

The Clinical Systems Innovation (CSI) Program is CIMIT's on-the-ground initiative to improve and advance the *systems* that support clinical care in real-world healthcare settings. The barriers to delivering and adopting systems innovations in such settings can be daunting. Clinical environments are clearly demanding, fast-paced, and complex - and clinicians obviously have to be cautious and risk-averse in contemplating any changes in established practice patterns. It is difficult for innovative clinicians to even find the time and mental space to envision future needs, let alone establish partnerships with industrial and academic technology and systems-engineering collaborators, or to find needed funding. They need help to safely experiment with potential innovations while maintaining day-to-day operations. Beyond that, the institutions need help to disseminate the best of the results of specific innovations projects.

The Clinical Systems Innovation (CSI) Program provides clinical champions of change and administrative leadership with the needed support to overcome these barriers. As with other CIMIT programs, CSI has two intertwined elements: funding and facilitation. CIMIT facilitators work closely with project leaders, to ensure the creation and sustenance of multi-disciplinary teams and to catalyze connections with key resources, such as industry partners or academic collaborators or external funding sources, and to maintain project momentum in the face of predictable adversities.

The objective of the Clinical Systems Innovation Program is to transform systems of care through the application of enabling technologies within a 2-3 year timeframe. Clinicians, family caregivers or the patients themselves may be responsible for the delivery of care. It may occur at the point of care in the hospital, in the doctor's office, in the community at large or at home. The program also encourages innovation to enable consistent, high quality care as the patient transitions across different care environments.

Specific priority areas include:

- Innovative use of existing or novel point of care technologies enabling frontline providers to solve urgent problems.
- Innovations to enable management and rehabilitation from common conditions or traumatic injury in the home or community.
- Innovations to enable consistent care as the patient transitions across multiple care environments.

CSI awards funds to those team projects that promise to address important specific needs of CIMIT healthcare institutions. Preferred projects are those with potentially wider impact, if successful, and projects that would not be successful without CIMIT involvement. Grants of up to \$100,000 total cost per year are awarded through a competitive review process. These grants are seed funds to help clinicians and institutions craft novel approaches to managing a complex new care pathway or to designing a new facility or better process, usually incorporating new technology. Solutions are sought in all environments across the continuum of care from the hospital to the home.

The phases of innovation include discovery, design/development, implementation, outcomes measurement and iteration. CSI thus advances the process of constructive change, it helps recruit, grow and retain innovative multidisciplinary clinicians and it raises the technology competency of the institutions. It does so in collaboration, not duplication, of other institutional resources, such as Information Systems.