Recent Telehealth News Relevant to Northeast —July 5, 2012

--Content compiled by Michael Edwards, consultant to NorthEast Telehealth Resource Center.

The NETRC is contributing to the planning of the 3rd Annual Maine Telehealth Conference, to be held August 14th at Colby College in Waterville, Maine. See below for part of the agenda. NETRC’s Director has also been busy with the organizing of a set of workshops and presentations on behavioral telehealth slated for the New England Rural Health Roundtable Symposium in Portland on October 26.

The success of the Vermont legislative process in passing a law that expands reimbursement for telemedicine has us interested in parallel efforts going on in Massachusetts and Rhode Island, both of which are considering bills that require private insurance providers to reimburse for telemedicine services. In Massachusetts, Senate Bill SB 521, “An Act Relative to Telemedicine”, which was sponsored by State Sen. Michael O. Moore, had at the end of June achieved a favorable review by the Joint Committee on Health Care and Financing.

In Rhode Island, Senate Bill 2665, “An Act Relating to Insurance - Telehealth Services” was sponsored by Senators Perry, Miller, Pichardo, Sosnowski, and DeVall. Its progress so far has included introduction and referral to the Senate Health and Human Services Committee at the end of February and in April it was supposed to be set up for “hearings and/or consideration”.

We encourage your feedback and welcome your requests for services. Please feel free to contact Kim Mohan at kmohan@mcd.org or call our toll-free number 1-800-379-2021.

UPCOMING WEBINARS

- Telemental Health Services to Veterans –July 18, 2012
- Clinical Applications –July 19, 2012

UPCOMING CONFERENCES

- Congress Leadership Summit on Telemedicine—July 26-27, Boston
- Maine’s 3rd Annual State Telehealth Conference—Aug. 14, Waterville, ME
- 9th Annual Connected Health Conference—Oct. 25-26, Boston

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The Upper Midwest Telehealth Resource Center Webinar Series

A Collaborative Model for Improving Telemental Health Services to Veterans
Date: July 18, 11AM EST
Presentation by: Lt. Col. Bob Strange (retired) and Jonathan Neufeld, Ph.D., H.S.P.
Indiana Veterans Behavioral Health Network
Registration

Future Webinars:
- Aug. 15--Field STEMI Care: Pre-Hospital EKG Transmission in Rural Indiana
- Aug. 22-- Marrying Technology and Process to create a Successful Telemedicine Program

National Telehealth Webinar Series, HRSA
Clinical Applications
Date: July 19, 2012
Presentation by: Ronald S. Weinstein, MD
Director, Arizona Telemedicine Program
President Emeritus, American Telemedicine Association
This presentation will discuss real-time & store-forward clinical applications amenable to telemedicine & how they help underserved areas. Tips for successful teleconsultations will be provided and a discussion of the limitations of teleconsults will also be addressed.

Webinar Flyer; Registration

The TRC Webinar Series provides timely information and demonstrations to support and guide the development of your telehealth program by experienced telehealth professionals from the HRSA-designated Telehealth Resource Centers (TRCs). These webinars are FREE to the public and held from 2-3PM EST on the 3rd Thursday of most months.

Recorded Webinars from the past are available here. A larger set are available here at the Telehealth Technology Assessment Center’s Web site.

UPCOMING CONFERENCES

Telemedicine Summit Coming to Boston July 26-27
Federal Telemedicine News, June 3, 2012 htm

As telemedicine continues to emerge as an efficient and cost-effective healthcare delivery model, the “World Congress Leadership Summit on Telemedicine” on July 26-27 in Boston will have well known presenters and experts in the field conduct numerous panel discussions. These panels will address credentialing, grants and funding, technology and vendor selection, virtual care, communication and management models, and discussions on models across a variety of specialties including diabetes management, Tele-Intensive Care Units, and pediatrics.

Where: The Colonnade Hotel, Boston MA
Program agenda and registration: www.worldcongress.com/telemedicine

Attendees will benefit from:

- Engaging discussions on funding opportunities and regulatory developments in the field
- Case studies examining patient outcomes from a variety of telemedicine sub-specialties
- Examination of successful telemedicine communication strategies and management models
- Networking opportunities with leading clinicians and telemedicine innovators
- Opportunities to share experiences and gain insights from leading telemedicine pioneers

Summit will Feature:

- Joseph C. Kvedar, MD, Director, Center for Connected Health, Partners Healthcare
- Roy Schoenberg, MD, President and CIO, American Well Systems
- Debbie Voyles, Director of Telemedicine, Institute for Rural Community Health, TTUHSC
- Karen Rheuban MD, Medical Director Office of Telemedicine, University of Virginia
- Alexander M. Nason, Program Director, Johns Hopkins Medicine, Office of Telehealth and Interactive Learning
- Martin Abrahamson, MD, CMO, Joslin Diabetes Center
- Sherilyn A. Pruitt, Director, Office for the Advancement of Telehealth, Office of Rural health Policy, HRSA

Maine’s 3rd Annual State Telehealth Conference
“Creating, Collaborating, and Expanding Solutions across Maine”
Date: Tuesday, August 14, 2012
Time: 9:00 a.m. - 5:00 p.m.
Place: Colby College, Waterville, Maine
Registration: [Web]
Fee: $75, pre-registered; $85 for day of conference

Organized/sponsored by: Maine Telehealth Forum, MaineHealth, and Eastern Maine Medical Center

Keynote presenter: Francis McVeigh, OD, FAAO, MS
Telehealth and Vision DAC
Telemedicine and Advanced Technologies Research Center
US Army Medical Research and Materiel Command

Other topics planned for presentation and panel discussion include:
- mHealth, apps and devices for physicians and patients
- Telerehabilitation for speech and swallowing problems
- Tele-ICU and neonatal ICU
- Telepediatric care for obesity
- Telepallitive Care
- Privileging and credentialing for telemedicine
- Effective billing for telemedicine reimbursement
- HIPAA update
- Update on New England Telehealth Consortium (FCC funded broadband project)

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15th Annual New England Rural Health Roundtable Symposium
“Improving Rural Health Through Innovation”

When: October 25 and 26, 2012
Where: Portland Marriott at Sable Oaks, Portland, ME
Brochure: [pdf]
Registration: [htm]

Co-sponsors: NorthEast Telehealth Resource Center, Northern New England Geriatric Education Center

Theme: Telehealth and Behavioral Health Solutions

Saturday: Collaborative efforts to meet the behavioral health needs of rural Americans. HRSA, SAMSHA, CMS, and the Veterans Health Administration will be represented. The SAMHSA regional director, Kathryn Power, will provide the keynote presentation.

Sunday: Highlighting innovative models, including telemedicine solutions, for integrating behavioral health into rural primary care in New England. The keynote presentation will be made by Terry Rabinowitz, M.D., Medical Director of the Fletcher Allen Telemedicine Program and Co-Director of the NorthEast Telehealth Resource Center.

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9th Annual Connected Health Conference
“Innovations to Build Value, Accountable Care and Patient Engagement”

Center for Connected Health, Partners HealthCare

When: Oct. 25-26, 2012
Every year, our conference brings leaders in health care delivery & design, academics, and technology to tackle health care’s toughest challenges.

With over 100 speakers and numerous networking events, attendees will have an opportunity to hear innovative thinking, participate in discussions and network.

This is our chance to come together and define the future of care delivery and ensure better integration of quality care in the day-to-day lives of our patients.

We hope you will join us and the 1,500 other attendees in Boston for this unique event.

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**TELEHEALTH POLICY NEWS**

1. **Health Care Reform Has Arrived with PPACA — Telehealth Is the Vehicle**
   *TeleMental Health Institute, July 1, 2012, Marlene Maheu, PhD*  

   In a momentous week for U.S. healthcare, the Supreme Court’s decision to uphold the *Patient Protection Affordable Care Act* (PPACA) was the catalyst for the rapid deployment of many telehealth and other healthcare technology initiatives. In our summary, we will outline not only this week’s news, but also review the antecedents that make telehealth’s place in healthcare more predictable than many had imagined.

   **Telehealth has arrived!**

   What do our leading professional associations have to say about the PPACA healthcare law?

   1. In its press release after the passage of PPACA, the [American Telemedicine Association](http://www.americantelemed.org) concluded that PPACA “will have an impact on the development and adoption of telehealth. The ruling will further accelerate the deployment rate for telemedicine, mHealth and remote health care technologies.” The ATA also stated, “The announcement lifts the cloud of uncertainty that has caused many health providers to delay decisions to modernize and invest in such areas as telemedicine and related technologies.”

   2. The [American Psychiatric Association](http://www.psych.org) was conservative in its response altogether, and simply asked readers to stay tuned for more information in the next few months.

   3. The [American Psychological Association](http://www.apa.org) made many positive comments about opportunities for psychologists via PPACA, and highlighted technology as relevant to many of them, largely related to the new law. One of many benefits of PPAPA detailed by the APA stated, “A new Center for Medicare and Medicaid Innovation will test innovative payment and service delivery models to reduce program costs while preserving or enhancing quality of care furnished to individuals (section 3021, as modified by section 10306). Among the host of models that this new innovation center will test are: patient-centered medical homes; direct contracting with groups of providers to promote innovative delivery service models; geriatric plans to coordinate care for individuals with multiple chronic conditions, including cognitive impairment or dementia; community-based health teams to support small-practice medical homes to assist primary care practitioners in chronic care management; promoting access to outpatient services without physician referral where the provider (such as a psychologist) has authority to furnish such services under state law; and utilizing, particularly in entities located in underserved areas, telehealth services in treating behavioral health issues, for example, related to post-traumatic stress disorder and stroke.”
4. The National Association of Social Workers emphasized the benefits of PPACA and its role in expanding primary care through Accountable Care Organizations.

Telehealth’s connection with Accountability Care Organization model (ACO) is foundational. With the recent change in our health standard, ACOs will need technology to function with integrated care models that tie profits to a practitioner’s ability to manage patient outcomes. Measuring and tracking outcomes over time will require technology to help providers increase their capability to follow up with patients. Effective health care delivery systems commensurate with the requirements of this law will require both sophisticated telehealth systems and well-trained telehealth practitioners.

Other signs that various types of technology will soon be required for healthcare include these developments:

- **Value Options has now partnered with American Well** to develop a national network of telehealth-enabled providers to bring care to the patient home.
- The Veteran’s Administration has been providing Telemental Health Services for at least five years. *As we reported in our review of Dr. Godleski’s work on May 6, 2012*, data from a study of 98,609 mental health patients showed that the use of telemental health services slashed the rate of psychiatric hospitalizations.
- States, such as South Carolina, offer telepsychiatry consultation through their Department of Mental Health and to date, have received more than 6.3 million dollars in funding for more than 10,000 psychiatry consultations.
- The House of Representatives approved a bill to allow licensed doctors anywhere to consult, diagnose and treat Massachusetts residents by internet video examination. The Senate and Governor will be asked to approve it next.

Since the use of technology in healthcare is expanding rapidly, and currently approved models for telehealth are dominating the media, practitioners may consider starting to develop skills related to telehealth. Practitioners are also needed to drive specialized technology development to assure that we have technology consistent with the requirements for our standards of care. It is important for mental health practitioners to be fully trained to understand technology adequately to help vendors shape “technological tools” for use in telemental health.

2. **Consumers expected to call for more telehealth services**
*Fierce Health IT. June 25, 2012* [htm](http://www.fiercehealthit.com/)

Growing consumer demand is among the telehealth trends outlined in a *Becker's Hospital Review* article. "Consumers have a large preference for telehealth services. Some studies are even showing that there are better outcomes from telehealth than in person," Linda Boles, chief strategist of the U.S. public sector of healthcare innovation and business development at Cisco, told the publication.

She envisions employers even creating their own telehealth services for their employees.

The article also predicts increased government funding and support for telehealth services. That has been borne out with $14 million in [USDA grants awarded earlier this month for telehealth services](http://www.fiercehealthit.com/) in 29 states and a report showing the [World Bank has invested $1.5 billion in telehealth services globally](http://承受的力层).

Research published recently in *Psychiatric Services* outlining the [remote care being offered to VA patients](http://承受的力层) also supports Boles’ prediction. That program has grown from 14,000 sessions with 8,000 VA patients in 2003 to a goal of 200,000 sessions this year.
Author Dr. Linda S. Godleski, director of the VA’s national telemental health center and a psychiatrist at Yale University, recently told the American Psychiatric Association that patients tend to choose the remote sessions over face-to-face sessions, which may involve travel and scheduling difficulties.

The research also found better results from the remote sessions: patients were about 24 percent less likely to require hospitalization in the six months after receiving remote care than they were in the six months preceding such care; the number of days such patients were hospitalized decreased by close to 27 percent. Meanwhile, patients who did not switch to remote care showed no difference in their rate of hospitalization, FierceHealthIT reported.

Home telehealth and extended care eVisit systems are among the more promising available technologies for chronic care, according to a new report from NEHI, a health policy research organization that focuses on enabling innovation in healthcare. The value of remote services have been shows in studies of patients with vascular disease, stroke rehab and other other ailments.

Meanwhile, Saint Vincent Health System in Erie, Pa., reports that using telemedicine technology has reduced readmissions in its 26 Pennsylvania facilities, an increasingly important metric with Meaningful Use, with the technology paying for itself within two months, FierceHealthIT recently reported.

And a London study just published at BMJ of 3,230 people with diabetes, chronic obstructive pulmonary disease, or heart failure also linked telehealth with lower hospital admissions in the first place, reports the Clinical Advisor.

The Becker's article makes an interesting point that there's a difference between the term telemedicine, which connects rural and city physicians, and telehealth, which involves patients. The two are often used interchangeably.

To learn more:
- here the Becker's Hospital Review article
- read the Clinical Advisor article

3. Three Future Trends for Telehealth
Becker’s Hospital Review News, June 22, 2012 htm

While both telemedicine and telehealth offer great benefits to physicians and patients, telehealth has become one of the most promising evolutions in the health care landscape. The ability to conduct remote visits with patients and monitor their recovery improves access to quality care by removing traditional barriers to healthcare delivery such as distance, mobility and time constraints.

Telemedicine has also received a lot of attention due to its similarity — and sometimes confusion — with telehealth. However, the two technological capabilities are very different. The healthcare industry has used telemedicine for around 30 to 40 years, but due to advancements in technology, not only have more hospitals and healthcare organizations and medical specialties adopted telemedicine technologies, the healthcare world has welcomed the advent of telehealth.

Telemedicine is about connecting physicians so that those in rural areas can consult with physicians based in areas that are miles away. "One of the biggest confusions is between telemedicine and telehealth. Many individuals use the terms interchangeably. Telehealth uses the same principles, but introduces the patient into the equation," says Roy Schoenberg, president and CEO of Boston-based American Well, a telehealth company.

Here, Dr. Schoenberg and Linda Boles, chief strategist of the U.S. public sector of healthcare innovation and business development at Cisco, discuss their predictions for three future trends in telehealth.

1. Governmental support, funding will continue to increase. According to Dr. Schoenberg, the federal government, including CMS, HHS and state governments will increase funding for telehealth efforts significantly as telehealth becomes increasingly integral to reforming the U.S. healthcare system. While
healthcare is generally a slow adoption market, there has been increasing momentum around telehealth on a national and state level. "The federal government moves in mysterious ways, and the last 12 months has been quite indicative of the type of support that exists," says Dr. Schoenberg.

"This support will, no doubt, translate into continued and increased funding and legislative action."

The activity that Dr. Schoenberg describes includes four areas where this momentum can be clearly felt:

• Defining telehealth — "There has been a flurry of activity in both the Senate and the House to come up with an expanded definition for telehealth," says Dr. Schoenberg. Telehealth vendors, the American Telemedicine Association and the American Health Insurance Plans have been active in the discussion in order to create clarity around the scope of valid telehealth transactions, which in turn can translate into expanded utilization in programs like Medicaid and Medicare.

• Integration into ACOs — CMS has published a document explicitly stating that ACOs will be required to show meaningful use of electronic medical records and related technologies, in order to qualify for payments through incentive programs. Telehealth has the potential to play a fundamental part in making this happen. If ACOs are required to use telehealth, it will have to receive at least partial reimbursement, explains Dr. Schoenberg. "Telehealth is in CMS' sights. It sees telehealth as an integral element of healthcare and CMS wants it to be reimbursed," he says.

• Medicaid exemptions — According to Dr. Schoenberg, CMS has placed additional focus on telehealth reimbursement for Medicaid—States can receive a Medicaid exemption, which offers providers reimbursement even though Medicaid does not cover telehealth. The exemption allows the states who have received it to begin investing in telehealth projects.

• State legislation — In addition to the Medicaid exemption, there has been legislation at the state level requiring commercial payors to reimburse physicians for telehealth services. Fourteen states have passed bills for commercial payors to reimburse telehealth with a 15th on the immediate horizon.

2. Practice management systems will have telehealth capabilities. According to Dr. Schoenberg, leading electronic health record companies will introduce telehealth capabilities to their practice management systems, enabling online visits for thousands of physicians across the country. This will occur because the ACO model will bring great accountability to the healthcare delivery system, specifically how a physician's ability to manage patient outcomes will affect their profit. For this reason, providers will want to increase their capability to follow up on patients, and vendors will add telehealth to practice management systems to meet the need.

"Telehealth is the simplest way for a physician to say to their patient, 'let's get together for a few minutes each week.' With telehealth, the patient will not need to visit the office or schedule an appointment. Telehealth offers a close intimacy, and when telehealth becomes a part of practice management systems, it becomes part of the arsenal for physicians to take charge of their patients' care," says Dr. Schoenberg.

"I believe that in the future, when a physician purchases a practice management system, the telehealth capabilities will be right next to the billing, scheduling and EMR systems," says Dr. Schoenberg.

3. Consumer demand will cause "main street" telehealth. According to Ms. Boles, the adoption rate and the use of telehealth in treating and communicating with patients is going to grow. The consumer demand is there; the healthcare industry just needs to catch up. "Consumers have a large preference for telehealth services. Some studies are even showing that there are better outcomes from telehealth than in person," says Ms. Boles. According to Dr. Schoenberg, employers across the United States may even launch their own telehealth services for their employees, bringing telehealth to Main Street and meeting consumer demand.

There is no question that health information technology like telehealth and telemedicine are critical resources for healthcare providers, hospitals, delivery networks and newly formed ACOs in a short span.
of time, consumer awareness and acceptance of these technologies has risen rapidly as healthcare reform, technology and patient expectations all work to alter the way healthcare is delivered in the United States. While predictions may be made based on past trends and current initiatives, no one can ultimately guarantee how the healthcare industry will operate or look like, but there is no doubt that technology and innovation will continue to play a role in facilitating the delivery of quality care across the care spectrum.

4. Three Ways Telemedicine Can Help ACOs Coordinate Care, Cut Costs
Becker’s Hospital Review, June 07, 2012

The concept behind telemedicine is very simple: connect patients to physicians who can provide care from a distance. Perhaps the term telemedicine drums up images of a physician connecting with a rural patient through a video chat. But the way in which telemedicine is delivered is becoming ever the more expansive, and can include phone calls, emails, instant messaging and potentially even apps on mobile devices.

Telemedicine may also help provide coordinated care solutions to newly-formed accountable care organizations and hospitals nationwide.

"Everybody agrees that you have to figure out ways to use technology, use innovative solutions to solve problems with the archaic, established ways healthcare has been accessed and delivered," says Wolf Shlagman, the CEO and founder of telemedicine company Consult A Doctor, which provides services to employers, payors and consumers, as well as a platform that offers providers telemedicine technology. The company primarily works with separate organizations that are part of an ACO, but Mr. Shlagman says it could work directly with ACOs in the future.

Here, he discusses three ways telemedicine can help accountable care organizations and hospitals improve efficiency and save money, while keeping patients at the center of care.

1. Telemedicine provides patients an avenue to receive unlimited access to a medical professional. The intent of any ACO is to improve quality of care for each patient within its set population. With telemedicine tools, patients can theoretically engage a physician or care coordinator anytime, anywhere. They are not limited by distance, cost or time spent driving to and from appointments.

"When you look at ACOs, they are given the task to manage patient populations, and in many cases, do it with whatever technological means necessary to save money, improve quality and outcomes ," Mr. Shlagman says.

Additionally, telemedicine may help ease concerns of emergency room utilization. A recent CDC report showed that 80 percent of adults between the ages of 18 to 64 who visited an emergency room during the first half of 2011 did so because they lacked access to other providers. Telemedicine has the potential to provide more access for some of those adults through mobile technology. If those adults are among the patients in an ACO population, physicians and hospitals will want to keep those patients out of emergency rooms in an effort to reduce costs.

Further, as hospitals continue to align and acquire physician practices, they are seeking ways to balance the use of technology to offer on-demand care in the most appropriate cost setting while also utilizing the physicians time wisely, Mr. Shlagman says. Telemedicine provides "the most efficient solution for patient/physician interactions and consultations by phone or email 24 hours a day, seven days a week."

He offers an analogy of the banking industry to describe how telemedicine can potentially transform healthcare. Fifteen years ago, no one was using mobile technology to pay for bills; online banking was a
pilot program or an entrepreneur's idea. Now, the industry has changed so dramatically that many people with mobile access rarely, if ever, step inside a brick and mortar bank.

Telemedicine has the power to have a similar affect on healthcare delivery, Mr. Shlagman suggests, because it replaces unnecessary hospital and ER visits. Patients with a phone or an internet connection can express health concerns to physicians or nurses before coming into a hospital or clinic. Perhaps the patient takes a picture of a wound on his or her smart phone and then sends it to a medical expert. In turn, the physician or nurse evaluates whether emergency care is needed.

2. Telemedicine offers ACOs a means of monitoring patient populations and reducing readmissions. Telemedicine is a part of an "evolution of a more connected, patient-centered healthcare ecosystem," Mr. Shlagman says. Advances in telemedicine can help care teams monitor the various vitals of a patient in an ACO or automatically check in with a patient through an email or voice mail. Patient monitoring and communication following a discharge can play a vital role in reducing the likelihood of an unnecessary readmission.

"Telemedicine is a perfect marriage of using proven technology to be able to lower the cost of care delivery and, in many cases, improve access and quality," Mr. Shlagman says. "You're also reducing potential liability and penalties because of unnecessary readmissions."

By keeping in touch with patients following a discharge, ACOs can reduce readmissions and potentially save money.

3. Telemedicine advances the legislative intent of CMS ACOs to provide evidence-based medicine and engage patients. Telemedicine — referred to as telehealth in the CMS rule — is a central element to the government's accountable care plan. It allows a patient access to physicians or medical experts around the clock without the strain of having to take a trip to the hospital or a clinic. In some ways, it may be more convenient for physicians who do not need to be on location to provide medical information or counseling to the patient.

"ACO legislation is trying to make healthcare more efficient by taking out some of the high costs associated with it," Mr. Shlagman says. "I think telemedicine really fits nicely in that legislation."

As written in CMS' final rule for the Medicare Shared Savings Program, accountable care organizations must "define processes to promote evidence-based medicine and patient engagement, report on quality and cost measures, and coordinate care, such as through the use of telehealth, remote patient monitoring, and other such enabling technologies."

NEWS ON THE PRACTICE OF TELEMEDICINE

5. UK telehealth Provides Benefits, But Cost Savings Are Modest

Medscape Medical News, June 22, 2012, Emma Hitt

For patients with long-term conditions, telehealth can reduce 12-month mortality by nearly half, but the cost savings may be modest, according to a the results of a new randomized controlled trial.

Adam Steventon, MA, senior research analyst with the Nuffield Trust in London, United Kingdom, and colleagues reported their findings online June 22 in the British Medical Journal.

According to the researchers, telehealth, which involves the remote exchange of data between the patient and the clinician as part of healthcare management, may help improve patient outcomes.
"Investment in telehealth has often been justified partly on the basis that its cost can be recovered by reductions in the use of secondary healthcare," the authors note. However, assessing these effects is "complicated."

The current study is 1 of 5 analyses on this issue from the same research group, and sought to determine how home-based telehealth interventions affect the use of secondary healthcare and mortality.

The analysis included 3230 patients from 179 general practices in 3 geographic areas in England. Patients had diabetes, chronic obstructive pulmonary disease, or heart failure and were recruited between May 2008 and November 2009. The researchers randomized general practices, rather than individual patients. In their multivariate model, the researchers adjusted for age, sex, ethnicity, site, the number of chronic health conditions, and the patient's principal long-term condition.

Patients in the intervention group received telehealth services, whereas patients in the control group did not. Compared with control patients, patients in the intervention group had fewer hospital admissions over the course of 12 months (odds ratio [OR], 0.82; 95% confidence interval [CI], 0.70 - 0.97; \( P = .017 \)).

In addition, telehealth was associated with significantly reduced mortality at 12 months (4.6% vs 8.3%; OR, 0.54, 95% CI, 0.39 - 0.75; \( P < .001 \)).

Other benefits included reduced hospital stay and mean number of emergency admissions per head (although the latter was not significant after adjusting for baseline characteristics between groups).

"Observed differences in other forms of hospital use, including notional costs, were not significant in general," the authors note.

According to the researchers, the benefits observed for telehealth could have been affected by "short term increases in hospital use observed in the control group that may have been affected by recruitment processes during the trial."

They add that the cost benefits were "relatively small," estimating them to be 188 GBP (about US$300) per patient over the course of 12 months, "especially compared with the potentially high costs of these types of telehealth intervention, which we did not take into account."

"[W]e cannot conclude that telehealth reduces secondary care costs over 12 months," they add.

According to the researchers, however, telehealth could "change people's perception of when they need to seek additional support, as well as professionals' decisions about whether to refer or admit patients. Further analyses will provide insights into the mechanisms by which telehealth can lead to reductions in admission rates," they suggest.

In an accompanying editorial, Josip Car, MD, PhD, director of the Global eHealth Unit at Imperial College London, United Kingdom, and colleagues note that the new data indicating a reduction in mortality are interesting but need more explanation. "This welcome finding needs a plausible explanation of how it was achieved (and can be replicated), especially because numbers of admissions were essentially unaltered in the intervention group, and existing evidence on the impact of telehealth on mortality is either mixed or lacking," they write.

Moreover, the field of telehealth as a whole needs more careful investigations aimed at testing individual interventions in particular settings, rather than consideration of telehealth as a single item. "Telehealth does not just 'work' or 'not work.' Particular interventions may be successful, but this depends on many factors," they write.
"Policy makers, commissioners, and guideline developers should help ensure that the research agenda focuses on areas where telehealth shows most promise. There is great potential, but also still much to be done," the editorialists conclude.

BMJ. Published online June 22, 2012. Full text

6. Telehealth and telecare: why UK is still waiting for the definitive report
The Guardian, July 2, 2012, Dick Vinegar htm

The study was completed a long time ago, yet the findings haven’t been published. Is it because the NHS doesn’t like the conclusions?

…The final report was being held because rigorous academic study would show that the preliminary findings were too optimistic. They were hoping that the final report would show that they would not have to bother about changing their time-honoured ways of handling patients, to make use of these pesky new technologies, like superfast broadband. And they could give the government a bloody nose – as payback for the health bill and the cuts in pensions – by boycotting the 3 million lives initiative.

…The academics in the Nuffield Trust have finally published in the BMJ a report on the WSD. Or, to be more precise, it is a report on half the WSD. The original WSD covered 6,000 patients in Cornwall, West Ham and Kent with a variety of long-term conditions. What has now been published covers 3,000 patients and is limited to patients suffering from three long-term conditions: chronic obstructive pulmonary disease, diabetes, or heart failure. The remote treatment of patients with these three diseases is now called telehealth.

The other 3,000 patients in the trial, being monitored remotely for other complaints, are defined as being treated with telecare. We have to wait until the end of this year for the WSD report on them. Hence, we will not get an overall picture of the success or failure of the WSD. ...

7. Telepsychiatry Program Saves Money

More than 10,000 telepsychiatry consultations are offered through the South Carolina Department of Mental Health. (DMH) currently provide comprehensive consultations to 23 urban and rural state hospital emergency departments with six additional hospitals being added according to the DMH newsletter, “Mental Health Matters.”

The Telepsychiatry Consultation Program developed by the state DMH requested assistance from The Duke Endowment located in Charlotte North Carolina to develop a statewide telepsychiatry network for all South Carolina hospitals and their operating emergency departments. To date, the program has received more than $6.3 million.

The funding will enable the hospitals to better serve behavioral health patients. The telepsychiatry consultations have increased the quality and timeliness of triage, assessment and initial treatment of patients, reduced the number of individuals and length of stay in emergency departments, and enabled the hospitals to realize financial savings.

In addition, results show:

- An increase in the number of patients receiving comprehensive assessments
- Provides for seamless joint consultations
- Better information available on the substance abuse diagnoses
An increase in professional staff able to receive training
A reduction in the cost of mental health care

In all cases, the DMH psychiatrists consult with hospital medical professionals, review requested hospital clinical information, consult with patients using the telepsychiatry video system, and summarize their recommendations in the patient’s EMR. The information in the EMR is then transmitted to the hospital emergency department with a copy of the consultation also sent to the aftercare discharge referral source which is generally the local DMH community mental health center.

Other key partners in addition to the Duke endowment involved in the program include:

- The South Carolina Hospital Association, a private, not-for-profit organization comprised of 130 institutions and 900 associated members working to develop a uniformed credentialing application to be used by telepsychiatrists
- South Carolina Department of Health and Human Services which is the state’s Medicaid agency, is partnering to develop a statewide medical health record and working to increase IT infrastructure
- University of South Carolina School of Medicine and their Department of Neuropsychiatry and Behavioral Science continues to offer advice. Their telepsychiatry program being conducted is in charge of a large research study funded by NIMH
- The Department of Psychiatry of the Medical University of South Carolina is providing expertise and clinical office space for telepsychiatrists
- Department of Psychiatry and Health Behavior at the Medical College of Georgia are sharing lessons learned from their cardiac telemedicine project

It has been found that the telepsychiatry program has resulted in a net medical cost savings of $1,000 per patient per episode of care. This translated to nearly $10,000,000 in savings in just under three years of the program.

8. Telemedicine is Going Mainstream Quickly
HealthTech Zone, June 25, 2012

Nearly 200 million Americans are covered by private health insurance and 48-60 million have no insurance at all. In an effort to reduce costs and expand access of health services, telemedicine is becoming increasingly popular across the nation.

Telemedicine reduces unnecessary use of the emergency department for non-emergency care. Studies show that one in every four uninsured people gets care in the ER, resulting in excessive care and places an unwarranted strain on patient care. Implementing telemedicine solutions can save billions of dollars nationwide that are wasted annually on unnecessary or inappropriate care.

Consult A Doctor, a provider of telemedicine platform services and solutions, was launched in 2008 to provide easy, convenient and immediate access to 24/7 physician consultations by phone, secure messaging, video and now mobile app.

The core enterprise platform that deploys Consult A Doctor’s constant on-demand access is TeleCare 3.0, designed to increase access, reduce costs and improve outcomes. The cloud-based telemedicine platform is available for license to practices, hospitals, clinics, health plans, employers, unions, TPAs and other groups interested in offering telemedicine services. The platform is fully secure and can be customized to support the specific needs of a wide range of organizations.

Consult A Doctor’s network of board-certified physicians in all 50 states can discuss symptoms, recommend treatment options, diagnose many common, minor and/or brief illnesses, and prescribe...
medication when appropriate for anyone, regardless of their insurance status. The technology also features a content rich member health portal that combines 24/7 physician access with cutting edge health applications, empowering individuals and families to take an active role in health, prevention and disease management.

Its client base is made up of employer groups, including Fortune 100 groups, benefit brokers and consultants, and serve health plans, associations and travel services across all vertical industries including education, entertainment, finance, healthcare, retail and transportation.

The adoption of telemedicine is inevitable. According to AHIP, by the end of 2010 healthcare spending had reached $2.6 trillion, or more than $8,400/year for each person in the country. Three out of four patients want to communicate with their doctor, view lab results and request appointments online and nearly half would consider switching doctors to a practice that offers the ability to do so.

“The system doesn’t work, it’s broke today. The end of insurance companies, the way we’ve run the business in the past, is here,” said Mark Bertolini, Aetna CEO, chairman and president. “Much like Minute Clinic’s growth, which rose from less than 100,000 visits in 2006 to over 10 million visits in late 2011, we realistically foresee 100 million individuals per year accessing virtual care services and transactions by 2015.”

Several states, including Virginia and Pennsylvania, have passed legislation requiring both public and private health insurers to cover telemedicine and telehealth services at an equal or similar rate as in-person services.

With employer groups, payers, providers and hospitals all relying on telemedicine technology to reduce costs, expand access and improve outcomes, virtual healthcare trends such as providing remote home health services, reducing cost of specialty care, providing access to the inaccessible, expanding geographic branding and reach and reducing travel costs for disabled patients can be expected to become mainstream quickly.

9. Telemedicine Tackles Mental Health Treatment

InformationWeek, June 25, 2012, Neil Versel

Online communities and computerized cognitive behavioral therapy can help break the stigma of depression, extend providers, and reduce overmedication, report says.

There are many reasons why people don't seek treatment for mild to moderate depression, including social stigmas, lack of insurance coverage for mental health, unwillingness to try psychoactive medications, and doubt about whether a primary care physician is the right person to approach with emotional concerns. Technology--specifically what is being called computer-based cognitive therapy--may help break down some of those barriers.

"Computer-based cognitive behavioral therapy (CCBT) cost-effectively leverages the Internet for coaching patterns in self-driven or provider-assisted programs. Technological advances have enabled computer systems designed to replicate aspects of cognitive behavior therapy for a growing range of mental health issues," said a new California HealthCare Foundation report about Web-based care for mental health.

The report, authored by health economist Jane Sarasohn-Kahn, discusses how this technology, often called e-therapy or tele-mental health, offers a low-cost, comfortable alternative to traditional psychotherapy and can extend options into underserved rural areas and inner cities.

Dr. Peter Yellowlees, a psychiatrist at the University of California, Davis, who researches telehealth, said in the report that videoconferencing can make psychotherapy more appealing to some patients, helping
to overcome any stigma associated with depression. "Video can offer a bit of extra space," he is quoted as saying. "People are often more honest on computers than face-to-face. If you want to ask a difficult question, it can be better to do it on a computer, compared with being face-to-face with paper and pencil."

[ Practice management software keeps the medical office running smoothly. For a closer look at KLAS' top-ranked systems, see 10 Top Medical Practice Management Software Systems. ]

The United States and France have the highest rates of depression in the world, according to World Health Organization data cited in the report, yet only a third of people in the U.S. with depression ever seek help, according to the report. Regardless of how the Supreme Court rules on the Patient Protection and Affordable Care Act, "we are going to have to deal with mental health," Sarasohn-Kahn told InformationWeek Healthcare.

According to the study, less than half of Americans taking antidepressants have seen a mental health professional in the past year, and sometimes people whose depression is not severe might need therapy more than medications. "Prescribe computer-based therapy before medicating for mild to moderate depression," Sarasohn-Kahn advised.

"In addition to online videoconferencing, patients looking for help with mild to moderate depression and anxiety might be able to receive services through self-administered computer-based cognitive behavioral therapy (CCBT), mobile health apps, therapy-oriented games, virtual reality, and online social networks," Sarasohn-Kahn wrote in a post on her Health Populi blog.

Gaming, in particular, can help remove the stigma for children and adolescents. "Video therapy might also be a 'safe space' for discussing difficult or painful issues that could facilitate rapport," Sarasohn-Kahn said in an interview.

She noted that 80% of primary care physicians in the United Kingdom use online behavioral therapy site Beating the Blues to teach coping skills as an initial therapy before turning to antidepressants, and have for several years. "It's not new," according to Sarasohn-Kahn.

Seven in 10 patients who were recommended for Beating the Blues did not need in-person psychotherapy, the British National Health Service found. Thanks to this history, the system has been exported to several other countries, including in the U.S. at the University of Pittsburgh Medical Center, and it is being evaluated by the U.S. Department of Veterans Affairs.

Another program, Eliza, employs automated voice-response technology in a depression-screening tool for health plans and employee assistance programs.

In the social arena, PatientsLikeMe, which started as a community for people with neurological disorders, developed a "mood map" because so many people with conditions like amyotrophic lateral sclerosis (ALS), Parkinson's disease, and multiple sclerosis also show signs of depression.

"[PatientsLikeMe] captures far more than the data recorded in purely medical environments--granular aspects of daily living that are critical to understanding the context of a person's mood," the report explained.

Technology such as this can "scale up quickly," according to Sarasohn-Kahn. This makes it useful for cash-strapped state Medicaid programs and federally qualified health centers. "A growing number of therapists are seeing this as a revenue source," she added.

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10. VA to boost remote mental health services
Fierce Health IT, June 21, 2012, Susan D. Hall htm
To improve veterans' access to mental healthcare, the Department of Veterans Affairs announced this week that it has set a goal of providing 200,000 remote consultations this year through videoconferencing. The news comes on the heels of the VA's recent announcement that it no longer will charge veterans a co-payment for any telehealth services.

The VA provided 140,000 remote consultations to 55,000 veterans through its community-based outpatient clinics in fiscal year 2011, more than double the rate of use in 2008. It expects to treat 2,000 patients in their homes by the end of fiscal year 2012, including 1,500 through Internet Protocol (IP) video on their personal computers.

In a presentation last month to the American Psychiatric Association, Linda Godleski, director of the national telemental health center and a psychiatrist at Yale University, said the program, which began in the early 2000s as a way to manage medication, has grown to encompass the full spectrum of mental health services, according to Elsevier Global Medical News.

Godleski presented research recently published at Psychiatric Services drawn from the records of 98,609 VA patients who were new to the remote method of care. The study found patients were about 24 percent less likely to require hospitalization in the six months after receiving remote care than they were in the six months preceding such care; the number of days such patients were hospitalized decreased by close to 27 percent. Meanwhile, patients who did not switch to remote care showed no difference in their rate of hospitalization.

Recent research from Northwestern University on phone-based therapy also found it just as effective as face-to-face sessions.

The rate of suicides among veterans reached its highest rate since the Sept. 11 attacks earlier this year and the agency has been criticized for downplaying the wait time for veterans to see a doctor or mental health professional.

A report by VA Office of the Inspector General in April found that 94,000 patients waited an average of 50 days, rather than two weeks, as previously reported. Old scheduling technology was blamed in part for the discrepancy.

In the announcement VA Secretary Eric Shinseki said veterans increasingly are communicating with the department's staff through online chats and text messages, which is being encouraged. "Shame keeps too many veterans from seeking help," Shinseki told a suicide-prevention conference, according to an article in Stars and Stripes. He added: "But we can't influence and help those we don't see," Stars and Stripes reports.

In response to the increased demand for services, the VA is adding 1,600 mental health clinicians and nearly 300 support staff.

In addition to beefing up mental health services back home, the VA has some innovative methods in the works to aid deployed military personnel including counseling over smartphones and a "transportable telehealth unit"--a container rigged with webcams and other telehealth equipment to provide services with counselors miles away. Remote mental health services for dependents also are proving an important link in the counseling chain

To learn more:
- here's the VA's announcement
- here's the Psychiatric Services abstract

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11. Tele-ICU initiative improves care, increases employee satisfaction
High Point Regional Health System has seen big benefits from a three-year tele-ICU pilot with St. Louis-based Advanced ICU Care, officials say – improving care while alleviating clinicians’ workload.

High Point’s intensivist-led team is based in the Advanced ICU Care Monitoring Center and receives constant information on the patient’s condition through sophisticated software that notifies them of any change in the patient’s health that might require immediate intervention, officials say.

Two-way video in the patient’s room can be activated to conduct a conference between the bedside care team and the Advanced ICU Care team at any time of the day or night. This constant surveillance improves patient safety and health outcomes by avoiding complications and adverse situations with prompt, proactive interventions.

Key to the High Point collaboration is the strong alliance between its staff and the Advanced ICU Care team, officials say. During the three-year partnership, this team has successfully implemented quality care initiatives for better patient management and safety measures to avoid potential complications that can occur in an ICU, such as blood clots, deep vein thrombosis, gastric ulcers and sepsis. A significant achievement is the implementation of an innovative “patient cooling” process for people with cardiac arrest. Patients who have received this treatment have awakened after the arrest with no cognitive impairment.

“Three years ago, we partnered with Advanced ICU Care to bring around-the-clock intensivist care to ICU patients in our community,” said Greg Taylor, MD, High Point’s COO. “From a seamless implementation to the quality enhancements we continue to achieve, the collaboration between our hospital staff and Advanced ICU Care has been a success. We are able to offer our patients the highest level of care available in the ICU today and to continue to improve on that level of care every day.”

Research has shown that patients in intensive care do better when they are monitored around-the-clock by intensivists, physicians specially trained in critical care medicine. Constant surveillance by these specialists is now the recommended standard of care for hospital ICUs.

But a severe shortage of intensivists means it’s simply not possible for most hospitals to meet this standard and have intensivists on staff at the hospital at all times. Advanced ICU Care, the nation’s largest independent provider of tele-ICU programs, helps hospitals overcome this barrier and achieve optimal care in the ICU through a tele-ICU program combining sophisticated telemedicine technology, 24-hour-monitoring by Board-certified intensivist physicians and continuous quality improvement initiatives.

In addition to quality patient care initiatives and protocols, staff satisfaction and working conditions have improved since the implementation of the tele-ICU program, and High Point has seen a reduction in nursing turnover, officials say.

“Our nurses have really embraced this program,” said Cindy Stewart, RN, director of critical care and cardiovascular services at High Point Regional. “Being able to speak with Advanced ICU Care in the middle of the night has improved employee satisfaction among our nursing staff. We find that when we recruit, many nurses have heard of remote monitoring, and they’re excited to learn something new.”

Physicians at the hospital say they’re comforted that their ICU patients have an intensivist-led team available when they are not in the hospital, making sure their care plans are followed and available should any situation arise that needs immediate attention.

“The Advanced ICU Care program relieves the pressure of having to perform around-the-clock ICU coverage by existing staff and avoids burnout,” said intensivist Peter Brath, MD, medical director of High Point’s Intensive Care Unit and Respiratory Therapy. “There are more doctors available to provide weekend and night backup coverage. From a quality of life standpoint, it’s wonderful.”
“High Point has been a great partner and we are very excited by the strong results that we have been able to achieve together,” said Mary Jo Gorman, MD, CEO of Advanced ICU Care. “We feel very confident the hospital will continue to see additional benefits stemming from our collaboration, from improved patient care to staff satisfaction.”

12. Telestroke Expands its Reach
*The Hospitalist, June 2012, Bryn Nelson*

Advances make telemedicine better for stroke patients, their families, and the hospital

In 2009, 338-bed South Fulton Medical Center in Atlanta offered only limited inpatient neurological services. Then along came telemedicine. A plan developed by Karim Godamunne, MD, MBA, SFHM, in conjunction with Atlanta-based Eagle Hospital Physicians, supplied the medical center with on-call teleneurologists working in concert with the HM program, under Dr. Godamunne’s direction.

In the first full year of the program, the medical center increased its volume of stroke patients by 80%. The successful integration of telemedicine and hospital medicine, in conjunction with neurology and nursing, has become a template for a soon-to-be-launched partnership with a hospital in Tennessee.

“So it’s really a multidisciplinary, systemized approach to stroke care,” Dr. Godamunne says.

Some telemedicine programs use remote-controlled robots, such as InTouch Health’s RP-7, that can be driven to the bedside of a patient with a suspected stroke. Mary E. Jensen, MD, professor of radiology and neurosurgery at the University of Virginia in Charlottesville, says impressive gains in imaging may be making even that futuristic-seeming technique obsolete. Telemedicine already is using more portable monitors—and in the near future, perhaps, iPads—as visual conduits. A linked system that delivers high-resolution CT and MRI scan results can help Dr. Jensen and stroke neurologists look for hemorrhaging or a large evolving infarction in patients at 25-bed Bath Community Hospital, a two-hour drive to the other side of Virginia’s Blue Ridge Mountains.

After confirming the absence of both complications, a stroke neurologist can give the all-clear for delivery of IV tPA, while Dr. Jensen can determine whether a patient is a candidate for interarterial tPA or mechanical extraction of the clot. And for cases that require it, secure “cloud-based” applications that use the power of the Internet can let multiple providers have a virtual meeting and reach a joint decision about patient care without leaving behind sensitive data that could be fodder for misuse.

“The technology, it’s just developing at such an incredible speed. And I find that very exciting,” Dr. Jensen says.

As the telestroke concept expands, medical centers are departing from the typical hub-and-spoke model in which a large central institution provides services for a ring of rural or underserved areas. Kevin Barrett, MD, MSc, assistant professor of neurology and stroke telemedicine director at the 214-bed Mayo Clinic in Jacksonville, Fla., says the clinic’s partnership with 201-bed Parrish Medical Center in Titusville, Fla., about 130 miles to the south, is with a facility that’s nearly the same size.

“And because of local neurologists not being enthusiastic about covering emergency cases, telemedicine is now expanding into larger centers where there’s a shortage of inpatient neurology coverage,” Dr. Barrett explains.

Local hospitalists are central to the model’s success, he says, because most of the ischemic stroke patients aren’t falling under the traditional “drip and ship” method, in which they’re treated remotely, then transferred to tertiary-care centers with neurological expertise. The telemedicine-aided ability to manage more patients locally, Dr. Barrett says, is ultimately better for them, their families, and the hospital.

*Bryn Nelson is a freelance medical writer in Seattle.*
13. Nurse-led telehealth intervention lowers HbA1c levels in diabetics

Heartwire, June 14, 2012

Philadelphia, PA - A nurse-led telephone intervention program for patients with diabetes resulted in a significant reduction in HbA1c levels, with successfully treated patients reporting reductions of more than 3.0% from baseline [1]. The virtual program, which included no face-to-face contact with patients, is economically feasible and can be implemented almost anywhere, say researchers.

"The program was initiated when we noticed the home-care programs were not affecting HbA1c levels," Susan Lehrer (New York City Health and Hospitals), the nurse leading the project, told heartwire. "Also, the episodes of home care are very short and getting shorter with managed care, but they can have an effect if provided for a long enough period of time. The concept of telehealth emerged as a way for us to know what was happening in the patient's home, so we could target the interventions at a time when it was most important for the patient to get the information. We thought this way we could have more of an effect on outcomes."

In presenting the results of the study here at the American Diabetes Association (ADA) 2012 Scientific Sessions, Lehrer explained that 126 patients from 11 New York City hospitals were enrolled in the pilot project and given a blood glucose monitor that was connected to a landline telemonitoring system (AMC Health). "Red" alerts were generated when a patient's daily blood glucose levels were 20% higher than the blood glucose threshold established by their primary-care physician. When this occurred, the nurses received a text or email with the information, and this prompted a call to the patient with the notification. Diabetic patients enrolled in the program for one year experienced HbA1c reductions of 2% on average, a finding Lehrer said is dramatic. The average baseline HbA1c level of patients entering the program was 8.0%, so the program is effective in getting patients down to the 7.0% range recommended by the clinical guidelines. Patients considered a "success" who were discharged from the program had an average reduction of more than 3.0%.

"The information is available to the nurses—I get it on my Blackberry and I get in on my computer—all through the day, and this allows us to respond to low blood sugar or high blood sugar," said Lehrer. "It allows us to see impending situations that would require an intervention. We make a call to the patient and record everything that's happening on the website. We're then able to create reports of the readings and send them to the doctors in preparation for their appointments."

Lead investigator Dr Nancy Allen (Boston College, MA) pointed out that the program is designed to be practical, saying the study is an example of a telehealth program that is working. Past studies testing the effectiveness of telehealth interventions in diabetes care have been flawed, she said, noting that this program is sustainable given that it is covered by the medical insurance companies. "When you think about it, in the real world, to keep effective programs going, you have to have the economic piece of the puzzle figured out," Allen told heartwire.

Next, the researchers are hoping to implement a telemedicine program for heart-failure patients, which would likely include measurements of systolic and diastolic blood pressure, pulse rate, heart variability, blood glucose, and plasma concentrations of natriuretic peptides, among others.

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14. USDA awards $14 million to help develop telehealth in 29 states

Fierce Health IT, June 8, 2012

Twenty-nine states will share in $14 million of new rural grants from the U.S. Department of Agriculture, the agency announced this week. The grants will be divided between telehealth programs and distance-learning initiatives.

Telehealth programs will get a little more than half of the funds--about $8.3 million, split between 33 programs. For example, the Low Country Health Care Network will receive almost $323,000 to buy telehealth equipment for its most rural providers, plus to set up a training program for rural providers.
While many of the programs target chronic disease such as diabetes, cardiac conditions, and the like, one interesting program in upstate New York will receive $215,000 to spend on telehealth services specifically for farm workers, focusing on basic services such as eye care, dental care and occupational health.

The big winners in this round of telehealth grants are South Dakota and Wisconsin. South Dakota will receive a whopping $849,000 in two separate grants, while Wisconsin will be handed $545,000 in two grants as well.

Overall the grants are far smaller, though, than those distributed by the USDA late last year, where some states like Maine and Oklahoma received $3 million or more for telehealth efforts.

Regardless of size, though, many of the projects could be hampered by slow expansion of broadband in most rural communities. Officials at one of the biggest grant recipients--Avera Health in South Dakota--complained just a month ago that coverage issues are so bad that hospitals should consider piggy-backing on "old school" technology such as T1 lines already in use by many other businesses in the region.

The American Telemedicine Association, too, has long complained about sluggish government initiatives to improve rural broadband capacity, and the effect is will have, going forward, on telehealth development.

To learn more:
- read the USDA announcement
- check out the list of state grants

**Telemedicine grantee summaries from the northeast:**

Central Maine Healthcare Corporation –Maine: $309,619
Rural Development funds will be used by Central Maine Healthcare to purchase video conferencing and related equipment for a telemedicine project that covers 5 counties in Western, Central and coastal Maine. This service area has significantly high rates of chronic disease among its residents. Maine’s geographical barriers and weather conditions ramp up the need for telemedicine, and this project brings those capabilities to the rural residents of Fryeburg, Rumford, Bridgton, Farmington, and Skowhegan, where the equipment will be used to better manage and treat chronic disease. The same telemedicine system will be used to offer courses that lead to degree programs in Nursing and Radiologic Technology, and to support a Family Medicine Residency program.

Adirondack Medical Center –New York: $112,860
Rural Development funds will be used to implement a telemedicine network connecting the main hospital at Saranac Lake with satellite clinics in the nearby rural areas – setting up new video end points to extend the hospital’s medical services. The network will allow rural clinicians to visually consult with medical specialists at the hospital, to synchronize patient information between sites, and to realize cost-savings at every point in the process, especially travel costs for patients. The primary and secondary service areas span over 1,200 square miles in rural, upstate New York.

Finger Lakes Migrant Health Care Project, Inc. –New York: $215,650
Rural Development funds will be used to expand an existing telehealth network to 10 new sites, providing the equipment to bring these clinics into the larger health care network as video end points so that telemedicine can be brought into these previously underserved communities. With a special emphasis on the farm worker community, the project will connect these rural clinics with four partnering hub sites providing video consultation with physicians in areas of eye care, dental care, behavioral health consultations, occupational health, and other essential health care services. The programs also offer linguistically appropriate distance-education programs, including healthcare career opportunities with clinical mentoring and Continuing Medical Education courses.

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**15. The Doctor Will See You in Walmart**

*InformationWeek, June 05, 2012 [htm]*
Retailer rolls out telemedicine services that give shoppers access to doctors through videoconferencing technology.

Officials at Telemed Ventures told InformationWeek Healthcare that Walmart recently began a pilot program at its Bensalem, Penn., store that allows doctors to examine patients with minor illnesses. The retailer also plans to offer telehealth services at its supercenter in Willow Grove, Penn., which is currently under construction. Walmart hopes to expand the service to other stores across the country, eventually offering primary care services to millions of Americans at a lower cost than traditional clinics and small physician practices.

BCS Global's managed visual collaboration tools enable remote video consultations between a patient and doctor through a lifelike, virtual face-to-face video interface. BCS Global's service enables Telemed to use its Smart Care Doc technology, which provides a reliable and secure visual collaboration platform for patients, nurses, doctors, and healthcare providers.

In an interview, Darrell Jennings, chief operating officer at Telemed Ventures, said Walmart was interested in working with Telemed because of its ability to provide a robust platform along with qualified healthcare providers at an attractive price point, when compared to the expense that Walmart would incur if it hired dedicated doctors and nurse practitioners at Walmart's clinics. Patients will pay $59 to see a teledoctor, which is approximately 40% less than what similar types of clinics with nurse practitioners are charging, officials say.

Under the agreement, Walmart has hired Telemed Ventures to provide nurses and doctors that are part of Telemed's network of clinicians. A customer can visit a clinic located within the Walmart store and start the examination process by opening a new electronic health record (EHR). Patients enter their name, medical history, medication history, and information about their complaint. A nurse on staff conducts a preliminary examination that includes taking blood pressure, temperature, weight, and other vital signs before the videoconference session begins.

"We collect the patients' vitals with devices that are electronically tied to the computer at the clinic and then all those vitals are uploaded into the patients' medical record in the cloud," Jennings told InformationWeek Healthcare. "The doctor sees that information during the videoconferencing session and, based on the information, the doctor can make a diagnosis, prepare an electronic prescription, enter notes into the EHR, and if the patient needs further attention, refer a patient to a specialist."

Jennings also said patients can access records of their visit through a personal health record (PHR) that the system provides. The patient can then access the PHR on a home computer or tablet.

The technology uses a virtual private cloud computing model provided by Amazon that stores patient data and is Health Insurance Portability and Accountability Act (HIPAA) compliant, Aleksey Konovalov, Telemed Ventures' chief architect, said in an interview.

"We want to make sure that sensitive data such as patient information is transmitted over a secure, encrypted connection and that the information is securely stored and managed [with password authentication codes] that only designated people with certain rights and permissions can have access to," Konovalov said in an interview.

In a statement, Clive Sawkins, CEO of BCS Global, said, "This innovative service eliminates the patient's burden of having to travel to out-of-the-way clinics, or sit in waiting rooms anticipating whether their name will be called next."

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16. New Web Resource Toolkit on Home Telepalliative Care

Federal Telemedicine News, June 3, 2012  [htm]
Audrey Kinsella, Research Director and lead writer for “Information for Tomorrow” a home telehealth program planning services, has developed the newest installment “Telepalliative Home Care”. This installment is featured on the “Home Telehealth Community of Care” web page available at www.informationfortomorrow.com/community/0512-PalliativeCare.html.

As Kinsella points out, “Today, palliative care is being seen as more and more focused not on the end of life, like hospice, or even the final year of life, but on the longer period of in-between formal care in home healthcare and hospice.

The healthcare delivery system in the last few years has been changing and evolving. Today, there is the ever increasing need to care for patients living with complex chronic diseases from the time of their diagnosis until the end of their lives.

As a result, there has been a monumental growth of palliative care training programs, widespread development of Patient-Centered Medical Homes using a team approach to care for patients outside of acute care settings, and the legislative requirement for Accountable Care Organizations to provide comprehensive care throughout an individual’s lifetime.

The new web page has several segments such as:

- Palliative Care: What is It?—Provides a grounding in the development of palliative care service training and delivery and details on the number of potential patients that may be served
- Palliative Care: Tools to Help Deliver Services—Profiles new tools to help deliver needed care and help to make living comfortably with long term conditions possible for patients and their families
- Look Homeward—Presents experiences of working with home-based patients receiving palliative care
- Coming Home—Deals with focusing not only on symptom managements but also assisting with patients’ broader, day-to-day living circumstances that they face

As Kinsella notes, the “Home Telehealth Community of Care” web page also has information on diabetes and telehealth, falls among the elderly, home telehospice, and other issues of concern in home healthcare and health technology applications for the home.

For more information, contact Audrey Kinsella at 828-252-8571 or email telehealthcare@lycos.com.

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17. Telemedicine Brings City Docs to Rural Patients
MedPage Today, May 25, 2012 htm

Reviewed by Dori F. Zaleznik, MD; Associate Clinical Professor of Medicine, Harvard Medical School, Boston and Dorothy Caputo, MA, BSN, RN, Nurse Planner

PHILADELPHIA -- A small study of rural diabetes patients who used a telemedicine-based endocrine consultation service for follow-up care suggests that the city-country link can significantly improve health outcomes.

Of the 20 patients with follow-up for type 2 diabetes, the telemedicine program at 6 months resulted in a significant decrease in the glycated hemoglobin A1c in 17 of them from a mean of 9.1 to 7.1 (P<0.002), Rabia A. Rehman, MD, from the University of Tennessee Health Science Center in Memphis, and colleagues found.

In addition, the available follow-up data on 12 of 17 patients with dyslipidemia showed a mean improvement in HDL cholesterol (P=0.038) and in total cholesterol (P=0.027), Rehman reported here at the American Association of Clinical Endocrinologists (AACE) meeting.

She said the P value for LDL cholesterol did not reach significance (0.085) because some patients had unreadable levels because of high triglycerides.
A decrease in diastolic blood pressure from baseline was significant, but a drop in systolic was not, she reported. However, the few patients with thyroid disease (four) were euthyroid at 6 months.

Rehman and colleagues noted that the prevalence of endocrine diseases is increasing in rural areas of the U.S. In some parts of the countryside, for example, the prevalence of diabetes is about 17% higher than in urban areas, she said.

The shortage of rural physicians, in particular endocrinologists, compounds this disparity, she said.

The telemedicine program at the University of Tennessee had been used by other specialists when the endocrinologists decided to see if they could make a difference in the care of rural endocrine patients.

The program uses two-way video teleconferencing that allows a clinical endocrinologist in an urban setting to consult "face-to-face" with nurses in rural communities.

The nurse can take the patient's vital signs and conduct a basic physical exam, such as thyroid or checking for swollen legs, under the auspices of the endocrinologist.

"If the physician had to closely inspect feet of the patient, he or she would zoom the camera on the feet," Rehman said. "The only thing the endocrinologist can't do is actual palpation," she said.

Nearly all of the 66 patients (97%) in the study said they were comfortable with the remote consultation. Patients were referred by their primary care physician and recommendations from the remote consultation were faxed to them.

Rehman said the the patients did not return for follow-up if the primary care physician was comfortable continuing their care.

The mean age of patients was 54 and more than two-thirds were women. A total of 53% had diabetes, 45% dyslipidemia, 41% hypertension, 30% thyroid dysfunction, and 12% osteoporosis.

The long-term benefits of improved health, particularly among diabetic patients, should make the program cost effective, Rehman told MedPage Today, although she and her colleagues have not conducted a cost-effective analysis.

"The findings of this study demonstrate that the telemedicine program providing endocrine consultation using video-conference technology is effective in improving outcome measures in diabetes and other endocrine disorders," the researchers concluded.

However, larger prospective studies need to be conducted to confirm these results, they said.

This study was limited by small sample size and incomplete data in subjects who did not return for follow-up, they reported.

Rabia reported she had no conflicts of interest.

*Primary source:* American Association of Clinical Endocrinology; *Source reference:* Rehman R, et al "Tele-Endocrinology: Bridging the gap in endocrine care via tele-medicine" AACE 2012; Abstract 253

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18. Rural Health Systems Benefit From Remote Pharmacy Technician Supervision

*PR Newswire, May 17, 2012* [htm](#)

Leveraging technology to improve medication safety and access to patient care

Telepharmacy is helping pharmacies extend services to more patients, improve medication safety, and alleviate staffing shortages experienced by many rural health care and emergency facilities across the
United States. Telepharmacy allows for a pharmacy technician to be remotely supervised in real time by a pharmacist through state-of-the-art telecommunications technology to prepare prescriptions.

"Telepharmacy expands patient access to pharmacy consultations and vital health care services in rural and medically underserved areas," said Everett McAllister, RPh, MPA, Executive Director and CEO of PTCB. "PTCB Certified Pharmacy Technicians play a significant role in this safe and cost-effective alternative, providing patients with maximum coverage."

The need for telepharmacy services is addressed in Joint Commission standards, the National Association of Boards of Pharmacy (NABP) Model Practice Act, and by the American Society of Health-System Pharmacists. State Boards of Pharmacy (SBOP) in North Dakota, Montana, South Dakota, Texas, Idaho, Utah, Kansas, and Hawaii have adopted telepharmacy regulations, while New York has pending regulations.

The Kansas State Board of Pharmacy, for example, recently adopted regulations allowing a Kansas-licensed pharmacist to electronically supervise one pharmacy technician or pharmacy student in a licensed pharmacy at a medical facility in the state. Remotely supervised pharmacy technicians in these facilities perform typical duties, such as reviewing cart fills and filling automated dispensing cabinets with an offsite pharmacist observing the procedures through a real-time audio, video, or computer connection.

The capacity in which a pharmacy technician may participate in a telepharmacy model differs from state to state, with some requiring registration with a SBOP, a minimum period of work experience, and/or certification through a board-approved program, such as PTCB.

"Pharmacy technicians who are appropriately trained and credentialed are being used in innovative practice models, which allows us to expand pharmacy services to underserved areas and enhance patient care throughout Montana," said Ronald Klein, RPh, Executive Director of the Montana State Board of Pharmacy. "The use of pharmacy technicians allows the pharmacist to spend more time with the patient providing drug information, answering questions, and promoting compliance with the drug regimen. Certification provides the public and pharmacists with additional assurance and confidence in their pharmacy provider regardless of their proximity to the pharmacy."

For additional information on pharmacy technician licensure by state, please refer to the NABP 2012 Survey of Pharmacy Law. For additional information about PTCB, please visit www.ptcb.org.

19. Teledentistry Improves Treatment Rate
Medscape Medical News, May 2, 2012

Children of migrant farm workers were several times more likely to get treatment for early childhood caries if they were enrolled in a teledentistry program, researchers reported here at the American Telemedicine Association 17th Annual International Meeting.

The treatment rate increased from 15% to 95% at 1-year follow-up, said Terry Yonker, RN, MS, teledentistry clinical coordinator at Finger Lakes Community Health in Marion, New York.

"We were totally amazed by how much the kids liked this," she said.

A high proportion of children from low-income families suffer from early childhood caries, partly as a result of poor hygiene and diet, said Yonker.

The problem is widespread in the Finger Lakes region of New York, where about 10,000 migrant farm workers come, mostly from Latin America, to pick apples and work in other agricultural jobs. The average worker earns $7 an hour; some make only $4000 a year, said Yonker.
From 40% to 60% of the children in this population suffer from early childhood caries, she reported.

With funding from the US Department of Agriculture and the US Health Resources and Services Administration, among others, Yonker and her colleagues turned to teledentistry to see if they could help these children.

They had to rely on grant funding to pay the dentist because Medicare and Medicaid will not reimburse for teledentistry, Yonker explained.

The program enlisted a dental hygienist to make videos of the children's teeth using an intraoral camera at the Head Start centers where the children were enrolled. The hygienist applied fluoride varnish, gave out information about good dental hygiene, and made the videos during the same appointment.

The video was transmitted to a pediatric dentist in Rochester, New York, who also collected information about the children's behavior to see if they could be treated with nitrous oxide or would need general anesthesia.

From April 2010 to April 2012, the team completed 102 consultations. The children were more likely to show up for consultation and treatment than similar patients at other dental clinics, Yonker reported.

The no-show rate for consultations was 15.7% in the teledentistry program and about 30.0% at the Eastman Institute for Oral Health and the University of Rochester, she said.

The mean number of miles saved through the teledentistry consultation was 79, she said.

Not all of the program's success can be attributed to teledentistry alone, she noted. The program also made use of a community health worker to educate families about the importance of dental care and to help them navigate the healthcare system.

The community health workers were people who had grown up in the migrant farm worker community and could literally speak the language of the farm workers. "They are people with a high-school education or an associate degree," she said. "New York State does not have a curriculum; we trained them on the job." These workers helped "break down barriers" to healthcare for their patients.

But teledentistry was an important component, Yonker noted. Saving the patients one trip to Rochester for consultation encouraged them to take the other trip for treatment, she said.

"Teledentistry has a lot of promise," she concluded.

Session moderator Neil Herendeen, MD, MBA, director of pediatric practice at Golisano Children's Hospital at Strong in Rochester, told Medscape Medical News that he agrees.

One key to the success of such programs is building relationships, he said. Ten years ago, "more technology meant more impersonal care," he said. "Now, with texting and tweeting and email, you can continue relationships you started in person."

**Dr. Herendeen and Ms. Yonker have disclosed no relevant financial relationships.**


**20. Telestroke Care Helps Patients**

*Federal Telemedicine News, Apr. 29, 2012 [htm]*

According to the National Stroke Association, stroke is the third leading cause of death in the U.S. resulting in $73.7 billion being spent on stroke related healthcare costs. During a stroke, 1.9 million irreplaceable brain cells are lost every minute—so time is of the essence. However, new developments
in the telemedicine field have opened up opportunities for hospitals to save stroke patients brought to
the hospital for treatment.

New telestroke programs are not only starting but also expanding. For example, C3O Telemedicine
formerly C30 Medical Group is currently partnering with Community Memorial Health System in Ventura
California. Both the medical group and health system are using telemedicine so stroke patients now
have immediate connectivity to highly skilled neurologists and neurointensivists.

C3O Telemedicine offers not only telestroke care but also neurocritical care, telepsychiatry, critical care,
and teleICU and other telemedicine solutions. The company has a new C3O website at
http://c3otelemedicine.com/.

In 2010, to further telestroke services in rural areas, USDA’s Distance Learning and Telemedicine (DLT)
program awarded a grant for $253, 260 to Providence Health & Services to add five rural critical access
hospitals in Eastern and Central Oregon to the Providence Telestroke Network hub in Portland.

The funding was used to place mobile robot devices with human-like mobility in rural hospitals. Using
two-way video cameras over a secure internet connection, Portland-based neurologists are now able to
examine and talk to patients, family members, and clinicians.

Today, the Providence Telestroke Network connects stroke experts at the Providence St. Vincent
Medical Center and Providence Portland Medical Center to 14 communities outside of Portland. Since
2010 the network has been able to evaluate more than 1,000 patients.

In another program reaching rural areas, Ochsner Medical Center the first hospital in Louisiana to use
telemedicine is treating strokes in patients located in areas with smaller hospitals. In the last two and
half years since being implemented, Oshsner is one of the fastest growing networks.

By utilizing Ochsner’s “Acute Stroke System for Emergent Regional Telestroke” (ASSERT), stroke
neurologists are present virtually at a growing number of hospitals through secure wireless and video.
Ochsner’s stroke team evaluates patients, directs care, and ensures that timely thrombolytic therapy is
administered. With Ochsner Medical Center in New Orleans functioning as the hub, ASSERT links
specially-trained vascular neurologists to spoke hospitals 24/7 for collaborative care.

There are several recent ongoing clinical trials studying the use of telemedicine when treating stroke
patients. For example, A National Stroke Association clinical trial “Advancing Telestroke Care:
Prospective Observational Study” is currently recruiting participants. Other sponsors of the trial include
Mayo Clinic, Swedish Medical Center, Renown Regional Medical Center, University of Utah, and the
California Pacific Medical Center.

The trial is underway at the University of Southern California in Los Angeles, and estimates enrolling 600
patients. The objective for the clinical trial is to see if telemedicine consultations used for acute stroke
patients will improve their care and to see if stroke patients are also helped at hub hospitals. For more
information, contact Gene Sung MD at gsung@usc.edu.

Another clinical trial “Telestroke in Nordland Hospitals: A Study of a Telemedicine Network” for an 18
month observation period is being conducted. The clinical trial sponsored by the University Hospital of
North Norway will investigate the potential outcome for stroke patients in small rural hospitals using a
telestroke service.

In Norway, providing telemedicine services can be vital especially in the Northern part of the country
since there is a high turnover of clinicians, technical support is not available 24/7, severe weather
conditions exist, and long distances can affect transportation efforts.

The study conducted at rural hospitals will examine patient flow by analyzing hospital information
system data as well as monitoring teleconsultations. Hospital data on diagnosis, thrombolysis
frequencies, and stroke complications like hemorrhage will be used to analyze the process.
The study will:
- Send videos and images using the RIS/PACS system
- Conduct semi-structured interviews and then follow-up with phone calls to hospital staff after telestroke incidents
- Observe patients and doctors during telestroke consultations
- Form semi-structured focus groups interviews to take place with health personnel involved with stroke patients

**TELEMEDICINE TECHNOLOGY NEWS**

**21. Disease Management Technology at Home**  
*ATA News Brief, sponsored message, June 30, 2012*

You know the mega-trends and related challenges driving technology deployment in healthcare today—an aging population, chronic conditions, patient safety, staff shortages, and government regulations.

You know these trends need to be threaded together as we work toward the goal of helping to make our healthcare delivery smarter and to improve patient outcomes, improve population health and reduce costs.

Intel-GE Care Innovations™ is delivering a technology solution today that empowers patients and clinicians to work together to improve chronic disease management.

It’s an integrated model of care delivered by a clinician and facilitated by the Intel-GE Care Innovations™ Guide that has been shown to:
- Impact behavior change in patients
- Improve medication adherence
- Improve quality of life
- Increase awareness leading to improved self-management behaviors
- Improve clinician efficiency
- Drive appropriate utilization of health care resources

Find out how you can begin to bring about positive change by deploying an integrated disease management technology platform. We’ve put together helpful resources to keep you informed, to help you plan, and to begin to drive healthy change in your organization. Get in the know and download this important information to get started today.

[How Telemedicine Works at Home video from HealthyState.org](#)

**Educational Downloads:**
- [Executive Brief: Implementation of a Disease Management Program](#)
- [Solution Brief: Delivering Exceptional Healthcare with Intel-GE Care Innovations Guide – Virtual Care Suite](#)
Sentara Healthcare, based in Chesapeake, Va., originally launched its remote monitoring program of chronic care patients to supplement staffing—and then it got an unexpected, but pleasant, surprise.

"Our readmission rate for all patients monitored is now only 2 percent. For patients with congestive heart failure (CHF), it's less than 1 percent," said Ray Darcey, head of Sentara Enterprises, the organization's home monitoring program. That's compared to a 15 percent 30-day readmission rate for the rest of its patient population.

Sentara's remote monitoring program uses Bluetooth technology and touch-screen devices to track discharged patients daily; if an aberrant reading triggers an alert, Sentara contacts the patient and, if necessary, sends a caregiver to the patient's home to follow up.

It's especially helpful for those patients who are "frequent fliers," Darcey said.

What's more, patients and providers already are familiar with the technology, as all of the components—from wireless technology to touchscreens to mobile devices—have become commonplace.

"It's not rocket science," he said. "The technology is not all that difficult."

Encouraged by evidence of the myriad benefits of remote healthcare, an increasing number of hospitals—both large systems and small community or rural hospitals—are considering launching their own remote health programs. The technology has been shown to reduce readmissions, improve outcomes and increase patient satisfaction and loyalty. It can also cut costs and is projected to offer even greater financial returns under shifting reimbursement models, as well.

**Driving down readmissions**

Research evidence is piling up that remote monitoring works to reduce readmissions. Consider the following:

- Danville, Pa.-based Geisinger Health System's remote monitoring program cut its readmissions by 44 percent, according to a recent study.
- The University of Ottawa Health Institute said it cut hospital readmissions by 54 percent for its heart failure patients, saving up to $20,000 for each patient successfully diverted from an emergency department visit, readmission and hospital stay.
- A recent British study found that remote monitoring cut emergency admissions by 20 percent and reduced mortality rates by 45 percent.

Still, organizations considering a remote care program should carefully select target patients, as some studies suggest remote monitoring isn't right for everyone. Researchers at Mayo Clinic and Purdue University found remote monitoring did not improve readmission rates among older adults with multiple health issues, for example.

At the moment, at least, the technology seems most suited for patients with conditions that put them at high risk for readmission and that are easily tracked through vital signs and glucose level readings; heart disease and diabetes are two good examples of conditions that are well-suited for remote health programs.

**Putting patients at the center**
Another factor for potential success: Choosing patients who can control their conditions by making good lifestyle choices. Remote monitoring programs have been shown to improve patient outcomes by increasing medication and dietary compliance, for example.

When patients participate in their own care they have more control over their disease or condition, Darcey said. That, in turn, improves their quality of life and helps them get healthier faster.

Another benefit: The programs often increase patient satisfaction--healthier patients are happier; so are patients who save the time and expense of traveling to and from checkups, said David Scher, M.D., adjunct clinical associate professor of medicine at Pennsylvania State University School of Medicine.

Remote monitoring also improves the relationship between a hospital and its patients. "It ties the patient and provider closer. And it affords the opportunity for closer, more meaningful interaction when the patient does come into the hospital because the hospital has more information before the patient comes in," Scher said.

It also improves patient loyalty: When patients do need hospital care, they're more likely to seek it at the hospital that's providing their remote health services.

**Earning a return on investment**

Despite the fact that remote health programs are not often reimbursable under the current fee-for-service model, there's still potential for a substantial return on investment (ROI) in the long run.

Beginning in 2013, the Centers for Medicare & Medicaid Services (CMS) will impose a 1 percent penalty in the form of reduced Medicare reimbursement on hospitals with high readmission rates for myocardial infarction, community acquired pneumonia and CHF; the penalty will increase to 3 percent by 2015.

CMS projects its Hospital Value-Based Purchasing Program, which rewards efficient, high-quality care rather than volume, will boost payments to general acute care hospitals by 2.3 percent by 2013.

Avoiding those penalties alone make the investment worth the cost. "The hospitals with these programs won't get dinged with penalties, and these technologies are pretty cheap. It does make a lot of intuitive sense," Scher said.

It's also likely that healthcare organizations will get more out of these programs when the industry moves to an outcomes-based reimbursement model. Some payers already are offering some reimbursement for remote and telehealth services.

Of course, organizations have to make an investment in remote healthcare before they can reap a return. But it's worth it, Darcey said.

"The cost is justified." he said. "It's a cost of doing business but with great results."

For more:
- download FierceMobileHealthcare's free eBook, Telehealth Monitoring & Mobile Tech: [htm](#)

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**23. Health-care apps for smartphones pit FDA against tech industry**

*Washington Post, June 22, 2012, David Paul Morris  [htm](#)*

Applications for smartphones that check on blood sugar or allergies may face the same scrutiny from U.S. regulators as heart stents and defibrillators. The Food and Drug Administration plans to issue draft guidelines this year classifying mobile health tools for handheld computers such as Apple Inc.'s iPhone as medical devices.

Three tries. More than two years. And roughly $150,000.
That’s what it took for MIM Software to get the Food and Drug Administration’s clearance for a smartphone application that physicians can use to view MRIs and other medical images.

**An explosion of apps**
The number of health-centric apps has more than quadrupled since 2010.

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(Source: MobiHealthNews Apps Reports | The Washington Post)

*(The Washington Post/None)* - The explosion in medical apps.

“It was 2008 when we first tried,” said Mark Cain, the Ohio firm’s chief technology officer. “They didn’t know what questions to ask and neither did we. … But at some point, they had to be thinking, ‘How many more people will be lined up behind these guys?’”

His was, in fact, among the first apps cleared by the FDA. And since then, medical applications have flooded onto millions of smartphones, offering consumers the chance to check their heart rate, identify a pill in their medicine cabinet or even scan moles for skin cancer. Soon, if a firm called AliveCor gets its way, they may even be able to get an EKG by pressing iPhone to chest.

The gee-whiz factor can both astonish and alarm.

A defect in apps that essentially turn your phone or tablet into a medical device could prove problematic or even life-threatening: The app may not work as it should. For instance, what if lighting or contrast issues distort an X-ray that’s viewed on an iPhone or iPad?

That’s why federal regulators lurched into action a year ago, offering their thinking on how to police this vast new frontier. Just as they were putting the finishing touches on a plan, lawmakers intervened. The Senate agreed to put the plan on hold after technology firms argued that heightened oversight would stifle innovation and cost jobs.

On Monday night, a compromise was struck. Congress gave the FDA the green light to proceed with its push to define exactly which apps require its attention. But they also ordered the Obama administration to come up with a strategy that balances public interest with innovation in the years to come. The task is daunting, given the warp speed of technology.

It’s a classic showdown between Washington regulators charged with safeguarding the public’s health and a free-wheeling tech industry that prizes agility and first-to-market bragging rights.

“There are two completely different mind-sets,” said Merrill Matthews, a resident scholar at the Innovative Policy Institute. “The app people think: Where is there a need and how do I fill it? And the FDA thinks: Where is there a problem and how can I control it?”

**Cost-saving potential**
Mobile apps, with their extraordinary reach, have the power to transform health care. Half of cellphone users in the United States have smartphones such as the iPhone or Android software-based devices, which can deliver care to their hands and potentially do so at a lower cost. Using smartphones and wireless tablets as diagnostic tools or monitoring devices could also cut back on emergency room visits.
For software developers, especially cash-strapped start-ups, there’s an enormous amount riding on whether the FDA steps up enforcement — and exactly how it plans to do it, industry analysts said.

“The FDA approval process adds months, if not years, and potentially millions of dollars to what it takes to bring a solution to the market,” said Liz Boehm, a director at ExperiaHealth, a consulting firm. “That development process would put many of these guys out of business.”

Medical apps exploded onto the scene in 2010 and have grown by about 150 percent each year since, according to MobiHealth News, which tracks Apple’s iTunes store, where many apps debut. Consumers can choose about 13,000 of these apps; 5,000 more are marketed to medical professionals.

The offerings range from very basic — and free — apps that calculate body mass index to more sophisticated ones that make use of pricey supplemental devices. The pharmaceutical firm Sanofi has an app for diabetics that registers glucose levels with the help of a meter that attaches to iPhones. IHealth offers an app that records blood pressure using a cuff that plugs into an iPhone, and WiThing has one that tracks weight and body-fat percentage using the company’s WiFi-enabled scale.

Ron Gutman is the CEO and founder of HealthTap, which creates mobile and Web applications with the goal of connecting individuals with medical professionals. Gutman spoke with the Washington Post’s Emi Kolawole about the power of turning doctors into health care information curators for the Web and on mobile.

A survey by the Pew Internet Project found that 11 percent of adults with cellphones downloaded an app last year to help them manage their health. That same year, the mobile health-apps industry generated an estimated $718 million worldwide, seven times more than the previous year, according to Research2Guidance, a consulting firm.

The regulation debate
While the FDA currently regulates certain medical software, the agency wants to update its thinking now that smartphones have juiced the apps market.

A year ago, the agency proposed policing only a subset of those apps: ones that use supplemental attachments to transform a mobile platform into a medical device (such as AliveCor’s EKG app) and others that act as accessories to an already regulated medical device (such as MIM Software’s app).

Rather than overseeing all medical apps, agency officials said they want to limit regulation to a slice of the market and take a pass on low-risk apps, such as calorie counters, according to Bakul Patel, an FDA policy adviser.

“We are taking a proactive step by saying that from the FDA perspective,” Patel said. “We’re not concerned about all those other apps.”

Software makers, on the other hand, see an agency that currently regulates next to nothing in the mobile apps space taking a sudden interest in regulating more. The FDA proposal, they say, is vague and leaves many questions unanswered. For instance, given that apps can be updated daily, does a software developer have to seek FDA approval for each update?

Among the critics is a group called the Health IT Now Coalition. It represents health-care providers, patient advocates and health insurance companies, including Aetna, which last year bought iTriage — an app that helps consumers evaluate medical symptoms and find the proper care.

“The issue here is that they’re really using a process for approval of these mobile apps that was basically created when the 5½ floppy disk was the latest technology,” said Joel White, the group’s executive director.

Dirk Hobbs, chief executive of Medical Voyce Sciences and Multimedia, said the FDA’s plan is ambiguous and he doesn’t know whether the apps his firm is developing would be regulated. The apps aim to speed communication among medical professionals in different facilities.
“This is just going to slam the brakes on an innovative sector that includes tons of small businesses like mine,” said Hobbs, who expressed his concerns to Sen. Michael F. Bennet (D-Colo.).

Bennet and Sen. Orrin G. Hatch (R-Utah) wrote a provision, inserted in a broader FDA funding bill, that would have delayed the FDA proposal by forcing the agency to first reach agreement with other regulators about how to handle these apps.

Ron Gutman is the CEO and founder of HealthTap, which creates mobile and Web applications with the goal of connecting individuals with medical professionals. Gutman spoke with the Washington Post’s Emi Kolawole about the power of turning doctors into health care information curators for the Web and on mobile.

This week, in a compromise reached by House and Senate lawmakers, Congress allowed the FDA to press ahead. But it also directed the agency to work on a report with other regulators that would lay out an appropriate framework to promote innovation and protect patient safety.

Former FDA deputy commissioner Scott Gottlieb, who researches medical trends as a fellow at the American Enterprise Institute, said he’s disappointed. If consumers can track their blood-sugar levels using pen and paper, he said, why should the government have to clear an app that does the same thing more reliably?

Gottlieb said that software developers should be suspicious because regulators have a tendency to tighten their grip on industries as they develop. “If they perceive a power vacuum,” he said, “they’ll step in and regulate more and more.”

Some seek guidance
Some in the tech industry do not perceive a threat. They say they’ve been expecting the FDA to regulate some apps and are eager for the agency to reveal which ones.

A group called the mHealth Regulatory Coalition — which represents established firms such as Qualcomm as well as start-up software developers — was formed in 2010 to deal with mobile health care regulatory issues. Its leaders argue that uncertainty breeds anxiety and drives away potential investors.

“We started telling the FDA that they’re going to stifle innovation if they don’t start clarifying where the lines will be drawn,” said Bradley Thompson, the group’s general counsel. Other technology groups — including the West Wireless Health Institute and the Application Developers Alliance — have taken a similar position.

In a recent meeting with industry representatives, Jeffreyy E. Shuren, head of the FDA’s Center for Devices and Radiological Health, assured the group that the final plan would include more details than the draft, some attendees said. The agency may even create a Web site with generic examples of apps that would be exempt, Shuren told them.

In the end, the FDA’s plan may indeed sink some software makers whose products can’t withstand federal scrutiny, said Lisa Suennen, co-founder of Psilos Group, a health-care-focused venture capital firm.

“But while regulation puts an extra burden on young companies, those that can get through it will have a huge competitive advantage,” Suennen said. “You can’t have every Tom, Dick and Harry claiming that their medical app adds value without having to prove it.”
FCC Chairman Genachowski on June 6th hosted a discussion with private, academic, and government leaders in wireless health technology to discuss the promise of mobile communications devices, such as smartphones to improve healthcare and lower costs.

The Chairman was joined by senior executives and leaders from companies at the forefront of the mHealth revolution that included Philips, Qualcomm, Verizon and Medtronic, startups such as MedApps, Telcare, TheCarrot, and WellDoc. He was also joined by non-profits including the West Wireless Health Institute, Alfred Mann Foundation, hospital leaders, and government experts from the FCC, FDA, HHS, VA, CMS, and NIH.

In a new development at the roundtable discussion, the Chairman announced plans to act on an FCC Office of Engineering and Technology proposal to increase innovation in wireless device development by reducing regulatory barriers to testing and evaluating new technologies.

In the coming months, there are plans to move to create more flexibility so that there can be more experimental uses of spectrum for wireless healthcare devices. New, streamlined experimental licensing processes will also be created for universities and non-profits.

The proposal is to create a research license that cuts the red tape to testing new wireless medical devices in coordination with FDA to get new technologies to market. Additionally, the FCC proposes to create an innovation zone license to allow pre-approved spectrum use experimentation in specified locations.

A sample of recent innovations developed by some of the Summit participants:

- “TheCarrot” is a web and mobile platform for health management and care coordination to allow patients to create a plan, share the plan, and record information on the go
- MedApps has developed wireless sensors that transmit data on a patient’s health indicators to a central database in the cloud called HealthAir
- Medtronic has developed an integrated glucose monitor to track blood sugar levels every five minutes and then an infusion pump receives the data and adjusts insulin levels accordingly
- Philips has produced clinical decision support tools that interpret raw patient data and then converts the information to actionable information for physicians
- Qualcomm and their 2net, a cloud based system is designed to universally be interoperable with various medical devices and applications, enabling wireless connectivity while allowing device users and physicians to access patient data
- Telcare has a smartphone app that automatically receives blood glucose data and creates personalized reports to share with physicians and family members
- WellDoc has a Patient Coach that provides feedback to patients to help manage their diabetes.

25. Telehealth, mobile systems among promising chronic care technologies
Fierce Health IT, June 13, 2012, Dan Bowman

Reimbursement a hurdle for adoption, according to a new report

Home telehealth and extended care eVisit systems are among some of the more promising, available technologies, geared to fighting chronic care, according to a new report from NEHI, a health policy research organization that focuses on enabling innovation in healthcare. The report highlights a total of 11 underused technologies that have the potential to lower costs and improve care quality for chronic care patients.

The technologies also are divided into four separate classes, with those that are on the edge of widespread adoption (home telehealth, extended care eVisits and tele-stroke) in Class I, and those that
are promising but lack research to support clinical or financial benefit (in-care telemedicine, social media and mobile cardiovascular tools) in Class IV.

Erin Bartolini, one of the researchers involved in the report, says reimbursements will be key to driving adoption, particularly for the Class I and Class II technologies.

Mobile technologies help clinicians work more efficiently, but also create issues for IT around device support and serious concerns about data security. You will learn about techniques for dealing with these issues. Your goal is to allow data to be available when and where needed while providing your end-users with maximum flexibility consistent with good security practices. Register now!

"What's really holding a lot of those back are key policy barriers," Bartolini tells FierceHealthIT. "For many of them, it's reimbursement. Because many of these technologies take [patient] care to smartphones and personal computers--outside the doctor's office--the reimbursement system doesn't necessarily reflect that."

Bartolini adds, though, that reimbursement initiatives aren't the only barriers for many of the technologies.

"For some of the more emerging Class III and IV technologies, it's really about gathering the body of evidence to support adoption," she says. "Working to make sure these new technologies really seamlessly integrate into a patient's daily life is crucial."

The safety-net population should be the focus of these innovations, according to the report.

"Research increasingly points to the fact that the safety-net population is more similar to the general population in terms of technology adoption than previously assumed," the authors write. "Manufacturers should continue to innovate for and market to underserved populations as the adoption rate of mobile technologies continues to increase for this population, and they are likely to benefit significantly from high-value innovations."

To learn more:
- read the full report

26. Tips to Improve Mobile Device Security

*Health Data Management, June 13, 2012*  [htm]

ID Experts, a data breach prevention and remediation firm, talked with 13 experts and got 13 tips for managing mobile device threats in health care:

- Install USB locks on computers and devices to prevent unauthorized uploads and downloads;
- Consider software that can track and locate a device or wipe (erase) its data;
- Consider “brick” software that disables a missing device;
- Encrypt;
- Train employees to shut down laptops rather than putting them in sleep mode, since sleep doesn’t activate encryption protection;
- Document in risk assessments the recognition that employees may use personal devices to handle PHI even if prohibited by policy, and reduce the risk, such as offering a secure alternative to texting;
- Don’t permit PHI access via mobile devices without strong technology safeguards;
- Educate employees on safeguarding their devices;
- Purchase cyber-liability insurance;
- Secure and check devices before disposal or donation;
- Have a proactive data management strategy such as token technology;
- Have clear and explicit user opt-in policy for collecting, storing or sharing data; and
Conduct a thorough technical review and risk audit of new mobile technologies before implementation.

Details on each tip are available here.

HEALTH INFORMATION TECHNOLOGY NEWS

27. **N.Y. REC First To Help 1,000 Providers Qualify for Meaningful Use**

*iHealthBeat.org, July 02, 2012* [htm]

Last week, the [New York eHealth Collaborative Regional Extension Center announced](https://www.healthy.ny.gov/) that it is the first REC in the country to help more than 1,000 health care providers qualify for meaningful use incentive payments, *[Modern Healthcare]* reports (Lee, *Modern Healthcare*, 6/29).

*About RECs*

Under the 2009 economic stimulus package, health care providers who demonstrate meaningful use of certified electronic health record systems can qualify for Medicaid and Medicare incentive payments.

The Office of the National Coordinator for Health IT has tasked the nation's 62 RECs with helping 100,000 health care providers meet meaningful use criteria. RECs provide services such as:

- Assessments on workflow and practice patterns;
- Assistance with EHR implementation;
- EHR training and best practices; and
- Guidance on meaningful use attestation ([*iHealthBeat*, 6/25]).

*Details on NYeC's Announcement*

NYeC stands to receive additional federal financial support as a result of reaching the milestone, according to *[EHR Intelligence]* (Ouellette, *EHR Intelligence*, 6/29).

Paul Wilder, director of NYeC, said, "The business partnerships we've developed with the local organizations around the state, including many regional health information organizations, have been an important part of our success as a REC" ([*Modern Healthcare*, 6/29]).

28. **HIE use financially benefits payers and providers**

*Fierce EMR, June 27, 2012, Marla Durben Hirsch* [htm]

Participating in a health information exchange (HIE) can produce net financial gains for both providers and payers, according to a new study published in the *Journal of the American Medical Informatics Association*.

The researchers, from the University of Wisconsin-Madison, studied 4,639 emergency department (ED) encounters in three large EDs in Milwaukee over a 12-month period to see if the data access available through an HIE would prevent unrequired hospitalizations, reduce duplicate tests and prevent ED visits.

They concluded that accessing patient data of others via the HIE created "net gains" both for providers and payers; reducing unrequired hospitalizations and avoiding repeat ED visits were responsible for more than 70 percent of the savings.

The study noted that payers enjoyed greater financial benefits in decreased reimbursements due to reductions in tests, hospitalizations and ED visits. However, providers also saw a seemingly counterintuitive financial benefit. While they received less compensation for seeing fewer commercial
fee-for-service patients, the loss was offset by reduced expenditures on a much larger group of Medicare and Medicaid patients, where reimbursements are considerably lower.

"HIE participation yielded financial benefits to all agents by enabling better care for patients who are high-volume users of the ED," the authors said.

The study also looked at how the subscription pricing structure for accessing the HIE's data could affect its sustainability. The researchers suggested that a flat annual fee may be preferable, but that was based on the unique study population, meaning more research was necessary. They also recommended that "[i]nstitutions considering participation in an HIE should examine how the cost of additional services, such as case management, could affect the financial bottom line," they wrote.

Other studies have found that the sharing of data via an HIE and other methods can reduce unneeded repeat tests and overuse in EDs, as well as enable patients to be treated in other, less expensive settings, providing better care and reducing costs.

To learn more:
- here's the abstract
- read the full report (.pdf)

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29. AHRQ Publishes E-Prescribing Guides for Doctors, Pharmacies
iHealthBeat.org, June 12, 2012 htm

The Agency for Healthcare Research and Quality has released two guides designed to help physician practices and independent pharmacies adopt electronic prescribing technology, Health Data Management reports (Goedert, Health Data Management, 6/11).

The 11-chapter guide for physician offices and the seven-chapter guide for independent pharmacies offer information and tools to assist in the e-prescribing implementation process (Conn, Modern Healthcare, 6/11).

Guide for Physician Offices
The guide for physicians covers topics such as:
• Building an e-prescribing implementation team;
• Evaluating e-prescribing vendors; and
• Planning for a transition to electronic health record systems.

Guide for Independent Pharmacists
The guide for independent pharmacies covers topics such as:
• Assessing pharmacy workflow;
• Notifying patients and health care providers about the launch of an e-prescribing system; and
• Evaluating the return on investment for adopting e-prescribing technology (Miliard, Healthcare IT News, 6/12).

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30. Three NY HIEs Link to Statewide Network
Health Data Management News, June 11, 2012 htm

New York State is starting to roll out its statewide health information exchange with agreements with three local HIEs serving 13 million of the state’s nearly 19.5 million residents.

Brooklyn Health Information Exchange, eHealth Network of Long Island and THINC have joined the state network and will this summer connect their databases and infrastructures. These HIEs cover New York City’s five boroughs, Long Island and the Hudson Valley.
Three HIE vendors serving the local HIEs--HealthUnity, IBM and InterSystems--will cooperate toward further development of the statewide exchange and will standardize software to ease interoperability.

The statewide HIE initially will offer a patient record look-up service to enable searching across databases within the statewide network to find records relevant to specific patients, then will add secure messaging software using the federally developed Direct Project protocols.

31. Maine To Launch Pilot of First U.S. Medical Image Sharing Network
iHealthBeat.org, May 31, 2012

On Thursday, officials with Maine's health information exchange, HealthInfoNet, announced that they are pilot testing the country's first medical image sharing network, Computerworld reports.

Medical images generally are stored in disparate picture archiving and communication systems within hospitals. The images typically are shared by being copied onto CDs.

However, Maine's new medical image sharing network would give physicians access to medical images regardless of their location.

Todd Rogow, director of IT at HealthInfoNet, said the five-month pilot project will involve about 200 terabytes of storage, which will be hosted on a public cloud infrastructure that is separate from the exchange. He added that the project will allow data sharing among 56 radiology imaging centers, which comprise about 80% of the state's volume of medical images.

Images in the network will include:
- CT scans;
- Mammograms;
- MRIs; and
- X-rays (Mearian, Computerworld, 5/31).

According to InformationWeek, the network will include images from the past five years and is expected to hold about 1.8 million new medical images annually (McGee, InformationWeek, 5/31).

HealthInfoNet officials said that the medical image sharing network could help save Maine's health care providers about $6 million over seven years through reduced image storage and transportation costs (Computerworld, 5/31).

RECENT FULL TEXT TELEMEDICINE RESOURCES

32. Specialty and primary care resources


33. **Home telehealth and mobile health resources**


DerGurahian J, et al. mHealth: Prescription for an ailing health care system. SearchHealth IT, TechTarget, Newton, MA, 2012 [htm](#)


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