Electronic health records put to test

By Jan TenBruggencate
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Two Kaua'i hospitals and three clinics under the Hawai'i Health Systems Corp. will get state-of-the-art electronic health record technology under a program funded by the U.S. Department of Defense.

The 18-month study will serve as a test, aimed at eventually bringing all 12 state hospitals fully into the electronic age with respect to health records.

Major private hospitals, including Kaiser, Queen's, Straub and others, already have similar systems, which allows doctors full access to patient medical records — even when some of the care may have been given at a related but different healthcare facility.

"Very clearly, your care will be improved if doctors have access to better information about you and there is no need to repeat tests that may have been done earlier," said Dr. Joe Humphry, an internist actively involved in using technology to improve medical care. He is the community health center medical liaison to the University of Hawai'i's Telehealth Research Institute.

The long-term goal of people in the field is that medical records will be updated wherever patients receive care, and that data would be available to the next doctor wherever the patient seeks care. So, for example, a doctor will be able to review lab results from a different facility, would be able to compare old X-rays with new ones, and would be able to see a computer alert if any medications the patient is taking would interfere with new ones the doctor is thinking of prescribing.

Some countries, notably Sweden, have robust systems like this. The U.S.
system is quite fragmented.

"The U.S. is substantially behind the rest of the developed world," Humphry said.

There are several commercial electronic health record systems available, but they are exceedingly expensive — so smaller clinics, rural hospitals and poorer hospitals like state-run systems may not be able to afford them. One system with an excellent reputation is the U.S. Veterans Administration's Vista program, for Veterans Health Information Systems and Technology Architecture. That system has been converted to run on Linux open source computing platforms, which results in considerably lower costs.

The open source Vista system will be installed at the West Kaua'i Medical Center, Samuel Mahelona Memorial Hospital and three clinics in 'Ele'ele, Kalaheo and Waimea. The software is free, and the facility will seek funding for hardware in the form of generic computers and an interconnection system.

The experiment partners include the Pacific Telehealth and Technology Hui, which is a Tripler Army Medical Center-based joint venture of the Department of Defense and Veterans Administration, along with Hawai'i Health Systems Corp., University of Hawai'i's Telecommunications and Information Policy Group, Pacific Health Research Institute and MELE Health Information Systems.

The research effort is funded by the Department of Defense through the Telemedicine and Advanced Technologies Research Center.

"By bringing information to the critical points of care, this technology can significantly improve the quality of care these facilities provide patients and lower their operating costs by eliminating duplicate testing, errors and wasted resources," said Dr. Stanley Saiki, director of the Pacific Telehealth and Technology Hui, in a press release.

The open source Vista technology has already been installed at the LBJ Tropical Medical Center in American Samoa, at three clinics on O'ahu and at several Mainland medical centers.

Norman Okamura, a facility specialist in telecommunications with the
University of Hawai‘i’s Social Sciences Research Institute, said that 25 percent of hospitals and 10 percent of physicians’ offices have electronic health records systems, so the first issue is to bring more of the healthcare system up to date. Then the goal is to get the different systems able to talk to each other.

"We need interoperability," Okamura said.

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