



VICTORS FOR MICHIGAN
MEDICINE NEEDS VICTORS

Improving Reality: The U-M Clinical Simulation Center

A campaign to advance victories in medical education, care, research and patient safety



The NEED

Imagine that when a medical student places a central venous catheter for the first time, a nurse works through a power failure, or a pediatric surgeon attempts a delicate new operation on a newborn, they have had opportunities to practice so that they are ready when the stakes are high. The University of Michigan Clinical Simulation Center makes that possible. Using a range of state-of-the-art simulators and models coupled with real medical tools and surgical equipment, our students, faculty and staff can perform medical procedures and learn to anticipate scenarios until they become expert at them — enabling us to make great strides in education and patient safety.

Our expanding Clinical Simulation Center is centrally located within the health system and is widely used by our medical school, residency and fellowship training programs; nurses; and the entire professional staff. From creating standards for medical education to teaching staff how to handle a natural disaster, these realistic, intensive and risk-free training opportunities are strengthening the quality of our work and saving lives.

The VISION

Simulation is the standard for training individuals and teams in fast-paced, challenging and high-risk environments such as the military, aviation and power industries. Its impact on health care is growing rapidly, and we are striving to lead the way in realizing its full potential.

The University of Michigan is a pioneer in the use of simulators to advance medical training and improve patient care and safety, launching one of the first simulation centers in the country in 2004. Today we provide more than 2,700 hours of instruction for over 10,000 learners per year.

Our 6,000-square-foot facility houses adult, pediatric and infant patient simulators that are equipped with software and sophisticated electrical and mechanical features that realistically replicate human physiology and response to treatment. Human simulators can be intubated, ventilated, anesthetized, catheterized and medicated intravenously. They can have heart attacks or present for childbirth with a range of fetal head positions and heart rates. Virtual-reality surgical simulators allow medical students and residents to hone their surgical skills prior to participating in the operating room and enable them to practice complicated procedures on demand. Trainees can insert a needle into a chest to re-inflate a lung or remove fluid around the heart and practice dozens of other clinical procedures.

Mock operating and trauma rooms enable instructors to create medical scenarios that are rare or routine, emergencies or planned. All the while, audio-video equipment records how participants react, so that they can review their performance, receive feedback from peers and instructors, and improve. Students, faculty and staff can run the scenarios until they master them.

The Clinical Simulation Center plays a central role in training individuals and teams in environments that model the real world of practice. Clinical simulation is an essential component of a revolutionary new model of medical school education. Michigan is rolling out a revamped curriculum that is focused on leadership and team-based learning. As one of just 11 schools recognized and supported in such

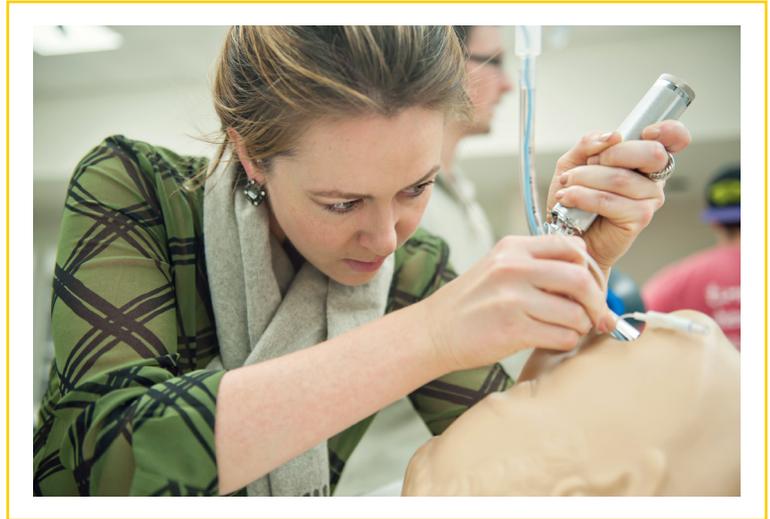
efforts by the American Medical Association, we are educating physicians to collaborate, to push through boundaries, and to make important medical advancements.

The Clinical Simulation Center also is part of the largest graduate medical education program in the country, with over 1,300 residents and fellows. It is central to our groundbreaking Department of Learning Health Sciences, which is developing first-of-its-kind academic programs focused on the study of learning at all levels of health care, from



individuals to large-scale systems that span states and nations. A top priority is developing a “learning health system,” a concept in which a system of health professionals, care teams and institutions achieves the capability to routinely and efficiently study and improve itself.

Our Clinical Simulation Center both greatly contributes to and greatly benefits from these targeted efforts to advance medical training and best practices. The center fosters an active, successful research program of its own, developing new clinical models as well as studying the use of simulation on medical education. We are creating models for otolaryngologists and pediatric emergency medicine physicians



with 3-D printing, for example, and we are developing new models to help students learn how to diagnosis hip dysplasia and other conditions. We are investigating how well simulation works to improve team communication, how it can be used for clinical evaluation, and how it influences patient safety. We are also taking simulators into the hospital to provide training for health care teams to improve patient care, efficiency and communication.

With your help, we can do even more.

The OPPORTUNITY

To continue to lead and innovate, we are investing in our infrastructure, expanding our space and creating new opportunities for students, faculty and staff. We are inviting researchers to collaborate with us, leveraging our tools to test their ideas and propel treatments and cures for disease forward. Our goal is to fuel a culture in which the use of evolving simulation practices results in improved outcomes and the safest, most effective care possible.

A gift to our program will make a broad impact on health care in Michigan and around the world. It will help ensure that surgical teams know how to work together to overcome obstacles, that trainees can practice their skills, and that medical personnel at all levels get hands-on simulation experience that benefits patients.

Become a victor. Medicine needs victors.

TO PARTNER WITH US, CONTACT:

University of Michigan Health System
Office of Development
734-998-7705
www.medicineneedsvictors.org





The U-M Clinical Simulation Center Opportunities for Impact

Investments in those who serve others are multiplied many times over. By improving the education of physicians, nurses and clinical staff, your gift will create the future of medicine.

You can:

Sponsor a new simulator for physical exams, diagnostic skills, pediatric IV access, surgical airway, or tracheostomy care..... \$3,000-\$5,000

Help us purchase a new simulator for an advanced procedure, a portable patient simulator for team training in the hospital \$10,000- \$50,000

Implement a new simulation-based training course to reduce surgical infections or improve team-based pediatric inpatient care \$100,000

Endow a simulation research and development laboratory to develop, test and scale new simulators and other educational technologies..... \$500,000

Endow a professorship to investigate and advance medical simulation at UMHS and guide our national contributions to the field \$2.5 million

Support the Clinical Simulation Center through a transformational naming gift

As an expanding enterprise within the University of Michigan Medical School, we are seeking capital and programmatic support at all levels to help us fulfill our mission. As we renovate our existing facility and plan for increased space, we would be honored to name the Clinical Simulation Center to celebrate an enabling philanthropic partnership. Naming opportunities also will become available within the center as we move forward.