Telehealth has potential to bridge access gaps, but first it must overcome its own challenges

From sophisticated specialty consultations to simple texts, telehealth is beginning to transform community health. It holds particular promise for patients without ready access to health care. But before telehealth can fully achieve its potential, it must overcome an array of challenges. Adequate provider reimbursement and patient access to broadband are significant barriers.

Whatever it’s called, telehealth works: Evidence shows that it leads to either equal or improved outcomes compared to services provided in person. Just as important, it improves access, particularly in rural and underserved communities.

This is important, because 65 percent of all health professional shortage areas are in rural America. Those regions often lack ready access to health care services, and residents frequently must travel long distances for routine appointments.

This isn’t merely inconvenient; it can mean lost work hours—if those in need of care are able to make the trip. Many are not. “Traveling to the doctor … is often a significant barrier in our region,” says Janie Dunckley, former director of business development at Northwest Colorado Health, which serves Routt, Moffat, Jackson and Grand counties. Access is just one of the problems.

Telehealth generally refers to a broad scope of health and community services; telemedicine typically relates to the delivery of clinical services.

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the many health-related issues underserved and vulnerable populations face, she says—but it’s one that can be mitigated.

Northwest Colorado Health is working with patients in its community who have been identified as high-risk—those with diabetes, pre-diabetes, hypertension—to monitor conditions remotely. Data is uploaded into the patient portal; patients have access to video and text messaging. The money comes from a recent grant. “Telemonitoring is integrated with our patient portal. So we have some patients using fitness trackers, scales, glucometers, and blood pressure cuffs. All the data is then uploaded into the portal for review by our team.”

Northwest is also developing in-clinic telehealth stations that will initially be used to provide telepsychiatry, a critical need for population health.

Connecting the unconnected

The question isn’t whether telemedicine works, says Dale C. Alverson, MD, medical director, University of New Mexico Center for Telehealth. It does. According to Alverson, telemedicine meets at least three of the four elements of the Quadruple Aim:

- Improve the health of populations—bettering patient outcomes;
- Enhance the patient experience of care (including quality, access and reliability); and
- Improve clinician satisfaction.

Alverson says it may also address decreasing costs without sacrificing quality, through more timely care delivery and avoidance of more expensive subsequent care (as well as patient travel costs).

But in more isolated and rural areas, and in areas with poorer patients, the question becomes more basic: Do patients have access to broadband and the technology tools that would make telehealth work for them?

“Many of the patients that are high-risk or require more services either don’t have access to smart

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1. American Telemedicine Association uses the terms interchangeably referring to the use of remote health care technology to deliver clinical services.
3. www.hrsa.gov/ruralhealth/telehealth/

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7 Northwest Colorado Health, on behalf of the Western Colorado Telehealth Collaborative, was awarded a Colorado Health Foundation Telehealth Grant to support practices in overcoming some of the provider and patient barriers to adoption. The grant will support provider and patient training, change management support, and offer a lending program to support clients who don’t have the technology for telehealth. The participants: Primary Care Partners, North Colorado Health Alliance, Northwest Colorado Health and Mountain Family.

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In health care circles, technology circles and even among the general public, more people are discussing telemedicine and telehealth. Telehealth generally refers to a broader scope of health care services than the term telemedicine, which involves the delivery of clinical services. But the taxonomy is far from settled; often the terms are treated as synonyms. The American Telemedicine Association uses them interchangeably to refer to the use of remote health care technology to deliver clinical services. Whether they should be used interchangeably is a topic of considerable debate, however.

The federal government offers some clarity. The Health Resources and Services Administration defines telehealth as the use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health and health administration. For purposes of Medicaid, telemedicine seeks to improve a patient’s health by permitting two-way, real-time interactive communication between the patient and the physician or practitioner at the distant site.
phones or broadband internet, or they do not have
the technical skills needed to use them consistent-
ently,” Dunckley explains. So, like other organiza-
tions working with the underserved, Northwest
Colorado Health is working to put phones into the
hands of clients, and linking them to the data plans
they need to text providers and access health
applications and services.

For example, it is looking into a loaner phone
program. “If we invest money in paying for
equipment and service—$500 initially and $30 per
month—this is still significantly less than high-cost
visits to the emergency department, which can
often be the result of patients requiring additional
help.” They’re also providing some patients with
iPads. Another program, administered through
Rocky Mountain Health Plans, supplies access
to data services and applications for federally-
funded smartphones. (To read about these
efforts, see the sidebar below and on the
following page.)

North Colorado Health Alliance:
Texting is telehealth, too

The North Colorado Health Alliance has launched a
new telehealth tool it believes will help support its
rural clients, many of whom live in poverty and have
complex medical and behavioral health needs.

“We work with them to provide ongoing support,
making certain they have equal access, to get their
needs met,” explains Kim Fairley, care management
supervisor. “We do everything from completing
applications to meeting transportation needs.”

Her staff isn’t large enough to handle all of that in
person, so until recently they’ve been keeping in touch
via conventional texting. “It’s been great, and it keeps
us in regular contact—but it’s not HIPAA protected.”

Now her team is phasing in Easy Care Colorado, a
HIPAA-compliant messaging and video platform
developed by Rocky Mountain Health Plans and
CirrusMD. For the client, “it feels like regular texting,”
she says. “Once they are registered, all they have to
do is type in a PIN and start texting.” Case managers
walk participants through the registration process.
They can also send pictures; for instance, a patient
may text a photo of a wound that has them worried.
Texting also serves as a form of triage, helping
determine the next step—a home visit, a clinic
appointment or something else.

But there’s a challenge: Many of her clients don’t have
smart phones or robust data plans. Fortunately, a grant
from the Colorado Healthcare Foundation will help
address this. The North Colorado Health Alliance
will use some of the money to fund a loaner-phone
program, providing clients with smart phones with
adequate data plans.

Other clients have a free government-issued phone
with a limited data plan. Fairley and her team are
exploring how that will work with the Easy Care
platform. A third group of patients already has smart
phones and adequate data plans. Some of them are in
the Easy Care pilot group.

She’s optimistic that all three groups will benefit.
“It will let us keep that connection with our members
while helping them manage their care—and,
hopefully, reduce ER visits.”

* Northwest Colorado Health, on behalf of the Western Colorado Telehealth Collaborative, was awarded a Colorado Health Foundation Telehealth Grant to support
practices in overcoming some of the provider and patient barriers to adoption. The grant will support provider and patient training, change management support,
and offer a lending program to support clients who don’t have the technology for telehealth. The participants: Primary Care Partners, North Colorado Health Alliance,
Northwest Colorado Health and Mountain Family.
According to a 2015 Pew Research study, 63 percent of low-income people said they use their phone to get information about a health condition. But access to broadband capabilities to use mobile-based health applications remains a problem for many.

UnitedHealthCare is one health plan serving the Medicaid managed care population that is helping its members overcome phone and broadband access challenges. Its MyHealthLine program combines Lifeline, the federal free-phone program, with a cellular data plan. MyHealthLine features include free calls to and from case managers, targeted text campaigns, and secure, person-to-person text capabilities—depending on the needs and preferences of the individual member.

Under the program, members can choose to use a free smartphone, including voice and data package, or they can use their own smartphone and a plan that may include a higher voice and data allowance. Importantly, both cell phone plan options include unlimited text.

MyHealthLine provides a range of text-based programs plus mobile applications for Health First Colorado enrollees, some of which are listed below.

- **Wellpass Mobile App** enables care managers to securely text, one-to-one, with members.

- **Wellpass Clinical Campaigns** provide texting prompts and advice for expectant mothers and new parents; prevention advice for adolescents and adults; care tips for those with diabetes; and tips to help smokers quit.

- **Text4baby (t4b)** offers tips throughout pregnancy and the baby’s first year. It includes reminders for appointments and immunizations.

- **Text4kids (t4k)** sends health tips and reminders for parents of children 1 to 18 on oral health, nutrition and physical therapy. T4k focuses on improving well-child visit attendance and immunization rates and educating parents on age and gender developmental milestones.

- **Text4health (t4h)** offers health tips and reminders for adults based on age and health risk factors. It includes interactive risk assessments, diet, weight and exercise goal setting/tracking and check-up reminders.

- **Care4life** provides personalized, targeted education and support to help individuals better manage their diabetes through medication and appointment reminders, nutrition and exercise education, blood glucose tracking, etc.

- **Text2quit** uses text messaging, email, web, and the National Cancer Institute application, Quit Pal, to help smokers quit. It incorporates the Surgeon General’s guidelines and consumer behavior-change theories. A 2014 study found that Text2quit participants were twice as likely to quit compared to a control group.

Other managed Medicaid providers (in Colorado and elsewhere) may offer some or all of these programs as well. The Centers for Medicare & Medicaid Services has field-tested a range of these as licensed products for the managed Medicaid population.
Making smartphones and data plans available is a barrier with immediate solutions at hand. Connectivity, however, poses a bigger challenge: The very locations most in need of telehealth are often the least likely to have adequate broadband connectivity, which limits the use of telehealth tools.\(^9\) Efforts are underway, Alverson says, to use subsidy programs to provide broadband where need is great but connectivity is poor. In rural and frontier regions, this is a significant infrastructure issue. In April, the FCC released a request for comments and data to help accelerate access to broadband-enabled health care solutions, specifically requesting ideas for strengthening telehealth infrastructure through its rural health care program.\(^10\)

It comes down to overcoming barriers to use and meeting patients where they are. “If we create options for patients to use health care services on their terms we might be able to improve outcomes and equitable care for vulnerable populations,” says Dunckley.

Increasingly, national evidence supports the value of telemedicine. For example, the Agency for Healthcare Research and Quality (AHRQ) identifies remote monitoring for patients with chronic conditions; communication and counseling for patients with chronic conditions; and psychotherapy as having “sufficient evidence to support the effectiveness of telehealth.”\(^11\)

**Efficiency and satisfaction**

Telehealth also improves efficiency. It’s “a way to more efficiently use limited resources and time,” Dunckley says. “If we have patients that want a same-day appointment in one clinic that doesn’t have availability, but we have available providers in another clinic, we can make it a virtual visit.” By using telemetry tools and more frequent communication with text or video messaging, providers can eliminate unnecessary appointments, and open times for other patients, she adds.

That helps improve patient satisfaction. Consumers in general appear open to the concept,\(^12\) and those who do use it are satisfied. “I don’t think consumers and patients are going to be the challenge,” says Alverson.

Cost effectiveness, however, will be.

> “If we have patients that want a same-day appointment in one clinic that doesn’t have availability, but we have available providers in another clinic, we can make it a virtual visit.”
> — Janie Dunckley, former director of business development at Northwest Colorado Health

**Cost savings and reimbursement**

Some research shows potential savings from telehealth,\(^13\) but others don’t.\(^14\) The Congressional Budget Office, for example, holds that expanding access to telehealth would increase spending.\(^15\)

Alverson isn’t convinced. “The problem for telemedicine is that it depends on the population you are looking at,” he says. That could account for some of the seemingly conflicting data on cost-effectiveness. In addition, it’s absolutely crucial to factor in cost avoidance, which, he says, “is a little more complicated.” The CBO, for instance, focused on upfront technical and administrative costs rather than cost avoidance.

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11 https://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=2254


he explains, adding that efforts are now underway to quantify that cost avoidance and demonstrate telehealth’s cost effectiveness.

And there’s the obvious argument: Telehealth provides more timely continuity of care. Better care, provided in a timely manner, avoids more expensive care. That’s not only intuitive, he says, it’s backed by evidence. But as for proven, quantified savings? “The jury is still out.”

But maybe not for long. Alverson serves on a National Quality Forum panel that’s working on developing evidence-based metrics that can be used to assess telehealth; financial impact is one of them. Answering “Is this a more cost-effective way of providing care?” will be key to advancing telehealth for all populations.

In particular, it will be important for physicians to see the value, he says.

Advancing telehealth services and overcoming barriers

Right now, poor reimbursement is stunting the growth of telemedicine,¹⁶ and not just for Medicare-aid. Reimbursements for telehealth services are often significantly lower than for non-telehealth services.¹⁷ And physicians, telehealth executives and others consistently identify inadequate reimbursement as the greatest barrier to wider use of telehealth.¹⁸,¹⁹

That may be changing. Several CMS initiatives, including Comprehensive Primary Care Plus and Next Generation ACOs, waive certain restrictions on telehealth services.²⁰ Private insurers, including Rocky Mountain Health Plans, are incorporating telehealth into their offerings,²¹ and 31 states and the District of Columbia have enacted telehealth parity laws for private insurance.²²

In addition, AHRQ is calling for research to assess the use and impact of telehealth in new health care organizational and payment models.²³

Liability, regulations and connectivity

Other critical concerns for providers are medical malpractice and liability issues. The law is not always clear, leaving providers exposed.²⁴ Policies vary, says Alverson, and providers need to know whether and how much telehealth services are...

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¹⁷ Wilson, F.A., Rampa, S., Trout, K.E., Stimpson, J.P. “Reimbursements for telehealth services are likely to be lower than non-telehealth services in the United States.” J Telemed Telecare. 2016 Jun 3 abstract.
¹⁹ More than 83 Percent of Executives Surveyed Plan to Invest in Telehealth this Year, American Telemedicine Association survey, April 2017.
²⁰ Realizing the potential of telehealth: Federal and state policy is evolving to support telehealth in value-based care models, Deloitte 2016.
²⁴ LeRouge, C., Garfield, M. J. “Crossing the Telemedicine Chasm: Have the U.S. Barriers to Widespread Adoption of Telemedicine Been Significantly Reduced?” International Journal of Environmental Research and Public Health, 10(12), 6472–6484. 2013
covered before moving forward. While care standards are hammered out, providers may find themselves at risk. If they don’t use telemedicine, they may be sued for not providing appropriate care. They face the same risk, however, if they do use it. But that’s changing, Alverson says. “We are moving in that direction, and we are applying the same standards to telemedicine as we would to in-person care.”

Licensing can be problematic as well. Physicians who treat patients using telemedicine in multiple states must have a medical license in each. In fact, telemedicine licensing issues were the top regulatory issue of 2016 for state medical boards.25 (To see how states are trying to address this issue, see sidebar below.)

And then there’s the perennial predicament: lack of interoperability. Multiple EHR systems may be involved in a telehealth encounter, depending on how many providers are involved. To securely share patient information, the systems need to be able to talk to each other, he says. And that’s not always possible when the specialist has one EHR system, the primary care clinic has a different one and the hospital has yet another.

**Workflow issues and buy-in**

One way telehealth improves access is by reducing inefficiencies within the clinical workflow.26 At its most basic level, it broadens the pool of providers who can offer services without physically being with the patient, Alverson says.

> “We are applying the same standards to telemedicine as we would to in-person care.”
> — Dale Alverson, MD
> Medical Director, Center for Telehealth
> University of New Mexico

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While telehealth can expand capacity for overextended providers, those are often the practices with the least time and resources to come up to speed. “The workforce is already stretched thin, especially in rural areas. When you say ‘telemedicine,’ it sounds like ‘more work.’” It needs to be introduced in ways that align with the current workflow,”

— Dale Alverson, MD
Medical Director, Center for Telehealth
University of New Mexico

Dunckley agrees, pointing out that staff and provider buy-in are critical. “We need to help them to align priorities and see the bigger picture of using technology to increase capacity and improve care.”

Moving ahead
Telehealth is the future, especially in rural areas. Finding sustainable business models, says Alverson, is both the challenge and opportunity. There’s not just one that’s going to work everywhere. Rural clinics and academic medical centers, for instance, aren’t going to find the same solutions. “That’s one of the ongoing challenges of any innovation. How do we make it sustainable? It sounds great, and I’m obviously passionate about it, but it needs to be sustainable.”

And when that happens? “It won’t be telehealth. It will simply be part of the standard delivery of care.”

DALE ALVERSON, MD
Medical Director
Center for Telehealth
University of New Mexico

KIM FAIRLEY
Care Management Supervisor
North Colorado Health Alliance

DR. ALVERSON is professor emeritus and regents’ professor at the University of New Mexico, where he is the medical director of the Center for Telehealth, involved in the planning, implementation, research and evaluation of telemedicine systems for New Mexico as well as nationally and internationally. He is also the CMIO at LCF Research, managing the state-wide health information exchange and assisting in its efforts to address the development and meaningful use of health information technologies, adoption of electronic health records, and integration with telemedicine. He is a past president of the American Telemedicine Association and has also been involved in collaborative international programs to advance telehealth and e-health globally.

KIM FAIRLEY is care management supervisor for the North Colorado Health Alliance, where she has worked since 2011 to address poverty and the social determinants of health. After a career in IT management, she left to become the executive director of RISE, a non-profit that offers self-sufficiency programs for the under-resourced population in the community. Fairley is a certified trainer and facilitator for Bridges Out of Poverty and Bridges to Health and Healthcare. She was the local improvement advisor for The Alliance under the Institute for Healthcare Improvement SCALE grant project. Fairley has a passion and commitment to health care improvement. She currently serves as the board president for North Range Behavioral Health.
About Rocky Mountain Health Plans

Founded in Grand Junction, Colo. in 1974, as a locally owned, not-for-profit organization, Rocky Mountain Health Plans provides access to affordable, quality health care enabling its more than 229,000 members across the Western Slope to live longer, healthier lives.

About the Community

Western Colorado is creating an accountable community that uses health IT in a meaningful way, adopts value-based payment models, coordinates care and empowers patients to take charge of their health.

We aspire to ensure the following:

- High-quality health care is affordable and accessible to all.
- Those who purchase health care are assured that care is effective, safe and appropriate.
- Patient care is a team effort, with roles that are well-defined, connected and collaborative.
- Patients have access to the support and information they need to take charge of their health and make their own decisions.
- Payment reform will foster reimbursement models that support accountability for population health and resource use.

- Information technology supports population health, helping providers predict outcomes, prioritize interventions and prevent disease.
- Health data is a community resource used in a secure way to support coordinated care at the population, practice and personal levels.
- Investments in information technology and health system transformation will improve quality of life and economic well-being across the state.
- Health is a community resource that requires leadership, stewardship, individual responsibility, community support and ongoing maintenance.

For more information:

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