Coordinating care, improving health outcomes

**PEOPLE WITH CANCER** face a complex care system. Complicated treatment regimens, multiple specialists with individualized therapies and a web of health care bureaucracy drive up cost and decrease quality in care. To address the negatives of fragmented care, poor communication and increasing expense, an interdisciplinary team from the Betty Irene Moore School of Nursing and the Comprehensive Cancer Center at UC Davis seek to reinvent the treatment experience and ultimately improve health outcomes.

The Collaborative Care Coordination Research Group, comprised of School of Nursing faculty and graduate research students, along with surgery, pain medicine and social work experts, investigates how tablet computers and reimagined social-networking software might improve the experience and outcome of all who become ill.

“As part of a team, nurses understand the role of primary providers, specialists, symptoms, quality of life, and knowledge of the community and the institution,” explained Jill Joseph, associate dean for research at the School of Nursing. “The center of that team is the person who is coming for care. We are focused on determining what the person needs, who can deliver it best and what will make the best-quality care, improve population health and cut down costs.”

The goal of coordinated care is to make sure people get the right care at right time and that all providers and family members are kept in the loop of the treatment plan. The approach, usually led by nurses, cuts down on duplication of services and reduces errors. A two-year trial currently underway studies two groups of people undergoing chemotherapy: half will experience coordinated care using technology, the other without it.

“Think of it as a private social network for cancer care. The person going through chemotherapy can have full access to all the resources they need to partner with the health care team through a tablet or computer,” said Katherine Kim, an assistant professor at the School of Nursing and member of the group.

TRANSFORM provides insight on issues at the heart of the Betty Irene Moore School of Nursing at UC Davis and its vision to advance health and ignite leadership through innovative education, transformative research and bold system change.
The unique and private Personal Health Network is far more than an electronic health record. It is an ever-evolving collection of providers, family members, specialists, caregivers and educational resources in one place. Everyone, from hospital clinicians and holistic providers to local and long-distance family members, is connected.

“During chemotherapy treatment, people with cancer develop relationships with multiple care-team members who must also communicate with one another over time and across locations,” added Janice Bell, associate professor and another group member. “The person with cancer, providers and approved family members can be in the same group to keep the lines of communication open and provide one place for educational materials and real-time feedback.”

Disjointed care and weak communication are costly and can greatly increase the likelihood of hospitalization. A study by the Institute of Medicine estimates care coordination efforts could save as much as $240 billion annually. One member of the group, Robin Whitney, is both a graduate student in the Nursing Science and Health-Care Leadership Doctor of Philosophy Degree Program and a cancer survivor who understands the struggles.

“It was hard even as a registered nurse and educated person in health care to navigate the system. When I was not feeling well, it was hard to figure out how to get my medicine and my needs met,” Whitney said. “As a student researcher, I love being involved in this attempt to improve care.”

A Robert Woods Johnson report, “The Revolving Door: A Report on U.S. Hospital Readmissions,” noted that although hospitals are a key venue of care, everyone in the health care system has a vested interest in keeping people in recovery rather than readmission.

“Cancer treatment is extremely complex involving different specialties, extending over a period of months to years and may be associated with significant side effects,” said Richard Bold, professor and chief of surgical oncology at the UC Davis Comprehensive Cancer Center. “Coordination of care among all providers and the person with cancer may potentially minimize the impact of the side effects on their health.”

While this School of Nursing-led research group is initially focusing on cancer, other research projects are underway. Professors have partnered with a network of Central Valley primary-care centers to train nurses and medical assistants to serve as health coaches. Another study aims to develop technology for a personal health network to enhance early palliative care for older adults. Professors and graduate research assistants are also looking to the role technology can play to create a network connecting UC clinics to other health centers.

“The end goal is the School of Nursing provides a model of care that can be disseminated and applied to multiple conditions to meet the triple aim: care, health and cost,” Joseph added. “Our work impacts many health conditions, provides a venue for education and training, and demonstrates credibility for the research our faculty and students conduct on a daily basis.”