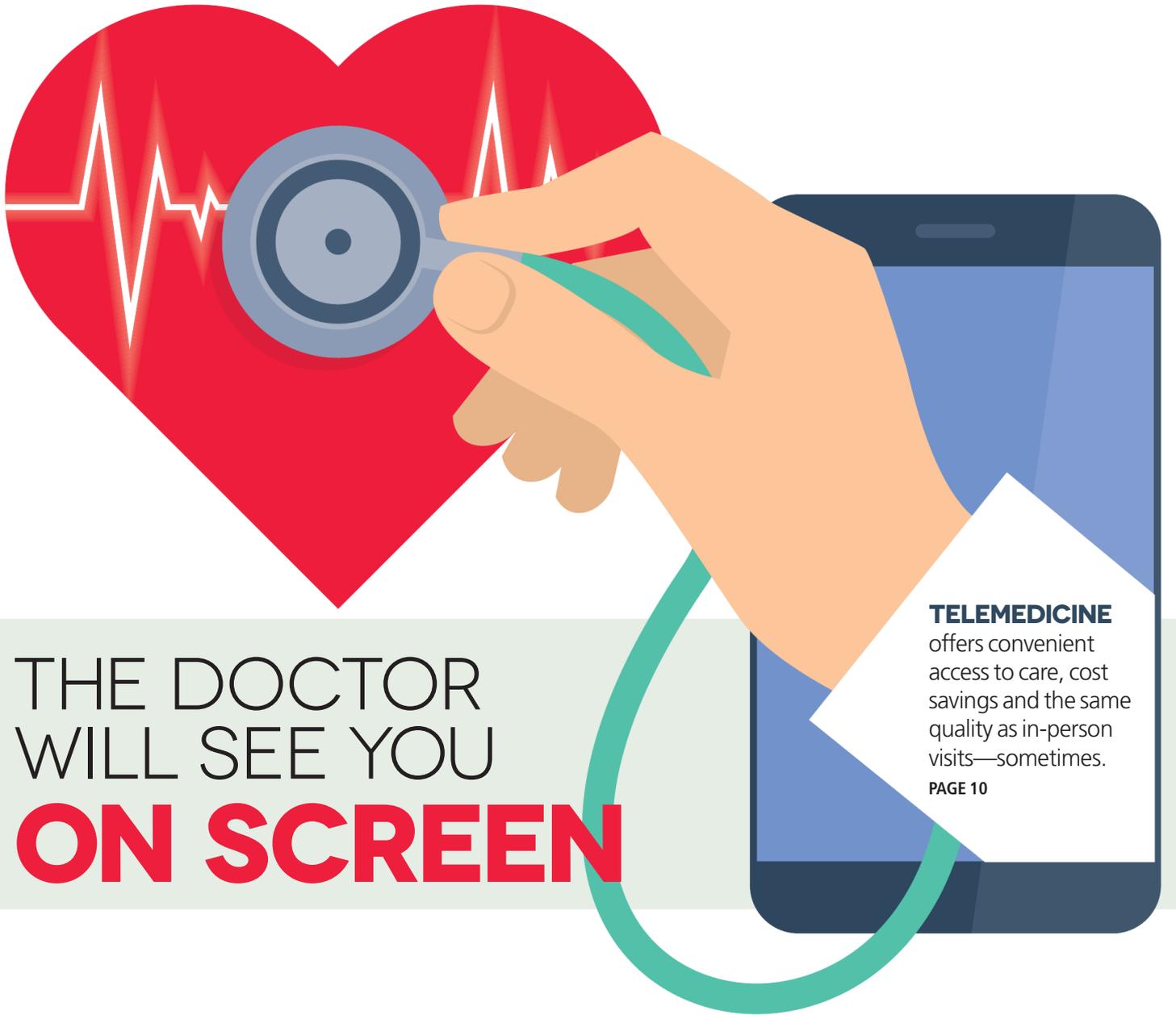


MINNESOTA MEDICINE



OCTOBER 2016 • \$9.99



THE DOCTOR
WILL SEE YOU
ON SCREEN

TELEMEDICINE
offers convenient
access to care, cost
savings and the same
quality as in-person
visits—sometimes.
PAGE 10

ROBOTS in the exam room PAGE 4

Doctors without **(STATE) BORDERS** PAGE 6

Building a
TELEMEDICINE
NETWORK PAGE 8



MINNESOTA
MEDICAL
ASSOCIATION



Advocate
FOR YOUR
profession!

Day at the Capitol

JOIN US ON

Wednesday,
Feb. 15, 2017

Noon, Saint Paul



MINNESOTA
MEDICAL
ASSOCIATION

SAVE THE DATE





Private Mortgage Banking Experience counts

As a Private Mortgage Banker, Jody is an acknowledged leader in mortgage products and related services with over 22 years of industry knowledge and experience. She provides a full-service approach to your transaction and will help simplify complex financial arrangements. The hallmark of your service experience will be Jody's accessibility and responsiveness, transacting your business where, when and how you need given your demanding schedule.

Jody provides a personalized home financing experience that includes:

- The simplicity of a single point of contact throughout the entire transaction
- Financing for home purchase or refinance, and home equity lines of credit
- Jumbo financing and portfolio loans available with down payments as low as 10.01% with no mortgage insurance
- Competitive interest rates
- Comprehensive services for all types of homeowners
- Lending available in all 50 states for primary, secondary and investment properties

Contact Jody for all your home financing needs.



Jody Kern

7900 Xerxes Ave. S., Suite 2300
Bloomington, MN 55431

Office: 612-316-1992

jody.kern@wellsfargo.com

www.jodykern.com

NMLSR ID 401973



CONTENTS

Oct. 2016 SPECIAL REPORT | VOLUME 99 | ISSUE 7

FEATURES

ON THE COVER

10 The doctor will see you on screen

Telemedicine offers convenient access to care, cost savings and the same quality as in-person visits—sometimes.

BY HOWARD BELL

11 Telemedicine in Minnesota

A look at how four specialties are using it.

BY HOWARD BELL

FEATURE

8 The networker

Psychiatrist Michael Farnsworth built a telemedicine network that connects mental health practitioners with patients in 10 Minnesota counties.

INTERVIEW BY KIM KISER

DEPARTMENTS

3 EDITOR'S NOTE

4 SHORT TAKES

Robots and medicine: Paging Dr. Robot

Technical assistance: Help getting started with telemedicine

Interstate licensure: Doctors without (state) borders

15 EMPLOYMENT OPPORTUNITIES



10

8



MINNESOTA MEDICINE

CONTACT US

Minnesota Medicine
1300 Godward Street, Suite 2500
Minneapolis, MN 55413

PHONE: 612-378-1875 or 800-DIAL-MMA

EMAIL: mm@mnmed.org

WEB AND DIGITAL EDITION: mnmed.org

OWNER AND PUBLISHER
Minnesota Medical Association

EDITOR IN CHIEF
Charles R. Meyer, MD

EDITOR
Kim Kiser

ART DIRECTOR
Kathryn Fors

CIRCULATION / WEB CONTENT
Mary Canada

COPYRIGHT AND POST OFFICE ENTRY

Minnesota Medicine (ISSN 0026-556X [print] and 1945-3051 [online]) is published eight times a year by the Minnesota Medical Association, 1300 Godward Street NE, Suite 2500, Minneapolis, MN 55413. Issues are published bimonthly, plus special issues in the spring and fall. Copyright 2016. Permission to reproduce editorial material in this magazine must be obtained from *Minnesota Medicine*. Periodicals postage paid at Minneapolis, Minnesota, and at additional mailing offices. POSTMASTER, send address changes to *Minnesota Medicine*, 1300 Godward Street, Ste 2500, Minneapolis, MN 55413.

SUBSCRIPTIONS

Annual subscription: \$45 (U.S.) and \$80 (all international)

Minnesota Medicine is intended to serve as a credible forum for presenting information and ideas affecting Minnesota physicians and their practices. The content of articles and the opinions expressed in *Minnesota Medicine* do not represent the official policy of the Minnesota Medical Association unless this is specified. The publication of an advertisement does not imply MMA endorsement or sponsorship.



PHOTO BY SCOTT WALKER

Charles R. Meyer, MD, Editor in Chief

Will the turning on of technology replace the laying on of hands?

The human touch

“Hi, Grandpa.” The curly, blond head of my 5-year-old grandson appears on the screen, and the view quickly alternates from bizarre close-ups of his nose to a bland shot of the ceiling as he dances away from the iPad. My wife and I are getting our FaceTime fix of grandchildren who live 1,500 miles out of our reach. The conversation that ensues ranges from a report on their hens to an inspection of the latest Lego creation.

As the exchange winds down, my daughter asks me to take a look at a rash on my grandson’s arm. Issuing disclaimers about my pediatric ineptitude, I nonetheless take a look as she zeroes in on the rash. I give her my best guess accompanied by the usual caveat to call a “real doctor” (a pediatrician) if it persists. As our screen goes blank, I am struck not only by my inadequacy as a pediatrician but also by the limitations of telemedicine.

For years, telemedicine has lingered in the background of medical practice, the darling of technophiles who preached that technology would catch up and make it feasible and useful. This special issue of *Minnesota Medicine* suggests that the requisite technology has arrived and telemedicine has entered prime time. Fueled by almost universal speedy Internet access, fast and compact computers, and increasingly sharp cameras and monitors, telemedicine is bringing neurologists, dermatologists and psychiatrists to areas with a paucity of doctors and a veritable drought of specialists.

Although telehealth visits usually involve a nurse and sometimes even a multi-talented robot at the site with the patient, increasingly these contacts are a replacement for an office visit. Leave the car in

the garage, boot up the computer and call the doctor on the equivalent of FaceTime. Predictably, with insurance companies beginning to reimburse such visits, direct-to-consumer offerings are springing up with telehealth urgent care sites, an electronic variation of “doc-in-the-box.”

Clearly, technology makes it possible to bring a patient and a doctor together electronically. But what gets lost in the process? Will the doctor on the screen be able to pick up on the nuances of the medical history from the patient on the screen? Will a rash like my grandson’s look the same on a monitor as in person? Some early studies suggest that quality of care may suffer.

And then there is the intangible, unmeasurable loss of human contact. When a doctor can’t shake a patient’s hand and look him in the eye from three feet away, will we lose something important? Will the turning on of technology replace the laying on of hands?

Recently, at the encouragement of my technology-savvy son, my wife and I took a test drive in a Tesla. We watched the giant iPad-like dashboard screen tell us all the statistics about the car. We felt the amazing 0 to 60 acceleration. And we were spooked by the autopilot function, braking, changing lanes and parking the car without me laying on a hand or foot. The technology was amazing, but I walked away feeling like I hadn’t really driven the car. For now, I’ll take a car I can steer, a grandson I can hug and a patient I can touch.

Charles Meyer can be reached at charles.073@gmail.com.

PAGING DR. ROBOT

In August, Mayo Clinic's emergency telemedicine service began using robots to provide consults at approximately 50 hospitals in nine states.

The humanoid-looking robots contain cameras that zoom, pan and tilt, microphones, video screens, and speakers as well as peripheral attachments that measure heart and respiration rate, oxygen saturation and blood pressure. They also are integrated with the patient's electronic health record.

Mayo Clinic doctors control the robots from a remote location using their computer, tablet or smartphone, and can drive them around a clinic or hospital. The robots sense objects in their path and are able to move around without interfering in a busy hospital setting.

Despite their capabilities, the robots don't replace clinicians. A nurse or another health professional must still be present with the patient when the robots are used (they must place the robot's electronic stethoscope on the patient's chest, for example).

Mayo was an early experimenter with the robots, which are made by InTouch Health of Santa Barbara, California. Several major medical centers around the country now use them.

Before widely deploying the robots, Mayo conducted and published research on using them in emergency departments and critical care units. "We've been researching these robots in telemedicine since 2007," says Bart Demaerschalk, MD, a neurologist and medical director of telemedicine services at Mayo Clinic's Center for



Mayo Clinic is using robots like this one to provide emergency telemedicine services to hospitals in nine states.

PHOTO COURTESY OF MAYO CLINIC

Connected Care. In their eight years of study, he says, they have determined the technology to be the next best thing to seeing a patient in person.

Mayo now uses them in their stroke and neonatology programs, emergency departments, critical care units, hospital wards, labor and deliver suites, and procedural and operating rooms.

In the future, Demaerschalk says, they will likely use the robots for patients who need emergency psychiatry care, burn treatment, trauma care, and cardiology, neurology and epilepsy services.

– HOWARD BELL

AMA issues telemedicine guidelines and policies

At its June 2016 meeting, the American Medical Association (AMA) approved new policies and guidelines to "achieve the promise and avoid the pitfalls of telehealth." The policies and guidelines acknowledge that telehealth (including telemedicine) is an emerging and legitimate way to provide health care. Among its recommendations, the AMA encourages physicians who use telemedicine and other telehealth technologies to:

- Inform patients about the limitations of services provided
- Advise patients how to arrange for follow-up care
- Encourage patients to inform their primary care doctor that they used a telehealth provider.

The AMA encourages medical school and residency programs to include formalized telehealth training in their curriculum. The AMA also is encouraging states to pass parity laws so telehealth visits are reimbursed at rates comparable to those paid for in-person visits. – HOWARD BELL





Help getting started

Want to know how to start a telemedicine program at your facility? Need advice on selecting equipment? Have questions about billing? The Great Plains Telehealth Resource and Assistance Center (gpTRAC) provides technical assistance to health care facilities in six Midwestern states, including Minnesota.

The federally funded center was created 10 years ago and is one of 14 such operations in the country. Its staff of four works out of the University of Minnesota Institute for Health Informatics.

gpTRAC assists facilities that want to start a telehealth program as well as those that already have one. (It doesn't offer start-up grants.) Many of its services are free. "We try to answer any question about telehealth," says project manager Zoi Hills, MHI. "I say 'try' because although we know a lot, telehealth is changing so fast, even we have trouble keeping up."

Some typical questions gpTRAC fields: Can you recommend specialists we can connect our patients to? How do we bill for

a telemedicine visit? What will the billing location code be for telemedicine provided by our docs when they see patients who are travelling in other states? What are the CPT codes for telepsychiatry to nursing homes? What kind of electronic stethoscope do you recommend?

Hills says there's a right way and a wrong way to develop a telehealth program. She says before starting, "get all your stakeholders talking to each other and in agreement on how to proceed, including at the facility where the specialists are. Some think they can do it on their own without buy-in from key

people, even at their own facility. Then the program fails." Hills has witnessed a couple of attempts to launch programs that fell apart and were unable to be salvaged.

She also advises organizations to start small. "Start with one specialty that's logistically simple, perfect it, then move onto the next."

And have a champion. "Identify a champion who's a clinician and has good communication skills, who'll work tirelessly to make it happen," she says. "Without one, you won't get far." Hills adds that some of the most successful telemedicine programs are driven by doctors. – HOWARD BELL

Learn more at:
www.gptrac.org or
call 888-239-7092

MAKE A DIFFERENCE IN YOUR COMMUNITY

Volunteer!

Make a difference in the lives of children, women and men across the state by volunteering your time and talents in the **Physician Volunteerism Program (PVP)**.

PVP is a one-stop resource that connects physicians with community clinics in need of skilled medical professionals.

- Physicians are needed in most specialties.
- Volunteer positions in 30 Twin Cities and Greater Minnesota locations.
- Non-clinical opportunities available, too!

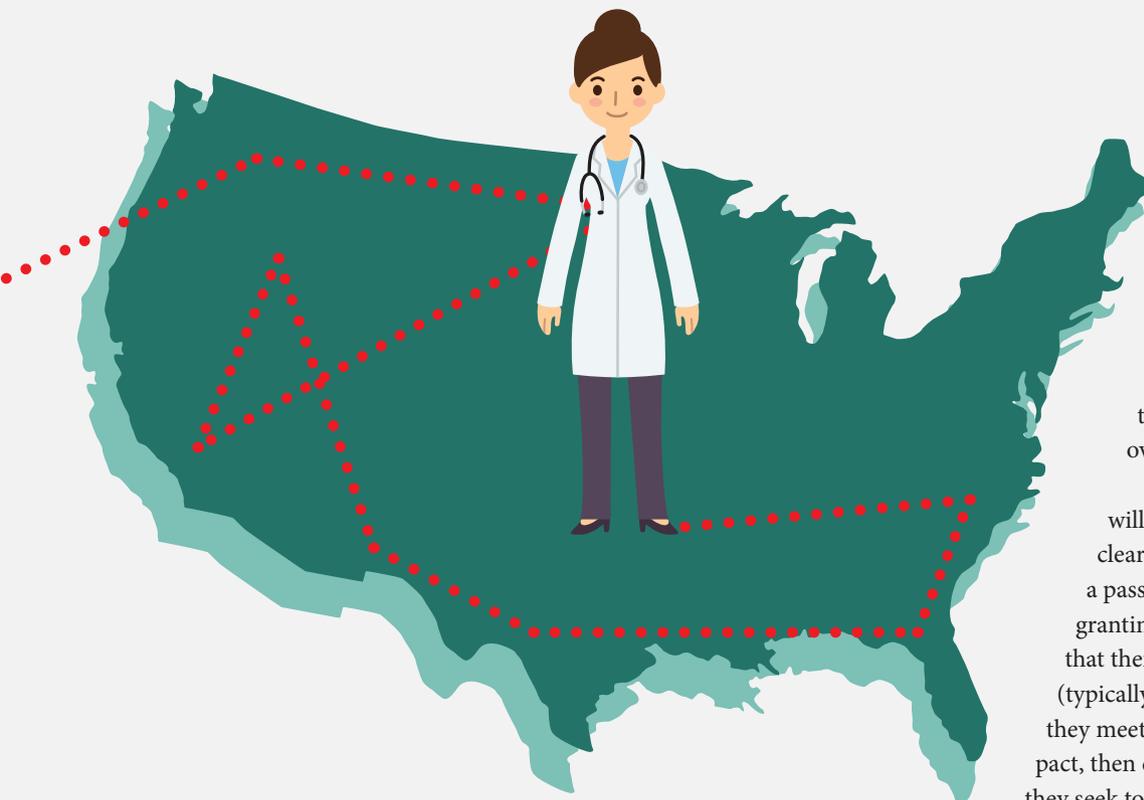


Find the right volunteer opportunity at www.mmafoundation.org/PVP.

Contact Dennis Kelly, CEO, at 612-362-3767 or dkelly@mnmed.org.

MMAF thanks the Otto Bremer Foundation, the Hardenbergh Foundation, the Edwards Memorial Trust and the physicians of Minnesota for their generous support.





Doctors without [state] borders

Minnesota physicians who use telemedicine technologies are among those expected to benefit when the new Interstate Medical Licensure Compact (IMLC) becomes operational in January. The compact promises to streamline the process for physicians who wish to obtain licensure in a state in which they're currently not licensed.

Minnesota joined with seven other states when it passed a law enacting the compact in 2015. Since then, another nine states have come on board. Each of the 17 compact member states has two appointed representatives to serve on the compact's commission. Representing Minnesota are Ruth Martinez, executive director of the Board of Medical Practice, and board member Jon Thomas, MD. For the last year, the commissioners have been meeting

regularly to figure out how the compact will work, and what technical and human resources it will need.

“Basically, we're developing the structure to support the process,” Thomas says. In the future, the commission will oversee the compact.

Just how the licensure process will work is starting to become clear. The compact will function as a pass-through entity, not a license-granting entity. Physicians will request that their principal state of licensure (typically their home state) verify that they meet the qualifications of the compact, then designate the states in which they seek to be licensed. The principal state of licensure will certify to the compact commission that the candidate meets the standards for interstate licensure (has a license in their principal state, is board certified, has had no disciplinary actions and can pass a criminal background check). The physician pays the appropriate fees, and the designated states issue the licenses. All of this will occur through an online portal, and the compact will facilitate the transactions, information sharing, and collecting and disseminating of fees.

A surprise from the FBI

Participating in the compact will affect how each state's licensing board does its work. So in Minnesota, the Board of Medical Practice is preparing for change, looking at its systems and processes and discussing such technicalities as how it will track physicians who are licensed through the compact and what it will charge them for licensure. A grant from the U.S. Health Resources and Services Administration is supporting this work.

Things were progressing smoothly until early July, when Martinez received a copy of a letter from an FBI official in West Virginia declaring that Min-

Telemedicine and licensure

Currently, physicians who are not licensed in Minnesota but who see patients here remotely via telemedicine must register with the state Board of Medical Practice.

For more information

To learn more about the Interstate Medical Licensure Compact, go to www.licenseportability.org. Among the site's offerings:

- an interactive map showing which states have joined the compact
- a video explaining how the compact will work
- answers to frequently asked questions
- model legislation

Montana's law enacting the compact does not meet federal requirements with regard to background checks. Unbeknownst to Martinez, the local office of the Bureau of Criminal Affairs asked the FBI to review the new law. "It was a surprise," she says of the letter and the FBI's determination, which potentially could derail the compact process. Two other compact states, Montana and Nevada, have received similar letters from the FBI.

Martinez contacted an attorney from the National Center for Interstate Compacts, who assured her the FBI had reached its conclusions based on misguided assumptions, one of which was

that the compact was a private entity. Martinez sent a letter requesting that the FBI reconsider the matter. "What we're really trying to do is correct the erroneous conclusions before this takes off and affects every other state in the compact," she says.

Ian Marquand, chairperson of the IMLC Commission, says the commission may take up the matter as well with help from the National Crime Prevention and Privacy Compact Council, a group that facilitates sharing of information between the federal and state governments. The goal, he says, would be "to reach a mutually acceptable solution with the FBI."

Moving forward

Both Marquand and Martinez say the issue is not preventing them from working on the compact. "We are assuming that we're going to get this corrected and that it will happen quickly," Martinez says. And both say they're on track for having the compact operational in January. "It's not a date set by a rule or policy," Marquand explains. "It's a date set as a target for ourselves."

Thomas, who has been lobbying for an expedited licensing process for years, is of two minds when it comes to the pace of progress they're making. "We're not behind," he says, adding, "although I wish we could have started issuing licenses in July."

— CARMEN PEOTA



who's
riding shotgun?

Call or email
for a
complimentary
consultation

Wealth Advising for Physicians
Consider us your personal CFO!



Lizzu Castañeda, JD*

Office: 612-492-9355

Mobile: 612-802-4857

LCastaneda@FinancialGuide.com

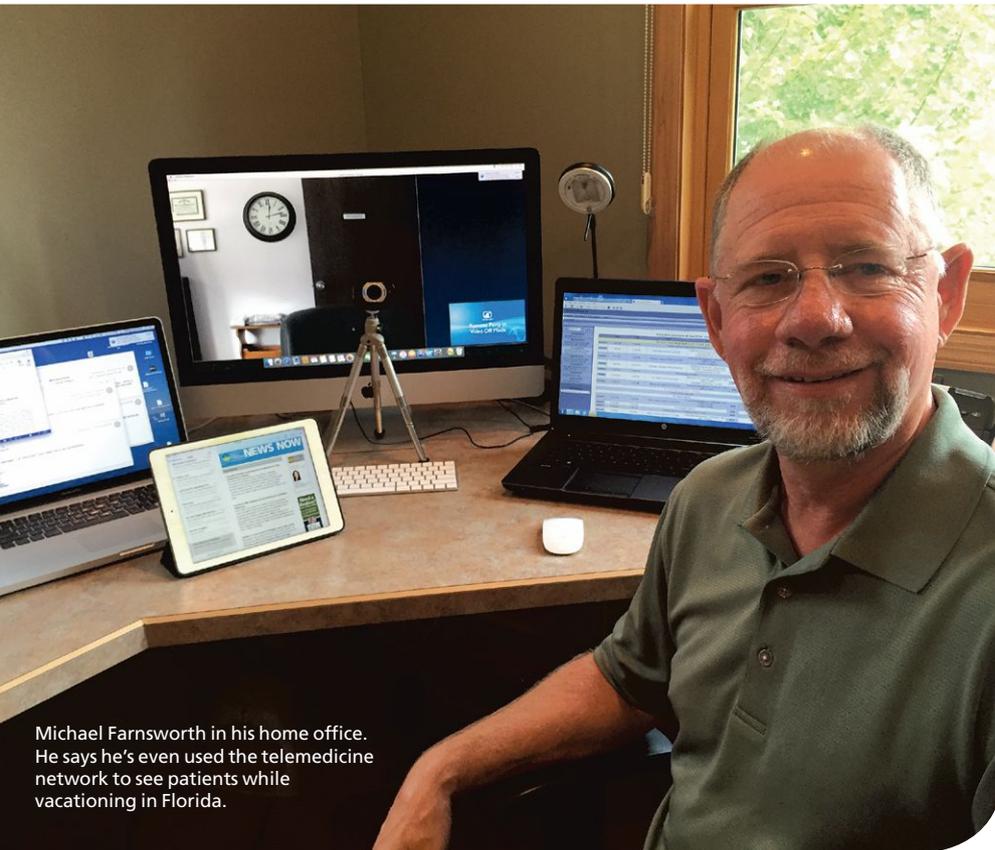
www.tandemadvising.com

Tandem

Advising for the discerning investor

Lizzu Castaneda is a registered representative of and offers securities, investment advisory and financial planning services through MML Investors Services, LLC. Member SIPC. Supervisory Office, 901 Marquette Avenue, Suite 2600, Minneapolis, MN 55402. (612) 333-1413. Tandem is not a subsidiary or affiliate of MML Investors Services, LLC.

*Not practicing on behalf of MML Investors Services, LLC.



Michael Farnsworth in his home office. He says he's even used the telemedicine network to see patients while vacationing in Florida.

PHOTO COURTESY OF MICHAEL FARNSWORTH

needed care to a part of the state where mental health services, especially for Medical Assistance patients, are limited. (The state-owned psychiatric hospital in St. Peter closed in 2006.)

He spoke with *Minnesota Medicine* editor Kim Kiser about how he set up the network—called the South Central Community Based Initiative (SCCBI) Psychiatric Services Hub—and how it's changed mental health care in that part of the state.

You were medical director for the St. Peter Regional Treatment Center's psychiatric hospital and the Minnesota Security Hospital before you were hired by Blue Earth County in 2003. What challenges was southern Minnesota facing then in terms of mental health care?

We had a huge logistical issue, which was how to provide mental health services to patients who were as far as two hours away. Ten counties relied on us to provide mental health services. We had satellite offices, but they were inadequately served. To get to Fairmont and back to Mankato, where we were based, for an appointment, a practitioner would spend half a day in the car. We also had a 50 percent no-show rate in Mankato because patients couldn't get to their appointments. As a result, we had a lot of patients in crisis because they weren't being seen or their medications lapsed, and we couldn't respond to their crisis. That was the chaotic setting I entered into in 2003.

What happened when a patient was in crisis?

They often ended up in the ER or were civilly committed, which is why we had the big state hospital in St. Peter. We had over 200 psychiatric beds when I was medical director. Most were full because there wasn't adequate care in the community.

THE networker

Psychiatrist Michael Farnsworth built a telemedicine network that connects mental health practitioners with patients in 10 Minnesota counties.

In a room off his garage, psychiatrist Michael Farnsworth, MD, sits at a desk, surrounded by computers. One allows him to see and talk to patients as far away as Mankato and Albert Lea. Another he uses to access patients' electronic health records and prescribe medications. A third is for looking up information—if a patient wants to know about a new drug, for example. An iPad is for messages and emails.

He likens this setup to “the command center at NASA.”

Farnsworth uses the equipment to provide psychiatric care to adults with serious and persistent mental illnesses in 10 counties in southern Minnesota—a geographic area the size of Connecticut. He spends four days a month in the Blue Earth County mental health center in Mankato, then conducts between 60 and 80 remote visits a week from his home office in Nisswa.

Through this telepsychiatry network, which he launched through Blue Earth County in 2003, Farnsworth has brought

Did you know much about telemedicine at the time? Had you seen these systems operate?

When I was medical director at St. Peter, we developed the sex offender program in Moose Lake and St. Peter. I needed to set up a system where I could go to Moose Lake but still be in St. Peter. There had been some early attempts to create an interactive television (ITV) network within the state system, but they were very primitive. Reception was poor, the images were grainy—it was like watching video of the first moon landing. But videoconferencing had improved and we were able to use it to see patients in Moose Lake.

Was the county receptive to trying this?

There was reluctance at first. Everyone was concerned patients wouldn't want to sit in front of a monitor with a camera on them and not have a practitioner physically present. But that turned out to not be the case. Patients valued the convenience of being able to see someone easily rather than having to travel a long distance for a 20-minute appointment for medication management or a half-hour visit.

Then there was the issue of cost. The initial equipment was expensive—\$50,000 per setup. But the state promised that as they reduced services at big-box institutions like the St. Peter Regional Treatment Center, they would transfer equivalent funds and staff into the community. Grants and some funding from the SCCBI allowed us to purchase equipment. The cost has since come down dramatically.

How does the system work?

The patient, depending on where they live, goes to the closest dedicated site—it could be the county's social service department, a group home, the jail, a hospital, the crisis center in Mankato. They are greeted by a nurse who takes their vitals and completes any necessary screenings such as the PHQ-9 for depression or AIMS (abnormal involuntary movement scale) for patients taking antipsychotic medications. They sit in front of a secure, HIPAA-compliant high-definition ITV console. It's no different than if they were coming into the clinic in Mankato and seeing me in person. They see the nurse, complete their paperwork, have their vitals taken, do the visit, get their prescriptions and get their next appointment set up.

Do you ever see patients in person?

Standard practice for our clinic is to do initial evaluations in person whenever possible. Also, every person who is seen electronically has to be seen in person at least once a year. And I see in person those individuals who object to ITV or have a hearing or cognitive impairment that makes ITV problematic. In some parts of the country, patients may never see the doctor in person. But I don't think that's good practice. I still like the personal touch. I like being able to see the person across the desk from me. I like being able to shake their hand.

How has the technology evolved?

Initially, we had to drag a big monitor into our offices and plug it in and turn it on. They would do the same thing at the distant site. It was cumbersome and inconvenient. By 2008, we launched a much better system. We have a dedicated ITV system built into the wall of my office and our nurse practitioners' offices in Mankato. It's a TV set and a camera. We have the same equipment at 30 to 35 remote sites.

To what extent has the program grown?

When I started, it was me and a part-time nurse practitioner. We now have four nurse practitioners, all based in Mankato.

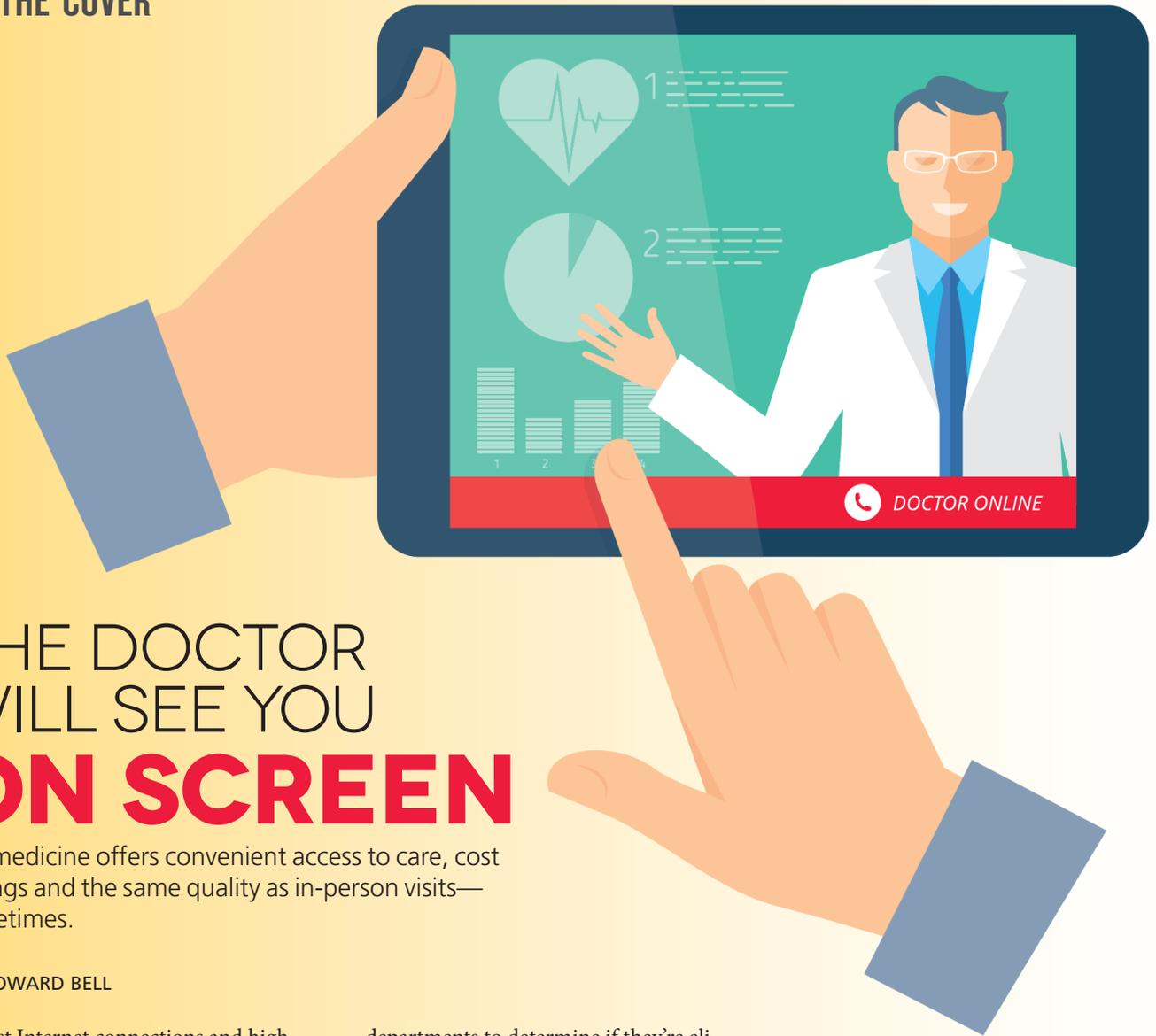
What sort of impact has the network made in terms of patient care?

We see about 1,400 patients who are seriously and persistently mentally ill. Using ITV has increased our overall show rate from 50 percent in 2003 to 85 percent today. ITV visits have a 93 percent show rate. And when you look at patient satisfaction with ITV, they love it.

I can respond to emergencies by getting the patient to one of our sites or I can see the person right in their group home. We've had less reliance on inpatient hospitalization because we have a faster response time both for crisis and ongoing care. And because we can communicate more effectively with caregivers and case managers, we can work more quickly with patients whose conditions are deteriorating and perhaps avoid a crisis.

What are your plans for the future?

We're looking to expand and are recruiting a psychiatrist and a nurse practitioner. We're also going beyond the scope of just seeing "county" patients. We're also seeing patients with private insurance. As more of those patients come in, the better reimbursement (from private insurers) will enable us to enhance our services, perhaps expanding into child and adolescent services, which we don't provide now. But we will always be the safety net for the community. That will always be our mission. **MM**



THE DOCTOR WILL SEE YOU ON SCREEN

Telemedicine offers convenient access to care, cost savings and the same quality as in-person visits—sometimes.

BY HOWARD BELL

Fast Internet connections and high-definition video streaming are rapidly changing the way doctors work. Using HIPAA-compliant audio/video equipment, they can diagnose, treat, educate and manage care for patients who are perhaps hundreds of miles away at their local clinic, hospital or home. Telemedicine is one type of telehealth—a broad field that includes connecting to patients by telephone, remote monitoring, text-only e-visits, and email through patient portals like MyChart or MyCare.

Telemedicine has come a long way since 1994, when Minnesota received grant funding from the Office of Rural Health Policy to demonstrate how the technology could bring needed care to medically underserved populations. First used for a narrow range of services, such as connecting specialists in urban areas to stroke patients in smaller hospital emergency

departments to determine if they're eligible for tPA and doing remote exams of newborns in distress, telemedicine is now used for everything from examining post-surgical wounds to conducting psychiatric visits (see "Telemedicine in Minnesota").

Convenience and access

Telemedicine has long been touted for its benefits to patients, as it allows persons living in rural areas, nursing home residents and individuals with disabilities to receive specialty care without having to drive long distances to a tertiary care center. "Sometimes I think we in health care underestimate how stressful, costly, time-consuming and disruptive it is for patients and their families to travel long distances, often in bad weather," says Maureen Ideker, director of Duluth-based Essentia Health's telehealth department.

It also has been shown to improve care and outcomes for patients. For example, stroke patients in rural areas with access to telemedicine are more likely to receive tPA, preserving function and quality of life. Intensive care patients can avoid risky, expensive transport to another facility. And physicians are able to treat patients earlier, before their condition becomes more serious.

Telemedicine offers benefits for physicians, too. For one thing, it eliminates the downtime associated with traveling to far-flung clinics, allowing them to devote more time to seeing patients. It also reduces the number of no-shows at clinics.

Given a choice, many patients choose televisits over in-person visits. A 2013 survey by Intel found 72 percent of consumers said they're willing to see a doctor via

video conferencing for nonurgent appointments. In addition, satisfaction with such visits is high across specialties, according to medical group leaders who served on the MMA's Telehealth Task Force. The task force developed telemedicine guidelines and recommendations in 2015 (see p. 13).

Not surprising, the use of telemedicine is growing. Essentia Health, for example, which began its telemedicine program five years ago, has seen the number of remote visits grow by 25 to 30 percent each year. In 2015, its hospitals conducted 722 video visits between patients at one hospital and clinicians at another for stroke and other specialty care. Its clinics conducted 2,525 video visits involving 22 specialties, with medical weight loss, child psychiatry and dietitian services being the most common.

Reimbursement parity

Use is expected to increase even more after January 1, when state law will require commercial payers to reimburse video visits in the same way they do in-person visits. Minnesota is one of about 30 states that now require commercial payer parity.

Medical Assistance, the state's Medicaid program, already started providing payment parity in January of this year. It also began paying for additional sites, services and licensed providers. Previously, it reimbursed for telemedicine visits by physicians, nurse practitioners, physician assistants, nurse midwives, nurse anesthetists, dietitians, psychologists and licensed social workers. The law change now requires Medical Assistance to also pay for telemedicine services provided by speech-language pathologists, audiologists, optometrists, dentists, certified dia-

betes educators, physical and occupational therapists, and almost all other licensed health care providers who receive payment for in-person encounters.

In addition, Medical Assistance now pays for telemedicine visits at assisted living facilities and group homes as well as for "asynchronous visits," which rely on the exchange of images and information through email-like communications rather than real-time video, to evaluate dermatologic conditions and wounds. Even though it's not being done much yet, Medical Assistance now pays for televisits in a patient's home. So far, most health care systems haven't noticed a significant increase in Medical Assistance telemedicine visits.

Regardless of what payer parity ends up looking like in Minnesota, health systems say it's the right thing to do because it

(continued on next page)

TELEMEDICINE IN MINNESOTA

A look at how four specialties are using it.

BY HOWARD BELL

Telemedicine has found a place in a number of specialties. Here are a few of the ways it's being used by physicians in Minnesota.

Weight loss services

As a family physician who's practiced primary care and emergency medicine in

northern Minnesota for many years, Stephen Park, MD, saw the toll poor eating habits took on patients. "By 2020, half of all adults in the United States will be diabetic or prediabetic," he told an audience at the Minnesota Academy of Family Physicians' spring refresher earlier this year. Wanting to help patients prevent diabetes and other obesity-related health concerns, he became board-certified in obesity medicine 10 years ago.

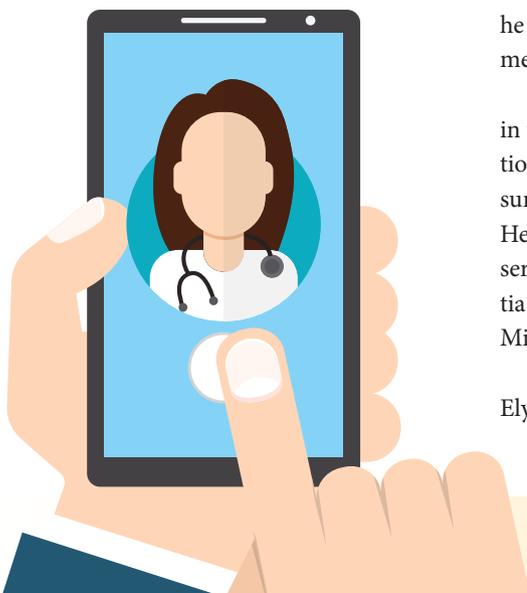
Park is one of nearly 1,600 physicians in the United States to earn the certification and one of only three who offer non-surgical weight loss services for Essentia Health. His challenge: how to provide services to patients throughout the Essentia system, which has clinics in northern Minnesota, North Dakota and Wisconsin.

Four years ago, Park, who is based in Ely, Minnesota, turned to telemedicine.

Today, he does 100 percent of his patient visits, including most initial evaluations, remotely from his home office. Patients, who come to one of 20 clinic sites in places such as Deer River, International Falls and Jamestown, North Dakota, sit in a regular exam room, where an audio/video cart is waiting. Specially trained nurses at the rural clinics operate the equipment. Using Essentia's secure broadband network, Park sees and talks with the patient on one screen and can access their medical record on another.

During the physical exam part of the visit, the nurse conducts a guided assessment, during which Park gives step-by-step instructions. A video camera zooms in closely to examine a specific area and pans so Park can see the patient walk. Electronic stethoscopes digitize and transmit sound. Electronic otoscopes send

(continued on next page)



(continued from previous page)

acknowledges telemedicine's efficiencies. "Reimbursement parity is a good thing, but it's not a major driver for us," says Ideker, who explains that telemedicine has been part of Essentia's business plan for a long time. "Some of our health care professionals who will now be reimbursed, but didn't use to be, will start using telemedicine, which will increase the number of patients who choose video visits."

Tele-free-for-all

With a plethora of competing platforms on the market, the U.S. telehealth industry is predicted to grow from \$240 million in revenue in 2013 to \$1.9 billion in 2018, an annual growth rate of more than 50 percent, according to a recent study from business information provider IHS. An-

(continued on page 14)



TELEMEDICINE

(continued from previous page)

video and still images. Blood pressure readings are transmitted digitally.

Park has extended conversations with his telemedicine patients just as he does in person, orders lab tests and e-prescribes medication including controlled substances using a fingerprint scanner.

Advanced practice nurses and dietitians who've shadowed Park to learn his protocols do the follow-up and on-going support via video, freeing Park to take on new patients without making his workload unmanageable.

"There is zero difference in outcomes between video visits and in-person visits," Park says. "And patient satisfaction is as high as it can get. You can build a trusting doctor-patient relationship by telemedicine just as well as you can in person. It increases access because many weight-management patients can't travel or are reluctant to. The only drawback is I can't touch their hand or give them a hug, because obesity is an emotional condition some have struggled with for decades."

Surgical follow-ups

High-definition videocameras and streaming have greatly improved image clarity since Minneapolis VA general surgeon, Steven Waisbren, MD, started doing post-surgical follow-up visits by video with patients at clinics outside the Twin Cities nearly two years ago.

Prior to that, many patients had to travel more than four hours for post-op appointments at the Minneapolis VA that often lasted no more than 10 minutes. Today, patients can go to their local VA clinic for follow up.

As Waisbren and his patient talk by video, a technician photographs the patient's wound. (Waisbren prefers sharp still images instead of video for examining post-op wounds.) Within seconds, the digital image appears on Waisbren's computer screen in Minneapolis. This type of telemedicine is called "asynchronous" because there is a delay—in this case a brief one—between when the image is sent and received. During that brief delay, Waisbren



Stephen Park, MD



Steven Waisbren, MD

talks with the patient using audio/video conferencing. A record of his interpretation of the image and the patient's follow-up treatment plan goes into the patient's medical record. The patient receives a copy of the plan at their local clinic.

Complication rates for telemedicine post-op visits are no different than those for in-person visits. A California VA study of 115 open hernia surgeries and 26 laparoscopic cholecystectomies published in *JAMA Surgery* in 2013 showed no complications for the cholecys-

tectomies followed up remotely and a rate comparable to in-person visits for hernias. Waisbren says he's been able to spot any problems that arise. "We've never failed to find a complication for routine abdominal, neck and soft-tissue operations," he says. Waisbren does post-op telemedicine evaluations for all types of general surgery, but uses in-person visits "when patients need to be examined with more than our eyes." Some wounds, he says, must be felt and probed to make sure they're healing well.

THE MMA'S TELEHEALTH TASK FORCE

The MMA created a Telehealth Task Force in 2014 to address concerns about telemedicine licensing, reimbursement and best practices. Nineteen physicians in 12 specialties from across the state met several times to develop guidelines and recommendations for telehealth, including telemedicine. Their "Summary Report and Recommendations" was published in December 2015.

Among the key points:

- *Telehealth is not a different kind of care, but a different way of providing the same care.*
- *An in-person visit is not always needed to establish a physician-patient relationship.*
- *Telehealth must be held to the same standards as in-person medical encounters for patient privacy, security, informed consent and adherence to best-practice guidelines.*
- *Telehealth should be used in ways that support continuity of care.*

- *Patients should have the right to choose in-person care when possible.*
- *Telehealth should be used to supplement, not replace, in-person care.*
- *Telehealth should be used as a way to improve access to care by keeping patients in their communities, and not as a way to avoid regular in-person care.*
- *When possible, telehealth should be used to keep patients in their communities by importing the care to them.*
- *Fair compensation for telehealth services is crucial to the growth of high-quality telehealth.*
- *Physicians need to understand and adapt to the growth of telehealth.*

The MMA also plans to help create educational resources and encourage that telehealth be added to medical school and residency curricula.

Waisbren lets his patients choose between a video or an in-person follow-up visit. About half choose video. "Those who do love it," he says. "Patient convenience is the main benefit." Waisbren along with two of his VA colleagues and a nurse practitioner who also conduct video visits are collecting data on the miles, time and money saved, and surveying patients about their satisfaction with telemedicine follow up. "Many avoid the expense and time of overnight travel and driving for hours," he says.

For Waisbren, video visits actually take longer than in-person visits because of the time it takes to get his audio/video equipment up and running before each visit.

Although smartphones and tablets can take photos that are clear enough for wound evaluation, the VA doesn't allow patients to send images from their personal devices because of security concerns. Waisbren doesn't think this policy will change any time soon, but if it does, he



Neil Shah, MD



Kathryn Lombardo, MD

says, "patients can be at home during the visit, as long as I used absorbable sutures, which don't require a nurse to remove."

Dermatology

Smartphones are proving to be essential for bringing telemedicine to dermatology. Minneapolis dermatologist Neil Shah, MD, has been using them in his practice at Clarus Dermatology for more than a year. He uses up-loaded images taken by patients with their smartphones mostly to evaluate rashes and acne and to see whether treatment is

working. He does not use such images to evaluate other spots that often require a biopsy to confirm a diagnosis.

Patients can initiate a televisit anytime by going to the Clarus website, where they complete a questionnaire, then upload a photo of the area of concern that they take on their phone or tablet. Shah gets back to them within 24 hours during the work week. He also can e-prescribe from the Clarus secure web-based platform and

import the visit summary into the patient's medical record.

Shah, who typically does three to five televisits a week, says they're preferred by patients who are at ease with smartphones as well as those who have high-deductible health plans, as these appointments cost less than in-person visits. Shah charges \$55 for televisits, compared with \$75 to \$175 for in-person visits.

Dermatologists have used telemedicine for more than a decade, according to Shah, who adds that "a well fleshed-out" body of scientific literature shows that outcomes for in-person and televisits are the same. "For the right conditions," Shah says, "a televisit is no different than an in-person visit. It's not second-quality care—it's the future."

Psychiatry

Psychiatrist Kathryn Lombardo, MD, has used telemedicine in her practice at Olmsted Medical Center in Rochester for four years—mostly with patients at rural branch clinics or in nursing homes. "Telemedicine has allowed me to treat many patients who otherwise wouldn't have

(continued on next page)

(continued from page 12)

other indicator of the industry's rise: 346 vendors exhibited at the American Telemedicine Association's 2016 conference in Minneapolis, up from 283 in 2015.

With money to be made, national direct-to-consumer (DTC) companies, which allow patients to connect with clinicians using a smartphone or computer, are forming. These include American Well, Doctor on Demand, Teladoc and MDLIVE.

These DTC telemedicine companies are currently benefitting from a flood of investor and employer interest. The benefits company Towers Watson found 37 percent of employers surveyed in 2014 said that by 2015 they would offer their employees a telemedicine benefit because it's a low-cost

alternative to physician office visits for nonemergency conditions, and it ensures that employees spend less time away from work.

Telemedicine appears to reduce health care costs for employers. A 2014 Harvard analysis of two companies—Home Depot and Rent-a-Center—found their use of telemedicine yielded significant savings. Home Depot saw an estimated \$6.73 per claim savings that produced a 12-month total savings of \$5.9 million. Rent-a-Center saved \$4.60 per claim for a total savings of \$1.2 million.

As for the quality of care DTC companies provide, not much is known; however, two recent studies suggest it can suffer. One published this year in *JAMA Dermatology* raised concern about the accuracy of skin disease diagnosis and treatment provided by 16 DTC telemedicine

websites. The physicians often made the correct diagnosis using photos alone but failed to do so when a medical history was needed. In addition, clinicians regularly failed to ask simple, relevant questions. And treatments and prescriptions often did not adhere to best practice guidelines.

A study of online DTC urgent care published in *JAMA Internal Medicine* found significant variation in guideline adherence, although other studies have found similar variation for in-person visits, too. Poor antibiotic stewardship was common. Tests weren't ordered when guidelines recommend them, reflecting the logistical challenge of ordering tests for a patient when the clinician is in a remote location and has no ongoing relationship with the patient's clinic. Some DTC companies do ask for the patient's permission to send

TELEMEDICINE

(continued from previous page)

received psychiatric care," she says, noting that telemedicine is well-suited for psychiatry because it requires no complicated physical exams or special tools.

Lombardo connects with patients at Olmsted's 10 branch clinics using a HIPAA-compliant audio/video conference software package. Each branch clinic has a designated telemedicine exam room with audio/video equipment. A nurse at the branch clinic takes the patient's vitals and completes a depression screening before the start of the visit.

Lombardo and her partners complete about 10 to 15 such visits each month.

After each appointment, she asks the patient, "Do you believe telemedicine is as effective as an in-person visit?" Nearly all say yes. "You actually have a better quality appointment sometimes because many patients are more at ease when they're at their regular clinic or in the nursing home where they live," she says.

According to Lombardo, Olmsted Medical Center is planning on expanding

telepsychiatry visits to patients living in group homes in the near future.

Many more uses

In addition to psychiatry, Olmsted Medical Center uses video visits for endocrinology, wound care, pre-op appointments and



educating patients about diabetes management. The Minneapolis VA also uses it for mental and behavioral health, gastroenterology, neurology and other subspecialty care. In fiscal year 2016, Essentia Health's clinics conducted 2,525 video visits involving 22 specialties, with medical weight



William Heegaard, MD, MPH

loss, child psychiatry and dietitian services being the most common.

Other health systems are looking at how they might incorporate remote visits. For example, Hennepin County Medical Center (HCMC) in Minneapolis has been cau-

tiously analyzing how best to use telemedicine and for what purposes. Its otolaryngologists currently use it to evaluate post-surgical scarring following tumor removal and assess severe trauma-related injuries. They also use videoconferencing to plan a treatment strategy with the patient. Chief medical officer William Heegaard, MD, MPH, says HCMC is also planning on using it to offer mental health visits to patients being seen in its primary care clinics. Its ALS Center plans to offer video visits to patients in their homes. HCMC leaders are also researching home video visits for stroke, acute care and burn management, as well as ICU and emergency department video visits to rural hospitals. "There's tremendous potential here," Heegaard says. **MM**

a report to their regular provider. Doing so requires encryption and interoperable EMRs.

The two *JAMA* studies also showed that patients are more apt to receive best-practice guideline-adherent care when telemedicine is offered through their regular physician rather than an independent DTC company that has no affiliation with their doctor.

Another concern is that patients are using DTC telemedicine to bypass their regular doctors. To combat “leakage” of patients to independent DTC companies, many Minnesota health systems and health plans are offering their own DTC services or are partnering with DTC companies. For example, Blue Cross and Blue Shield of Minnesota has relationships with Doctor on Demand and American Well.

Both offer urgent care through telemedicine, often through employers.

Meanwhile, HealthPartners is working with VirtuWell to offer text-only e-visits. HealthEast uses RetraceHealth’s technology to offer patients 24/7 access to physicians through video.

North Memorial Health Care in Robbinsdale, CentraCare in St. Cloud, Lakewood Health System in Staples and Fairview Health System in Minneapolis use the Zipnosis platform to provide asynchronous telemedicine services to their patients, mostly for conditions such as fever, rashes, sore throats, sprains, urinary tract infections and asthma flare-ups.

Other Minnesota health systems are looking at developing their own DTC products for urgent care e-visits, with an eye on eventually adding audio/video ca-

pabilities. Sometime soon, Ideker says, Essentia will offer DTC urgent care e-visits to patients in their homes using its own text-only platform. “Real-time e-visits are an important growth area and the wave of the future,” she says. “Patients prefer to go to their own clinic, and one way or another, Minnesota clinics and hospitals are going to offer direct-to-consumer telehealth.”

Given its efficiencies and convenience, telemedicine and its related technologies are proving their value for many. And for physicians, they represent one more way to connect with patients. **MM**

Howard Bell is a medical writer and frequent contributor to *Minnesota Medicine*.

EMPLOYMENT OPPORTUNITIES

BEYOND TREATING, THERE'S CARING

WELL AND BEYOND

Fairview Health Services seeks physicians with an unwavering focus on delivering the best clinical care and a passion for providing outstanding patient experience.

We currently have opportunities in the following areas:

- Allergy/Immunology
- Dermatology
- Emergency Medicine
- Family Medicine
- General Surgery
- Geriatric Medicine
- Hospitalist
- Internal Medicine
- Med/Peds
- Neurology
- OB/GYN
- Orthopedic Surgery
- Pain Medicine
- Palliative Medicine
- Pediatrics
- Psychiatry
- Pulmonary Medicine
- Rheumatology
- Urgent Care
- Urology

To learn more, visit fairview.org/physicians, call **800-842-6469** or email recruit1@fairview.org

TTY 612-672-7300
EEO/AA Employer

Sorry, no J1 opportunities.



Sioux Falls VA Health Care System “A Hospital for Heroes”

Working with and for America’s Veterans is a privilege and we pride ourselves on the quality of care we provide. In return for your commitment to quality health care for our nation’s Veterans, the VA offers an incomparable benefits package.

The Sioux Falls VAHCS is currently recruiting for the following healthcare positions.

- Cardiologist
- Emergency Medicine
- Endocrinologist
- ENT (Part-time)
- Geriatrician
- Orthopedic Surgeon
- Primary Care
- Psychiatrist
- Physiatrist
- Pulmonologist
- Urologist (Part-time)

Applicants can apply online at www.USAJOB.gov

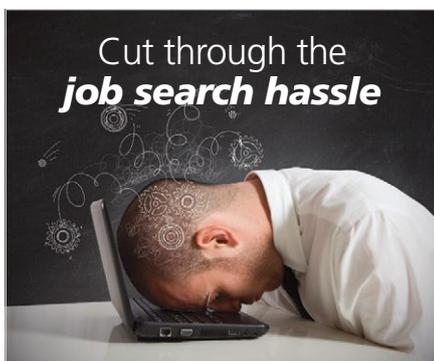
They all come together at the Sioux Falls VA Health Care System. To be a part of our proud tradition, contact:



Human Resources Mgmt. Service
2501 W. 22nd Street
Sioux Falls, SD 57105
(605) 333-6852

www.sioxfalls.va.gov

EMPLOYMENT OPPORTUNITIES



MMA Online Physician Career Center

A one-stop online job site for physicians looking for a new position and clinics looking for a new colleague.

For more information, go to www.mnmed.org/careercenter



OPTIMAL HEALTH and WELL-BEING

Health care that starts with People Care

Live better. Feel Better. Look Better.
People Care for a Happy, Healthy You

At HealthEast, our patients are our neighbors and we are dedicated to their, and our, optimal health and well-being. We are guided by our faith-based heritage, a call to healing

that respects the dignity and culture of every person. We empower our patients with user-friendly access to their health information, dependable service, and affordable, high-quality care.

We put new, more efficient models of care into practice, allowing our 7,500 employees and 850 physicians to focus on what's important: providing compassionate health care that puts the patient and their needs first. With 14 clinics, home care, a medical transportation center, and four hospitals — Bethesda Hospital, St. John's Hospital, St. Joseph's Hospital, and Woodwinds Health Campus — we provide excellent family health and specialization, including primary, maternity, orthopaedics and post-acute care.

We currently have the following Physician and Advanced Practice opportunities in the East Metro:

- Medical Director – FM, Palliative Care
- Family Medicine – with or without OB
- Emergency Medicine
- Internal Medicine
- Endocrinology
- PM&R – inpatient & outpatient
- Rheumatology
- Neurosurgery
- Hospitalist
- Pulmonary/Critical Care
- Vascular Surgery
- Psychiatry
- Neuropsychology
- Hospice/Palliative Care
- Radiation Oncology
- General Surgery

We invite you to contact us

PHONE: 1-866-610-7219

EMAIL: mrwagner@healtheast.org

WEB: www.healtheast.org/careers

St. Cloud VA Health Care System

OPPORTUNITY ANNOUNCEMENT

Opportunities for full-time and part-time staff are available in the following positions:

- Dermatologist
- Internal Medicine/Family Practice
- Physician (Compensation & Pension)
- Physician (Extended Care & Rehabilitation)
- Physician (Orthopedic Surgeon)
- Physician (Pain Clinic)/Outpatient Primary Care
- Psychiatrist
- Urgent Care

US Citizenship required or candidates must have proper authorization to work in the US. Physician applicants should be BC/BE. Education Dept Reduction Program funding may be authorized for the health professional education that was required for the position. Possible recruitment bonus. EEO Employer



Since 1924, the St. Cloud VA Health Care System has delivered excellence in health care and compassionate service to central Minnesota Veterans in an inviting and welcoming environment close to home. We serve over 38,000 Veterans per year at the medical center in St. Cloud, and at three Community Based Outpatient Clinics located in Alexandria, Brainerd, and Montevideo.

Competitive salary and benefits with recruitment/relocation incentive and performance pay possible.

For more information:

Visit www.USAJobs.gov or contact

Nola Mattson (STC.HR@VA.GOV)

Human Resources

4801 Veterans Drive

St. Cloud, MN 56303

(320) 255-6301

EEO Employer



Located sixty-five miles northwest of the twin cities of Minneapolis and St. Paul, the City of St. Cloud and adjoining communities have a population of more than 100,000 people. The area is one of the fastest growing areas in Minnesota, and serves as the regional center for education and medicine.

Enjoy a superb quality of life here—nearly 100 area parks; sparkling lakes; the Mississippi River; friendly, safe cities and neighborhoods; hundreds of restaurants and shops; a vibrant and thriving medical community; a wide variety of recreational, cultural and educational opportunities; a refreshing four-season climate; a reasonable cost of living; and a robust regional economy!

The more we know about risk,
the more we can help clinicians
be better clinicians.



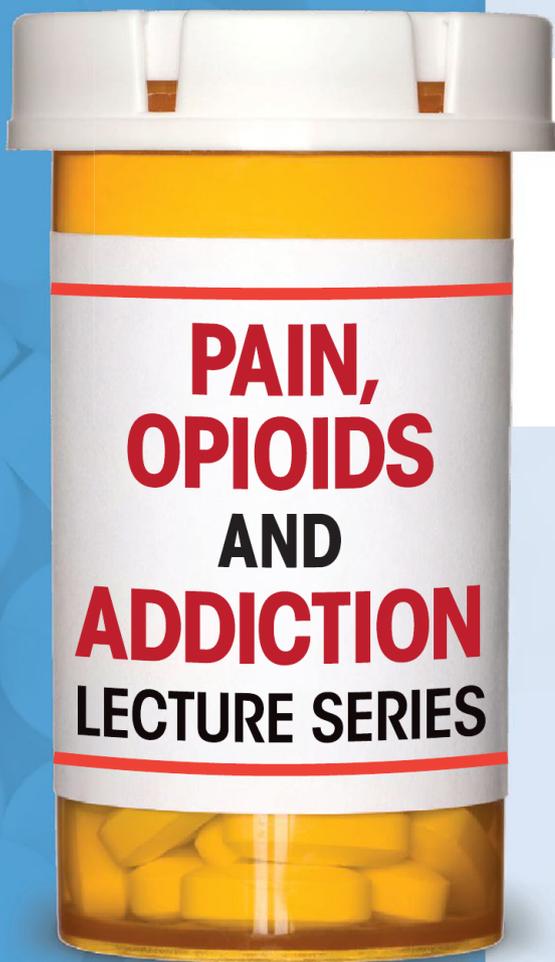
Medical liability
and more.



At MMIC, medical liability is just the beginning. For more than 35 years, we've worked directly with clinicians and developed a deep understanding of the risks involved with practicing medicine. We're there for those who are always there, drawing on a wide range of clinical data, insights and best practices from medical experts to help care teams deliver better care.

To learn more visit MMICgroup.com.





The Pain, Opioids and Addiction lecture series

will provide physicians and other providers with valuable information on topics related to pain management, opioid prescribing and addiction.

Through this lecture series, learn how to:

-  Assess a patient's pain and function
-  Make informed treatment decisions
-  Recognize and manage addiction

ALL LECTURES ARE FREE

Want to make this lecture series available within your organization?

Contact us at CME@MNMED.ORG to discuss the options available.

For more information on each lecture, visit MNMED.ORG/PAINSERIES



These activities have been approved for AMA PRA Category 1 Credit™



MINNESOTA
MEDICAL
ASSOCIATION



Steve Rummel
HOPE FOUNDATION
Providing HOPE for those with Chronic Pain and Addiction

The Minnesota Medical Association (MMA), the Steve Rummel Hope Foundation (SRHF), and the University of Minnesota Medical School began a collaboration to bring medical education on the topic of opioids to medical students, residents, and practicing doctors. The lectures are recorded live at the University of Minnesota Medical School and made available for CME on the MMA website, with underwriting by the SRHF. The hope of the series is to create a medical curriculum on pain, opioids, and addiction, as it should be in a medical school setting: balanced, practical, evidence-based information free of commercial bias.