MARCH 2017 MINNESOTA

THE INDEPENDENT MEDICAL BUSINESS JOURNAL

Volume XXX, No. 12



Supporting patients with serious illness

The LifeCourse model

BY ERIC ANDERSON, MD

rs. Olsen—your patient of 20 years—is back home after an admission for heart failure and COPD. She's doing better now, partly because she is wearing oxygen all the time. She feels well enough to take care of her granddaughter two days a week while her daughter goes to work. When you ask, "Mrs. Olsen, how are you?" she answers, "I'm fine!" Has anyone talked with her about having a serious illness?

Supporting patients with serious illness to page 10 >

Health equity

Understanding institutional racism

BY STEPHEN NELSON, MD

t has been almost six years since I wrote about health equity in Minnesota Physician. As the French journalist Jean-Baptiste Alphonse Karr said, "plus ça change, plus c'est la même chose" (the more things change, the more they stay the same). Although we have seen some improvements in access to medical care with the Affordable Care Act, access and outcomes continue to be significantly worse for Americans of color. In fact, each annual National Healthcare Disparities Report (NHDR) since my last writing has shown inferior care for people of color in the U.S. In the most recent 2015 NHDR, Hispanics had worse access to care than whites for two-thirds of access measures while blacks had worse access to care than whites for approximately half of access measures. Blacks, Hispanics, and Native Americans received worse care than whites for about 40 percent of quality measures (http://www.ahrq.gov/research/ findings/nhqrdr/nhqdr15/index.html).

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Diveheart offers children, veterans and others with disabilities the opportunity to escape gravity through Scuba Therapy. Diveheart participants include individuals with virtually any type of disability including Down syndrome, autism, cerebral palsy, paraplegia, blindness, deafness, spinal cord injuries, traumatic brain injury, post-traumatic stress disorder and more.

HOPE The Diveheart vision is to unleash the unrealized human potential that often exists in individuals with disabilities. The confidence, independence and self-esteem realized by Diveheart participants is tremendous. Diveheart helps individuals focus on what they can do, rather than what they can't do.

MAGIC Diveheart Scuba Therapy helps participants focus on their abilities, rather than their disabilities. This helps them to take on challenges that they may never have taken on before. Furthermore the forgiving, weightless environment of underwater offers buoyancy and balance to individuals who might struggle on land. They're often able to move in ways that are impossible before joining a Diveheart program. Zero gravity is the great equalizer.

MIRACLES Diveheart participants have experienced improved range of motion, ability to focus, pain relief and more. The aspect of pressure while diving provides benefits for people with autism and chronic pain due to spinal cord injuries. Some tell us that after diving, they're pain free for up to three weeks, often for the first time since their injury.

Every one is able to help perpetuate hope, magic and miracles during the holiday season. Your donation helps to make it possible for individuals with disabilities to experience Scuba Therapy, and the resulting benefits so that they might "Imagine the Possibilities" in their lives. Please visit www.diveheart.org/donate/ to learn more about how you can help promote the hope, magic and miracles of Diveheart. Diveheart donations are also accepted at 900 Ogden Ave #274 Downers Grove, Illinois 60515.

Jim Elliott Founder & President Diveheart



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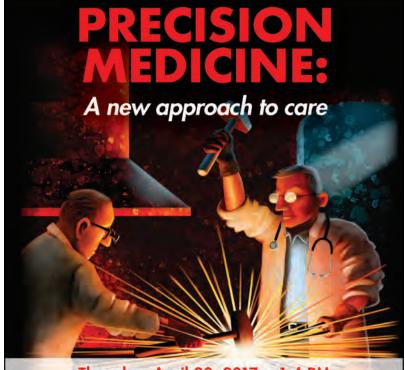
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MINNESOTA HEALTH CARE ROUNDTABLE



Thursday, April 20, 2017 • 1-4 PM
The Gallery (lobby level), Downtown Minneapolis Hilton and Towers

Background and Focus: Precision medicine is an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle. By better utilizing electronic health record data, new diagnostic tools, and new medications, precision medicine is making an immediate difference in the lives of millions. We will look at advances in research, technology, and better public health policies that are allowing researchers, providers, and patients to develop truly individualized medicine.

Objectives: We will explain what precision medicine is and what its goals entail. We will look at why the time for this initiative is now and at the diverse projects, from almost every sector of health care, that fall under this broad heading. We will explore the barriers to adoption of precision medicine and look at how it will fit into the emerging value-based reimbursement model. We will look at how precision medicine can develop more effective ways to prolong health and treat disease.

Panelists include:

Ginny Adams, RN, MPH, Senior Risk Consultant, Coverys
David R. Brown, MD, Vice President, Biomedicine, Recombinetics
Kevin Halling, MD, PhD, Consultant, Clinical Genomics Laboratory, Mayo Clinic
Nancy J. Mendelsohn, MD, Director, Medical Genetics, Children's Minnesota
Alan Spiro, MD, Senior Vice President and Chief Medical Officer, Medica
Melissa Truelson, MS, CGC, Certified Genetic Counselor, Ambry Genetics

Sponsors include: Ambry Genetics • Children's Minnesota • Coverys Mayo Clinic • Medica • Recombinetics

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Respite Unit Opens for Patients Who are Homeless After **Hospital Stay**

Catholic Charities of Saint Paul and Minneapolis has partnered with Allina Health's United Hospital, HealthPartners' Regions Hospital, and HealthEast's Saint Joseph's Hospital to open Higher Ground St. Paul, which houses a 16-bed medical respite unit to help those experiencing homelessness recover after hospital stays. The organizations partnered from the beginning to co-design the program with community input.

The respite unit has nurses, a mental health worker, and a community health worker on staff to provide care coordination, medical assistance, and behavioral health services for medically and psychiatrically complex people who are homeless and too ill or frail to recover on the streets but do not require hospital care. Patients also receive support from housing advocates. The unit

accepts referrals from the three partnering hospitals. Patients are released when they are found to be sufficiently mentally and physically stable.

The unit is based on a model that Catholic Charities piloted in partnership with North Memorial Health Care at the Exodus Residence in Minneapolis in 2012. Data from that showed a 67 percent reduction in re-hospitalization and a more than 50 percent reduction in emergency room visits. The new respite unit is also expected to decrease emergency room visits and help prevent the need for higher-cost components of medi-

Higher Ground opened Jan. 17 and was officially unveiled March 3. It marks the first phase of a project that will replace the overcrowded Dorothy Day Center homeless shelter. It is located on the second floor of the five-story building that also includes housing and accommodations at different levels to help provide a path toward independent living. The old center will be demolished for phase two, which includes an opportunity center to help people find jobs, financial services, and veterans programs as well as a medical clinic and additional housing. The whole complex will be called the Dorothy Day Place and cost a total of about \$100 million.

Minnesotans Uncertain About Long-Term Care

A survey conducted by the Minnesota Department of Human Services (DHS) shows that half of respondents said they are not prepared to deal with the help they and their loved ones are expected to need after age 65. The Own Your Future survey was conducted at the 2016 Minnesota State Fair and had more than 2,500 participants. It was designed to provide the state with a snapshot of Minnesotans' current thoughts about their retirement and long-term care planning.

Half of respondents also said their biggest concern about retirement is worsening health and needing care. The second biggest concern was not having enough money (40 percent) and being a burden to family (11 percent). About 25 percent answered that they don't know how they could pay for long-term care and others said they would use personal savings or investments (28 percent), longterm care insurance (21 percent), or government programs (10 percent).

According to DHS, the total lifetime cost for the average person who uses long-term care is \$259,000. About half of that will be paid out of pocket and the rest will be paid for by Medical Assistance (34 percent), Medicare (10 percent), private insurance (3 percent), and other sources.

Currently, family caregivers provide an estimated 92 percent of longterm care in Minnesota. Among the survey respondents, 80 percent said they have provided care for a parent, in-law, or another older relative, but 60 percent said they would not expect their children or other family members to play an active role in their long-term care or that they would not want them to be involved in their care.



Allina Opens Isanti Clinic

Allina Health opened its new clinic in Isanti on March 1. It will replace Allina's North Branch location, which closed March 8. The clinic will provide family practice, pregnancy care, specialty care, and mental health appointments. In addition, Courage Kenny Sports and Physical Therapy will provide physical therapy services at the new clinic and Penny George Institute for Health and Healing will provide integrative medicine consults, acupuncture, and holistic nutrition consults.

"Our growing community will benefit from the wide range of medical expertise provided at this clinic," said Jon Ward, regional clinic director.

Allina first approached the Isanti City Council about the project in 2005. It received approval in early 2016 and began construction last fall.

Mayo to Renovate, Expand Mankato Campus

Mayo Clinic Health System is planning to construct a \$65 million hospital surgical suite expansion in Mankato, set to begin later this year. The expansion project is part of a larger plan to transform the Mankato campus into a major Mayo Clinic regional medical center that will be fully integrated with the practice in Rochester.

The surgical and procedural expansion will be on the second floor and will include 14 modernized operating rooms, a new sterile processing department, 43 private pre- and post-operative patient rooms, an interventional pain medicine procedural room, and a new gastrointestinal endoscopy center. Mayo Clinic expects to complete surgical suites and the gastrointestinal endoscopy center by late 2018.

In addition, the health care system will invest \$5 million for an expansion and renovation of the Mayo Clinic Orthopedic and Sports Medicine Clinic on the first floor of the Mankato hospital. The project will increase the orthopedic practice space by nearly 10,000 square feet and more than double the current

footprint. The new space will include up to 20 patient exam rooms, a minor procedure room, a specialized cast room, onsite radiology services, and a new lobby and waiting area. The practice will expand to include six orthopedic surgeons and five physician assistants who will provide orthopedic trauma care, hip and knee surgery, hand and wrist surgery, foot and ankle surgery, joint replacement, and sports medicine services.

HealthPartners Developing Tool to Lower Prescription Costs

HealthPartners is collaborating with GoodRx, a website that allows consumers to compare prescription drug prices at pharmacies and provides online coupons for prescription medications, to develop a personalized cost-saving tool for its health plan members.

According to HealthPartners, studies show that up to half of prescriptions aren't filled or taken as prescribed, often due to the cost of the drugs. The new tool will allow HealthPartners members to compare prescription prices at nearby pharmacies while getting information based on their specific health plan, including whether a certain prescription is covered. Members will also be able to track their spending and transfer prescriptions between pharmacies.

The tool will be available to most HealthPartners health plan members this summer. Medicare members will gain access later in 2017.

HealthEast Selects Management Company for Mental Health Expansion

HealthEast has entered an agreement with Universal Health Services, a King of Prussia, Penn.-based hospital management company, to collaborate on its inpatient mental health expansion at St. Joseph's Hospital in St. Paul. Phase I was completed in fall 2016 and Phase II, which includes adding 17 adult rooms and 12 geriatric psychiatric rooms, is currently

REQUEST FOR NOMINATION

HONOR ROLL

Seeking Exceptionally Designed Health Facilities in Minnesota

Minnesota Physician announces our annual Health Care Architecture & Design Honor Roll. We are seeking nominations of exceptionally designed health care facilities in Minnesota. The nominees selected for the honor roll will be featured in the June 2017 edition of Minnesota Physician, the region's most widely read medical publication. Eligible facilities include any construction designed for patient care: hospitals, individual physician offices, clinics, outpatient centers, etc. Interiors, exteriors, expansions, renovations and new structures are all eligible.

In order to qualify for the nomination, the facility must have been designed, built or renovated since January 1, 2016. It also must be located within Minnesota (or near the state border within Wisconsin, North Dakota, South Dakota or lowa). Color photographs are required at 300 dpi resolution (no more than eight) with caption of each to amarlow@mppub.com. If you would like to nominate a facility, please fill out the form below and, a brief project description (150-250 words) by Friday May 5, 2017.

For more information, call (612) 728-8600.

Publication Date: June 2017

Nomination Closing: Friday May 5, 2017

Honor Roll Nomination Form

underway. It is set to open later this year. Overall, the expansion will increase HealthEast's mental health inpatient care by 50 percent and allow it to serve a total of 1,500 adult and geriatric psychiatric patients.

Methodist Hospital Opens Clinical Simulation Center

Park Nicollet has opened a new Clinical Simulation Center at Methodist Hospital to allow teams to practice real-life scenarios using a mannequin or actors.

The center has two patient rooms and an interactive mannequin that simulates breathing, sweating, crying, and having a pulse, as well as replicating a seizure. The simulations primarily focus on medical education for complex situations that are not commonly seen. New nurses will train in the center and training opportunities will also be offered to the community.

Plastic Surgery Consultants Partners with Minnesota Oncology

Minnesota Oncology and Plastic Surgery Consultants have entered a partnership with the eventual goal of launching a Melanoma Center of Excellence in the metro area.

"The physicians at Minnesota Oncology have worked closely with me for many years to provide patients with what amounts to a virtual melanoma program," said Sam Economou, MD, president and lead surgeon at Plastic Surgery Consultants. "With the advent of immunotherapy, our melanoma patients have more options than ever in the treatment of metastatic disease. This requires an even closer working relationship between providers caring for these patients. This merger will take that program a step further to unify care under one entity."

Plastic Surgery Consultants became a division of Minnesota Oncology as of March 1. Its staff and daily clinic operations will remain the same.

"This partnership will provide more efficiency and lead to an increased ability to further our efforts to provide patients with the option to participate in clinical trials and positively impact our ability to conduct research in melanoma," said Dean Gesme, MD, president of Minnesota Oncology. "More importantly, we hope this will lead to the future development of a formal Melanoma Center of Excellence in partnership with Allina Health. This all will provide an even higher level of care for our mutual patients."

Stratis Health to Provide Support for Small Practices

The Centers for Medicare & Medicaid Services (CMS) has awarded a contract to Altarum Institute, a nonprofit health systems research and consulting organization, to help small health care practices in Minnesota and six other states prepare for and participate in the new Quality Payment Program, established by the Medicare Access and CHIP Reauthorization Act of 2015. Stratis Health is partnering with Altarum to provide technical assistance and support to thousands of Merit-based Incentive Payment System-eligible clinicians in small Minnesota practices with 15 or fewer clinicians. The direct technical assistance is available immediately and will continue to be available for up to a five-year period.

"Small practices can be so busy providing patient care that they are challenged to keep up with and align their systems for new payment programs," said Jennifer Lundblad, PhD, MBA, president and CEO of Stratis Health. "We're pleased to be providing assistance to small practices in Minnesota, helping them understand their quality performance data, and identify and take action on key practice improvement activities."



HAVE YOU REGISTERED WITH THE MINNESOTA MEDICAL CANNABIS PROGRAM?

Registration can be done online; there is no fee and it takes only a few minutes.

Visit the registry website: mn.gov/medicalcannabis

Once you are registered, you will be able to certify patients with a variety of conditions, including:

- · Cancer, Glaucoma, Tourette Syndrome, HIV/AIDS, and ALS
- Seizures, including those characteristic of Epilepsy
- · Severe and persistent muscle spasms, including those characteristic of MS
- · Inflammatory bowel disease, including Crohn's disease
- Terminal illness, with a probable life expectancy of less than one year
- Intractable Pain

Cannabis Patient Centers are now open to approved patients in Minneapolis, Eagan, Rochester, St. Cloud, Moorhead, Bloomington, Hibbing, and St. Paul.

Many patients have reported improvement in their health status from medical cannabis -some describing dramatic improvements.

See our website for a report of survey results for patients who enrolled during the first three months of the program.

Smoking cannabis is not allowed under the program.

Visit our website for educational resources about cannabinoids and the endocannabinoid system and for scientific literature on the efficacy of medical cannabis in treating certain conditions.

mn.gov/medicalcannabis



Ken Kephart, MD, primary care physician/geriatrician at Fairview Health Systems, has received the First a Physician Award from Twin Cities Medical Society. The award recognizes physicians for effective leadership, involvement in improving the public health, policy and/or legislative advocacy resulting in a positive impact on the practice of medicine or a healthier community. Kephart is a past president of Twin Cities Medical Society and currently serves as

medical director of Honoring Choices Minnesota. He earned his medical degree at the University of Minnesota.



Forrest Adams, MD, cardiologist and researcher at the University of Minnesota Medical School, has received the Outstanding Achievement Award from the University of Minnesota Board of Regents. Adams earned three degrees from the University of Minnesota, including his medical degree, and returned to the school a few years later as a faculty member at the Medical School. During his time there, he helped establish the Variety Children's Heart Hospital, the

first hospital in the U.S. devoted solely to heart disease, and performed the first heart catheterization on a newborn infant. He also discovered the role of lung surfactant in respiratory distress syndrome and has achieved lasting impact through his research on congenital heart disease in infants, heart and lung function during fetal life, and the physiological changes that occur with birth. Adams is also the founding director of the University of California, Los Angeles' Division of Pediatric Cardiology.



Kaye Mickelson, MD, has joined Clinic Sofia, an OBGYN clinic with offices in Edina and Maple Grove. Mickelson has more than 20 years of OBGYN experience, including training in advanced laparoscopic gynecologic surgery as well as medical and surgical treatment of menopausal symptoms. Her interests include treatment of endometriosis, diagnosis and treatment of abnormal uterine bleeding, menopause, and diagnosis and treatment of

PCOS (polycystic ovary syndrome). She earned her medical degree at the University of Hawaii's John A. Burns School of Medicine and completed her residency at the University of Minnesota.



John Wagner, MD, executive medical director of the Pediatric Blood & Marrow Transplant Center, has received the 2017 Lifetime Achievement Award from the Pediatric Blood and Marrow Transplant Consortium. Wagner's research focuses on new treatments for life-threatening diseases that have unsatisfactory conventional treatments. He is internationally recognized as an expert in the field of stem cells and umbilical cord transplantation and was

the first to use umbilical cord blood to treat a child with leukemia. He also serves as a professor in the University of Minnesota Medical School's Department of Pediatrics and co-director of the Center for Translational Medicine. He earned his medical degree at Jefferson Medical College, now the Sidney Kimmel Medical College in Philadelphia; completed an internship and residency at Duke University School of Medicine; and completed a postdoctoral fellowship in hematology-oncology at The Johns Hopkins University of Medicine.



Osmo Vänskä /// Music Director









ELLIS HALL PLAYS RAY CHARLES, MOTOWN AND BEYOND

with the Minnesota Orchestra

May 6

Ellis Hall is a genuine Ray Charles protégé and he's performing songs from *Hit the Road Jack to I Heard It Through the Grapevine*.

MOZART SINFONIA CONCERTANTE May 11-13

Of the hundreds of pieces left to us by Mozart, none is more beautiful than his Sinfonia Concertante—a violin and viola duet to melt hearts, here played by Concertmaster Erin Keefe and violist Matthew Lipman.

DAVID ZINMAN RETURNS ALSO SPRACH ZARATHUSTRA Jun 2-3 | Full Performance

Enjoy this program of sweeping orchestral classics including Also sprach Zarathustra made famous by Stanley Kubrick's 2001: A Space Odyssey.

Jun 1 | SYMPHONY IN 60

Come early for happy hour, enjoy a shorter performance and stay late for a post-concert onstage gathering with Minnesota Orchestra musicians.

Tickets \$30 / \$20 for patrons under the age of 40

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PHOTOS Hall: Lou Raimondi; Keefe: Lisa-Marie Mazzucco; Zinman: Priska Ketterei All sales final. All artists, dates, programs, prices and times are subject to change.

Media Partner: *Starlribune

Helping people live in dignity

Emily Piper, JD, Minnesota Department of Human Services

The Minnesota Department of Human Services (DHS) is an enormous and far-reaching government agency. What can you tell us about the size of the agency, the services you provide, and especially the kind of work you do that involves health care?

Human services touch all of us, from the very young, who receive child care in centers we license, to the very old, who receive long-term care services we pay for in their homes or nursing homes. DHS serves well over 1 million Minnesotans each yearincluding about 420,000 children who receive publicly funded health care, 130,000 people with disabilities who receive services, 68,500 seniors who receive health care, and 40,000 families in poverty. Our mission is to help people meet their basic needs so they can live in dignity and achieve their highest potential. Health care accounts for more than threequarters of our budget, with more than 1.1 million people who have health care coverage through Medical Assistance (Minnesota's Medicaid program) and MinnesotaCare.

What can be done legislatively to address opioid prescribing and addiction?

Gov. Mark Dayton's budget recommendations for the 2017 session would transform Minnesota's treatment system for substance use disorders, including opioid addiction. The proposals would make it easier to access treatment and add state services specifically aimed at treating people who are withdrawing from opioids. We would also add more care coordination and peer support services to help people get faster access to services and more appropriate care. Overall, this effort aims to treat substance use disorder as a long-term chronic disease, and would significantly address Minnesota's opioid crisis. In the meantime, we continue to implement 2015 legislation that created the Opioid Prescribing Improvement Program. We are also in the process of applying for a federal grant called the State Targeted Response to the Opioid Crisis, under the 21st Century Cures Act.

How is DHS working with the Governor's **Mental Health Task Force?**

Under my leadership as chairwoman last year, the Governor's Task Force on Mental Health took a comprehensive look at Minnesota's mental health system and made nine recommendations. The

overall goal is to offer a range of services and deliver them at the appropriate times. Right now, gaps in the continuum of care result in inappropriate, expensive care, such as people languishing in hospitals when they could be in community facilities, or even worse, ending up in jails because we lack services when and where they need them. Fixing these gaps will require sustained attention over the long term.



66 Health care accounts for more than three-quarters of our budget. 99

Social disparities in health care have been coming into increasing focus. What work are you doing on this topic?

It's crucial that we address inequity in health care access and health outcomes. Our own research at DHS shows the importance of addressing issues that influence the health of low-income children and adults, including factors such as poverty, mental illness, and homelessness. Despite the challenges, there are things we can do, such as our proposal focused on basic dental care for people served by public health care programs. We know that Minnesota can do better providing basic preventive care to children, yet we have some of the country's worst outcomes for dental care for children. Allowing more incentives for providers to provide dental care

for children and adults served by Medical Assistance is a simple yet effective solution.

Record numbers of Minnesotans have health insurance under the ACA. What have been the positive and negative results of this law?

Our progress under the ACA has been undeniable. The ACA helped us build on and accelerate a proud Minnesota tradition of health care coverage and innovation. The ACA helped us build on this solid foundation, cutting our already low uninsured rate to its lowest level in state history, providing insurance to another 380,000 Minnesotans (including 300,000 in our public health programs and 80,000 in the individual market), and reducing costs for state taxpayers by bringing nearly \$2 billion in federal funding into our state budget each year. That includes federal funding for MinnesotaCare, a longstanding, bipartisan innovation that provides affordable health care to those just above the poverty line. Increased health care coverage has led to a sharp decline in uncompensated care for providers. However, we know the ACA did not solve all the problems in the health care market—the individual market is a clear example of where the law needs to be improved. Nonetheless, we are concerned about the immediate and devastating impacts of ACA repeal and the potential harm that replacement proposals may bring.

Please update us on how the Integrated Health Partnerships between ACOs and Medicaid are working.

One of our most successful reforms is the Integrated Health Partnerships (IHP) initiative, an accountable care organization in our Medicaid program. Through this model, we contract directly with providers in a new way, allowing them to share in savings for reducing the cost of care, while maintaining or improving the quality of care and patient experience. This initiative is driving better care, as well as producing savings for providers and taxpayers alike-more than \$156 million in the first three years alone. We are seeing fewer unnecessary ER visits and hospital stays, as well as better health outcomes across the board. We're now starting our fifth year of this project, with record enrollment of 462,000 clients served by 21 participating provider groups.

Tell us about the adult abuse reporting program.

The Minnesota Adult Abuse Reporting Center (MAARC) is an important resource to protect some of the most vulnerable people in our state from abuse, neglect, and financial exploitation. MAARC has a website where people who are mandated to report suspected abuse, including health care professionals and licensed providers, can make reports online. We urge people to call the hotline (1-844-880-1574) if they suspect abuse or neglect could be happening to a vulnerable adult.

Beginning this spring, over 300,000 Minnesotans will be affected by Medica's decision to limit some types of state health care coverage. What should physicians know about this if their patients ask?

No public health care client will lose coverage as a result of Medica's decision. We are working closely with Medica and other health plans to help our clients make a smooth transition to a new health plan. Our goal is to minimize disruption for our clients. Health benefits are universal across Medicaid, so every client continues to have access to the same treatment options Medica provided. We intend to continue offering the same number of plan choices in each county. We are communicating with clients

who have Medica as their managed care plan, telling them how to switch to a new plan. We recognize that Medica's decision to withdraw from our public health care programs affects both patients and their health care providers, and we are doing everything we can to make this transition as smooth as possible for everyone.

Some states have implemented Family Medical Assistance (FMA) programs to manage rising Medicaid costs. What are your thoughts on this type of program?

We believe that Family Medical Accountsessentially high-deductible health savings accounts place a heavy burden on low-income people who can least afford it. This approach would also require providers to seek reimbursement from clients, rather than from health plans or DHS. In Minnesota, we have intentionally focused on large-scale reforms, including efforts to incentivize better, more coordinated care through our IHP initiative and to control managed care spending through competitive bidding. These reforms have saved money for the state, while putting resources into the hands of providers who can control costs through better care management and a focus on prevention, rather than sick care. Meanwhile, statewide competitive bidding and other managed care changes together have saved

the state more than \$1 billion while preserving coverage and benefits for more Minnesotans.

What is your vision for a healthier Minnesota?

We've worked too hard on building a healthier Minnesota to lose ground now. Even before the ACA, Minnesota already had one of the nation's lowest uninsured rates and some of the nation's best health care outcomes. That's because we have consistently offered high-quality, affordable coverage to our citizens through our public health care programs. We should not jeopardize our tried-and-true Minnesota innovations, created over an entire generation, for new experimentation coming our way. We should continue to work hard to bring affordability to everyone who seeks health care coverage in Minnesota, including in our individual market.

Emily Piper, JD, is commissioner of the Minnesota Department of Human Services, the state's largest agency. Before joining DHS in 2015, Piper served as general counsel and deputy chief of staff to Gov. Mark Dayton and as deputy commissioner and chief of staff for the Minnesota Department of Commerce.



◆ Supporting patients with serious illness from cover

How much time does she really have? What does her family think about her health? Is anyone worrying about this except you?

This scenario of serious illness has become very, very common. It occurs in medical offices, emergency departments (EDs), intensive care units, and post-acute care. As physicians, we can diagnose and prescribe

treatments for the multiple conditions presented by these complex patients. But we go home at night waiting for the call from the ED because of all the things we can't control. Is there adequate support at home? Does the family realize how sick the patient is becoming? Is she developing cognitive impairment? Has the patient ever talked about her wishes for care? Is it important that Mr. Olsen died nine months ago?

We went into medicine to treat human beings,

not diseases.

The needs of the seriously ill

Five years ago, a team at Allina Health set out to find a way to respond to the needs of patients

with serious illness. The new approach addressed nonmedical as well as medical needs, it was co-created with patients and families, and it focused upstream of hospice. We used trained lay health care workers to deliver whole-person care in patients' homes during monthly in-person visits.

TWO CENTERS.

The Center for Alcohol and Drug Recovery

The Vanguard Center for Gambling Recovery

WWW.ProjectTurnabout.org

About 1,900 patients and family members were enrolled over a four-year longitudinal study. The results have been gratifying:

- Quality of life is better maintained.
- Patients spend fewer days hospitalized and more in hospice.
- The program saves total health care dollars far in excess of the cost to provide it.

Our patients and families picked the program name—LifeCourse. You can follow the stories of LifeCourse patients and the physicians who cared for them in a series of compelling late life documentaries from Twin Cities Public Television: www.lifecoursemn.org.

Picking the right patients was a challenge. Traditionally, palliative care in the community focuses on high utilizers, but LifeCourse sought out everyone with heart failure, cancer, or dementia who was sick enough that they might die in the next two to three years. We plumbed the electronic record,

applied a few simple metrics for comorbid illnesses, and then did a brief chart review. Willing patients were enrolled into the study, along with their key family members. The providers in our chosen sites were supporters of LifeCourse from the start, and allowed us to enroll the appropriate patients.

Care guides

The LifeCourse care guides are the heart of the program, providing basic nonmedical care. Our health system had already successfully used care guides in the primary care clinic setting, helping patients manage diabetes and hypertension (Adair et al., 2013). Recent college graduates, health system employees looking to get closer to patient care, and late career folks in search of meaningful work all applied for the LifeCourse care guide positions. We looked first for great interpersonal and communication skills. The LifeCourse care guides were then trained in a broad range of palliative care areas, communication skills, and advance care planning.

Palliative care is all about the whole person, their values, and the family setting in which they live. LifeCourse care guides can provide whole person care because they develop a relationship by meeting with patients and families monthly in their home. They begin with straightforward questions, such as asking about a patient's understanding of their medical issues and then gradually progressing over six months to include inquiries about social support, spiritual well-being, financial-legal issues, legacy, and eventually end of life and grieving. Along the way, patients complete self-assessments, for example a list of functional and symptom scores. This information can be shared with providers, particularly when patients identify new or changing conditions.

Every encounter begins with an inquiry into what is most important. In reviewing a thousand of these goals in patients' own words, only 40 percent turn out to be strictly medical. The rest focus on family, work, housing, and other important nonmedical aspects of living. Knowing that anything can

come up for discussion, the LifeCourse care guides use their concise set of questions as starting points to explore meaningful issues.

How it works

How can a lay health care worker do all this? We now know the answer is, "Very well!" But we learned some important things along the way as we asked nonclinicians to do this complex work. LifeCourse care guides were there to help patients explore all areas of their illness experience. They did

not assess or diagnose medical conditions. They did help patients connect to their clinics and care teams, acting more as mortar between the bricks than as a separate clinical service. Being non-experts, the care guides naturally helped patients and families seek out resources in the community. The tools we provided to LifeCourse care guides were those aimed at the knowledgeable public, such as the Alzheimer's Association website, or our metro area go-to service, Senior LinkAge Line. The LifeCourse care guides helped empower families to find and use these resources.

Person-centered, supportive care can make a real difference in how

our patients experience

serious illness.

As part of this work, we intentionally studied the results of the LifeCourse intervention. We surveyed patients and families every three months. Over the course of time, quality of life—particularly social and emotional well-being—declined in our control group, but was maintained in the LifeCourse patients. And this occurred even as overall function was declining for both the intervention and the comparison groups. The overall experience of care in the LifeCourse intervention group was better as well.

The role of hospice

Addressing short lengths of stay in hospice was a priority for LifeCourse. Currently the national median length of stay is only 17 days, hardly enough time to establish trusted, supportive relationships with the hospice care team. In our study, LifeCourse patients were more likely to get into hospice, and their median length of stay increased by over 50 percent to 28 days. Emergency visits fell 16 percent, hospital days declined by 27 percent, and ICU stays decreased by 57 percent. These substantial drops in unwanted aggressive care resulted in overall savings of almost \$1,000 per month for every patient. The full cost of providing a LifeCourse care guide is only about \$120 per month, so LifeCourse would easily pay for itself in a value-based payment environment.

Moving from research to practice

So, with impactful results, where is LifeCourse being implemented? It is working in two primary care clinics, an advanced heart failure clinic, a brain tumor clinic, and within our care management team. One of the clinics is a community health care center in North Minneapolis, employing LifeCourse care guides hired from within the local community.

When we present LifeCourse to our medical staff, physicians explicitly talk with me about wanting to reclaim the heart of medicine. This is a powerful phrase! We went into medicine to treat human beings, not diseases.

LifeCourse gives us a window into what is most important to our patients. It gives them another trusted relationship in the care team to talk about issues that affect their daily lives. LifeCourse care guides are often able to help patients bring well-formulated questions to their physician visits, or clue the provider into an important event in the patient's life. As one geriatrician said, "It allowed me to have just the right conversation with my patient."

Person-centered, supportive care can make a real difference in how our

patients experience serious illness. Attending to the whole person can also make our work lives richer and more meaningful. As LifeCourse seeks partners both locally and nationally, and as value-based care gains traction, this approach and initiatives like it will make more and more sense for every patient with serious illness.

Eric Anderson, MD, sees patients on the palliative medicine service at United Hospital in St. Paul and has been a palliative and hospice physician with Allina Health since 1985. He spends part of his time

in clinical research, studying new care models for people who are in the last several years of life. He is a past president of Minnesota Physicians for Palliative Care and has served on the board of the Minnesota Network of Hospice and Palliative Care.



◀ Health equity from cover

A recent study showed much poorer outcomes in children of color with acute lymphoblastic leukemia (ALL) even when correcting for socioeconomic status (SES). This is particularly troubling as ALL is the most common cancer diagnosis in our field of pediatric hematology/

oncology.

Sadly, we are not faring better in Minnesota. Although we routinely land in the quartile of states with the highest quality outcomes, we also are in the quartile with the most racial disparities. Infant mortality for black and Native American babies is more than twice that of white infants in Minnesota. And, life expectancy for white Minnesotans remains significantly higher than for Minnesotans of color. At the local level, the 2010 Wilder Foundation study reported similar results. Blacks in the Twin Cities have a significantly shorter life expectancy than

whites, even after correcting for SES. ("The unequal distribution of health in the Twin Cities: a study commissioned by the Blue Cross and Blue Shield of Minnesota Foundation," October 2010.)

Racism and disparities in care

These discrepancies raise the question: In what ways does racism shape disparities in care and, specifically, perpetuate health care disparities for people of color? For almost 24 years, I have had the honor of caring for

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the majority of children with sickle cell disease (SCD) in Minnesota. About 100,000 Americans are living with SCD. Although SCD is a global disorder, the vast majority of Americans with SCD are black. This is a direct result of the Atlantic slave trade that began in 1619, because slaves carried the sickle cell trait. I have only recently begun to consider how, as a white

> male physician, my race and the racial narratives that shape my biases and perceptions may affect the health care delivery to our patients of color. In 2011, I discussed our study that described the perceptions of how race and racism affect care in our sickle cell clinic. Race matters in our clinic, especially for patients and families. Provider attitudes contribute to continued racial health care disparities. This was ultimately published in our flagship journal, Pediatric Blood and Cancer, in May of 2013. Ours was the highlighted article of that month's issue accompanied by an editorial. I so appreciate the following quote from this editorial: "It is less useful

to continue to characterize an insidious problem if these efforts do not result in the design and implementation of interventions that lead to meaningful change." Basically the editorial said, "Nice work, but what are you going to do about it?"

Barriers to racial health care equity include the health care system (insurance, funding, white-domination in provision of care, social determinants of health), the patient (poor health literacy, fear, mistrust), the community (awareness, advocacy), and the providers (bias, attitudes, expectations, stereotyping). This can feel overwhelming. What could I possibly do about this? As a physician, the area where I may have the most impact is in understanding how institutional racism affects my implicit biases and cognitive decision-making.

Unconscious racism and bias

[Medical] access and

outcomes continue to be

significantly worse for

Americans of color.

A lack of provider awareness of institutional racism and the resultant structural barriers that patients of color face are areas that need examination. Given that typically there is no intentional or direct training regarding racism in nursing or medical schools, and given that there has been no direct training at my own institution about these issues to mitigate the presence of societal racism, it is not surprising that providers have very little understanding of the complexities of racism and its manifestations in provision of health care or in society as a whole. Unconscious biases (also called implicit biases), which are rooted in stereotyping, affect our clinical decision-making. This is a deeply ingrained cognitive process where we use social categories to acquire, process, and recall information about people. It helps us organize complex information. Biases regarding race exist in all of us and are influenced by systemic racism and the racial narratives that play out within our highly racialized society. We tend to default to our stereotyping when we are under heavy cognitive load. The nature of our work as physicians makes relying on unconscious bias common as we care for patients and families. Before we can start to work on undoing this, we must first gain awareness of how race, racism, and whiteness function within our society and within health care.

Health care provider attitudes must change in order to reduce health care disparities associated with race. Diversity and cultural competency trainings are already in place at many institutions. While they have been shown to be successful in fostering an appreciation and awareness of difference, as well as developing the tools necessary for cross-cultural communication, they have not addressed the core of racism and, therefore, fall short of being able to truly effect change in racial disparity in patient care.

Addressing racial bias

The Institute of Medicine (IOM) published their report, titled, Unequal Treatment: Confronting Racial/Ethnic Disparities in Health Care, on March 20, 2002. Among the findings was documentation that racial health care disparities indeed exist and that provider bias, stereotyping, and prejudice contribute to these disparities. The IOM made a series of recommendations for eliminating racial/ethnic health care disparities: 1) increase awareness of racial disparities among health care providers, 2) implement crosscultural education for health care professionals to include strategies to avoid stereotyping, and 3) pursue research to identify sources of racial disparities and assess promising intervention strategies. This, along with the editorial from 2013, "What are you going to do about it?" prompted Dr. Heather Hackman and I to develop a training module, made up of three sessions, to help health care providers address individual racial bias, the role of racism in evidence-based medical protocols, and the realities of systemic racism and its impact on patients. The ultimate goal is to improve provider attitudes and provider confidence in caring for patients and families of color.

Here are some of the things that the training module does:

- Addresses the definition of race/racism and history of the social construction of race.
- Differentiates among diversity, cultural competency, and social justice.

- Explores our current health care system (racial make-up of providers, how insurance became tied to employment, what we're taught/not taught in school, evidence-based medicine, racial disparities).
- Examines racism/whiteness in our society, including examples of racism/whiteness in medicine.
- Examines how race affects each of the Institute of Medicine's six measures of quality care, and provides trainees with tools for understanding these effects.
- Introduces critical thinking tools for improving medical providers' comfort and skills in caring for patients of color.
- Introduces a "critical race lens" and tools for addressing our unconscious biases.

Beginning to see our biases

Following our training sessions, awareness of racism increases significantly in all participants. The training is also successful in deconstructing white providers' beliefs about race and racism, as feelings of effectiveness in delivering equitable care decreases significantly in this group. This is the first step in working on our own understanding of racism and unconscious biases.

Our study was published in the May 2015 issue of Pediatric Blood and Cancer. Although our study focused on white providers and black patients, the findings and future directions can be applied across all aspects of health

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Preventing perioperative cardiac complications

A pilot study

BY JENNIFER NGUYEN, BS; REBEKAH HERRMANN, RN, CCRP; SANTIAGO GARCIA, MD

ajor non-cardiac surgery can improve quality of life and longevity of a patient, but it is not without risks. Cardiac complications include myocardial infarction, injury, cardiac arrest, congestive heart failure, or sudden death, and account for at least one-third of perioperative deaths. Recent statistics estimate that of 100 million patients worldwide having a non-cardiac surgical procedure, approximately 1 percent, or 1 million patients, will experience a serious medical complication with major perioperative cardiac complications as the highest contributor.

Preventing complications

Attempts to prevent perioperative cardiac complications through a safe and effective intervention have thus far been unsuccessful. The Coronary Artery Revascularization Prophylaxis (CARP) trial investigated the effect of preoperative coronary revascularization in 510 patients undergoing elective vascular surgery. The CARP trial, conceived at the Minneapolis VA Medical

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Center, was part of the Cooperative Studies Program (CSP), a network of VA hospitals that conduct research with support and supervision from the VA Office of Research and Development (VA ORD). These patients had one or more coronary arteries with blockages of at least 70 percent that were eligible for revascularization, and were subsequently randomized into prophylactic coronary revascularization or no revascularization prior to the vascular surgery. The trial reported that coronary revascularization did not significantly change long-term mortality or any other short-term outcomes after surgery.

Another strategy for preventing cardiac complications was to target the sympathetic nervous system stress response by using medications such as beta-blockers and α₂-adrenergic agonists. Wijeysundera et al. reviewed the results of 17 randomized control trials with over 12,000 combined patients that compared perioperative beta-blockers with an inactive control (placebo) during major, non-cardiac surgery. While these studies showed that betablockers reduced nonfatal myocardial infarction they did so at a significant cost; beta-blockers increased nonfatal stroke, hypotension, bradycardia, and mortality in all trials but one.

The Perioperative Ischemic Evaluation (POISE) trial, a study on perioperative beta-blockers with over 8,000 patients, showed that clinical hypotension was a significant independent predictor of stroke and death. This may have been responsible for the increased rates of stroke and death shown during trials evaluating beta-blockers. The POISE investigators then assessed clonidine as an alternative to targeting the perioperative stress response in the POISE-2 trial, and also compared aspirin versus placebo when taken prior to the surgery and continuing postoperatively. Clonidine was shown to have no effect on the rates of myocardial infarction, stroke, or death; however, aspirin increased the risk of major bleeding and did not decrease the risk of myocardial infarction.

The Transfusion Trigger Trial for Functional Outcomes in Cardiovascular Patients Undergoing Surgical Hip Fracture Repair was a 2,600-patient, multicenter clinical trial to determine whether patients with preexisting cardiovascular disease or risk factors would benefit from a blood transfusion to reduce cardiovascular mortality following surgical hip fracture repair. A liberal transfusion strategy showed no benefit to these patients.

Remote ischemic preconditioning

There remains a need for an effective intervention to reduce the risk of cardiac complications from surgery. One promising method was thought to be remote ischemic preconditioning (RIPC). RIPC are brief, nonlethal episodes of ischemia and reperfusion applied to one vascular territory (i.e., the forearm) that confers cardioprotection to remote tissues in the rest of the body, such as the heart. In other words, it is an intervention that is applied elsewhere on the body to potentially prepare the heart against injury from the cardiac stressors that occur during surgery. The mechanism by which RIPC achieves cardioprotection remains unclear, but it may be that preconditioning in the remote vascular territory produces a cardioprotective chemical signal that is conveyed to the heart, where activation of signaling pathways within the heart facilitates this effect.

Although ischemic preconditioning was first discovered in 1986, it took a series of discoveries to advance knowledge of preconditioning to the point where RIPC could be tested in a clinical setting. In 1993, Przyklenk et al. used a canine model to show that cardioprotection could be transferred from one coronary territory to another. Cycles of occlusion

and reperfusion to the circumflex coronary artery reduced infarct size induced by occlusion of the left anterior descending artery. McClanahan et al. showed that this cardioprotection could be transferred from remote organs when preconditioning the renal artery in rabbits reduced infarct size induced by ligation and reperfusion of the left main coronary artery. This cardioprotection conferred by different remote organs such as the liver, brain, and intestines, was further confirmed by other studies. Birnbaum et al. discovered that RIPC stimulus could be achieved by applying it to the gastrocnemius muscle of the hindlimb of rabbits by partially occluding the femoral artery, and Oxman

et al. showed that this could be done noninvasively with a tourniquet in rats.

Being able to deliver the RIPC stimulus noninvasively was a major step toward testing it on humans. RIPC has been studied in different clinical settings. These include coronary artery bypass grafting, major non-cardiac vascular surgery, elective percutaneous coronary intervention (PCI), and ST-segment elevation myocardial infarction (STEMI) treated by primary PCI. Unlike animal models where preconditioning has unequivocally showed a cardioprotective effect, results in humans have been mixed.

For example, in the setting of cardiac surgery small studies, using surrogate markers of myocardial necrosis as end-points, have shown RIPC has a cardioprotective effect. However, two large prospective, randomized, clinical trials have reported that RIPC does not improve clinical outcomes in patients undergoing open-heart surgery. These trials sought to address limitations of previous trials by conducting larger, double-blinded, multicenter trials. The Remote Ischemic Preconditioning for Heart surgery (RIPHeart) trial observed primary endpoints of mortality, myocardial infarction, stroke, or acute renal failure at discharge between 1,403 patients who underwent RIPC or a sham procedure before elective cardiac surgery. The Effect of Remote Ischemic Preconditioning on Clinical Outcomes in Patients Undergoing Coronary Artery Bypass Graft Surgery (ERICCA) trial, observed similar endpoints one year after coronary bypass graft surgery in 1,612 patients who were assigned to RIPC or a sham procedure prior to their surgery. Both trials reported that RIPC did not improve clinical outcomes in patients undergoing cardiac surgery.

The CRIPES trial

In June 2011, our group received funding from the VA Office of Research and Development to conduct a pilot study of RIPC among 200 patients undergoing vascular surgery. The Cardiac Remote Ischemic Preconditioning Prior to Elective Vascular Surgery trial (CRIPES) was a prospective, randomized, phase 2 trial investigating the effects of RIPC versus a sham control before elective vascular surgery. It was designed to assess the feasibility, efficacy, and safety of using RIPC prior to vascular surgery, and to obtain preliminary estimates of its effects on detectable postsurgical increases in cardiac troponin I (cTnI), a surrogate marker of myocardial injury and perioperative myocardial infarction. Consenting subjects (n=201) were randomized to RIPC (n=100) or a sham procedure (n=101), which was administered 12 to 24 hours before surgery.

The protocol

It is equally important

to publish and disseminate

information on negative trials.

The RIPC protocol consisted of five minutes of forearm ischemia followed by five minutes of reperfusion, and was repeated for a total of three cycles. The blood pressure cuff was inflated to 200 mm Hg over the brachial artery in the forearm to induce transient ischemia, and was deflated for rounds of reperfusion. While

> the sham procedure was similar, rounds of ischemia were instead replaced with rounds where the cuff was inflated to a lower pressure (≈40–50 mm Hg) that did not impair blood flow. Troponin measurements were obtained before surgery and daily for the first 72 hours or until discharge, whichever occurred first.

The results

Of the 201 patients in the trial, 47 patients experienced an elevation of cTnI above the upper reference limit within 72 hours of the surgery. There was no statistically significant difference between those assigned to the RIPC (n=22, 22.2 percent)

versus sham procedure (n=25, 24.7 percent; p=0.67). Thus, RIPC did not significantly reduce postsurgery cTnI elevations in patients, nor did it reduce the distribution of increased cTnI levels among those with a detectable increase of cTnI. Likewise, RIPC did not have a significant effect on N-terminal pro b-type natriuretic peptide (NT-proBNP) levels, a biomarker of left ventricular end-diastolic filling pressure, nor did RIPC reduce the proportion of patients

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Medical cannabis and intractable pain

A new option for patients

BY TOM ARNESON, MD, MPH

he opioid crisis has highlighted the importance of improving pain management in the country and in Minnesota. Many people in the state are now working on a variety of ways to that end. This article covers a topic that provides an additional option to health care providers and patients when approaching pain management. It is not without controversy because of federal laws, limitations of the current research literature, concerns about potential for abuse, limitations of clinician control, and other reasons, but it is a reality now in the state: intractable pain is a qualifying condition in the Minnesota medical cannabis program.

The 2014 legislation that set up the program identified a set of qualifying conditions, empowered the Health Commissioner to add additional conditions, and tasked the Commissioner with deciding whether to add intractable pain before considering addition of any other condition. Late in 2015, after extensive information gathering, public testimony, and a literature review by the University of Minnesota, the Commissioner announced his decision to add intractable pain as a qualifying condition,

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effective Aug. 1, 2016. For purposes of the program, intractable pain is defined as, "Pain whose cause cannot be removed and, according to generally accepted medical practice, the full range of pain management modalities appropriate for the patient has been used without adequate result or with intolerable side effects."

Clinical trials

Though the published clinical trial literature on cannabis and cannabinoids as therapy for pain needs to be enhanced with more trials of longer duration and larger size, covering more types of pain and comparing types of cannabinoid medications, there is nonetheless sufficient evidence to determine that cannabis and cannabinoid therapies can be beneficial for some patients with pain. Perhaps the most prominent recent systematic review is the one published by Whiting et al. in JAMA in 2015. The authors found moderate quality evidence supporting cannabinoid treatment of chronic pain. In a landmark report released in January 2017 by the National Academies of Sciences, Engineering, and Medicine, Health Effects of Cannabis and Cannabinoids, the committee concluded, "There is conclusive or substantial evidence that cannabis or cannabinoids are effective for the treatment of chronic pain in adults." Summaries of clinical trials of cannabis medications consistent with products available through the Minnesota Medical Cannabis Program (i.e., not including trials that used smoked cannabis) are available in a report on the MDH Office of Medical Cannabis web site, "A Review of Medical Cannabis Studies Relating to Chemical Compositions and Dosages for Qualifying Medical Conditions" (http:// www.health.state.mn.us/topics/cannabis/practitioners/compdosagerpt.pdf).

Products and delivery

Both of the two manufacturers licensed under the Minnesota Medical Cannabis Program produce a variety of products for sale to enrolled patients. For each of the routes of delivery (pills and oral solutions, oromucosal tinctures, and oil for vaporization) products are characterized and labeled by the amount of two cannabinoids they contain: Δ9 tetrahydrocannabinol (THC) and cannabidiol (CBD). THC is psychoactive—it can make people "high" and impair cognition and coordination. CBD is not psychoactive and tends to decrease the psychoactive qualities of THC. However both THC and CBD are believed to have a role in pain management. Available products range from those with a similar amount of THC and CBD to products with a high ratio of THC:CBD and those with a high ratio of CBD:THC. Some clinicians with experience in pain management that incorporates medical cannabis swear by the ability of products with a substantial amount of CBD to work well for most patients. Ultimately, the patients decide which products to purchase and use, with input from the registered pharmacists working at each of the state's eight medical cannabis distribution centers. I always encourage clinicians who feel informed enough to do so to share their opinions about product types and routes of delivery with their patients. Through a web portal, clinicians can see the date, type, and quantity of products purchased by patients they certify. The Office of Medical Cannabis maintains on its website a section providing references to review articles and online continuing medical education resources related to medical cannabis (http://www.health. state.mn.us/topics/cannabis/practitioners/clinicalinfo.html).

Certifying patients

Health care providers who certify a patient for intractable pain are asked to provide certain pieces of clinical information important to the program's efforts to describe the impact of the program on patients. At the time of certification, the provider indicates the medical condition that is the primary cause of the pain and the pain rating scale that will be used to follow the patient's pain

Intractable pain is a qualifying

condition in the Minnesota

medical cannabis program.

over time. Use of the PEG 3-item pain scale (Krebs et al., Journal of General Internal Medicine, 2009) is recommended because it is short and combines one question on pain intensity and two on limitation of function, but the clinician is free to indicate the pain scale of their choice. Date and score of the most recent assessment is provided at certification and at the semi-annual survey for each patient. The short surveys also ask whether, in the opinion of the clinician, the patient's use of medical cannabis has assisted in reducing dosage or eliminating other medications used for pain (and, if so, details on the reduction/

discontinuation). This information will be of particular interest to many in the community, as evidence is building that medical cannabis use can help reduce the use of these medications (Boehnke, et al., Journal of Pain, 2016). In addition, patients complete symptom scale assessments before each purchase of medical cannabis and complete periodic surveys. A report on the first six months of patients certified for intractable pain is planned for late 2017.

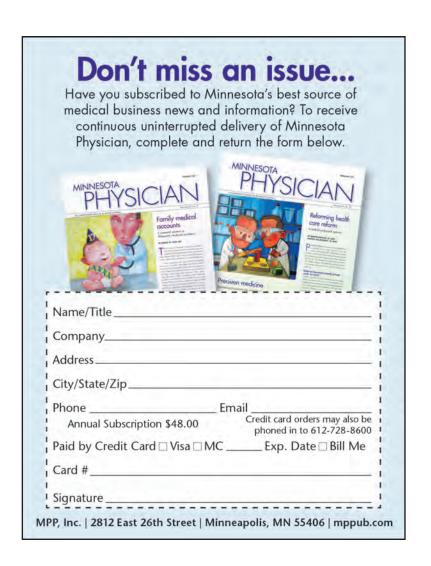
As of Dec. 27, 2016 a total of 3,936 approved patients were active in the program and 786 health care practitioners had registered and become eligible

to certify patients in the program. Of the 3,936 patients, 56 percent were certified for intractable pain—either for intractable pain alone or for both intractable pain and another condition. Patients certified for intractable pain are older and more likely to be female than patients in the program before the addition of intractable pain: more than half the patients are ≥50 years of age. The most common conditions reported are back pain, fibromyalgia/

myofascial pain, arthritis, and neuropathy. Patient surveys are sent out at three months after their first purchase and health care provider surveys are initiated at six months. Completed patient surveys are just starting to come in for patients certified for intractable pain, but we analyzed survey results for the patients who were certified for intractable pain between Aug. 1–12, 2017 to take a very early look at perceptions of benefit. Of the 382 patients who received a survey, we received responses from 201 (a 55 percent response rate). Respondents rated their benefit on a 7-point scale (1=no benefit; 7=great deal of benefit). Among all

respondents, 89 percent rated an overall benefit at a 4 or higher, with 40 percent indicating a score of 7, the highest degree of benefit. Five percent indicated no benefit. In an open-ended question asking patients to describe the benefits they experienced, 63 percent noted pain reduction, 28 percent sleep improvement, 18 percent reduction of other medications and their accompanying side effects, and 16 percent anxiety reduction. When the report on patients certified for

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intractable pain is released later this year we will include as an appendix the full text of responses by patients, as their own words give a better sense of the benefits and negative effects they experienced than coded responses, alone. Here are a few comments from surveys we have received to date:

"I have been able to completely stop taking the narcotic pain medicine that I have been on for the last several years. I am able to participate in social activities again without feeling drugged all the time. Prescription pain medications had many negative side effects which the cannabis does not have for me."

"At first, when I began using the medical cannabis for pain, I definitely noticed a drastic relief in my pain levels, which was so wonderful. I was so hopeful. Then, unfortunately, after the first week of using the cannabis regularly, the efficacy

for the pain relief I had been receiving began to steadily wane ... to the point of no noticeable pain relief at all within a six to eight week period—even though I carefully "upped" the dosage and the frequency of dosing, etc. I'm so disheartened, but I know others with the same type of pain that I have that are experiencing and sustaining far better pain relief."

"Since starting medical cannabis my quality of life has increased dramatically. My pain has subsided almost completely and my energy level has taken a 360 turn for the better. I am a young woman in my late thirties and I would wake up every day feeling like I was 90 years old. I would spend most of my days in bed with no energy and the pain kept me from venturing out and enjoying my young children. Medical cannabis has also stimulated my appetite as well as helped my anxiety and depression. I previously self-medicated with street marijuana and even knowing how much cheaper it is to buy on the street I will never go back. I am also a cigarette smoker and the medical cannabis has

> reduced my desire to smoke regular cigarettes, which has in turn increased my lung capacity and constant bronchitis feeling. My family and friends have seen a difference in me and the way I live my day-to-day life. Instead of denying the activities I want to enjoy, I now have the ability to live my life the way I want to."

> These comments are anecdotes, to be sure, and clinicians demand more than anecdotes to guide decision-making. As noted earlier, more, bigger, and better-controlled clinical trials of cannabis and cannabinoids are needed. But anecdotes such as these should not be dismissed altogether. They are

the voice of individuals, and they matter. Among other things, they can help remind us of the real goal of health care: helping people to suffer less and to live more full and satisfying lives.

Tom Arneson, MD, MPH, is research manager at the Minnesota Department of Health Office of Medical Cannabis. He provides a clinical and research perspective to implementation of the state's medical cannabis program and oversees research on the program's impact.

"There is conclusive or substantial evidence that cannabis or cannabinoids are effective for the treatment of chronic pain in adults."

National Academies of Sciences, Engineering, and Medicine



◆ Preventing perioperative cardiac complications from page 15

experiencing perioperative myocardial infarction. Taking all the data together, RIPC has been shown to be ineffective in improving clinical outcomes in large trials of patients undergoing cardiac and non-cardiac operations.

The challenges

These studies, along with previous feasibility studies (Bonser et al.; Ali et al.; Walsh et al.), have provided additional evidence that the positive effects of RIPC seen in animal models may not be easily translated to a clinical setting. Translating from animal models to a clinical setting presents several different challenges. The animal models did not have a pre-existing disease state, whereas many patients undergoing major surgery have one or more comorbidities such as diabetes that can attenuate the effects of RIPC. These are some clinical situations such as chronic angina and leg

claudication that may represent a form of spontaneous cardioprotection similar to that afforded by RIPC that can attenuate the effect of RIPC protocols. General anesthetic agents and opiates also can mimic the effects of RIPC in animal models, therefore diluting the effects of RIPC.

The importance of reporting negative trials

Although editorial boards tend to publish experiments with positive results, as they tend to generate more citations and increase the impact factor of the journal, we believe it is equally important to publish and disseminate information on negative trials, in particular when large and scientifically sound. Publication bias (i.e., publication of trials with positive results and rejection of trials with negative results) may skew the results toward the "positive" side and affect the body of scientific knowledge. Equally important, it may prevent others from conducting the same clinical trial thereby wasting resources, or sparking

further research with new protocols or techniques. As Dr. Natalie Matosin and her colleagues from the University of Wollongong in Sydney, Australia put it: "Science is, by its nature, a collaborative discipline, and one of the principal reasons why we should report negative results is so our colleagues do not waste their time and resources repeating our findings."

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DID YOU KNOW?

- 21% of diabetics have hearing loss compared to 9% of non-diabetics
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COMMUNITY **CAREGIVERS**

Recognizing Minnesota's Volunteer Physicians

By Lisa McGowan

Each year, Minnesota Physician Publishing recognizes physicians and health care providers who have volunteered their medical services. Whether volunteering at home or overseas, these caregivers help people in need and come away with a revitalized sense of their work. Their compassion, commitment, and generous spirit reflect the deeply held values in Minnesota's medical community.



Edward Martin-Chaffee, MD

CentraCare Health System

or 15 years, Camp Odayin in Minnesota and Wisconsin has offered kids with congenital or acquired heart disease a wonderful, monitored camp experience. Dr. "Chip" Martin-Chaffee has volunteered at Camp Odayin as a camp physician for 10 years and as camp medical director for seven of those years before recently stepping down from the director's role. These kids often feel like outcasts because of their conditions and surgical scars, but at camp he has watched kids blossom, let their guard down, and connect with kids who face similar challenges. According to Martin-Chaffee, "Volunteering allows me to see children with congenital heart disease outside of a medical setting. I'm a better pediatric cardiologist because I volunteer at camp."

Sara Meslow is executive director and founder of Camp Odayin. After receiving an implantable cardioverter defibrillator, she was inspired to open a camp in Minnesota for kids with heart disease. Kids from grades 1-11 are welcome at camp and participate in typical camp activities such as swimming, canoeing, and horseback riding. For each session, the camp is staffed with two

I'm a better pediatric cardiologist because I volunteer at camp.

pediatric cardiologists and a cardiac nurse for every seven to eight children. The medical volunteers make sure the kids get and take their medicine, review charts, and offer medical care in case of a serious cardiac event. The vast majority of injuries, however, are camp related such as scrapes, bug bites, or swimmer's itch. Martin-Chaffee, a neonatologist and pediatric cardiologist at CentraCare Health, recalls how Meslow called him out of the blue to see if he would be interested in volunteering at camp and he has been going for a week every summer since then.

> Kids are often nervous before attending Camp Odayin for the first time and their parents are often afraid to let them go.

> > Martin-Chaffee remembers a young teenage patient of

his who he encouraged to attend camp. "This young man lived in a small town and didn't know anyone else who had undergone heart surgery," said Martin-Chaffee. "I got a letter from his mother after he got home from camp thanking me for encouraging him to attend." The teen had not been able to stop talking about his time at camp and he continued to go every year after that. At camp, kids learn that their heart disease does not define who they are. Camp Odayin's motto is: Kids play, worries rest, and fun happens. "That's why camp is so important," said Martin-Chaffee. "Kids can just concentrate on being kids."



Patricia Walker, MD, DTM&H

HealthPartners and University of Minnesota

ealizing that the strongest impact she can make as a volunteer is by influencing public policy and opinion, Dr. Pat Walker has been a passionate advocate for refugee and immigrant families throughout her career. She specializes in internal medicine, tropical and travel medicine, and refugee and immigrant health and is the department chair of the Tropical and Travel Medicine Center and a staff physician at the Center for International Health at HealthPartners. In her regular job, she works with a diverse group of Somali, Hmong, Bhutanese, Nepali, Cambodian, and Vietnamese colleagues. "These nurses, doctors, pharmacists, and social workers came here for a better life and have made me a smarter, kinder, and better person and America a better country," noted Walker.

Walker currently serves as volunteer president of the American Society of Tropical Medicine and Hygiene (ASTMH), and is only the sixth woman to serve in this capacity in the past 113 years. Through her work at ASTMH, Walker has advocated for more permanent funding for tropical medicine research, and for evidence-based public policy as it relates to refugees and migrants. She often travels to Washington, D.C. to meet with leaders and helped craft the Society's statement urging President Trump to rescind his executive order on immigration. To mentor the next generation of leaders in global health, ASTMH has given almost \$2.5 million in scholarships to students and trainees and encourages them to run for leadership positions. According to Walker, "We must engage with and learn from international colleagues in our quest to reduce health disparities worldwide."

Walker was brought up in Bangkok, Thailand and has always felt strong ties to Southeast Asia. During her third year of medical school, she

We must engage with and learn from international colleagues in our quest to reduce health disparities.

volunteered on an international medical team with the American Refugee Committee to help Cambodians fleeing to Thailand after the genocide in 1979. As the volunteer medical director for the International Rescue Committee in Thailand from 1975–1979, she traveled by fishing boat to provide medical care to refugees suffering from malaria, malnutrition, and dehydration. Walker remembered, "Those were some of the saddest and most rewarding days of my career."

Walker's advice to other providers is to listen more, try to understand other perspectives, and to commit to a lifelong journey of education, understanding, and service. She remarked, "I am a student of the Dalai Lama and really believe as he teaches, that the ultimate goal of every human being is happiness. If we act based on our core values, we will be more compassionate and fulfilled."



Galen W. Stahle, MD

Anxiety and Depression Clinic of the Twin Cities

r. Galen Stahle, a psychiatrist who practices at the Anxiety and Depression Clinic of the Twin Cities, volunteers in Minneapolis for Comunidades Latinas Unidas en Servicio (CLUES) and at the COSMA (Centro Especializado de Salud Mental de Ayacucho) Clinic in Ayacucho, Peru. He has always been interested in cross-cultural psychiatry, which deals with how different cultures and countries face mental disorders.

CLUES is a social service agency focused on providing mental health services to the Twin Cities Latino community. Stahle has volunteered at CLUES every Wednesday for the past 15 years. He does psychiatric evaluations of patients and prescribes and manages their medications.

Stahle began volunteering at COSMA in Peru in 2008 with a small group of psychiatrists who travel to Ayacucho twice a year. Sister Anne Carbon, a Columban nun, founded the clinic in 2003 in order to offer support to those affected by the violence that ensued as the Shining Path tried to overthrow the Peruvian government in the 1980s and 1990s. "There had been much violence,

Giving needy people hope and help is incredibly rewarding.

hatred, torture, and family dissolution and displacement and PAMS (Peruvian American Medical Society) felt that psychiatric care was needed," said Stahle. He saw many children and adults suffering from depression, panic attacks, chemical dependence, and PTSD as a result of these guerilla attacks. He and his colleagues did psychiatric evaluations, managed patients' medication, conducted grand rounds for case presentations, and gave educational lectures. They also provided care in people's homes, nursing homes, and jails.

Occasionally, Stahle and his colleagues have gone on outreach trips to smaller towns an hour or two away from Ayacucho. They often saw psychotic patients wandering the streets with no mental health care available. Caring families kept these patients at home as best they could. If the patients were aggressive, they might be locked in outbuildings by their families and fed through bars or windows. Stahle noted, "This was not a temporary arrangement. It sometimes seemed like a peek back into the Dark Ages."

Initially, COSMA consisted of one nurse, under the supervision of a psychiatrist in Lima, who went out into the streets of Ayacucho to track down patients and give them antipsychotic medications. In the early years, Stahle and his colleagues contributed a considerable portion of COSMA's clinic budget so it could continue to function. Now the clinic functions independently with volunteer psychiatrists from Lima and financial support from the Brothers of Charity. "Giving needy people hope and help is incredibly rewarding," said Stahle.

Anthony Stans, MD

Mayo Clinic

rateful for the many blessings that he and his family have, Dr. Tony Stans and his wife Lena talked about volunteering overseas 12 years ago. "My wife and I believe that we have a responsibility to provide service to those less fortunate. We wanted to instill this value in our children by example and experience." To this end, the entire Stans family, including their three children who were ages 6, 7, and 9 on their first trip, has volunteered with Hands for Humanity in Portoviejo, Ecuador for the past 10 years. A pediatric orthopedic surgeon and surgeon-in-chief of the Children's Center at the Mayo Clinic in Rochester, Stans operates on approximately 20 children on the yearly weeklong trips to Ecuador, while his wife and children volunteer at a local orphanage.

Founded in 2002 by Kate Welp, a cardiac surgery nurse at Mayo Clinic, Hands for Humanity works to meet the needs of underserved children and families in Ecuador. They partner with the San Lucas Foundation, who runs a clinic in Portoviejo staffed by physicians specializing in pediatric care. The patients that Stans sees lack access to basic medical care because there

My family's greatest motivation to volunteer has been our desire to help other people.

is very little government reimbursement for care received. There is also a severe shortage of medical providers in general, and orthopedic surgeons in particular in Portoviejo. The volunteer team has made it a point to teach a local pediatrician the non-operative Ponseti casting technique used to treat infants with congenital clubfoot deformity and this has resulted in a dramatic reduction in the need for these surgeries. Stans said that they



have tried to train local orthopedic surgeons to provide pediatric care, but they quickly leave Portoviejo as soon as they find a more lucrative position

During the year between volunteer trips, local physicians identify the kids who may benefit from orthopedic surgery. When the medical team from the U.S. arrives, they spend the first day and a half examining around 70 children in order to identify the 20 who will be operated on. According to Stans, "We are very careful to offer surgery only to patients who have relatively straightforward problems with a high likelihood of success and a low complication rate."

Stans wants to encourage other providers to consider volunteering if given the opportunity. "My family's greatest motivation to volunteer has been our desire to help other people. We have benefited at least as much as those we have tried to help."

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Shana Sniffen, MD

HealthEast Clinic-Roselawn

he Karen (Kah-ren) people are an ethnic group from Burma/ Myanmar. The Karen have been one of the largest refugee groups coming to Minnesota over the last several years. They fled to refugee camps because of widespread human rights abuses in Burma. The Roselawn Clinic in St. Paul, where Dr. Shana Sniffen practices, conducts public health refugee screening exams for Karen refugees. Almost half of Karen families living in Minnesota receive their health care at the Roselawn Clinic. Sniffen splits her time with 75 percent clinical practice and 25 percent community work with the Karen community. Her community work is grant funded to develop the Karen Chemical Dependency Collaboration (KCDC) and she is dedicated to addressing social and medical disparities, and finding innovative health and well-being solutions for people from unique backgrounds. As part of her Bush Fellowship, she traveled to Burma and Thailand, including a refugee camp, to learn more about the Karen culture and experience. "My community and clinic work cross inform each other making me a better healer, doctor, and community advocate," noted Sniffen.

My community and clinic work cross inform each other making me a better healer, doctor, and community advocate.

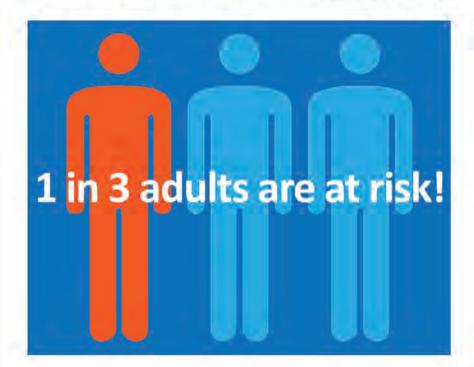
A history of war trauma, displacement, decades of living in refugee camps, resettlement, transition, and adjustment to life in the U.S. have led to mental health issues and chemical dependency for many Karen refugees. Several years ago a Karen teen came to Sniffen for help with his addiction to meth. She found that organizations refused him treatment because he was under 18 and/or needed an interpreter. She felt terrible that she couldn't get help for him.



According to Sniffen, "This was the impetus (along with requests from Karen leaders) for starting KCDC and finding ways to break down barriers and open up access."

Sniffen is co-director of KCDC with two Karen leaders. They are working to address the harmful effects of drug and alcohol abuse in the Karen community. Hosting the programs of KCDC in the HealthEast Roselawn Clinic helps to destignatize the issues. KCDC is working to set up a program that takes into account the Karen culture, trauma experienced before migration to the U.S., and the refugee experience into outpatient treatment and community support for addiction. They created a glossary of Karen language terms on mental health and addiction and have trained 77 interpreters. The KCDC collaborates with faith leaders, probation officers, and community organizations. "My Karen partners and patients are an inspiration in their incredible resilience, generosity, humor and commitment in helping people."

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Loie Lenarz, MD

Fairview Health Services

roviding free primary health care to the needy and uninsured is the mission of St. Mary's Health Clinics (SMHC) based in St. Paul. Dr. Loie Lenarz, who recently retired as medical director of Clinician Professional Development at Fairview Health Services, volunteers at SMHC for a half day every other week. She initially joined SMHC as a member of their board of directors in 2004 and accepted the position of volunteer medical director in 2009 after her former medical school advisor Dr. Eugene Ott retired. "I considered it quite an honor to be asked to follow Dr. Ott," said Lenarz.

The Sisters of St. Joseph of Carondelet (CSJ) founded SMHC because they believe that health care is a basic human right. They work with hundreds of volunteers to provide health care and help low-income people find affordable health care coverage. They also conduct health promotions, health screenings, and health education and work in collaboration with other

It feels good to know that I am making a difference.

community organizations. Their clinics take place in spaces donated by churches, schools, and community centers in the Twin Cities.

Lenarz's family instilled in her the importance of helping others and creating a just society. She attended Catholic school where many of her teachers were CSJ nuns. In addition to her parent's values, the nuns had a strong influence on her by stressing that individuals can make the world a better place. "Because of my connection to this community of strong, smart,



dedicated nuns who share my values, along with my calling as a physician, it made perfect sense to volunteer with SMHC," Lenarz remembered.

Lenarz's work as volunteer medical director at SMHC involves the challenge of designing standard processes with the nursing supervisors to support their clinical work and provide the same quality of care that patients receive elsewhere. Because the clinic's resources are limited and they are only open for one session per week in any given location, Lenarz helps determine which patients need to be referred elsewhere. She occasionally works a shift in the clinic if they are short staffed.

Volunteering is very important to Lenarz because she gets to see how her work benefits those who have no access to health care. She believes that volunteers at SMHC really have an effect. "There are so many in need and volunteers can so easily meet that need. It feels good to know that I am making a difference."





Rajesh Bhargava, MD

Cuyuna Regional Medical Center

r. Rajesh Bhargava began his medical career as a medical officer in the Indian Army Medical Corps in the eastern Himalayas. During his free time he attended to local tribal people who had no access to health care. "I used to pack some basic supplies in my backpack and hike up to small mountain villages and set up impromptu clinics. In my culture, the highest form of service is delivered directly through your hands." There was always a strong tradition of service in Bhargava's family, and volunteering over the past 37 years has helped him stay grounded. He has worked in medical education, disaster relief, and direct patient care in over 20 countries over the years and has also served as a board member for Hillside International, Belize. In the past few years he has mostly volunteered through Project HOPE, a non-profit organization that "provides lasting solutions to health problems with the mission of helping people help themselves."

In my culture, the highest form of service is delivered directly through your hands.

A month after Hurricane Matthew hit southern Haiti last October, Project HOPE began airlifting medicine, supplies, and medical volunteers to the ravaged areas. Bhargava spent two weeks in Miragoane in southeastern Haiti providing direct patient care and assessing health capacity needs in the context of a cholera response. Much of the volunteer work that Bhargava provided in Haiti revolved around studying current hospital capacity and gaps to be addressed immediately and on a long-term basis by future volunteers. Due to the recurring problem of cholera outbreaks after every natural disaster,



the Project HOPE team, which included Bhargava, decided to build a fully stocked and freestanding cholera treatment center for the long term. The team also assessed the health capacity needs of St. Therese Hospital for staffing and training based on their observations.

Bhargava recently moved from Milwaukee to Crosby, Minn. to begin work as director of Hospitalist Services at Cuyuna Regional Medical Center. While living in Milwaukee, he volunteered once a month at the Greater Milwaukee Free Clinic where he provided care to the working poor who did not qualify for insurance or state assistance. Many of these people had chronic conditions that were untreated. He was involved with the clinic from its inception in 1995. The clinic is staffed entirely by volunteers and relies on donations for supplies. According to Bhargava, "The clinic has helped those in dire need and those who have fallen through the cracks in the system by providing millions of dollars' worth of care without any government support."



Jamie Lohr, MD

University of Minnesota's Masonic Children's Hospital

Early detection of treatable newborn health conditions is the mission of the Newborn Foundation based in St. Paul, Minn. Annamarie Saarinen cofounded the Foundation in 2010 after her newborn daughter Eve's life was saved because she was diagnosed with congenital heart defects at only two days old. Dr. Jamie Lohr met Saarinen when she cared for Eve as a newborn. They re-connected at a later point when Saarinen became interested in CCHD (critical congenital heart disease) screening, which had been dismissed by many pediatric cardiologists because of potentially creating the need for too many follow-up tests due to false positive screens. A team, including Lohr, was assembled to see if CCHD screening could be effective. According to Lohr, "Volunteering exemplifies the power people have when working together on something that matters to them."

Lohr has always been interested in volunteering from the time she organized 4H community service activities when she was in middle school.

Volunteering exemplifies the power people have when working together.

Most of Lohr's volunteer work has centered around children. While in college, she volunteered at a middle school in Oakland, Calif. She worked with kids who had behavioral issues and taught them life skills. One young boy in particular, who was sullen and often a bully, opened up after she taught him how to work a combination lock. That broke the ice and he smiled, hugged her, and talked about his family life and struggles at school. Lohr noted, "This young boy taught me the importance of listening and connecting with others as part of our personal and professional lives."



Lohr, a pediatric cardiologist, who practices at the University of Minnesota Masonic Children's Hospital, has been a consistent volunteer and medical envoy for the Newborn Foundation's Minnesota-based global projects in neonatal screening, access to pediatric cardiac services, and medtech development for newborn and pediatric patients. She spearheaded the nation's first multihospital pilot study done in collaboration with the Minnesota Department of Health, to study the use of pulse oximetry to diagnose newborns with hidden congenital heart defects. This work led to legislation requiring screening of all newborns for CCHD by pulse oximetry in Minnesota, setting the standard for other states and saving thousands of lives. Currently, Lohr is working with the Newborn Foundation on developing a screening tool to provide echocardiography support in places where no skilled echocardiographers are available. Lohr (second from the left) also helps raise funds for the Adult Congenital Heart Association and the Children's Heart Foundation through the Congenital Heart Walk held in the Twin Cities every fall.

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◀ Health equity from page 13

care delivery. Dismantling racism and provider bias will remove at least one of the barriers to racial equity in health care. I believe that physicians have the greatest ability to affect change in this area.

We have completed trainings at multiple institutions (CentraCare, Allina, Mayo, Sanford, to name a few) including my own. My hope is that this kind of work will become integrated into education and training for all health care professionals. However, there are many barriers to this kind of work. These include money, time, and resistance to the uncomfortableness of addressing racism and biases especially for white Americans. We all strive to provide quality health care to our patients and families. The data around health disparities can be very upsetting. This can cause significant cognitive dissonance for physicians. Implicit biases can be

quite strong and these affect our decision-making and care delivery.

And, we can improve. The first step is an awareness of how race and racism function in our society. The second is recognition of the discomfort we sometimes have when caring for patients different than us. This does not need to add significant time to our already busy schedules. I try and take a few seconds before walking into an exam room to check my biases. One of my colleagues on the Minnesota Medical Association Health Disparities Work

Group, Lynn Hassan Jones, MD, coined the term "equity timeout" to describe this exercise. Historically, when I felt uncomfortable in a situation I would "lean away." This nonverbal communication is very impactful on patients.

Most physicians have very low explicit bias but high implicit bias. This "aversive racism" often leads to low patient trust and poor adherence

to our recommendations. Now, when I feel myself becoming uncomfortable, I try to "lean in" to that situation, spend more time with the patient, look the patient in the eye, ask more questions, and make a human connection. I need to build trust with my patients as I know this will lead to better outcomes. Admittedly, this is much easier for me with a white upper middle-class family. And, I should be able to make a human connection with an African-American mother holding a baby with sickle cell disease on her lap. Will this take more time? Probably. Will it be worth it? Absolutely.

For more information contact info@ hackmanconsultinggroup.org or go to hackmanconsultinggroup.org.

Stephen Nelson, MD, is a board-certified pediatric hematologist/oncologist and the director of the hemoglobinopathy program at Children's Hospitals and Clinics of Minnesota where he has practiced for 24 years. He is also a member of the Minnesota Medical Association Health Disparities Work Group.



For more information: Douglas Hanson, MPA at 763-684-3670 or Douglas.Hanson@stellishealth.com

Most physicians have

very low explicit bias

but high implicit bias.

The transitional care unit

A story of success

BY JOHN W. MIELKE, MD, CMD

any of us can remember practicing before the Diagnosis-Related Groups (DRG), which is part of the Inpatient Prospective Payment System, redefined hospital-based care in 1983. But it is a very vague memory. We have spent the last 33 years attempting to improve our efficiency in utilizing hospital resources. My personal story was profoundly influenced by these changes as I was "sent out" from a large metro hospital to establish connections with an alien world known as long-term care (LTC). I recall an orthopedist saying, "I discharge my patients to the nursing home, and 30 days later they are demanding that I come and make a regulatory visit—what happened in the meantime? It's like a black box!" In fact, the entire LTC industry did seem like a black box to many of us: Full of regulatory demands, meaningless middle-of-the-night phone calls, and locations often far from our offices and hospitals.

The DRG payment scheme forced a stronger working relationship between these two entities. This was the impetus to grow and define the Transitional Care Unit (TCU) model of post-acute care. Initially, the term

The current spotlight on rehospitalization rates (again, forced on the

"TCU" was largely a marketing term to attract this influx of post hospital rehabilitation patients, but it has evolved into a well-defined model of care.

system by financial penalties from the Centers for Medicare & Medicaid Services) has served to hold hospital and skilled nursing facilities accountable for collaboration that hopefully produces more effective outcomes. This pressure is further refining these care models.

Models of TCU care

In 1997, Dr. Thomas Von Sternberg et al. published results from the HealthPartners experience in managing TCU patients with a high intensity model of care. They were utilizing a TEFRA risk financing mechanism (capitated/managed care) that rewarded the health plan for efficient care. Designated and carefully selected TCU sites were contracted to provide 24/7 admissions, six day per week therapy, higher nurse staffing ratios (1/9 vs. 1/15), and willingness by the TCU to develop a wider range of medical care (e.g., IV therapy, total parenteral nutrition). The TCU was staffed with an on-site nurse practitioner and geriatrician available for twiceweekly rounds, attending a weekly interdisciplinary team (IDT) meeting, and communicating directly to the clinic providers upon discharge. Twenty percent of the admissions were directly from the ER or clinic. The length of stay was (and still is) a remarkable 14.3 days compared to the usual 20 day length of stay in 1997. This model of high intensity care is still the gold standard in our community and has been adopted in various forms by numerous health systems.

The core elements of TCU care include:

- A separate, designated site in a LTC facility, stand-alone facility, or designated hospital site.
- Weekly IDT (interdisciplinary team) meetings to discuss progress in therapy, self-care, and medical stability. "Overcoming barriers to discharge" is the mantra of the IDT meeting.
- An on-site dedicated team or teams of providers who manage most or all of the patients.
- Patient visits within 48 to 72 hours of admission and at least weekly physician visits. Most TCUs in the Twin Cities metro area are staffed with nurse practitioners or physician assistants who conduct rounds two to three times weekly.
- Therapy is provided at least six days per week.
- Nursing services are skilled at assessing educational needs, change of condition, and communicating in a timely fashion with the providers to enhance the progress to discharge and avoid complications resulting in unnecessary hospitalizations.
- There is usually a designated social worker skilled at managing discharge planning, arranging home services, and addressing family dynamics and financial questions.

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ventures between hospital systems and designated TCUs. At one facility the consulting pharmacist reviews the medications prior to transfer to reduce unnecessary medications. He/she targets specific geriatric concerns including: antipsychotic use, anticholinergic "burden," medication "cascades" (using one drug to treat the side effects of another drug), and regulatory necessities (no ranges of dosages or intervals, limiting PRN antipsychotics). This single effort saves numerous medication-related complications, reduces phone calls, and saves money as well.

Patients and families remain caught in a labyrinth of payment structures and regulations.

Numerous health care organizations have seen the need to establish on-site care teams. There are several new practices in the metro area that are filling an important need by providing on-site care for "unassigned" patients who would otherwise be underserved. They have developed efficient models of HIPAA compliant communication with the nursing staff electronically (encrypted email/TigerTexting) that is far superior to the "fax or phone" care of the past.

The new TCUs at Catholic ElderCare and Interlude sites have adopted a single medical team model that accepts all patients and their insurance plans. This allows for improved communication and medical processes, making nursing care, therapy workflow, and discharge planning much more consistent. Hospitals are also designating specific floors as TCU sites and, at times, leasing these sites to outside providers to manage the TCU care.

Problems in TCU care

Three major problem areas persist and are not unique to the TCU environment: 1) financial, 2) staffing, and 3) the expectation gap. (Financing will be discussed in the two "payment options" sections.)

Staffing

Staffing is, of course, related to financing. TCU care received a tremendous boost in the mid 1990s as Medicare boosted payments for Medicare Part A stays. However, hospital salaries for nurses remain substantially higher than in LTC facilities resulting in a drain of experience/skill levels and difficulty retaining qualified nurses. Recent funding improvements by the state of Minnesota have enhanced the payment structure for traditional LTC patients. This has created a shift away from TCU beds for financial and staffing considerations. We are all too familiar with the impending (or actual) shortfall of medical personnel at all levels with the burgeoning senior population. This occasionally limits the ability of TCUs to admit patients.

The expectation gap

Families can have high expectations based on the care delivery at the hospital. With less staff and relatively infrequent medical provider visits they can be frightened and angry about any deficits in care or communication. Patients are also emotionally disturbed by the loss of independence and health. Anticipating these needs by the hospitalists and discharging social worker is critical. Communicating the complexities of these patients and families prior to discharge will assist in successful transitions.

The benefits of TCU care

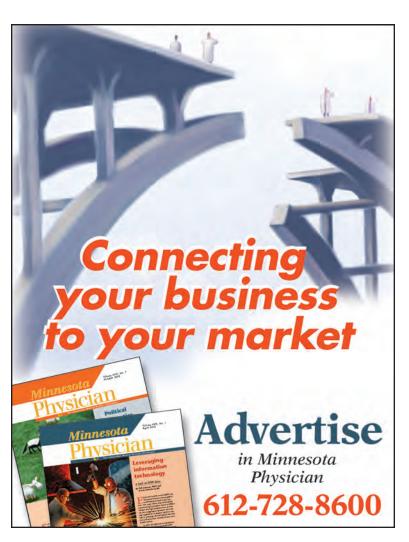
The successes of good TCU work are many. Most TCUs demonstrate discharge back to the home for 70 to 80 percent of patients. Rehospitalization rates are below the expected 15 percent targeted by CMS for most TCUs.

The specific skill sets in the TCU allow for careful evaluation of functional decline and the need for additional services in the home environment on discharge. This promotes better elder safety, while retaining independence. TCU staff assess cognitive levels, especially as post hospital delirium declines providing family and clinic staff clearer expectations of medication management, driving safety, and compliance with medical and assistive devices.

TCUs are also used to assess the "vector" of certain disease processes. Will the cancer patient gain strength enough to undergo further treatment?

Will the severe heart failure stabilize and allow discharge home? When will palliative care and hospice be an appropriate next step? These are questions that are commonly addressed in the TCU setting. It is extremely helpful for communication between a hospital physician and a TCU physician (or nurse practitioner and physician assistant) to occur when nuanced questions about uncertainty of outcome are present. It is reassuring to the patient when the TCU provider can affirm that a careful handoff has occurred, and that we are on the same page.

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Improving transitional care

An open system approach

BY MICHAEL VAN SCOY, MD; JOYCE KRESKY; AND DEB MCKINLEY, MPH

lternative payment models are driving health care organizations to forge stronger relationships with other care delivery organizations. Hospitals and skilled nursing facilities (SNFs) are collaborating to improve transitional care for patients who are discharged from the hospital, but still require skilled care.

Evidence has shown that transition communication is effective in improving patient care after a hospital discharge to a transitional care facility. Improved communication helps reduce hospital readmissions, emergency room referrals, and lengths of stay (LOS) in a SNF; and improves a patient's ability to return home following a SNF stay. These all contribute to a better patient experience. Cost is expected to decline as intensive, more expensive care is provided for a shorter time. These are critical goals if working under an alternative payment model that rewards value.

To achieve these outcomes, some hospitals work with preferred post-acute care providers when patients need additional recovery time after a

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hospital stay. By exclusively referring patients to these providers, they aim to have greater influence on patient outcomes. In contrast, hospitals in the Essentia Health system use an open approach, which better fits with the smaller provider base in the many rural communities it serves. Across its service catchment area in Minnesota, North Dakota, and Wisconsin, Essentia hospitals refer patients to more than 65 post-acute care facilities. Where options for post-acute care are limited in small rural communities, the hospitals may have Centers for Medicare & Medicaid Services (CMS) approval to provide post-hospital SNF care as swing bed providers. This allows a patient who had an acute hospital stay to remain in the hospital for skilled aftercare.

The ACO model drives change

Essentia Health has entered its second three-year Medicare Shared Savings Program (MSSP) contract with CMS. This Accountable Care Organization (ACO) model aims to improve care delivery and manage costs. During this second MSSP contract, we have now taken on financial risk for the 27,691 covered lives that Medicare has attributed to its providers. While Essentia was not among the 31 percent of MSSP ACOs (120 of 392) that generated savings above their minimum savings rate in performance year 2015, it achieved 91 percent on its care and patient experience quality measures.

To advance value-driven care under MSSP, one effort the integrated health system has undertaken is to enhance communication with SNFs and clinicians rounding at SNFs. Some SNFs may use Medicare's 100-day benefit for skilled nursing care as an opportunity to maximize the number of days for patient stays in transitional care. Initial ACO communication began in 2014 to educate leadership in post-acute care facilities about accountable care and the role they play in shifting away from volume of care, such as long LOS, to high quality of care in the shortest appropriate stay. Elder care clinicians were engaged in planning a new approach to transitional care.

In the summer of 2016, Essentia Health established a post-acute care collaboration program with SNFs and swing bed providers that guides communication and planning for transitional care. The post-acute care facilities are asked to provide ongoing plan of care documentation, maintain a high quality of care, and participate in benchmark length of stay planning and data review. Two registered nurses (RNs) were hired, as utilization specialists, to manage transitional care processes for MSSP patients discharged to skilled nursing care. The program tracks transitional care to ensure quality and timeliness.

Processes of care

Essentia's post-acute care processes focus on SNFs establishing and tracking progress against a plan of care. The process begins when an MSSP patient is referred and admitted to a SNF for Medicare Part A skilled nursing care for short-term rehabilitation. That's when an Essentia utilization nurse requests the patient's care plan from the SNF. Believing that optimal discharge planning starts at admission, a third-party software product is used to project the patient's anticipated LOS for the transitional care services using evidence-based best practice guidelines for a condition or diagnosis. For

example, a patient presenting with a hip fracture has an anticipated LOS of 22–25 days providing there are no unexpected complications.

Clinicians that conduct rounds on patients in SNFs are alerted when one of their patients enters transitional care. They are provided with the patient's diagnosis and benchmark LOS. Scheduled rounds by clinicians

vary depending on each patient's needs and location. Since physician time is at a premium, they appreciate the additional attention the utilization nurses bring to their patients' care plans.

The utilization nurse reviews the care plan and collaborates with the SNF on the patient's discharge goals. The anticipated LOS is a starting point for a dynamic conversation between the utilization nurse, the SNF, and the clinician to include the patient's goals, needs, and quality of treatment. Communication is done electronically or by phone. The patient's unique circumstances are discussed,

with the goal of having the patient return home as soon as appropriate.

At a minimum, the SNF provides weekly updates on progress towards the goal of appropriate discharge to home or transition to long-term care. Shortly after admission and periodically thereafter, a care conference, preferably with the patient and family, is scheduled. Updates from the care conference are sent to the utilization nurse who monitors progress and, if necessary, will initiate stop orders for skilled services in collaboration with the clinician. The utilization nurse remains in touch with the clinician throughout the patient's stay to communicate any unexpected clinical changes that may affect the anticipated LOS. Once goals are achieved or no further progress is being made, dialogue ensues with the SNF to end the skilled stay. The nurse assures the goals of post-acute care are reached in a timely fashion.

50 40 30 20 10 0 **Table 1.** Average SNF peer group length of stay (in days). Rolling 12-month data, November 2016. Source: Medicare MSSP data. Reprinted with permission. **SNF SNF** Essentia National Best Target Above Below Health **ACO Practice** Target **Target** Average

When SNF beds are not available in any geographical area or when the skilled post-acute care is more intensive than a SNF can provide, patients may be admitted to a swing bed for their transitional care. The utilization nurses manage MSSP patients in a similar manner through collaboration with the swing bed about the treatment plan with the goal of transitioning

to a SNF when a bed or the level of care is available.

High quality of care

Options for post-acute

care are limited

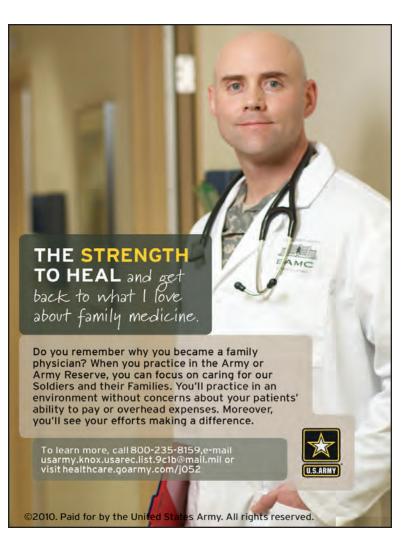
in small rural communities.

Hospital discharge planners review the SNF options with patients and their families using a scorecard intended to assist patients in making an informed decision for transitional care. The scorecard includes the CMS Nursing Home Compare star ratings for each facility in the geographic area. Nursing Home Compare is a public reporting site that provides quality of care and staffing information for each nursing home that participates in Medicare or Medicaid. In the future,

the scorecard will include how well SNFs are participating in its post-acute care collaboration.

Essentia Health provides SNFs an opportunity to gain read-only access to their patients' electronic medical record. This provides SNFs immediate access to the patient's test results and treatment record while under their care. The majority of the SNFs that admit Essentia patients have read-only access and use when the need arises. To foster high quality at SNF facilities,

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Reviewing heath information exchange

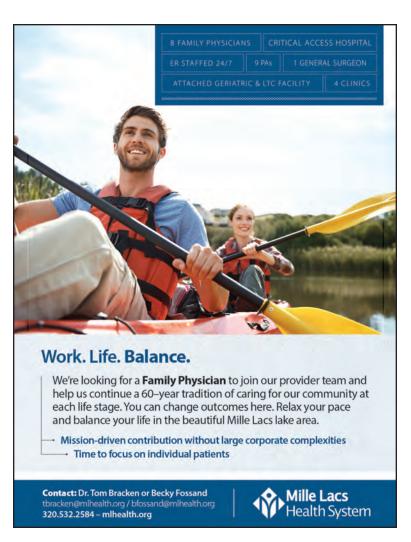
What physicians can expect

BY MELINDA HANSON, MPH

ongratulations! Minnesota ranks top in the nation for electronic health record (EHR) adoption rates—100 percent by hospitals, 98 percent by clinics, and higher than most for other types of health care providers. That means you have drastically changed your workflow processes while trying to maintain patient-centered care. You have adjusted to new documentation forms, learned new "standard" terms for clinical documentation, become knowledgeable about how computers work, and found work-arounds for when they don't. Fortunately, for all your efforts, you should no longer need to look for scattered charts, wait for others to finish their charting, wait for lab and radiology results, and have others misinterpret your orders. But, what else can you expect from using and sharing electronic health records of your patients?

Health information exchange (HIE) should:

- Help you provide better care for your patients
- Help you meet Minnesota requirements for EHR interoperability



- Help you meet requirements for quality measurement, such as meaningful use (MU), and Medicare Access and CHIP Reauthorization Act (MACRA)
- Help you prepare for value-based payment models such as accountable care organizations (ACOs)

Minnesota's approach to HIE

Stakeholders across Minnesota, including health care providers, have been providing input and policy recommendations on e-health to the Commissioner of Health through the Minnesota e-Health Initiative, since 2004. The Initiative is a public/private collaborative whose vision is to accelerate the adoption and use of health information technology in order to improve health care quality, increase patient safety, reduce patient care costs, and improve public health. This "use" includes HIE where a provider can send information, receive information, find (or query) information, and integrate information back into their EHR from other providers who care for the same patient. Even if you are part of a large health system, your patients are also receiving health or health-related care from social service agencies, local public health departments, behavioral health providers, nursing homes, home health, and specialists, including dentists and ophthalmologists, etc., who are not using your EHR system. Information from those other providers can help you make the best health care decisions with your patients.

There are many reasons for providers to share information and connect to other providers and organizations using HIE. Belonging to a health information organization (HIO) is one way to participate. An HIO oversees, governs, and facilitates HIE among health care providers from unrelated health care organizations. This allows an HIO to collect health information for an individual from their community of providers, normalize and maintain a database of the individual encounter information, and consolidate the individual's most recent information from multiple encounters. The HIO works with provider organizations to streamline access to an individual's health information by providers. Depending on your EHR's capabilities, the consolidated health information may be pulled and integrated directly into your EHR and into the patient's record for your use.

Some of the core transactions for using HIE include:

- An alert notification to identified providers when a patient is admitted to a hospital or emergency department, or discharged from a hospital
- A summary of care at the end of a patient visit to any provider
- A transition of care or referral when a patient is relocating or referred from one provider care facility to another
- Electronically prescribe medications to the pharmacy, with information returned when medications are filled and picked up by the patient
- Laboratory data transactions
- Quality reporting transactions
- Public health reporting transactions

Legal considerations for HIE in Minnesota

Through specific workgroups, the e-Health Initiative provides public input into policy recommendations and guidance documents for providers and communities on e-health related topics, such as HIE. One policy that became a legal mandate for all health care providers, is the Minnesota Interoperable EHR Mandate (Minn. Stat. §62J.495). The interoperable EHR mandate

requires that all providers move toward achieving interoperability—sharing and using individual health information through specified exchange standards and connecting through a Health Information Organization (HIO). Currently exempt from this mandate are, 1) providers in private practice with no other providers, 2) health care providers who do not accept reimbursement from group purchasers, and 3) nursing homes. However, some exempt providers are still choosing to participate in HIE because of the many benefits.

You should no longer need to look for scattered charts.

Provider organizations may also use a Health Data Intermediary (HDI) to provide the technical capabilities to connect to an HIO. HIOs and HDIs that are used must be Minnesota State-Certified HIE Service Providers based on the HIE Oversight Law (Minn. Stat. §§ 62J.498 - 62J.4982), also created through recommendations of the e-Health Initiative.

Advancing and leveraging HIE

By the end of 2018, Medicare payments will be tied to quality or value through alternative payment models. This is based on the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), where the Centers for Medicare & Medicaid Services (CMS) is required to change how Medicare rewards clinicians for value rather than volume of care. The latest rule includes the Quality Payment Program, with the Merit-Based Incentive Payment System (MIPS) and Advanced Alternative Payment Model (APM). These programs will impact Medicare Eligible Clinicians, and work to streamline many different quality reporting programs into one.

During the first year of MACRA, providers need to decide how they intend to use information to improve patient outcomes, and may begin collecting that data during 2017, impacting payments made in 2019. One-fourth (25 percent) of the payment will be based on "Advancing Care Information," or use of HIE, where clinicians report key measures of interoperability and information exchange. Reward for performance can be based on measures that matter most to the clinicians. Additional information about this Quality Payment Program can be found at: https://qpp.cms.gov/.

As more providers move toward alternative payment models, the use of HIE to get critical information will be even more important. The Minnesota e-Health Initiative recently endorsed the Minnesota HIE Framework and Guidance to Support Accountable Health (Version 2.0, 2016), which was developed by the Initiative's HIE workgroup. The term accountable health, includes the more familiar "accountable care" from "accountable care organization" or ACO, and is used to reflect the concept of a group of diverse health care providers that have collective responsibility for patient care and coordination of services, and includes a broad range of health and health care providers beyond what is defined by CMS or other payers. This group is moving toward greater accountability for the quality and cost of care provided to patients.

This Minnesota HIE framework identifies a group of key elements, or roles, needed to support accountable health. The key elements include: 1) individuals and care givers, 2) health providers, 3) care coordinators, 4) cohort analysts, and 5) population health analysts. Each role needs a set of HIE functions and capabilities to support accountable health, and collectively they will create a system of accountable health. Examples of

HIE functions and capabilities needed by health providers include:

- Access to bi-directional communication with patients
- The ability to communicate and share information within their organization
- The ability to communicate and share information outside their organization
- Access to user friendly and timely clinical decision support
- Access to public health alerts
- Access to comprehensive patient medication histories

The key premise for engaging and activating providers this way is that providers "who are engaged, with access to all necessary information at the point of care, help contribute to better health outcomes for patients."

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Additional details on the HIE functions and capabilities are discussed in the Minnesota HIE Framework and Guidance to Support Accountable Health document.

It's also worth noting how other roles can support providers in

accountable health by using HIE to better coordinate care for the patients. For example you can use HIE to allow analysis of cohorts of patients and attributed populations for best practices to identify high-risk patients needing further follow up, and conduct analyses of population health to identify immediate public health threats, alert providers, and follow up on effectiveness of health programs impacting the population at large.

By the end of 2018, Medicare payments will be tied to quality or value.

The Minnesota HIE framework has an associated checklist as a tool to identify gaps in HIE functions and capabilities for all the key elements, and is available at: http://www.health.state.mn.us/e-health/hie.html.

Challenges for Minnesota

There are gaps and challenges in the Minnesota HIE approach. For example, there is a gap across the care continuum with many settings just beginning to engage in e-health. Despite comparable rates of EHR adoption, there is disparity in the use of HIE. Challenges being worked on through the e-Health Initiative include: 1) managing patient consent to

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share information, 2) integrating data from other providers into the EHR to optimize provider workflow, and 3) leveraging EHR data to support population health.

In the past year, the HIE Workgroup has identified barriers to HIE and a working action plan to address barriers (2015-2016 Summary Report). Over 155 stakeholders, including providers, participated in the

HIE Workgroup of the e-Health Initiative to offer expert input toward advancing HIE. Some of the top barriers center around the fact that the Minnesota HIE approach is not fully implemented. In addition, key transactions need to be prioritized, challenges to HIE implementation still remain (e.g., workflow), and competing organizational priorities are an issue.

As more information is shared with HIOs and a consolidated view of a patient is available for providers to use, other opportunities will be available. For example, the HIO may have a

community personal health record (PHR) for your patient to view their visit summaries and results from all their providers in one place. Your patients may be able to do many other things that engage them in their health, such as: 1) specify who else they want to have access to their health care information (such as a relative or neighbor notified when they are admitted to a hospital or emergency department), 2) update home monitoring results (e.g., glucose monitoring) for your future view in this Community PHR, and 3) upload information from personal health devices, such as Fitbit, for ongoing self-monitoring.

Another example of how sharing information with HIOs will help providers is through streamlined required public health reporting to the Minnesota Department of Health. Future use of this technology may include electronic laboratory reporting, immunizations, disease registries, and electronic case reporting.

Summary

Your practice has engaged a great deal of time and energy to transition into the electronic era. Engaging in HIE and harnessing the information is an important return on investment to support patient care and improved outcomes. If you are currently, or considering, participating in an accountable care organization, you will find that efficiently sharing information with other providers is a critical success factor. Preparing for HIE is not simply a technical issue. Rather, the hard work is people-intensive and involves establishing agreements with HIOs, implementing and streamlining workflows for HIE, and managing change within your practice. The Minnesota e-Health Initiative has resources and actively engages the community to advance HIE across Minnesota. Learn how your practice can participate, and engage with the Initiative at http://www.health.state.mn.us/e-health/.

Note: Contributors to this article include team members of the Office of Health Information Technology at the Minnesota Department of Health: Jennifer Fritz, Rebecca Johnson, Marty LaVenture, Anne Schloegel, Karen Soderberg, and Sam Patnoe.

Melinda Hanson, MPH, works in the Office of Health Information Technology at the Minnesota Department of Health to improve interoperability and use of health information toward a learning health system.





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the facilities are encouraged to participate in the Lake Superior Quality Improvement Organization's coordination of care initiative. Through this initiative, Stratis Health staff facilitates quality improvement action planning across a geographic community to reduce readmissions and improve care coordination. For example, in the Duluth area, nursing homes, physicians, and hospitals developed and agreed to use one standardized pre-screening form for patient referral.

Essentia Health plans to evolve its transitional care processes as the health system learns, together with its post-acute care partners, what works well in providing the best care to patients in the shortest amount of time. For example, current efforts are underway to implement Medicare's SNF 3-Day Waiver Rule, which will allow certain beneficiaries to be admitted to eligible SNFs for skilled and/or rehabilitation care without a three-day inpatient stay. Providing excellent patient care will remain the top priority.

Benchmarking data

Essentia Health shares rolling 12-month data on length of stay and cost with individual SNFs and swing bed facilities that have admitted 10 or more of its MSSP patients in the 12-month period. Data is from Medicare claims. Table 1 is an example of the average length of stay for all SNFs receiving Essentia Health's MSSP patients as compared to their SNF peer group, national ACOs and best practice ACOs.

Improved communication helps reduce hospital readmissions.

Michael Van Scoy, MD, is medical director of population care management at Essentia Health, and is a practicing internal medicine doctor affiliated with Saint Mary's Medical Center in Duluth.

Joyce Kresky, is project manager at Essentia Health, currently focusing on post-acute care transitions. She is certified in health care compliance and medical technology.

SNFs generally have appreciated receiving the data, as most do not have the resources to conduct similar data analysis. Another benefit of reducing LOS in alignment with best practice rates is having beds available when transitions are needed. Currently, Essentia's service catchment area has a shortage of available transitional care beds. In the future, data will be shared with SNFs on readmission and emergency department referrals for the shared patients.

Deb McKinley, MPH, is communications director, at Stratis Health. She oversees communications for the Lake Superior Quality Improvement Network and the Medicare Quality Innovation Network–Quality Improvement Organization (QIN–QIO), which serves Minnesota, Michigan, and Wisconsin.





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Medical payment options

The high intensity model of TCU care described by Dr. Von Sternberg was funded by a capitated managed care model of payment. Most of our geriatric patients are not covered by managed care contracts, so payment to the providers is fee for service. This is often unsustainable for the typical clinic physician. TCU teams that do succeed are either subsidized by larger health care organizations (for the benefits mentioned earlier) or have developed highly efficient models of care developed around economies of scale, have electronic communication, or are underwritten by the LTC facilities.

Patient/family payment options

Medicare Part A is the largest payer for the patient's care in TCU. This is



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still dependent on the three-day qualifying stay. Most TCU rehabilitative care is well financed by this existing structure with successful outcomes and minimal out-of-pocket expenses for the elderly. Health plans may contract directly with the LTC facilities to provide post hospital services on a per diem rate, often removing the required three-day qualifying stay.

The ACA held promise of comprehensive payment system reform (e.g., pioneer Accountable Care Organizations) and bundled payment options that intended to reward systems with integrated networks, quality improvement systems, and coordinated efforts. However, these efforts have been late in developing or very small in scale. In addition, the current change of administration raises questions about the viability of these changes.

When a three-day qualifying stay did not occur (less than three midnights spent in an acute hospital or using an "observation bed") the patient is liable for 100 percent of the cost of the TCU stay. This often prompts a "patient directed" discharge that precludes effective rehabilitation and discharge planning. This is a serious shortcoming of our current system.

TCU care will continue to be a necessary and important part of our health care system.

Patients and families remain caught in a labyrinth of payment structures and regulations that are extremely frustrating. Discharge from the Medicare Part A stay is usually determined by reaching therapy goals or failure to improve. Medicare rules dictate this transition to custodial care or discharge from the TCU. It is rare for the full 100 days to be used by the TCU. Families are sometimes caught off guard by these decisions. Sometimes financial considerations result in discharges to unsafe environments without adequate oversight.

The future of TCU

TCU care will continue to be a necessary and important part of our health care system for its lower cost, expertise in managing transitions for the elderly and disabled, and improved outcomes. Interoperability of EHRs is also an essential component of future improvement in TCU care.

It is obvious that communication with hospital systems and staff will need constant attention, especially around complex patient needs and family dynamics. Advanced care planning by hospital specialists will assist TCU staff in more accurately meeting the emotional needs and expectations of patients and families. (My personal research into rehospitalizations continues to show at least 30 percent of readmissions could have been avoided by anticipating end-of-life issues before transfer to the TCU).

John W. Mielke MD, CMD, is an internist/geriatrician and the medical director of Optage House Calls at Presbyterian Homes and Services. He is an active participant in the Metro Alliance of Geriatric Providers and the Minnesota Medical Directors Association.



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