

## Roundtable Discussion

### Telemedicine: Assessing The Promise, Exploring The Future

Telemedicine — the electronic transfer of health-related information between sites — has potential to make health care more efficient, ease specialty and primary care shortages, and serve as a catalyst for patient-centered care.

Realizing the promise of telemedicine, or telehealth — the terms often are used interchangeably — remains a significant challenge, however. While successful programs have been developed in both the federal and private sectors, telemedicine still faces such barriers as doubts about its cost-effectiveness, concerns about credentialing and liability, information systems that don't always plug-and-play, and a payment structure that fails to provide sufficient incentives.

During a roundtable discussion held by the nonprofit Institute of Federal Health Care, it was agreed that federal programs have pioneered in telemedicine's use and progress, offering lessons that should be embraced as funding for such technologies ramps up under economic-recovery and health care reform legislation. The challenge will be to show results in three to five years for this "tremendous amount of support," roundtable participants agreed. "We don't have time to waste. This investment must deliver."

Participants, who included representatives of federal agencies, professional organizations, congressional staff, industry and academia, agreed that acceptance of telemedicine will increase as a tech-savvy generation of physicians begins to enter practice — even though medical school curricula still do not incorporate such technologies as part of regular content. The group urged medical schools to make this change, noting that in most cases basic curricula have not been revised for decades.

"It worries me that we have to hope for generational change," observed one participant.

Among the suggested actions to emerge from the discussion:

♦ *Better metrics are needed for measuring the cost-effectiveness of telemedicine.* Objectives must be carefully defined. If the wrong metric is chosen, "we will make the wrong decision." There was concern among the group that telemedicine often is held to "too-high a standard," simply because it has not part of traditional medical care.

♦ *Reimbursement for telemedicine needs to be revised to serve as an incentive for its use.*

Without adequate reimbursement for telemedicine services, physicians will not embrace the technology. "Payment models have not supported innovation."

♦ *Credentialing and regulatory issues should be addressed.* Licensure, credentialing and privileging remain problematic. Overly strict interpretations of when there is a physician-patient relationship — such as requiring credentialing at both the provider and patient end of the telemedicine transaction — can

#### From the discussion ...

- **Telemedicine improves access to care, increases communication between patients and providers — and among providers — and can reduce the distance or frequency of travel.**
- **Technology can be a barrier to telemedicine, because reliable broadband communication may be unreliable or unavailable.**
- **Telemedicine allows mentoring health care workers with less formal training to provide primary care services. For example, a telehealth program in Eureka, California, was able to expand primary-care services by 30 percent within two years.**
- **Telemedicine is especially effective in improving life for persons with chronic conditions, an area in which the private sector is moving more quickly to payment reform than are government programs such as Medicare.**
- **The information telemedicine collects can be aggregated and analyzed to develop more effective approaches to prevention and treatment.**
- **Information gleaned from a telemedicine encounter automatically should be incorporated into the electronic health record. Both VA and IHS currently do this.**
- **Is telemedicine cost-effective? In fact, much of health care is not cost-effective — but simply is "the right thing to do."**
- **The telemedicine landscape is changing rapidly. An infrastructure should be developed to collect lessons-learned.**

make providers reluctant to engage in remote care delivery.

FDA oversight also can serve as a barrier. For example, when data are sent over a cell phone and interpreted by a device at the other end, the phone is not considered to be a “technology” subject to FDA approval. But, if a data signal is interpreted through the cell phone, the phone then *is* considered to be a device under FDA’s purview.

[Most participants felt that mobile devices represent the most fruitful technology for expanding telemedicine.]

### Federal Experience

The Veterans Affairs Department, Defense Department and Indian Health Service have “tremendous experience that the rest of the country can benefit from.” [NASA also uses telemedicine extensively for space station operations.]

The office of the national coordinator for health information technology at HHS is forming a series of task forces dealing with IT that will include telemedicine issues. During their deliberations, these task forces will incorporate the lessons learned from DoD, VA and IHS. Still, there was concern that the current climate of mistrust of federal programs and entities will hamper acceptance of federal experience: “We will squander the opportunity to learn from what federal entities across the board have done.”

Roundtable participants urged increased opportunities for technology transfer between the federal and private sectors and inclusion of national trade groups in this process.

Examples of federal experience with telemedicine include:

- ◆ The Army has tele-capability over 13 time zones across the globe. Much of its effort is directed toward mental health issues, both in-theater and in the U.S.

Projects include personal cell phone connections for those in warrior transition units — a pilot study found that soldiers prefer virtual consults for stress

problems to those done face-to-face — transcranial doppler monitoring for severe traumatic brain injury, and a regional consultation network based around five regional medical commands.

*www.tatrc.org*

- ◆ In the Veterans Health Administration, telemedicine is an important part of the focus on community-based care in outpatient clinics. Currently, 43,000 patients receive care in their homes using telemedicine, about 29,000 of whom otherwise would be in long-term care. A pilot program linking home monitoring devices to care coordinators for diabetics produced a 30 percent reduction in admissions and bed days.

VHA is training staff in remote care and is developing its own network for videoconferencing in order to reduce disruptions in transmission. A decision-support system for electronically derived data makes information available by individual area of care.

VHA has a patient web portal that is integrated with its electronic health record and incorporates telemedicine as part of this focus on patient-centered care. A current project seeks to have just-in-time consults, allowing veteran patients to dial-in and receive a consult from a specialist.

*www.carecoordination.va.gov/telehealth*

- ◆ The Indian Health Service cares for a population that is largely rural. Its telehealth applications involve both clinical care and health promotion.

*http://www.oehc.ihs.gov/telemed*

- ◆ The Health Resources and Services Administration (HRSA) provides grants aimed at building health care infrastructure for the underserved, with telemedicine a significant portion of this effort. HRSA currently is working with the Indian Health Service on telehealth technology assessment.

*http://telehealth.hrsa.gov*

### Revamping Health Care

“Telemedicine is not about information technology. It’s about re-engineering

and reframing our business models and the ways we deliver care.” It is not an add-on or boutique service but rather a basis for improving care for patients with chronic conditions and those living in remote areas. It can help clinicians consult with each other — and help clinicians learn during this process. It can link patient and physician through simple technologies such as a cell phone, make use of the versatility of the Internet and expand the clinical range of nurses and physician assistants.

Some roundtable participants predicted that consumer demand will fuel growth in acceptance and use of telemedicine — propelled by the “wellness” movement in the U.S and facilitated by personal health records made available by Google and Microsoft, for example. “Patient empowerment will push the profession.”

Participants in this roundtable: Michael Ackerman of the National Library of Medicine, Madhulika Agarwal of the Veterans Health Administration, Daniel Blum, Mark Carroll of the Indian Health Service, CC Clyburn of the Clymer Group, Zohara Cohen of the National Institute of Biomedical Imaging and Engineering, John Crum of Humana Military Healthcare Services, Adam Darkins of the Veterans Health Administration, Charles Doarn of NASA, Dolores Dunn of the House Committee on Veterans Affairs, Rick Erdtmann of the Institute of Medicine, Thomas Federer of Humana Military Healthcare Services, J. Michael Fitzmaurice of the Agency for Healthcare Research and Quality, Roger Holland of Humana Military Healthcare Services, Sachin Jain of the Department of Health and Human Services, Trisha Kurtz of The Joint Commission, Neal Neuberger of HIMSS, Arnauld Nicogossian of George Mason University, Ryan Pettit of the Senate Committee on Veterans Affairs, Gale Pollock of the University of Pittsburgh, Ronald Poropatich of the Army, Dena Puskin of the Health Resources and Services Administration, Stephen Sears of the National Naval Medical Center.

The roundtable was moderated by the John Eisold of the National Naval Medical Center. IFHC Managing Director is Nancy Tomich ([www.fedhealthinst.org](http://www.fedhealthinst.org)).