

iHealthBeat, California HealthCare Foundation IT innovations: Learning from abroad

*by Walter Wieners
director, Oracle Consulting
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National health systems outside of the United States have been forced by limited resources to struggle with the challenge of creating value with information technology. Many of these systems have developed innovative ways to create value that could be implemented throughout the United States.

In order to learn from these international perspectives, the University of California's [Institute for Global Health](#) developed an ongoing series of Global Insights Seminars to promote change at the business level of health care in California. Global Insights was founded on the premise that experience from abroad is an important, but generally underutilized, source of new approaches and practices.

Health care leaders representing physicians, hospitals, health plans, purchasers and regulators from throughout California spent Nov. 16-18, 2002 in Monterey, Calif. considering how information technology can increase value and quality of care. The topic of the Global Insights Seminar was "Creating Value through Innovations in Information Technology (IT)" and participants learned about health care IT innovations from three high-level speakers from New Zealand, Japan and the Netherlands.

International IT programs: Drawing on experience

In many countries, IT systems implementation is driven by the need to impact quality and control costs. Other countries are challenged less by the availability of technology and more by managing projects across independent organizations, staff training and adaptation to new work processes. Here's a look at how some countries have implemented health care technology:

New Zealand: By utilizing Web-based technologies, district health boards in New Zealand have replaced legacy departmental and clinical systems with more clinically integrated systems connected to the overall delivery network. This innovation was driven by sharp growth in acute medical care utilization and expenditure, and a desire to reduce avoidable admissions. The New Zealand model highlights the challenge of integrating primary and specialty physicians in New Zealand's unique circumstance.

The approach has had initial success at both improving quality and reducing cost, according to Mike Rillstone, chief advisor for health sector information & technology in New Zealand's Ministry of Health. One of Rillstone's examples focused on diabetes, which is a prevalent disease in both New Zealand and the United States. In this case, an integrated disease management program for diabetes was initiated using the best practice guidelines, patient-held care plans, and three free monthly reviews supported by comprehensive data collection and a diabetes coordinator. The technology backbone was an integrated care server (ICS), facilitating clinician feedback on clinical management and information sharing among the relevant providers. Early ICS data on 250 patients from the first two practices in the trial showed a significant drop in the percentage of people with elevated HbA1c, a key measure of diabetes. While further data is required, early indications are promising.

Netherlands: The Dutch health care system emphasises the great complexity of developing consensus among stakeholders in an environment where government has no over-riding authority or recourse to mandate IT solutions. As in California, the Dutch have had to deal with a fragmented supply of providers. One case study was particularly interesting for its shortcomings. In this example, a large initiative to network clinicians failed because the stakeholders were unwilling to give up their legacy systems and change their current processes to adopt the new system.

Japan: IT innovation has been segregated into government-initiated and private-sector efforts in Japan. What was particularly relevant to the California audience is that much of this reform is driven by the demographic constraints of having the world's most aged population, combined with the economic crisis in Japan. This has focused the Japanese on utilizing IT to address issues of efficiency and consumer satisfaction. For example, PDAs are utilized to improve treatment of home-based diabetic patients. It is interesting to note that in Japan, the government has been successful at getting private industry involved through subsidies. It is not likely that these companies would have entered the health care market without this kind of support.

IT innovations to increase value in and beyond California

Utilizing the ideas from the speakers, participants considered how to create value using information systems in California. They first looked at IT and quality issues in California and then turned their attention to assessing the international examples. Global Insights seminar participants prioritized recommendations for IT implementation solutions for California. They included:

- Using an electronic medical record that would bring key information to the provider at the time a health care decision is required;
- Sharing information across providers and sites of care; and,
- Empowering patients to take more control of their own care by becoming proactive and managing existing diseases.

How might California successfully create value through information systems? While our focus was on California, these strategies could be relevant to the entire country. Presenting speakers and seminar participants identified four priorities:

(1) Develop a health care infrastructure at the state or national level

- Government leadership and funding should support the development of a health care information infrastructure.
- Comprehensive federal privacy legislation, which expands beyond HIPAA to cover all stakeholders, should be developed.

(2) State and national leadership should support IT innovation through grants and funding

- Foster and develop institutional leadership that is encouraged by supplemental leadership training

- Formulate alliances, collaborations and partnerships to support the development of broad IT strategies across the industry

(3) Create incentives

- Ongoing sponsorship must come from all stakeholders (consumers, payers, employers, plans and physicians).
- Provider adoption must be addressed through financial incentives, which are multi-dimensional.

(4) Develop and mandate IT communication standards

- Pilot projects must be created and evidence gathered to provide a business case for IT adoption for all stakeholders, as well as evidence that these innovations work and can be implemented.

Our challenge: Implementing innovations in information technology

Focusing on IT in health care is particularly important at this time for two major reasons. First, the industry is experiencing an increased emphasis on implementing clinical information systems. This fact provides an opportunity to improve quality of care, clinical processes, and data capture. Secondly, stakeholders are concentrating on patient safety, and IT is considered to be an important element in improving medical errors.

With these issues in mind, IT is inextricably linked with the twin goals of health care value: improved quality and lower cost. As an enabling tool, IT can simultaneously eliminate the inefficiency of manual processes while ensuring more accurate and timely patient information at the point of care. Still, the great challenge for IT has been to demonstrate how it improves health.

Information technology has been advanced as both "the answer" to the industry's woes and maligned as a "deep hole" of investment and unproven encroachment into health care. Technology advocates argue that its potential can drive across-the-board changes and enhance value; however, success is often subordinate to a business culture that must be aligned with these new processes through vigorous training and leadership at all levels of an organization. Regardless of the polemics, health care leaders agree that the cost of IT must be justified by either increased quality or greater efficiency.

About the author:

Walter Wieners is currently director, Oracle Consulting, Oracle Corporation. He advises U.S. health care organizations on enterprise and technology solutions. After 20 years of consulting work in the United States and abroad, he authored the new book "Global Health Care Markets: A Comprehensive Guide to the Regions, Trends, and Opportunities Shaping the International Health Arena," Jossey-Bass/John Wiley & Sons. He is a HIMSS Fellow. Walter can be contacted at wwieners@w-three.com.

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