMULATION, TEACHING, AND ACADEMIC RESEARCH (STAR) CENTER AT WEST PENN ALLEGHENY HEALTH SYSTEM (WPAHS)

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Problem Statement
The Simulation, Teaching, and Academic Research (STAR) Center opened in 2007 with four clinical simulation rooms: a birthing suite, a neonatal intensive care suite, a full ambulance simulator, and a medical-surgical/critical care simulation lab. The simulation lab houses a control room, two full-size simulation rooms, a hand washing station complete with simulated germs, a nurses’ station, five simulation stations, and a teaching station. All of these rooms are equipped with high-fidelity manikins and partial body and task trainers.

However, due to the great success of the center coupled with the opening of a four-year medical school with Temple University, the West Penn Allegheny Health System (WPAHS) quickly outgrew this facility. In fact, the STAR Center’s February, 2011 business plan recognized that there was an “unmet demand” for simulation training and that there was a need for STAR to “utilize excess capacity.”

Description of Undertaking
Therefore, with guidance from the business plan, from the center’s staff, and from a Project Specialist, STAR remodeled and expanded their center to include a virtual hospital with sixteen new rooms designed to reflect the entire patient and family hospital experience from admission to discharge. Furthermore, a four room apartment that features a dining/living room area, kitchen, sink/shower and laundry room, and bedroom is also available within the expanded center to provide training in palliative and home health care. Every room in this apartment except the bedroom have one-way mirrors that allow faculty to observe learners unobtrusively as they interact with live actors trained as standardized simulated patients. All rooms are decorated and furnished to simulate a normal home environment.

This renovated facility incorporates state-of-the-art simulation technology with various simulators and task trainers designed for interdisciplinary team teaching. Two of the new rooms have one way mirrors which can be used for observation during training. All of the rooms have the capability of videotaping the simulation and debriefing sessions.

Implications
This larger center has made simulation training more accessible to practicing and aspiring healthcare professionals, including WPAHS’s physicians, nurses, allied health practitioners, residents, fellows, medical students, student nurses, and nursing assistive personnel. The additional space, the Center is able to schedule more training sessions more often. Instructors enjoy virtually no wait time and the first day/time that they request for their educational session is nearly always available. In addition to clinical training, this new space also provides Temple University medical students with a place to practice patient interviewing and to practice Objective Structured Clinical Exams (OSCE).

The renovations have generated publicity for both the Center and for the health system. For example, the expansion was highlighted in the October, 2011 issue of the WPAHS News & Notes magazine and it is also featured on STAR’s website (http://www.wpahs.org/education/star-center/virtual-hospital).

Recommendations for the Future
STAR will continue to expand and renovate in the future as the need arises and as funds become available. When designing any new spaces, input from medical professionals and other key stakeholders will be considered. Some ideas for the future include expanding the current conference room, adding another conference room, and installing SMART boards in both. With more meeting space, the Center would be able to simultaneously accommodate more learners. Another feature that would aid in serving more learners would be adding another control room. A larger task trainer room is also desired and renovating the auditorium to allow for simulation training in the context of large conferences would also be ideal. Finally, creating a student lounge in the Center would help learners relax and bond.

References