



TELEMEDICINE & TELEHEALTH

What's happening and what's ahead?

By David Hartzband and Feygele Jacobs

The American Telemedicine Association defines telemedicine as: "The use of medical information exchanged from one site to another via electronic communications to improve patients' health status." It goes on to describe telehealth as more broadly encompassing "remote healthcare that does not always involve clinical services.

Videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education and nursing call centers are all considered part of telemedicine and telehealth."¹

Telemedicine is currently used to deliver a broad range of services, when location or distance precludes the delivery of care by direct face-to-face patient contact. Specialty referrals, consultations, and remote monitoring are among the most commonly provided services.

Telehealth can help consumers gain access, especially to specialty and subspecialty care that might not otherwise be available in their area, using a range of technologies including teleconferencing and video conferencing on private networks or public internet, point-to-point connections through dedicated applications and dedicated provider-to-home web sites.

In some cases, effective care can be delivered at a substantially lower cost. A 2011 study² evaluated the impact of the Pacific Asynchronous TeleHealth (PATH) system, a provider-to-provider teleconsultation platform utilized by military medical facilities throughout the Pacific Region, and concluded that provider-to-provider teleconsultation for pediatric care substantially improved diagnosis and lowered costs.

The practice of telemedicine is expanding quickly as new applications are introduced. Among the leaders in this emerging field are the Department of Defense (DoD) and the Department of Veterans Affairs (VA), which are successfully utilizing telehealth capability to expand clinical care to a large number of active-duty personnel and veterans. Their experience and technologies are relevant as we seek ways to address the needs of underserved patients and reduce disparities, especially – but not only – in remote communities.

A particular focus of the Defense Department has been the use of telehealth in behavioral health care. The DoD's National Center for Telehealth & Technology (2) is charged with developing telehealth and technology solutions for psychological health and traumatic brain injury and specifically with creating behavioral health assessment, screening, reference, and treatment tools

—continued on page 26

for the military community.³ T2 has made available a set of mobile applications that provide both counseling and practical applications for users. The DoD has also made extensive use of provider-to-provider consultation in the areas of optometry, dermatology, cardiology and pediatric treatment.

Meanwhile, the Department of Veterans Affairs Office of Telehealth Services focuses on improving access for veterans through the use of health informatics, targeted care and case management and telehealth technologies. VA patients at community-based outpatient clinics connect to consulting and treatment specialists using Clinical Video Telehealth (CVT), for services including tele-rehabilitation, tele-mental health and tele-surgery.⁴

Telehealth also has been embraced by many community health centers across the country to address diverse and specific needs. Family HealthCare Network (FHCN), a health center network comprising 11 clinical sites in the agricultural San Joaquin Valley region of California, was an early entrant into telemedicine, beginning in the late 1990s. Digital retinopathy is offered through a partnership with the University of California, Berkeley and dermatology evaluation services through a partnership with the University of California, Davis.

Services are available to patients as needed during regularly scheduled appointments and the technology has been well received by the network's providers and practitioners, who provided 2,460 telemedicine consultations this past year.⁵ However, a shortage of consulting specialists, as well as reimbursement constraints, has limited the pace of expansion.

Horizon Healthcare, a rural network of 17 community health centers throughout South Dakota, has been providing telemedicine services and telehealth education since 2001. Consultative services offered now include behavioral health, as well as oncology, pulmonary, cardiology, dermatology, acute care and infectious disease prevention. In 2011, Horizon's consultations via telehealth included 144 acute care, 127 psychiatric and 21 specialty encounters. In addition, a large number of educational consultations were provided for diabetic self-management, parenting, nutrition and oral health.

Horizon's telehealth service strategy includes: use of remote education for diabetes management; use of psychiatric teleconsulting to treat depression; provision of acute care teleconsulting to reduce ED visits, and provision of prenatal education along with teleconsulting to monitor fetal health and reduce infant mortality. Like FHCN, Horizon reports that patient satisfaction with telehealth services is high, with over 90% of the health center's 2011 teleconsulting patients rating their experience as either good or very good.

At Finger Lakes Community Health in rural upstate New York, which operates eight health center sites and a Migrant Voucher Program serving 42 counties, telehealth has been extensively used for a broad range of services including pediatric dentistry, psychiatry, diabetic Retinopathy, ENT, counseling (LCSW), nutritional therapy, pulmonology, pediatric neurology and dermatology. It has also been used for consults across sites between physician and midlevel providers, and collaborative initiatives including a Hepatitis C project with the Community Health Care Association of New York State, and the National Farmworker Telehealth

UPCOMING EVENTS

MARCH 20-23, 2013

NACHC Policy & Issues Forum
Marriott Wardman Park Hotel
Washington, DC

MAY 7-10, 2013

National Farmworker
Health Conference
Omni Hotel
San Diego, CA

AUGUST 11-17, 2013

National Health
Center Week

AUGUST 22-27, 2013

NACHC Community Health
Institute & Expo Conference
Hyatt Regency Chicago
Chicago, IL

OCTOBER 28-30, 2013

NACHC S/RPCA Conference
Hotel del Coronado
San Diego, CA

For more information on NACHC
conferences, trainings and special
seminars, visit www.nachc.org.



Network, Telehealth equipment – and the health center’s robot, Ruby – are also used to provide interpretation services and have allowed the center to expand access to bilingual and bicultural consults that are not locally available.

Reimbursement issues

Restrictions on reimbursement have been a limiting factor for the expansion of telemedicine. While there are a number of different considerations that determine billing for telemedicine services, the Department of Health and Human Services has provided guidance on Medicare reimbursement for telehealth services as part of its Rural Fact Sheet series.⁶

As outlined, reimbursement for telemedicine is provided subject to certain constraints. First, Medicare will pay for a limited number of Part B services furnished to eligible beneficiaries via telehealth, for services provided at authorized originating sites, including Federally Qualified Health Centers, if located in a rural Health Professional Shortage Area or in a county outside of a Metropolitan Statistical Area. As a condition of payment, services must be rendered via “an interactive audio and video telecommunications system that permits real-time communication between the physician or practitioners at the distant site and the beneficiary at the originating site.”

In general, services provided through non-data phone lines are not eligible for reimbursement, nor are asynchronous “store and forward” services, except for originating sites in Alaska and Hawaii.

Proposed guidelines for 2012 reconfirmed these policies and clarified coverage for various types of services.⁷ Though Medicaid reimbursement tends to follow the Federal guidance, policies and requirements are state specific.

Take-away lessons and remaining issues

Telehealth services can help expand access and appear to both reduce costs and potentially improve outcomes. They may reduce costs directly by allowing immediate and timely consultation for diagnosis and treatment planning, and indirectly by reducing the use of emergency room visits for non-emergency care. They can facilitate improved outcomes by providing access to specialty and subspecialty services to patients who might otherwise have no way to obtain them, and also allow provider-to-provider consultation on specific cases.

Also:

- Teleconsultation technology is now mature and relatively easy to install and maintain, and the decrease in the costs of commercial applications have made it more attainable.
- Certain practice areas are particularly suited to teleconsulting; these include behavioral health, dermatology, optometry (especially retinopathy screening), patient monitoring, and many types of chronic disease education and self-monitoring training.
- Patients generally express satisfaction with the services offered.

Of course, there are also constraints, including:

- Limitations on site eligibility, as not all centers may qualify as originating sites. Today, given reimbursement limitations, telemedicine is largely confined to rural areas, but has potential relevance for more urban settings, as well;
- Reimbursement models that do not highly incent health centers to be originating sites;
- Lack of available consulting specialists in particular areas or for certain specialties, and the associated reimbursement issues;
- Cost - in time and money - of training personnel to act as facilitators for teleconsulting, and
- The need for additional funding to support the acquisition and adoption of telehealth infrastructure.

Yet despite these issues and limitations, the potential upside of telemedicine is immense. The relatively low initial cost means that health centers can begin offering telemedicine services appropriate to the specific needs of their patients fairly readily through consulting relationships, thereby expanding access. What is needed are appropriate reimbursement models that support the acquisition, expansion and sustainability of telehealth and teleconsulting to allow providers to offer a full range of services to those in need.

David Hartzband, D.Sc., is Director of Technology Research and Feygele Jacobs, MPH, MS, is Executive Vice President and Chief Operating Officer of RCHN Community Health Foundation.

1 American Telemedicine Association, *Telemedicine Defined*, <http://www.americantelemed.org/44/pages/index.cfm?pageid=3333>

2 Mahnke et al. 2011. *The Pacific Asynchronous TeleHealth (PATH) Study: Review of 1000 Pediatric Teleconsultations*. *Telemedicine and eHealth*. 17(1), 35-39. <http://online.liebertpub.com/doi/pdf/10.1089/tmj.2010.0089>

3 The National Center for Telehealth and Technology, <http://t2health.org/>

4 VHA Office of Telehealth Services, *Real-Time Clinic Based Video Telehealth*, <http://www.telehealth.va.gov/real-time/index.asp>

5 *Data for the period October 1, 2011 to Sept 30, 2012 per FHCN*

6 Department of Health and Human Services, *Centers for Medicare and Medicaid Services, Medicare Learning Network, Rural Fact Sheet Services, Telehealth Services*, (issued 2009 and revised March 2011), <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/TelehealthSrvcsfctshst.pdf>

7 *Centers for Medicare and Medicaid Services, Telehealth Reimbursement and Policy Changes, Calendar Year 2012, Physician fee Schedule* <http://ctel.org/wp-content/uploads/2011/11/Physician-Fee-Schedule-Telehealth-2012.pdf>