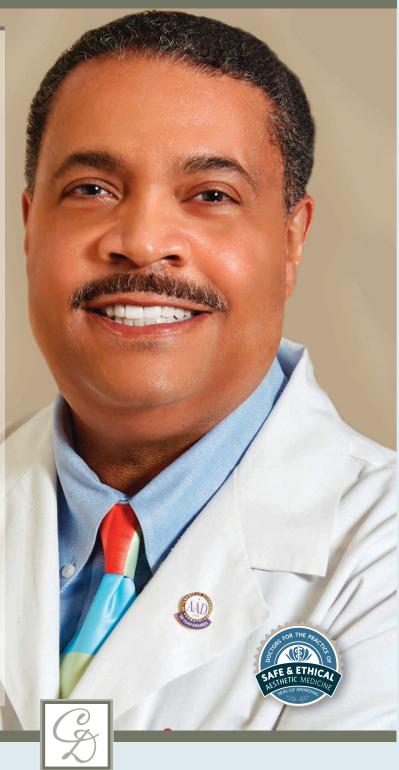


A FACE OF A MINNESOTA DERMATOLOGIST

Recognized by physicians and nurses as one of the area's leading dermatologists, Charles E. Crutchfield III MD has received a significant list of honors including the Karis Humanitarian Award from the Mayo Clinic, 100 Most Influential Health Care Leaders in the State of Minnesota (Minnesota Medicine), and the First a Physician Award from the Minnesota Medical Association, for positively impacting both organized medicine and improving the lives of people in our community. He has a private practice in Eagan and is the team dermatologist for the Minnesota Twins, Wild, Vikings and Timberwolves. Dr. Crutchfield is a physician, teacher, author, inventor, entrepreneur, and philanthropist. He has several medical patents, has written a children's book on sun protection, and writes a weekly newspaper health column. Dr. Crutchfield regularly gives back to the Twin Cities community including sponsoring academic scholarships, camps for children, sponsoring programs for children with dyslexia, mentoring underrepresented students from the University of Minnesota, and establishing a Dermatology lectureship at the University of Minnesota in the names of his parents, Drs. Charles and Susan, both pioneering graduates of the U of M Medical School, class of 1963. As a professor, he teaches students at both Carleton College and the University of Minnesota Medical School. He lives in Mendota Heights with his wife Laurie, three beautiful children and two hairless cats.



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it. The first Ethics article is on page 22. If you have an idea about a question we should explore, send it to mm@mnmed.org.



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SUBSCRIPTIONS

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

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Zeke J. McKinney, MD, MHI, MPH

In short, the humanities make for better physicians who are likely to be happier with their work.

Maintaining a culture of humanism in medicine

friend of mine left his specialty practice after 15 years to enter a different residency program because he felt his ability to practice medicine with compassion was compromised by increasing administrative burdens. This dramatic change reflects the internal discord between humanism and production most physicians feel about practicing medicine today.

Humanism is—and should be—at the heart of medical practice; caring for patients is based on empathy, compassion, respect and an understanding that each patient is an individual.

Danielle Ofri, MD, writes, in a scathing New York Times opinion piece just last month on the routine exploitation of health care professionals, that while burnout is rising among physicians and nurses because of the increasing number of tasks they must perform—including filling out electronic medical records, the number of administrators who don't deliver direct care has also been rising and is now nearly 10 times that of the direct care providers.

A study by MaryAnn C. Gilligan, MD, MPH, et al. in Patient Education and Counseling did qualitative interviews with 32 health care leaders, including clinicians, from multiple institutions. While they agreed that changes are needed to promote and maintain humanistic patient care and came up with various activities, from development of programs to recognizing "random acts of kindness," they fell short of envisioning new system approaches.

One participant in the Gilligan study said: "We are encouraged and most directly rewarded to do the things that are the least humanistic. We might perfect the ability to bill and collect while, at the same time, lose all ability to care empathically for patients. And our colleagues, our

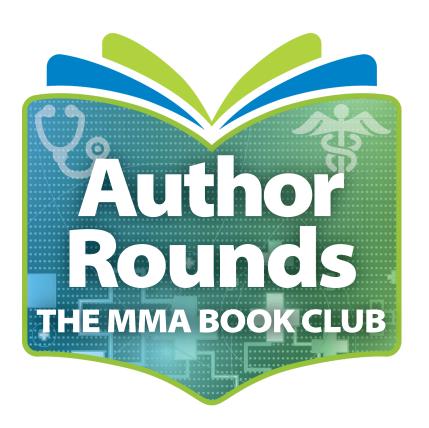
students and our residents watch us while we do this."

Efforts to understand and combat this have focused on medical education, with some evidence of success. For example, a 2018 study by Salvatore Mangione, MD, et al. in the Journal of General Internal Medicine showed a positive correlation between exposure to the humanities and positive qualities such as wisdom, tolerance for ambiguity, openness and empathy-and an inverse correlation with aspects of burnout. In short, the humanities make for better physicians—who are likely to be happier with their work.

The parallel efforts to affect individuals and organizations are consistent with a study of medical faculty by Elizabeth Rider, MD, MSW, et al., also in the Journal of General Internal Medicine (2018), which suggests that the increasing focus on humanism in medical education must coincide with organizational changes, such as directed activities to facilitate humanism, role modeling among clinicians and workflows oriented to support the humanistic aspects of patient care.

My hope is that physicians like my friend, who feel the need to improve their practice by leaving it altogether, can avoid such radical solutions by ensuring that humanism returns to the center of clinical practice, for both individuals and institutions. MM

Zeke J. McKinney, MD, MHI, MPH, is the chief medical editor of Minnesota Medicine.



Gather with your fellow booklovers for the new MMA Book Club: Author Rounds. Each event will include time to network, an introduction to the author and their book, and questions and answers from attendees.

In 2019, we will host one in-person and one virtual event celebrating the art of medicine.

All events are from 7 to 8:30 p.m.

Tuesday, July 23

- **BOOK:** "Nerve Damage"
- AUTHOR: Tom Combs. MD
- **LOCATION:** Open Book, 1011 Washington Avenue South, Minneapolis
- **DESCRIPTION:** This novel features fictional ER physician and medical researcher Drake Cody as he tracks down a deprayed killer.

Friday, October 11

- **BOOK:** "What Patients Say, What Doctors Hear"
- **AUTHOR:** Danielle Ofri, MD
- LOCATION: Online
- **DESCRIPTION:** This book reveals how better communication can lead to better health for everyone.

REGISTER AT

www.mnmed.org/AuthorRounds





Issue-driven photography

BY LINDA PICONE

David Parker, MD, MPH, is known as a researcher in public health, but he's found that taking photographs offers satisfaction—and a way to get messages across—that research papers don't always provide.

Parker, senior physician investigator with HealthPartners Institute, was looking at issues of child labor in 1991 for the Minnesota Department of Health. "Initially, I was running Occupational and Health programs at the Minnesota Department of Health. My goal was just to document the nature and extent of child labor locally, and I set about

doing that" he says. "I became interested and wondered what in the heck is going on in the rest of the world?"

He took a trip to Mexico and decided to chronicle his work with photography for a few weeks. "I thought I'd see how it went," he says. "I spent a month and decided that if I took three really good photos during that month, I would keep traveling and taking pictures."

So he did. Since then, he has managed an extended trip virtually every year—MDH and Park-Nicollet gave him a threemonth leave of absence and he had "a really wonderful partner" at Park-Nicollet who made it possible for him to take significant time off. What was an experiment, then an avocation, has become an important part of his vocation.

"It turns out there were a lot more people interested in my child labor work than in my research work," he says.

Parker has been to many parts of the world, from Latin America to Southeast

Asia to Africa and more. During a threemonth 1993 trip to Nepal, India and Thailand, he got interested in leprosy and photographed people with the disease. He's photographed immunization clinics in Sierra Leone. His last big trip, to Nepal a couple of years ago, he photographed brick workers. "I'm very interested in relationship between brick work and silica and silicosis and tuberculosis," he says, and he's thinking about putting his photos and research into a book. A few of the

photos from that trip are now hanging on the wall at HealthPartners.

He's able to take photos of people who may be in difficult situations because, he says, he does it in a respectful way. "I'm pretty good at going into places, and people sort of like me," he says. "Part of it is just being willing to hang out with people, to get to know them."

And he's willing to walk away if someone objects. "There's always another photo, other people."

Parker has published several books, three of them featuring his photography. By These Hands: Portraits from the Factory Floor, published by the Minnesota Historical Society Press, is still available, but the other two, Stolen Dreams and Before Their *Time* are harder to find, he says. Recently he's had photographs displayed at the Minneapolis Institute of Art and in the Governor's Mansion in St. Paul. His work also has been the subject of major exhibitions at the Minneapolis Institute of Art and other institutions throughout North America. He has spoken at various conferences, including a recent one where he did a remote presentation for the American College of Occupational Health, which was meeting in Los Angeles.

There will be an exhibit of Parker's photos at the University of Minnesota's Anderson Library, opening February 20, 2020.

The question of what happens with his work after he's taken the photographs is one Parker grapples with. "That's always a tough issue with social documentary work," he says. "And public health is a tougher, more complex kind of thing."

With his first book, Stolen Dreams, the audience was not quite what he thought it would be. It was not so much public health professionals as people interested in photography and "it turns out teachers are tremendously interested" in the work to share with students.

Parker is thinking about where and when and how long his next trip will be. His wife, Mary Parker, a retired librarian, goes on some trips with him, but not all of them. He works part-time now, and retirement from his "day job" is likely not that far away. But in terms of his photography, he says, "I'm hoping to keep doing it for a really long time." MM

Linda Picone is editor of Minnesota Medicine





The writers group

BY CARMEN PEOTA

"The prompt tonight is
'exhaustion," Bernard
Trappey, MD, tells the
handful of physicians
gathered around a long
wooden table in the back of a
Minneapolis cafe.

For the next 30 minutes, the clicking of laptop keys is all that can be heard in the room. Finally, Trappey asks, "Who wants to share tonight?" Mike Aylward, MD, who coincidentally announced that tiredness "is the state of my life" earlier in the evening, reads a poem. A couple of people share essays, while two others opt to keep their writing to themselves.

It's the monthly meeting of a physician writing group started a half dozen years ago by Trappey, then a resident and now a hospitalist at the University of Minnesota Medical Center, and Aylward, director

of the University of Minnesota's Internal Medicine and Pediatrics residency program. Neither physician had formal training in writing. "It really was a selfish intent—just to be better writers ourselves," Trappey says of their motivation for launching the group.

Trappey and Aylward also wanted to help residents reflect on what they were experiencing. "We wanted to have a safe space, almost an area of catharsis for residents who were going through challenging times and perhaps didn't have the opportunity to gain perspective on them," Aylward says.

Trappey took on the task of organizing the group and began to assemble a list of physicians he thought might be interested. A handful have shown up each month ever since. They've had as many as 12, with average attendance around five. The group meets from 6:30 to 8pm on Monday nights in a room with tall windows, an old fireplace and a brick wall decorated with 69-kilo burlap bags.

Initially, they followed a formal curriculum on writing. Trappey has since landed on a simpler format: he passes out copies of essays published in medical journals along with a rubric for analyzing them. As a group, they dissect them. Is the piece effective? What do they like or dislike about the writing? "We're just breaking them apart and trying to understand why doctors are writing what they're writing—and what techniques are they using," he says. Then the doctors spend time writing themselves.

At the April meeting, an essay from the *Annals of Internal Medicine* got a unanimous thumbs-down. The word play was overdone. The point wasn't clear. One from *JAMA* fared better, but several people felt the ending wasn't right. It could have ended two paragraphs earlier, someone suggested.

Power of the pen

For frequent attender Amanda Day, DO, a second-year resident in physical medicine and rehabilitation, the monthly gatherings are a chance to revive an old skill. She majored in journalism as an undergraduate. "When my friend told me about this, I thought it was a good opportunity to gain back some writing skills," she says. The meetings provide a needed nudge. It's hard to find time, otherwise, she says. "You always say, 'Oh, I'll do that or I can do that maybe tomorrow.' Having that dedicated time forces you to do it."

She's found the discussions to be helpful as well, as she's realized she's not the only one in medicine to have questions and doubts. "Sometimes physicians are expected to know it all and be perfect and not make any mistakes," she says. "But knowing that other people in your field feel the same way—it's humanizing."

Like Day, second-year med-peds resident Marta Michalska-Smith, MD, attends the writing group as often as she can. "Writing is something I've always liked and never done enough of," she says. For her, the sessions are as much a time to take stock as to hone her literary skills. "It's not just a place to work on my writing," she says. "It's a way to unpack my experiences and reorient myself in a way of reflection and intention."

By writing about experiences, she better understands them. "I become more at-

HOW PHYSICIANS MANAGE LIFE IN WEDICINES

tuned to the meaning and beauty in them," she says. She believes the writing makes her more compassionate for both her patients and herself. "I think it's very hard to do your job well if you're not in a place of self-compassion and health," she says.

Trappey says reflective writing can help physicians understand what they're doing and why people react the way they do, deal with the stresses of medicine or work through a moral quandary. Yet he hesitates to say it's something all physicians should do. "I think that reflective writing is a very powerful tool and important tool for people to have. But I know that it's not something that everybody wants to do. I think it's something that should be encouraged, but not forced."

Physicians writing for physicians

Over the years, Trappey and Aylward have become increasingly interested in the published pieces they discuss each month. They've noted that many share commonalities such as an ending that reveals

a lesson learned or a larger point. They explore certain themes—the hardships of residencies or being witness to death and dying, for example. As an offshoot of their involvement in the group, Aylward and Trappey are working with a colleague in the School of Rhetoric on a more formal analysis of a set of these physicianauthored pieces.

What sets the articles apart from other literature, though, is their audience, which is other physicians. As such, they serve to remind doctors why they do what they do and offer assurance that they are not alone. "Physicians can see themselves in these pieces," Aylward says.

And that is Aylward's and Trappey's hope for the physicians who gather each month in the Minneapolis café—that they might see themselves anew in the stories their own stories or those of others. MM

Carmen Peota is a Twin Cities freelance writer and editor.



Members of the writing group were among the 15 residents, fellows and faculty physicians who shared stories at a story "slam" last October. About 160 people attended the event, sponsored by Metro Minnesota Council on Graduate Medical Education and organized by a team that included Ben Trappey and others who participate in the writing group.

One of those who presented was Marta Michalska-Smith, MD, who told about being with her mother after her recent heart attack. "I was incredibly nervous," she says. "But with the wonderful feedback we got ... it was kind of empowering."



and lives

left brain, right brain, right brain, Engaging in the arts helps physicians bring creativity and balance to their work

BY SUZY FRISCH

hen Paul Scanlon, MD, cares for ICU patients who are teetering between life and death, it takes all of his abilities to get them out of danger. But it's not just his expertise and training in critical medicine and pulmonology that he calls on—Scanlon taps into his creativity to discover what is making the patients so ill and find solutions that work.

Practicing medicine melds the realms of art and science, often requiring ingenuity and exploration to turn scientific facts into diagnoses and treatments. "People tend to think about medicine as being scripted and a lot of rote memory, but it's a very creative process," says Scanlon, who recently completed a 10-year stint as chair of Mayo Clinic's Humanities in Medicine Committee. "That creative process is nurtured by playing music, creating or enjoying the visual arts or writing."

Creative pursuits and medicine are similar in a number of ways. Both require deep concentration, a mastery of skills and the need for practitioners to practice what they practice. Often, physicians who participate in the arts find that their creative side helps them be better doctors and that being a doctor helps them be better artists.

"It's good for you in a lot of ways. It's good for your soul and it makes your attitude better, and it particularly makes your brain work better," Scanlon says. "There's very good evidence that the arts use a variety of pathways in your brain. It's not by coincidence that most Nobel Laureates and smart people in general have interests outside of their areas of expertise."

Many physicians engage in the arts before, during and after medical careers. It's a way to satisfy their curiosity with the world around them and share what they learned from helping patients through life's ups and downs.

Connecting with their emotions through art can refine physicians' abilities to closely observe people, develop mindfulness

and deepen their empathy for both patients and themselves, says David Power, MD, a University of Minnesota family medicine physician and professor who co-teaches an elective in medicine and the arts.

Engaging in the humanities serves as an outlet after a tough day or as a way to process experiences with patients. It brings balance to life and the science-focused brain, says Power, who paints and draws. "For me, the experience of drawing is a whole other problem to solve compared to a patient-care problem. It's taking time to allow my brain to think about this and it feels different. It's relaxing."

For physicians, he says, "The arts are an attempt to balance the stress and busy-ness and the other side of our brain. We need to take steps to heal ourselves."

Through this healing and expression, physicians can show the world their whole selves.

A music man

As a young adult, Christopher Jankowski, MD, envisioned first a career in music, and then turning to medicine. But the trumpet player loved jazz, composing and arranging music so much that he put his science education on the backburner and dove more deeply into the arts.

He earned bachelor's degrees in music and music education from Lawrence University and then steeped himself in the music scene. But after four years, Jankowski realized he wanted more.

As passionate as he was about music, he sought a career that challenged him intellectually and really helped others. Now an anesthesiologist at Mayo Clinic, Jankowski brings a jazz musician's focus and ability to improvise to his work in the operating room. He specializes in acute care surgeries and liver transplants.

Jankowski incorporates music into his life in many ways. He plays trumpet with the Rochester Symphony and Chorale, the Rochester Chamber Music Society and many other groups around his community. Jankowski served on the Symphony board for six years, two as president. He is a regular at the week-long Tritone Jazz Fantasy Camp in Door County, Wisconsin, where he immerses himself in master classes and jam sessions with professional musicians.

"There are clear parallels between jazz playing and medicine," Jankowski says. "In jazz, you have to react immediately to what's going on around you. In the operating room it's a team effort where you're interacting with the surgeon and critical care team and making decisions based on what's happening around you."

Jankowski thought he was headed toward a career in primary care. But after he completed rotations in surgery, anesthesiology, and critical care during medical school at the University of Rochester in New York, he was drawn to the immediacy of the work and to being able to provide critical care at a vital time. Already matched to the Mayo Clinic for an internal medicine residency, Jankowski made the switch to anesthesiology.

Though he didn't play much music during medical school—there just wasn't time—he did pick up his trumpet again during

Christopher Jankowski, MD



residency. Eventually, Jankowski auditioned for the Rochester Symphony and won a spot, and he's been playing with the organization since 1994.

Music gives Jankowski the opportunity to focus on something he loves outside of work. He practices every day before work and sometimes in the evening as well. Leading up to an orchestra concert, Jankowski often doubles and triples his efforts to polish his performance.

Playing trumpet has been a vital way for Jankowski to mitigate the burnout that notoriously affects anesthesiologists. "Music has helped keep me grounded. In our specialty it's easy to get caught up in the mechanics of anesthesiology and surgery," he says. "Even if there are times I feel burned out, music helps put things back in perspective for me and reminds me that we're interacting with patients who need care."

The doctor will entertain you now

Tom Combs' career has come full circle. An avid reader who was leaning toward a writing career, Combs, MD, eventually decided to pursue work where he could make an immediate difference—and emergency rooms are great places to

make a difference for extremely ill and injured people.

Combs spent 25 years caring for patients from all walks of life, with all manner of problems, in urban Level One trauma center emergency rooms. Then he became a patient himself. In 2007, Combs went to his own ER at North Memorial Health Hospital with a subarachnoid hemorrhage that wreaked havoc on his brain. He spent 10 days in a neuro intensive care unit and about a year recovering from the aneurysm.

Through intense rehabilitation, Combs returned to normal, regaining almost all of his abilities—except the extreme multitasking and operational memory needed in the ER. One way he rehabbed his in-

Tom Combs, MD





Tom Combs. MD, will discuss his book Nerve Damage as the featured

author for Author Rounds: The MMA Book Club event, July 23 7-8:30pm at Open Book, 1011 Washington Ave. S., Minneapolis. Carolyn McClain, MD, emergency medicine physician, will host the event, which will include networking and time for questions from attendees. Register through Events on the MMA website.

jured brain was through writing, and that revived his long-time interest in storytelling. Over several years and through many classes at the Loft Literary Center in Minneapolis, Combs honed his craft.

"I am inspired by great writing," Combs says. "As I became rehabilitated, I thought it was my chance to investigate and see if I have fiction-writing skills." The writing process was really therapeutic for me, helping me work on my memory issues while crafting a mystery thriller."

Now he's on Chapter Two of his career. Combs published the medical suspense book Nerve Damage in 2014, just seven years after his aneurysm, and followed up with two others. The books have garnered positive reviews and rankings as Amazon Kindle bestsellers of medical thrillers.

Starring Drake Cody, an emergency medicine physician and medical researcher, the series delves into some of most significant issues of the day, including the opioid epidemic and medical malpractice. Combs is inspired by the patients, clinicians, medical problems and terminology that were a daily part of his work, making them the backdrop to suspenseful, taut stories.

"Emergency departments are highacuity places that are a reflection of life," Combs says. "You are often deeply involved in the most high-stakes, challenging, emotion-laden events of people's lives. That drama was something I was constantly exposed to for 25 years."

Combs enjoys the process of creating an intricately layered thriller. And he loves to introduce readers to medical issues and write stories with a high-level of medical knowledge. Writing medical thrillers also keeps him in touch with the profession, co-workers and patients he loved.

"I miss it. By writing what I know, I still feel like I'm part of medicine," says Combs, who enjoys the intellectual challenge of crafting a suspenseful, layered plot, then hearing from readers that they loved his books. "I love giving them that wonderfully satisfying experience that I have when I read a really good book." MM

Suzy Frisch is a Twin Cities freelance writer.



Photography is a passion and a craft for many physicians

Physicians and physicians-in-training have to have sharp eyes and good instincts to diagnosis and treat patients and do research. So it's always a delight when they turn those eyes to the world through the lens of a camera.

For the 2019 Minnesota Medicine photography contest, 10 physicians, residents and students entered 18 photographs of everything from a favorite Minnesota locations and events—Split Rock lighthouse, state parks and curling—to scenes from as far away as Kenya, Hawaii, Galway and even

Pittsburgh. Two of the winners this year, Ryan Kroschel, MD, and student Arthur Nguyen, were also winners in 2018; they clearly take their photography seriously.

Our judges-Minnesota Medicine art director Kathryn Forss and professional photographer Rich Ryan-looked for technical skills, balance, subject matter and impact in the photographs entered.

The top three winners from each group are published here with the judges' comments and an explanation from each of the photographers as to why and when they took the winning photograph.



PHYSICIANS First Place

Miniloppet March

Ryan Kroschel, MD, family medicine physician. FirstLight Health System Clinic, Mora

FROM THE PHOTOGRAPHER: "Minnesota winters lend themselves well to Nordic skiing and perhaps the best place in the state to partake in and celebrate the sport is my hometown of Mora."

JUDGES' COMMENTS: "This photo tells a strong story, and is well composed and executed. We appreciated the energy of the child racers, their movement across the frame and the contrast of the vivid colors in their clothing against the monochromatic, atmospheric background. Extremely well captured."



PHYSICIANS Second place

Kenyan sunset

Alex Sneiders, MD, urologist, Mayo Clinic Health System, Owatonna

FROM THE PHOTOGRAPHER:

"The birds taking flight in front of the solar globe was magical."

JUDGES' COMMENTS: "This photographer made a good choice to keep the horizon low in this photograph, and the clouds in the sky add interest and depth to the image. This is a difficult shot to capture under such dark conditions, and it has been done well."





PHYSICIANS Third place

Split Rock Lighthouse

David Boran, MD Retired family physician Essentia Health, Brainerd

FROM THE PHOTOGRAPHER:

"This photo captures the annual lighting of the Split Rock Lighthouse in commemoration of the sinking of the Edmund Fitzgerald."

JUDGES' COMMENTS: "This was shot from an ideal vantage point, and at the ideal time of day to get detail on both the water and the background. The reflection of the lighthouse's gleam on the surface of the water is lovely."





residents and medical students First place

There is always opportunity

Ram Rohatgi, Jr., MD, pediatric cardiology fellow at Mayo Clinic, Rochester

FROM THE PHOTOGRAPHER: "We were able to go to a conference in Hawaii, and during that time we took a ranger led hike on the volcano. In this bare and arid place you would see all types of little life teeming, which was very inspiring to us."

JUDGES' COMMENTS: "This photo is well-composed and tells a strong story. The bright green plant against the dark ground is eye-catching and pleasing, and it is well executed from a technical standpoint. This beautifully-made photograph is a clear standout."

RESIDENTS AND MEDICAL STUDENTS Third place

Jubilant Peaks

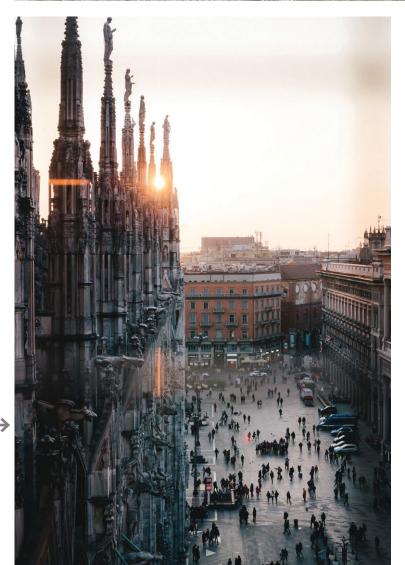
Arthur Nguyen, third-year student at the University of Minnesota School of Medicine

FROM THE PHOTOGRAPHER: "Jubilant Peaks' celebrates the simplicities of life and the unknowns of tomorrow through the glimpse of the setting sun."

JUDGES' COMMENTS: "Another perfect moment in time, well captured. Good sense of scale between the large buildings and the small people on the street."







STUDENTS Second place

Sheepdog at work

Jordan Schild, MD, second-year family medicine resident, University of Minnesota, MCHS, Mankato

FROM THE PHOTOGRAPHER: "Killarney National Park, live Irish music, and Guinness"

JUDGES' COMMENTS: "This is such a perfectlycaptured moment, and the photographer tripped the shutter at the precise, correct moment. The subject matter is interesting, and the sheep in the background are just sharp enough to make out, without being distracting. Well done."



Personal life and care of **patients** are inextricably interwoven

The written word, like any art form, has meaning based on the author's intent and experience but also on the experience and emotions of the reader.

One reader's favorite poem is something another reader finds incomprehensible or, worse, boring. The book that changed one person's life is a book another can't read into more than 10 pages before giving up on it.

None of the 2019 writing submissions to Minnesota Medicine were incomprehensible or boring—all were worth reading and thinking about—but the reviewers were impacted differently by each of the pieces done by physicians and physiciansin-training. Four reviewers found 11 different writing submissions (out of a total of 14) to be of particular merit—with only a few that were at the top of more than one judge's list. Two submissions stood out, however, and several more were of note.



The reviewers were Dan Hauser, director of Communications, Education & Events at the Minnesota Medical Association and a novelist with several books under his belt; Chuck Meyer, MD and MFA in Writing, former editor of Minnesota Medicine; James S. Rogers, poet, essayist and editor of The New Hibernia Review; and Patricia McMorrow, former newspaper journalist, content editor and writer and content strategist at Caring-Bridge, where she is working on a longterm project, "How We Heal."

TOP SUBMISSION

Experience

By Daniel Plack, MD Second-year resident in anesthesiology at Mayo Clinic (after completing a transitional internship at HCMC)

Lights off, shades closed, lying on my bed. I could hear my wife playing with my son in the other

room. It was about 6pm. I had to be back at the hospital in two hours. My heart was

racing, and I felt like running away. Like any good doctor, I had already diagnosed myself with an anxiety attack. Not being prone to such things, it caught me by surprise.

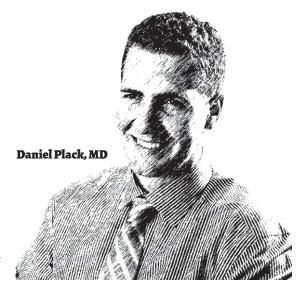
"I thought you trained for this?"

"You just graduated medical school. That means you're a doctor. Shouldn't you know how to do this?"

"He almost died and it would have been your fault."

I had never treated someone in DKA before. I could hear the nurse's words on repeat in my

head as she stormed into the medical ICU workroom the night before, "What's the plan here? A pH of 6.85 is not compatible with life." He had come in with pancreatitis and a past medical history including diabetes, but his sugar on admission was 125.





It was my second day, or should I say night, of residency.

Name: Daniel Plack. Degree: MD. Experience: one day.

As Saturday nights can go in the ICU, my senior resident was somewhere, far off, in this dark, quiet hospital, probably in the Emergency Room picking up yet another admission, and she wasn't answering her pages.

What does a pH of 6.85 mean? Certainly, it's bad. But how bad? Isn't there some equation, change in pH of .08 means some change from PaCO2? No. This partial formula was a useless fact now taking up precious, conscious effort in the heat of the moment. My patient was on death's doorstep, or so it felt to me; it was all my fault for not checking his glucose more frequently, and now the nursing staff is asking me what to do.

"Do you want to intubate?" Still no senior. How ironic it was in that moment to have worked so hard for so many years with the goal of being exactly there, and yet wishing I was anywhere else in the world.

"Yes, let's intubate."

"Do you want to start an insulin drip?" I knew my patient needed insulin, that much I remembered from that long gap between my real medical school rotations and the start of internship. How do I titrate that? What's my starting rate? Can I just order an insulin drip and let them figure it out?

"Yes, I want to start an insulin drip." As I walked to my patient's room, one nurse asked another, "Why is it so insane tonight?"

The other nurse turned and pointed to me, "Because it's his second night." A joke, yes, but also an acknowledgment of my floundering. So they did know. Well, even if they didn't show sympathy, clearly they understood I was struggling. That was ... mildly comforting. My incompetence must be obvious.

In a flurry, the night ICU nurses took over. They gave insulin, got extra IVs, gave fluids and paged Anesthesia for a STAT intubation. I sat at the desk outside the

room, peeking through the blinds, "Uhh, let me know if there's any orders I can put in." No one looked at me, responded or even acknowledged that I was there. In that moment, I was exactly 1 inch tall. But, there is also a glimmer of hope in knowing how small you are—there is only room to

Back home, all I could do was lie there on my bed. I didn't want anyone to die, especially not because of me. I closed my eyes, breathed deeply, and prayed. I prayed for peace in my mind, safety for my patients and an attitude of thankfulness. He survived and so did I.

I still couldn't answer my family's questions. I could barely look them in the eye. I knew they were so proud of me, finally a real doctor, and eager to hear how the first two days went, but I couldn't bring myself to tell them what happened. Not yet. I felt I would only disappoint. They wouldn't understand, and I didn't have the words to explain it. But I could get off my bed, pack my food and drive back to the hospital.

Name: Daniel Plack. Degree: MD. Experience: two days.

REVIEWERS' COMMENTS

"This story captures the fallibility of a young resident: all-knowing but not knowing enough to feel secure."

"Bravo! Just love this piece. You really feel like you're inside the head of a newly hatched doc."

"In this vignette of an anxiety-filled night in the ER, we are brought into the young physician's doubts and worries. But we are also assured of the mandate that physicians must always give their best."

TOP SUBMISSION

Unintended Consequences

By Chuck Bransford, MD, Retired from general internal medicine, medical director for Lakeview Hospice and Lakeview palliative care at Lakeview Specialty Center in Stillwater

Oh my God, I know this man. I treated him last year. He seems berserk, running down the sidewalk with a baseball bat hitting everything in sight—car windows, stop signs, mailboxes. Around the corner is an elementary school with kids on the playground. I have to stop him.

It had all started months before with a simple, happy conversation: feet dangling off the back of a red pick-up truck on a warm fall day, followed by an unexpected bump on the road, and his head crashing down onto the street just a few feet below. The brain injury was severe. Our team had to act fast. I had been waiting for this moment all my life—a pure sudden brain injury in an otherwise totally healthy young man. We rushed him to the OR. Using the head CT as our guide, it became obvious that the only way to save this man was to reduce the pressure on his swelling, injured brain. And so, we did it, using a bone-saw, the procedure I had been researching for years and itching to do. We removed the top half of his skull—about the size of a stocking cap—above the eye sockets of course, about eye brow level. We took the top half of his skull off and placed it in a freezer.

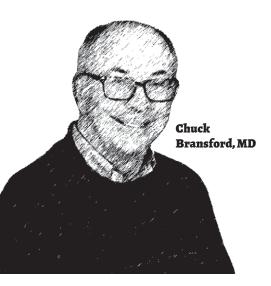
We were so proud; the pressure on his brain diminished and he slowly woke up over several weeks. We all applauded our well-researched efforts, took his picture and placed him on the victory wall next to our ICU-another

Unfortunately, his cognition wasn't coming back, so we took him back to the OR and unwrapped his brain.



We peeled back the glistening dura and gazed in wonder at the multiheaded gyri of grey matter. We followed the research of Wilder Penfield during the 1930s and attached electrodes to multiple parts of the brain, hoping that brain electrical stimulation might help our patient reorganize his thoughts. We kept him wide-awake (the brain having no pain fibers) and began stimulating different parts of his brain with small electrical shocks, just as Wilder Penfield did. When stimulating areas around his temporal lobe, he began having vivid dreams and memories where he would visit old friends, often those who had died long ago.

At times he would sit up, eyes filled with tears, calling out with such urgency to stop the people of his visions from leaving. Once, he sat up suddenly and began to sing what I believe were ancient Celtic songs in the Gaelic language. He described old relatives going back generations. He said he felt as if he were standing right next to them, sometimes embracing them. The joy was palpable to all of us in the room. We felt so privileged to be part of this adventure. We didn't know what we didn't know. I loved that one specific area of stimulation would produce, say, left finger tingling, but that the memories were freer floating and transient, never producing the same result twice despite us stimulating the exact same spot.



After 30 days, when the swelling was down, we reattached the skull-kind of like fitting in a puzzle with both halves being a little off. The match was not perfect around the jagged temples; parts of the bones had shrunk and other parts had swelled. But it would do. The crazy glue would hold. There were just a few bumps and indentations where the match was imperfect. He was still a bit confused, but was walking almost on his own when we transferred him to the transitional care unit where he would receive the best physical therapy possible. This was the last time I'd seen him. Until now.

I had, however, reviewed over and over again the desperate letters from his wife and family. He just isn't the same, terrified of his own home—positive it was haunted and that someone else was living there waiting to harm him and his family. Every time they came home, he began to shake with terror, pupils dilated. The doctors loaded him with tranquilizers. He couldn't seem to tell his dreams from reality. Past, present and future made no sense. He was trapped in his visions with no grounding available. I explained to the family that we just didn't know how to reattach the mind to the brain, let alone to the heart. We didn't know which nerves to sew together or even if nerves have anything to do with it. Head needs to be tempered by heart, but we hadn't a clue as to how. He couldn't seem to gather a sense of his own self, but physically he could do anything. He was very strong.

So here he is running down the street, baseball bat in hand, swatting at everything in front of him —the unintended consequence of my "well intentioned" efforts. There will be no talking this poor man down, no magic words that can help him make sense of things. In my mind and heart, he is my re-creation—and my responsibility. He and I are paying the price for my reckless exploration into areas beyond current human understanding. I understand now the heady rush of doctor Frankenstein to create life, and then the regret. I race across the street and do the

only thing I can—I tackle him as the bat lands and we both come crashing down, heads meeting the sidewalk together. My patient becomes unglued, and me, I wake up surrounded by white-coated ghosts inhabiting a jungle of tubes and blinking lights in a land I cannot comprehend. The doctors see the swelling on brain CT and discuss among themselves whether they should remove the cap. I imagine myself looking up through my brain experiencing the stimulation of the electrodes and greeting my great grandparents and their parents and singing with them the songs of our shared history.

REVIEWERS' COMMENTS

"This was an interesting story, a kind of modern retelling of Frankenstein. What are the odds that this physician would encounter a patient he had saved and then had to restrain him from doing harm?"

"This was a well-written piece that shows the link between imagination—putting one's self in the other's position—and empathy. Plainspoken but powerful, it opens a window on the deep mysteries of the mind."



OTHER FAVORITES

Care, Careful, Caring

By Cory Ingram, MD, MS, FAAHPM Medical director of Hospice and Palliative Medicine, professor of Palliative Medicine, assistant professor of Family Medicine at Mayo Clinic College of Medicine

Commentary

Every day, medical providers and families meet at the maelstrom of end-of-life care, often highly unprepared in the setting of a very predictable clinical trajectory. Like a movie, the disease of dementia plays out in a predictable fashion. The characters are different but are all equally unprepared when time to role the credits.

Goals of Care (Family Perspective)

You say our sister is dying? I don't believe you! How is that possible? Why didn't anyone tell us what was coming? Even the worst movie trailers give a good idea of how the movie will unfold. The movie is ending and now you ask us to explain what we saw? I don't trust you!

Goals of Care (Medical Provider Perspective)

That's right, she's dying. We see this movie playing out almost every day. Dementia is a predictable disease journey. Like a movie set in the forest, we let them wander in the woods at night without a light, treating them as if they are walking on a sunny beach with no horizon in sight. Why?

Goals of Care (Patient Perspective)

I can hear them all talking. My family looks angry and sad. I wish I could comfort them, but dementia muted me. Year after year a bit less me. I experience their love and grief. Too much pneumonia. No fun. I'm okay. Most of me is lost. I'm here. Let the credits roll. Love you!

REVIEWERS' COMMENTS

"Structure feels like it mirrors progression of disease. Clever. Wonderful images and word choices."

"A short but intriguing casting of the end-of-life in terms of differing responses to a film. Clever and thought-provoking."

OTHER FAVORITES

Honoring Her Wishes

By Suliman EL-Amin, MD, MS First-year child and adolescent psychiatry fellow at Mayo Clinic

On a particularly cold Minnesota day, I was working the night shift in the emergency department. It was fairly quiet that evening, as most people in our small community were asleep, having to work early mornings. Soon into my shift I was informed that that an elderly woman would be coming in from a nursing home. As a budding intern, I was more than happy to be assigned the case because it seemed straightforward.

I kept a lookout for an ambulance from afar. Soon, I could see its ominous red lights flashing against the clear dark sky as the ambulance pulled into the unloading bay. Like a legion of soldiers, the emergency medical technicians marched to the back of the truck and synchronously opened its doors, pulling out a stretcher. As they placed the stretcher on the ground, I got a toe-to-head glimpse of our patient—Ms. B. She was a short, frail Latina woman who appeared to be in her mid-80s. She had almond-colored skin, long grey hair, and a rosary around her neck. She looked as worn as the day and seemed to be fading in and out of consciousness. By her side was her husband, clasping her hands while the EMT pulled her stretcher into the room. He was a retired construction worker, dressed in blue denim overalls and a weathered Carhartt jacket. He stared at Ms. B. with caring eyes and sorrow.

Ms. B. spoke to her husband in short sentences, in between deep breaths. We quickly gave her oxygen and allowed her to rest while we drew some blood. I collected most of her history from her husband. He informed me that Ms. B. caught a cold last week that seemed to linger for a few days before becoming progressively worse.

Ms. B. nodded her head in agreement as her husband narrated her story. It was a story her husband had repeated to physicians several times in the past two years. Ms. B. would get a cold that would progress over a few days and, at some point, she would be taken to the emergency department, treated and sent home to recover. Each time, the ordeal was dramatic and seemed to take an emotional toll on the couple. After one such visit, Ms. B. and her husband decided that they had enough and would not fight the inevitable. This led to a discussion with her primary care doctor about a comfort care plan should Ms. B. become ill again.

The medical team was unaware of this discussion and subsequent plan, so we sprang to action as soon as Ms. B. arrived. Having already witnessed a number of similar cases, I knew the exact protocol to follow—we ordered a chest x-ray, oxygen, and labs. While I was placing orders and speaking with the nurse, Ms. B.'s husband interjected, explaining that her desire was to have no



Honoring Her Wishes (continued)

intervention in her end-of-life care. I was a bit baffled and needed to verify this, so I reviewed her chart further. I saw a note confirming that she did not want any of the customary interventions. With a significant amount of training in patient rights, I was well prepared to respect Ms. B. and her family's wishes regarding invasive treatment. However, I had never encountered this in an emergency situation. In my mind, she was presenting with a common ailment that could have been easily treated in the hospital.

Although Ms. B. appeared to understand the implications of her wishes, I still wanted to discuss her case with the chief resident to confirm the plan. We were concerned that she was going to pass away soon, so we involved the ICU team and talked the situation over with our attending physician. So, there we were several doctors and nurses, a sizable team, huddled in Ms. B.'s room, trying to figure out the next step.

The doctors then stepped out and stood outside the clear glass door of the room, discussing the quandary and reviewing her documents. Ultimately, the attending physician agreed that the right thing to do was to follow Ms. B's wishes. He then cleared the room to speak with her and her family directly. He was very calm as he spoke to Ms. B., who, despite fading rapidly, was at peace. He then turned to her husband and son, who had recently arrived, to explain the hospital's protocol—in this case, it was to follow her wishes. Their eyes welled up as they began to accept her fate. The nurses were instructed to remove any unnecessary medical equipment from the room and to keep that part of the department as quiet as possible. There was far too little time left to move Ms. B. to a calmer section of the hospital.

The attending physician then asked Ms. B.'s husband if he would like to contact any additional family members about her condition to summon them to the hospital as soon as possible. Meanwhile, the nursing staff added to Ms. B's comfort by placing additional pillows on her bed and partially covering her with a new blanket. With time, she began speaking less and less and fading in and out of consciousness. Each time she went into a state of rest, the chief resident and I would come into her room to check her pulse.

Ms. B. was soon surrounded by an unbroken circle of love made up of her husband, son, sister, brother, and two of her grandchildren. Her sister covered her with a beautiful quilted blanket standing by her bedside as she lay quiet. The curtains of the room had been partly shut with an opening just wide enough for the medical staff to peek in. After some time, Ms. B.'s blood pressure began to gradually drop, and her breathing slowed to a whimper. The chief resident and I entered the room again, and he gently pressed his fingers against Ms. B.'s carotid artery. Her eyes were already shut, her chest was no longer heaving, and her essence had left her body. He then announced the inevitable with a somber look: "Your relative has passed."

Slowly, Ms. B.'s relatives assembled in the family room. The attending physician informed me that he was planning to speak with Ms. B's family for a few minutes. He requested that I go with him, adding that he does not bring a pen or paper during these times in order to be fully attentive to the patient's family. His goal was to learn a little about the patient's life, to better understand what they were like before they became ill.

When we entered the room, Ms. B.'s circle of love had transitioned into a circle of mourning. The attending physician and I introduced ourselves to the newcomers and offered our condolences. He explained that he wanted to know what Ms. B. was like before she became unwell. The family gradually began talking about the good times they had shared together. I learned that Ms. B. was excellent at quilting, had immense love for her grandchildren, and enjoyed taking long walks with them to the pond. While they were reminiscing, some of her family members began to smile fondly at those memories. After learning what we could about Ms. B. and sharing the next steps with the family, we left the room.

The attending physician and I quickly returned to our workstation where he taught me a final lesson by displaying a simple gesture of immense kindness—he jotted down what was said in the room for future reference for a card he planned to send to Ms. B's funeral. As the day progressed, her life force now departed, Ms. B.'s remnants were removed from the room.

My shift continued and I reflected on what had just transpired. Often, the pace of medicine makes it difficult to adequately capture the vastness of the human experience. Due to competing priorities, there are many opportunities to overlook the details. What appeared simple became complex. However, I learned that when we take the time to honor the values and experiences of our patients and their loved ones, what was initially chaotic can become beautiful and meaningful.

Note: This narrative is compliant with HIPAA regulations. All identifying details have been changed significantly to protect patient's privacy.

REVIEWERS' COMMENTS

"This is a considerate examination of what the author calls 'the vastness of human experience.' The many levels of complication and nuance are heightened by the fact that it plays out in an end-of-life setting."



OTHER FAVORITES

Always on Call

By Jennifer Oberstar, MD Assistant professor in the Department of Family Medicine and Community Health, University of Minnesota

It was Saturday, September 29, 2018, at 5:30pm and it turned out to be the worst day of my

life. I, as a sports medicine physician, had been working a high school/ college cross-country meet called the Roy Griak Invitational, which is one of the largest meets in the country. Many runners crossed the finish line with labored breathing and pure exhaustion, but the day passed uneventfully.

Covering mass-participation events is often on the list of duties of a sports medicine physician. Routine training for these events includes assessing exercise collapse, heat illness, musculoskeletal injuries, and emergency protocols such as CPR. All this training prepares us for an emergency we hope we will never have to face. Another major race was completed, and I was happily headed home to my family, who had been waiting for mom to finish her weekend's work.

To decompress, I hoped to sit down and watch 10 minutes of college football before dinner. On this beautiful fall evening, my oldest daughter gathered fruit from the refrigerator to make a fruit salad. She cut bananas, apples, and grapes. Not to be left out, my toddler climbed up on her step stool beside the counter to help. She picked up an uncut grape and instantly choking sounds echoed from the kitchen.

My husband shouted, "Choking baby!" and I ran to the kitchen. Assessing the situation, I attempted the Heimlich maneuver and back thrusts. and then shouted to my husband, "Call 911!" As my rag-doll baby hung limply in my arms, her baby blue eyes, which had searched for my face from birth, looked right through me without recognition. A pale face with diaphoretic brow made the physician in me methodically search for all medical possibilities and procedures. My thoughts kept repeating, "I need to establish an airway."

As a last resort I performed a finger sweep and dislodged the grape. At last a patent airway was established and I sat on the kitchen floor rocking my whimpering daughter in my arms. My oldest daughter trembled, shedding uncontrollable tears.

"Thank goodness you were at home," my relieved husband sighed. We had so often discussed the balance between a physician's work schedule and family life.

My husband went to the door after this two-minute traumatic ordeal to greet the EMS crew. The EMS team, prior to getting this call, said they had been discussing a choking baby scenario and then the emergency call summoned them to our home. When they arrived, it was clear to them the medical crisis was over. They asked about my protocol and wanted to know if I was an ER physician. I told them no, but my training as a sports medicine/family physician had served me well. I explained I was sure I had scraped my daughter's soft palate on the finger sweep and asked them to check her out. Her lungs were clear and the sats were 96% room air.

These short evening events seemed to have lasted an eternity.

A telephone call from our concerned neighbor, who had seen the ambulance, helped us verbalize the recent events. I spent an all-night vigil beside my daughter's crib watching her every breath.

This eight-hour vigil gave me time to ponder a physician's extensive training, the people in my life, and life's elusive gift. How thankful I was for my training. Would other mothers have had a mental list of procedures and protocols to call upon? At the time of CPR training, it was just one more required course to be completed. Even the daily typing of charts and electronic records seem like a mundane routine, but I turned to the written word to process this emotional medical event.

Furthermore, my thoughts reflected on people in my life. Our family bonds have grown tighter having faced a crisis and being reminded of how important we are to one another. I am appreciative of the EMS workers, well-intentioned neighbors, and medical colleagues, who helped me debrief this situation. Finally, I have a new appreciation for work/family life balance. I am ever thankful for the time we are afforded with one another and the positive outcome of this event. Every breath is a precious gift.

REVIEWERS' COMMENTS:

"What a great piece of writing. Duel between mom/physician set within the fraught scenario of a baby not breathing ... Wow!"

"An account of an incident at home that helps us recognize the unending responsibility that comes with medical expertise."



What to do with patients who don't vaccinate

Dr. P. is a pediatrician in independent practice in greater Minnesota. She has experienced an influx of parents refusing vaccinations for their children; she estimates that 65 percent of her patients have received or are on schedule to receive all indicated vaccines, 30 percent have not received all or some indicated vaccines due to refusal by their parents, and 5 percent are partially or fully unvaccinated for other reasons. Dr. P. is increasingly concerned that by continuing to provide care for such a large population of unvaccinated patients, she is placing all of her patients at risk of contracting a vaccine-preventable illness. She is considering expelling from her practice patients whose parents either refuse indicated vaccines

for their children after two separate opportunities to consent or who fail to abide by a recommended catch-up schedule. If either applies, she would decline to continue treating the patient and refer the family to another physician. Assuming it is legal, is it ethically permissible for Dr. P to institute this policy?

Expel them—in a focused way

FRANK RHAME, MD

tion is very safe, highly effective and one of the most important health benefits humanity has devised. Vaccine refusal is harmful to one's self and, for most vaccines, to others. Misguided anti-vaccination views are directly responsible for recent measles outbreaks in the United States, including in Minnesota.

In 2016, the American Academy of Pediatrics seemed open to dismissal of non-compliant families: "the individual pediatrician may consider dismissal of families who refuse vaccination as an acceptable option." The AAP presented caveats, counter arguments and constraints, but did not condemn the practice (Pediatrics 2016;138:e20162146).

I find all these discussions to be inadequate because they are not explicit. For instance, none of them define lack of vaccination. It would not be reasonable to dismiss a patient because hepatitis A immunization was given one month late or if only the poliovirus vaccination was omitted. None of these analyses consider the issue by vaccine type. We have no poliovirus and reintroduction is very unlikely. Hepatitis A, hepatitis B, rotavirus and human papillomavirus are unlikely to be transmitted in a pediatric waiting room. Neisseria meningitidis, Haemophilus influenzae type b and Streptococcus pneumoniae are transmissible, but only inefficiently. Lack of influenza vaccination is common and exposure in the community is pervasive during outbreaks; threat of dismissal is unwarranted. Pertussis is a difficult case: it is highly transmissible but its transmission is by droplet spread and continuous presence in the community is inevitable because immunity declines in adulthood (herd immunity doesn't happen).

Waiting room hazard can be narrowed to four viruses: varicella, measles, mumps and rubella, all of which can spread by the air-

Keep them—and keep persuading

ROBERT M. JACOBSON, MD

edical practices should not exclude or dismiss patients who choose not to vaccinate. I appeal to three principles that guide medical ethics: beneficence, justice and respect for personhood.

Beneficence: Let's first deal with the special case of the child, who cannot obtain routine vaccination in most cases without parental permission. Norman Fost eloquently states that when considering the ethical concerns of a child it is the needs of the child and not the parents or others that should be the primary consideration. How does it benefit the child to exclude that child from one's practice because of the willful decision of the parent? I argue that persistent, strong recommendations made by the clinician to parents who have declined vaccines in the past can overcome that resistance. That's from both personal experience and empirical data (e.g., Opel, 2013). Routine vaccination provides a benefit that has no reasonable alternative, so excluding the family from your practice is tantamount to withholding that benefit. The family could go to another practice where the clinician may succeed in vaccinating, but this is unlikely given the parent's current inclinations. Kant teaches that if one holds one's rule is moral, one should envision applying that rule categorically. This is to say that if you believe your practice can exclude such patients, all medical practices should be able to do so. On the basis of the principle of beneficence alone, we should keep this child in our practice.

In the case of adults who refuse to receive vaccines themselves, I believe exclusion for similar reasons would put those adults at harm—and excluding these adults from the opportunity to eventually receive the vaccines may put others at harm.

Justice: Having unvaccinated patients in your office rooms, waiting rooms, etc. puts other patients at risk. Given the high

Expel them (continued)

borne route. The presence of unvaccinated children in the waiting room is inevitable, since vaccination for MMR or varicella generally doesn't begin until 12 months. Most of the time most of these viruses aren't circulating in the community, so unfocused time-unlimited dismissals seem unwarranted.

Clinicians could post a warning that when measles, mumps, rubella or varicella are circulating in the clinic's catchment area, anyone not up-to-date on vaccination for the particular circulating virus will be denied service for elective problems until two times the upper limit of the incubation period from the last recognized case in the community. For unvaccinated patients with acute illness, a phone discussion with the practice would be re-

quired. If they really need to be seen, they must accept mitigating arrangements, such as being the last patient in the day.

This policy, which I believe is ethical, has flaws. There is no protection until after the first case in the community is recognized. The clinician has practical difficulties in learning about recognized cases in the community. The definition of the catchment area can be difficult. The potential legal difficulty associated with general dismissal (the need to provide emergency care for a month and assist in finding an alternate clinician) should not arise. My proposal is focused in time and circumstance, rather than a general dismissal of all unvaccinated patients.

Frank Rhame, MD, is an infectious disease specialist and professor of Medicine at the University of Minnesota Medical School.

Keep them (continued)

likelihood of an unvaccinated adult developing influenza and arriving at your office for care, this is not a trivial concern. Is it fair to the other patients? Office policies regarding patients coughing and sneezing can reduce the risk to other patients. Excluding nonvaccinating adults from your office still leaves the larger community at risk from those adults. By retaining them as patients and continuing to use every visit to persist in strong recommendations to vaccinate, you have a real opportunity to persuade them and then protect both the patients in your offices and the larger community.

Respect for personhood: The adult patient, unlike the child or minor adolescent, has tacitly appealed to the right to self-determination. In the end, shouldn't each competent, informed adult have the right to choose how to manage their health? I am not requiring adult patients to receive vaccines and I am not forcing them to accept vaccines simply to remain in my practice. This supports my respect for their personhood and self-determination—and I am able to persist in my strong recommendations for vaccination with them.

Robert M. Jacobson, MD, is a primary care clinician and professor of Pediatrics at Mayo Clinic.





or as long as the provider tax has existed, Minnesota physicians have resisted it. That's especially true for physicians in smaller clinics who have had to write a quarterly check to the state on 2 percent of their gross revenues. It's not that they oppose the intent of the tax—to help fund programs geared to give lower-income Minnesotans access to health care—it's the idea that these health programs should be paid for by a tax that is more broadbased and less regressive.

As the leading advocacy organization for physicians in the state, the MMA has spent decades fighting the tax.

A 27-year history

Passed in 1992 as the mechanism to fund MinnesotaCare, the provider tax is a levy on gross revenues generated by various types of providers of health care services. In addition to physician services, revenue from services provided by dentists, chiropractors, physical therapists, optometrists, psychologists and most other health care providers is subject to the tax, as is revenue for health care services provided at hospitals and ambulatory surgery centers.

In response to changes in federal health care financing under the Affordable Care Act, the GOP-controlled Legislature and DFL Gov. Mark Dayton, in a 2011 budget deal, agreed to repeal the tax and scheduled the sunset for the end of 2019.

It was a victory for physicians but a tenuous one at best. Several times over the past eight years, legislators have threatened to rescind the repeal in order to preserve the hundreds of millions of dollars generated annually by the tax. And, many times, the funds generated from the tax were diverted to pay for General Fund shortfalls.

With the 2019 deadline looming, the MMA's leadership worried that if the provider tax repeal occurred as planned without replacement funding, the critical programs the tax funds, such as MinnesotaCare and Medical Assistance, could be threatened.

"Legislators on both sides of the aisle had been asking for alternatives, as many agreed that the provider tax had flaws," says MMA CEO Janet Silversmith. "We decided to do just that—give them an alternative."

The heavy lifting

In 2018, the MMA began to explore alternative funding with four key principles in mind:

- Any new funding source must preserve coverage and access (i.e., must generate sufficient revenue to sustain currently funded programs).
- Any new funding source must be sustainable (i.e., must be a reliable source of revenue and must be eligible for federal Medicaid matching funds, as is true of the provider tax.
- Any new funding source must reflect current insurance coverage and state/federal financing structures (i.e., must be modernized).
- Any new funding source must be simpler to administer than the provider tax.

The MMA worked with State Health Access Data Assistance Center (SHADAC), a health policy research center affiliated with the University of Minnesota School of Public Health, and Harbage Consulting, a Sacramento, Calif.-based health policy consulting firm with expertise in federal health care financing, to do analyses and financial modeling.

After examining more than a dozen different options, the team landed on a claims expenditure assessment (CEA), a funding mechanism that had been used in Michigan.

"We spent many months researching potential alternatives and ultimately landed on the CEA as the most viable option," says Silversmith. "The CEA would have generated sufficient revenue to sustain all current Health Care Access Fund programs and, like the provider tax, would have generated ongoing revenue linked to health care inflation."

The CEA would have been assessed on all non-federal paid health care claims for Minnesota residents processed by a health plan, insurer or third-party administrator. Unlike the provider tax, it would not have applied to patient out-of-pocket spending, including co-pays, deductibles or non-covered services.

"It was a viable option that moved the tax upstream, removing physicians and their clinics from the formula," Silversmith says. "The programs would have been funded, the cost of compliance for clinics would have been eliminated and the regressive nature of the provider tax would have been reduced."

With the MMA Board of Trustees' blessing, MMA staff set out to promote this alternative. The MMA legislative team began with a series of meetings at the Capitol, talking with legislators and members of the governor-elect's cabinet and key staff.

Meanwhile, MMA staff, along with MMA President Doug Wood, MD, met with the Minneapolis Star Tribune editorial board, which has written about the provider tax many times over the years. At first, the journalists were skeptical, but after hearing the MMA's case, they grew more receptive to the proposal. A positive editorial appeared in the January 7, 2019 edition of the paper. (http://www.startribune.com/minnesota-legislature-facesa-health-care-funding-dilemma/504022942/)

MMA offers gray solution to black-and-white issue

As the legislative session geared up, MMA's legislative team began recruiting authors for a CEA bill. They quickly found a receptive advocate in Sen. Jim Abeler (R-Anoka), a chiropractor who has been paying the provider tax for years. Soon, Abeler was joined by Sen. Scott Jensen, MD, (R-Chaska) and, from across the aisle, Sen. Matt Klein, MD, (DFL-Mendota Heights) and Sen. Melisa Franzen (DFL-Edina).

In March, the four Senate authors introduced their bill and promoted it in an op-ed piece in the Star Tribune. (http://www. startribune.com/here-s-a-sensible-way-to-keep-funding-minnesota-s-public-health-programs/507805832/) Several weeks later, Rep. Kelly Morrison, MD, (DFL-Deephaven), one of two physicians in the House, and Rep. Rod Hamilton, (R-Mountain Lake), introduced the House companion.

In the end, the debate in St. Paul boiled down to a black-andwhite issue—maintaining the provider tax (DFL supported) vs. allowing it to sunset (Republican stance). When offered a third option— the MMA's CEA replacement, leaders in both the House and Senate, as well as the governor, were resistant.

The coalition assembled to support the provider tax extension was robust, vocal and very well organized. It totaled more than 160 organizations including the Minnesota Hospital Association and the Minnesota Chapter of the American Academy of Pediatrics. The collection of health care, social justice and labor groups held rallies and press events, while launching grassroots and social media efforts to influence legislators.

"We appreciate that other groups and organizations had questions about the CEA and worried about a change in the midst of federal funding uncertainties and, as a result, decided to support the provider tax," Silversmith says. "The MMA shared their goal of preserving funding for public insurance coverage and health access programs, but we thought it could be accomplished in a different way that would have reduced administrative burdens for physicians and other health professionals and reduced the out-ofpocket burden on patients."

During final budget negotiations, the governor and House and Senate leadership agreed to maintain the provider tax but reduce it to 1.8 percent, a reduction of 10 percent. Republicans, who had voiced their strong opposition to any new taxes, saved most of their energy and leverage opposing the governor's proposal to raise the gas tax.

Next steps

The MMA has been working to eliminate the provider tax for more than two decades. Now that it appears to be set indefinitely, the association needs to determine next steps.

"The Legislature's decision to eliminate the provider tax sunset is a strong message and MMA leadership will be discussing the implications of that decision on MMA's legislative agenda later this summer," Silversmith says. "We'll see what direction our members and board feel is best for Minnesota physicians and their clinics."





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2019 Legislative Session in Review

First, the good news. After years of work, the MMA was able to pass legislation that will help fight the opioid epidemic as well as add some needed transparency to how pharmacy benefit managers operate in the state.

We also had victories on improving driving safety, restricting e-cigarette use, speeding up the process for physicians to get licenses in multiple states and reducing administrative burdens associated with step therapy.

Now, the not-so-good news. The session didn't really live up to its initial billing. New Gov. Tim Walz talked of "One Minnesota" and both sides of the aisle entered the legislative session talking cooperation.



As the two bodies pursued different agendas, however, the spirit of cooperation fizzled. Even with good intentions, very little compromise was found on polarizing issues or on the overall budget until the final hours, when the governor and leaders from the House and Senate met behind closed doors to hammer out deals. Capitol observers and legislators alike were left shaking their heads in disappointment over the lack of transparency.

In a one-day special session, lawmakers

finished the state's business by passing a budget. While there were wins shared by all parties, there also were many disappointments. *Here's a review of the 2019 session:*

MMA priority issues at the Legislature

ISSUE

Preserving MinnesotaCare and Medical Assistance coverage by adopting a claims expenditure assessment (CEA) as an on-going, stable funding mechanism for the outdated provider tax.

Ensuring continuation of drug therapy for patients with chronic medication needs by limiting the ability of health plans or pharmacy benefit managers to restrict access to drugs once a patient begins a therapy.

Supporting funding to address the opioid crisis, including funding for new addiction treatment, prevention and education, as well as technical support to allow the Prescription Monitoring Program to be embedded into EHR platforms.

RESULT

Funding for public health programs were preserved when the governor and legislative leaders agreed to reinstate the provider tax (at a reduced rate of 1.8 percent). The MMA's CEA legislation was introduced in both bodies but was never heard in committee. With concerns that the CEA put the programs at too great risk, legislators focused simply on whether to keep or kill the provider tax.

An MMA-supported bill that would have prohibited health plans from forcing patients to change drugs once they have started on a therapy that is working until the end of the health plan contract year did not prevail. While the use of formularies and preferred drug lists are tools that can help reduce drug costs, changes to drug therapies based solely on cost can harm patient care.

An opioid stewardship bill received overwhelming support from the House and Senate. The new law creates an opioid epidemic response account that will be funded with \$20 million per year by a combination of sharply increased registration fees paid by drug manufacturers and wholesalers and any settlement money received by the state in lawsuits against opioid manufacturers. Revenues will be used to expand treatment services; fund education for consumers and prescribers regarding opioid abuse, addiction and overdose; and help offset the escalating cost of opioid abuse absorbed by county and tribal child protective services. The bill also creates a new 19-member Opioid Epidemic Response Advisory Council (with an MMA appointee) that will guide the state's efforts to promote treatment, prevention and education.

Supporting changes to the Minnesota Health Records Act to align with federal HIPAA laws to improve efforts to better coordinate patient care and reduce duplication of services.

A bill that would align the Minnesota Health Records Act (MHRA) with HIPAA standards did not pass this session. The bill was intended to maintain patient privacy protections while eliminating burdensome requirements that prevent physicians from providing the safest and most coordinated care possible. Modernization of the MHRA is supported by a broad list of organizations, including the MMA, the Minnesota Hospital Association, the ALS Association, the Minnesota Council of Health Plans, the Minnesota Chamber of Commerce and the Minnesota Business Partnership.

Other health-care legislative issues

ISSUE	RESULT	ISSUE	RESULT
Abortion restrictions	The Senate passed legislation to ban most abortions after 20 weeks, as well as a requirement that physicians performing an ultrasound prior to an abortion procedure must inform the patient of the opportunity to view an active ultrasound image of the fetus. Legislative action: Failed MMA position: Oppose	E-cigarette restrictions	This law includes e-cigarettes in the smoking definition under the Minnesota Clean Indoor Air Act. Current state law prohibits the use of the devices in government buildings, including schools, as well as in hospitals, clinics and other health care buildings. The new law extends the prohibition to bars, restaurants and other places where smoking is currently prohibited.
CBD regulation	In recognition of the growing sale and use of products containing cannabidiol (CBD), a non-psychoactive component found in	Legislative action: Passed MMA position: Support	
	hemp and marijuana plants, the Legislature adopted several provisions to more closely regulate these products, including product testing and labeling requirements. Legislative Action: Passed MMA position: No position	Firearm safety: universal background checks and "red flag" law	The first measure called for expanding criminal background checks to include most private firearm sales and transfers to include sales at gun shows or between individuals. The second measure would enact a "red flag" law that would allow relatives and law enforcement to ask a judge to temporarily remove firearms from individuals who are deemed to be a serious threat to others or themselves. These bills passed the House but were not heard in the Senate. Legislative action: Failed MMA position: Support
Conversion therapy	A bill that would have prohibited the use of conversion therapy for individuals under the age of 18 did not prevail. Several health care organizations, including the MMA, AMA, American Academy of Pediatrics and the MNAAP, refute the practice, which aims to "convert" gays and lesbians into heterosexuals. The House supported the proposal, though an effort to add the language to the HHS spending bill in the Senate failed on a party-line vote. Legislative action: Failed MMA position: Support		
		Interstate Medical Licensure Compact	Legislation that would allow Minnesota to fully participate in the Interstate Medical Licensure Compact (IMLC) became law. Minnesota physicians will now be able to apply for expedited licensure in IMLC states.
Direct Primary Care	Under Direct Primary Care, physicians provide all primary care services to patients for a set monthly fee. Proponents of this model of care delivery argue that it strengthens the relationship the patient has with his or her primary care physician while giving primary care physicians who participate a reprieve from fee-for-service and managed care models. This passed the Senate unanimously but did not receive a House hearing. Legislative action: Failed MMA position: Support		Minnesota adopted legislation to enter the Compact during the 2015 legislative session but had to pass this bill to meet federal law enforcement background check requirements. Legislative action: Passed MMA position: Support
		Mandated reporting of pregnant women	The bill called for removing a mandatory reporting requirement when a physician has reason to believe a pregnant woman in their care is using or abusing illicit drugs or controlled substances. Current law provides an exception in cases when the patient is using alcohol or cannabis. This reporting
			requirement results in some pregnant women avoiding prenatal medical care for fear of being reported to law enforcement. Legislative action: Failed MMA position: Support

Other health care legislative issues

ISSUE	RESULT	ISSUE	RESULT	
Medical cannabis ONEcare	Changes to the medical cannabis law passed this year. The number of distribution sites were doubled from eight to 16 in the state, and requirements for those who provide care to patients eligible to participate in the medical cannabis program were modified. Legislative action: Passed MMA position: No position The bill would have provided an option	PBM licensure	This bill licenses pharmacy benefit managers (PBMs) operating in Minnesota. It also requires annual reporting on the aggregate cost spent on wholesale drugs by PBMs, the aggregate amount of rebates received from drug manufacturers, whether a PBM has any exclusive contracts with manufacturers and any spread between the amount charged to plan sponsors and the amount paid to pharmacies. It also outlaws the use of "gag clauses" on pharmacists, in	
	for Minnesotans, regardless of income, to purchase a MinnesotaCare product that covers 90 percent of costs, with only a 10 percent cost-sharing requirement. Called the platinum option, these plans would be fully paid for by the enrollee's premiums and reimbursement would be set to be at least that of Medicare. The bill also proposed options with 70 percent and 80 percent coverage if, following a market study, it is deemed that there are not coverage options available in an enrollee's county. Legislative action: Failed MMA position: Opposed unless specific criteria are met including limiting the option to counties where there is no or only one private coverage option available		which PBMs have prohibited a pharmacist from telling the patient that there may be cheaper alternatives to the drugs on the PBM's formulary. Legislative action: Passed MMA position: Support	
		Rare Disease Advisory Council	This creates an advisory council to study and make recommendations to policy makers regarding rare diseases. The council, which is to include at least three physicians with expertise in rare diseases, is to "provide advice on research, diagnosis, treatment, and education related to rare diseases." Rare diseases are defined as those conditions that affect fewer than 200,000 individuals in the U.S., or conditions that impact more than 200,000 but for which there is unlikely to be drug development. The	
Mental health	Legislators acted in several ways to address issues related to mental health. The HHS spending package included increased spending on school-linked mental health services, as well as funding for suicide prevention services. The Legislature also adopted measures to strengthen existing requirements that insurers provide parity between mental health coverage and other covered services. Legislative action: Passed MMA position: Support		advisory council is to be established by the University of Minnesota. Legislative action: Passed MMA position: Support	
		Reach Out and Read funding	The innovative <i>Reach Out and Read</i> program received funding for 2020 and 2021. Long supported by the MMA, the program provides age-appropriate children's books to parents through physician's offices. Studies have found that parents who are served by <i>Reach Out and Read</i> services are four times more likely to read with their children, and children with access to <i>Reach Out and Read</i> have higher receptive and expressive vocabulary skills. <i>Legislative action: Passed MMA position: Support</i>	

Reinsurance

extension

The state's reinsurance program was extended for two more years. First passed

expenses through reinsurance. Legislative action: Passed **MMA position:** No position

in 2017, the program uses a combination of state and federal monies to help health insurers cover the costs of large medical

Other health-care legislative issues

ISSUE	RESULT
Recreational marijuana	A bill that would have legalized marijuana for recreational use in Minnesota failed to get out of its first committee hearing in March. Legislative action: Failed MMA position: No position
Restrictive covenants	This bill would have prohibited non-compete clauses for all physician employment contracts. Supporters argued that it was needed to protect the patient-physician relationship, while critics raised concerns about losing the investment an employer makes in a new hire. Legislative action: Failed MMA position: No position
Safe driving	This law prohibits the use of hand-held cellphones and other devices while driving. Legislative action: Passed MMA position: Support
Smoking cessation funds	This extends funding for tobacco and nicotine cessation services. Existing services are provided by Clearway Minnesota, a tobacco control group established by the tobacco settlement in the late 1990s but that will soon sunset. Legislative action: Passed MMA position: Support
Step therapy	The Legislature extended protections against burdensome and potentially risky step therapy requirements to patients who are on MinnesotaCare and Medical Assistance. Originally passed in 2018, the protections had previously only applied to those who purchased their health insurance in the individual commercial market. Legislative action: Passed MMA position: Support
Sunscreen in schools	Legislation to allow students to possess and apply sunscreen during the school day was included in the education spending bill. The Minnesota Dermatological Society led the effort to pass this measure. Legislative action: Passed MMA position: Support
Tobacco 21	As more local communities are raising the age to purchase tobacco products to 21 years, legislation was introduced to make T21 statewide. The provision passed the House but not the Senate. Legislative action: Failed MMA position: Support

ISSUE RESULT

Vaccine education and outreach

Grants to provide education about the importance of vaccines in communities with lower rates of immunization were not adopted into the HHS finance bill. The incidence of measles in the U.S. is the highest it has been in more than 25 years.

Legislative action: Failed **MMA position: Support**



THE SESSION: By the numbers

Number of bills introduced regarding physicians and other health care topics Nearly 1,900	Number of physicians who testified 11	Number of times MMA staff testified 15
MMA letters sent to legislators on key bills 14	Physicians in the Legislature 4	Size of the Health and Human Services budget \$14.5 billion (out of \$48.1 billion total, 30 percent of state's overall budget)



3 networking events Join us for several!

Enjoy networking with your colleagues at a free, casual event for physicians, residents and medical students.

The Doctors' Lounge is designed to thank MMA members, and welcome new and potential members.

These networking events, now in their fifth year, include free food and beverages.

In 2019, the Doctors' Lounge is open from 5 to 7pm on the following dates:

DULUTH

Wednesday, Sept. 18 **MANKATO**

Tuesday, October 1 **EDINA - NEW!**

Thursday, October 24

VISIT WWW.MNMED.ORG/SOCIALS for more details.





Shifting reproductive rights laws concern MMA leadership



MMA leadership is concerned about a recent spate of anti-abortion legislation in several states that treads on the physician-patient relationship.

Whenever physicians are threatened with prison time for doing legal medical procedures, it certainly gets our attention," says MMA President Doug Wood, MD. "The MMA will continue to advocate against legislation that criminalizes physicians for doing their jobs."

Several state legislatures have recently passed laws that restrict reproductive rights and criminalize physicians who perform abortions. Under a new Alabama law, physicians who provide abortions could be charged with a felony and be sentenced to 99 years in prison. This law is the country's most restrictive ban, which prohibits abortion in nearly all instances—including in the case of rape or incest—with the exception of cases when the woman's life is at risk.

Other states, including Georgia, Kentucky, Louisiana, Missouri, Mississippi and Ohio, have passed laws that prohibit abortions after six to eight weeks of pregnancy.

Many more states are considering—but have not passed—policies that restrict abortion. In Minnesota, a bill to criminalize abortions performed after 20 weeks was approved by the Minnesota Senate this past session. The MMA advocated against this bill, and it did not pass the full Legislature.

A bill introduced in the Alaska Legislature would define abortion as "murder of an unborn child" and would make abortion illegal—even in cases of rape or incest. Performing or attempting to perform an abortion would be a felony under this law.

In contrast to these kind of anti-abortion laws, some states are looking to ensure reproductive rights. This year, the New York Legislature passed a bill that protects abortion access even if *Roe v. Wade* is overturned.

In Minnesota, a group known as Gender Justice, a physician, a nurse midwife and the First Unitarian Society of Minneapolis filed a lawsuit in May to overturn certain restrictions on abortion—including the current statute that only allows physicians

to perform abortions, a requirement that minors obtain parental consent to have an abortion and a requirement that a woman wait 24 hours between her initial consultation and abortion procedure, among other things.

This chart outlines the sections of the lawsuit for which MMA has policy:

CURRENT LAW CHALLENGED

Requirement that only a physician or physician-intraining can perform an abortion

Mandatory disclosures:

Requires physicians and referring physicians to provide certain warnings about abortions, including medical risks, probable gestational age, whether an anesthetic would alleviate pain to fetus, that Medical Assistance may be available for pre/neonatal care and child birth, that fathers are liable for child support, that a woman has the opportunity to review certain materials, and that perinatal hospice services are available and an alternative for abortions where a fetus has been diagnosed with an anomaly incompatible with life.

MMA POSITION

MMA policy states that abortion is a medical procedure and should be performed only by a duly licensed physician or surgeon.

The MMA strongly believes that in the interest of excellent medical care, a physician should be free to provide to the patient all information needed for the patient to receive the most medically appropriate care. The MMA opposes legislative efforts to compel certain communication between physicians and their patients, as it interferes with the physician-patient relationship.

News Briefs



Warren v. Dinter case has wide implications for Minnesota

In a case that could have wide-reaching implications for medical practice in Minnesota, the Minnesota Supreme Court issued a ruling in April in the case of Warren v. Dinter, holding that the existence of a physician-patient relationship is not a prerequisite for a medical malpractice action. Rather, a person may sue a physician for malpractice—even if that person was not a patient of the physician—if the harm suffered by the person was a "reasonably foreseeable consequence" of the physician's actions.

In May, the MMA released a fact sheet to Minnesota physicians to keep them up-to-date on the issue so they can worry less about their malpractice risk and more about the health and safety of their patients. Find the resource at www.mnmed.org/WarrenDinter.

The MMA partnered with the AMA and the Minnesota Hospital Association to participate in the case as amici curiae, forcefully arguing that expanding physician liability outside of the physician-patient relationship would damage physician collaboration and informal consultation and ultimately harm patients. Despite

On the calendar

Event	Date	Location
Author Rounds with Tom Combs, MD, and his novel, <i>Nerve Damage</i>	July 23	Minneapolis
Housing Insecurity and Health Equity	July 24	Facebook Live
Doctors' Lounge	September 18	Duluth
Hippocrates Cafe	September 19	Duluth
2019 Annual Conference	September 20-21	Duluth
Doctors' Lounge	October 1	Mankato
Author Rounds with Danielle Ofri, MD, and her book, <i>What Patients</i> Say, What Doctors Hear	October 11	Online
Doctors' Lounge	October 24	Edina

this counsel, the Court issued a ruling that may hinder a physician's ability to collaborate with care partners.

"The overall expansive language in the Court's opinion does raise concerns," says Mark Fogg, COPIC's general counsel. Colorado-based COPIC is the MMA's endorsed medical professional liability insurance (MPLI) provider for its members. "We respectfully believe that it is important that a physician-patient relationship be established before any liability may occur for alleged medical malpractice."

The Warren v. Dinter case arises out of the care provided to a woman (Susan Warren), who complained to a nurse practitioner at Essentia Health Clinic in Hibbing of abdominal pain, fever, chills and other symptoms. After testing showed that Warren had an elevated white blood cell count, the nurse practitioner suspected infection and sought hospitalization for her at Fairview Range Medical Center. The nurse practitioner's call was randomly assigned to a hospitalist at Fairview to discuss admission.

After a brief conversation, during which the physician was unable to view the patient's medical record, the physician and the nurse practitioner discussed hospitalization and whether the elevated white cell count and blood sugar could be the result of diabetes. The physician did not recommend hospitalization during the conversation and the nurse practitioner did not seek hospitalization for the patient following the conversation. The patient subsequently died from sepsis caused by an untreated staph infection. Warren's family sued both the nurse practitioner and the physician for medical malpractice.

Before the ruling, Minnesota law has generally required the existence of a physician-patient relationship to sustain a malpractice action against a physician. The Court's decision to rely on a broader legal theory of "foreseeability" represents a troubling change that puts Minnesota in the minority of states that do not require the existence of a physician-patient relationship for a malpractice action. This change may expose physicians and other health professionals to malpractice risk in a variety of actions that were previously protected, including unbilled consultations. Although the ruling puts Minnesota physicians in uncertain legal territory, it does not change the underlying duty that physicians have to their patients and, more generally, to maintain a professional and ethical medical practice.

MMA begins process to determine recreational marijuana policy

More than 40 physicians and physicians-in-training took part in a sometimes politely contentious discussion on June 6 in St. Paul on whether and in what way the MMA should create policy regarding recreational marijuana

legislation if it ever gains traction at the Capitol.



Legislation on recreational marijuana was introduced in the Senate earlier in the session but did not make it out of committee. Currently, the MMA has no policy regarding the recreational use of the drug.

The June 6 forum was half panel discussion and half table conversations on a variety of topics from the effect on youth brain development to racist aspects of enforcement of marijuana laws.

At the end of the forum, audience members were polled to determine their views. Similar to the results of an informal MMA survey (see accompanying story), about a third of the audience thought the MMA should oppose any legislation toward legalizing the drug, a third said the group should support legislation, and a third said the MMA should not take a position but weigh in when it comes to the ensuring any legislation protects the health of Minnesotans.

"The theme of the day? Not enough data," panelist Darin J. Erickson, PhD, an associate professor in the Division of Epidemiology and Community Health at the University of Minnesota, told the audience. This was a recurring point made by panelists and audience members. Consequently, much of the discussion centered around anecdotal evidence.

Panelist Dave Thorson, MD, former MMA president and a family medicine physician, noted how medical cannabis has helped some of his patients.

Panelist Sheila Specker, MD, an associate professor in the Department of Psychiatry and director of the Addiction Medicine Fellowship at the University of Minnesota, talked about the effects the drug has on the developing minds of youth. Specker is president-elect of the Minnesota Psychiatric Society, which opposes legalization.

The MMA's public health committee will take the results from the survey and the forum to use in its discussion on possible policy. If they come up with a recommendation, it will be shared with the MMA's Board of Trustees.

"More and more discussion is taking place in clinics about the drug," said emcee and current MMA President Doug Wood, MD. "We want to be prepared if legislation to legalize recreational marijuana ever gains traction. Do Minnesota's physicians oppose it? Favor it? Or maybe they're neutral on the issue. The survey and this forum should provide us with the data we need to get started."

Survey shows MMA members are split on recreational marijuana

Physicians and physicians-in-training are split on whether the MMA should support efforts to legalize recreational marijuana, according to an informal survey conducted by the Association between May 13 and June 4.

According to the survey, 39 percent of respondents said the MMA should oppose legalization, 27 percent said the MMA should support legalization and 32 don't want the MMA to take a position but to advocate for policies that will protect the health of the public. Two percent were unsure what position the MMA

should take. Nearly 600 people responded to the survey that went out to 8,600 MMA members.

"The survey was really a jumping off point for our discussions," says MMA CEO Janet Silversmith. "It was designed to capture broad input but was not a rigorously designed tool."

Seventy-four percent of respondents said the MMA should be engaged on the issue of legislation. If legalized and taxed, 77 percent of respondents said that tax-related income should go to fund substance abuse disorder screening and treatment.

Twenty-seven percent of respondents to the survey were under age 34; 41 percent were 55 and older.

MMA to host another health equity Facebook Live event July 24

The MMA continues its efforts to raise awareness of the health disparities faced by Minnesota's minority communities with an event examining housing insecurity and health equity on July 24 from noon to 1pm on the MMA's Facebook page (www.facebook.com/mnmed).



The event will focus on housing as a key driver and major social determinant of health. The event will examine:

- How to address housing insecurity in the clinical encounter.
- How to build partnerships with community groups and other service providers to address a patient's housing (and other so-
- What screening tools, interventions and other resources are available to address housing insecurity. Speakers include:
- Janna Gewirtz O'Brien, MD, FAAP, adolescent medicine fellow, Leadership Education in Adolescent Health (LEAH) Program, Division of General Pediatrics and Adolescent Health, University of Minnesota.
- Steve Horsfield, executive director, Simpson Housing.
- Susannah King, MSW, LICSW, SW Unit supervisor, Health Care for the Homeless.

The event is being held in partnership with the Minnesota Chapter of the American Academy of Pediatrics (MNAAP), the Minnesota Academy of Family Physicians (MAFP), Minnesota Doctors for Health Equity and Simpson Housing.

Earlier this year, the MMA, with MNAAP and MAFP, held two health equity events via the MMA's Facebook Live account.



MMA honors past Board of Trustee chairs

In mid-May, the MMA honored seven of its past Board of Trustee chairs at a reception held at the MMA office.

"The MMA has a proud tradition of recognizing and memorializing MMA presidents—the wall of presidents at the MMA office showcases a photo of each MMA president since Thomas Potts, MD, in 1853," says Janet Silversmith, MMA CEO. "We felt it was time to also recognize the physicians who have led the MMA Board of Trustees. Many of these people served multiple years guiding the board as it set strategic direction for the association. We're honored to have such dedicated and engaged volunteers."

Board chairs generally serve three-year terms but can serve longer. Attendees at the reception included (from left to right in photo):

- Paul Sanders, MD (1988-1990)
- Paul Matson, MD (1997-2000)
- Randy Rice, MD (2017-present)
- Richard Frey, MD (1974-1979)
- G. Richard Geier, MD (2002-2005)
- Doug Wood, MD (2014-2017)
- David Thorson, MD (2009-2014)

A plaque of past board chairs is now displayed in the MMA office.

MMA to host book club events in July and October

The MMA will host book club events in July and October.

The July in-person event will include time to network, an introduction to the author and his book and questions and answers



from attendees. The virtual event in October will not include networking.

Upcoming event details:

- July 23, 7-8:30pm
- Book: Nerve Damage
- Author: Twin Cities' own Tom Combs, MD
- Host: Carolyn McClain, MD, emergency department physician and MMA Board member
- · Location: Open Book, 1011 Washington Ave. South, Minneapolis

- Description: This novel follows fictional ER physician and medical researcher Drake Cody as he tracks down a depraved killer.
- Oct. 11, 7:30-8:30pm
- Book: What Patients Say, What Doctors Hear
- Author: New York City-based Danielle Ofri, MD
- Host: Charles R. Meyer, MD, former editor of Minnesota Medicine
- Location: Virtual event online
- Description: This book explores the high-stakes world of physician-patient communication that all must navigate.

For more information, visit www.mnmed.org/authorrounds.

Registration now open for 2019 Annual Conference in Duluth

Physicians and physicians-intraining from across the state will gather at the Duluth Entertainment Convention Center on September 20 and 21 for the MMA's Annual Conference, which will focus on preserving access to care.



The event will include policy discussions, educational sessions, networking, the annual medical student and resident poster symposium and much more!

For more information, visit www.mnmed.org/ac19.

MMA calls for refinements to MACRA

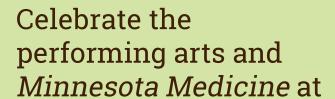
The MMA, along with 119 other specialty societies and state medical associations, signed onto a June 3 letter urging Congress to make further refinements to improve MACRA (Medicare Access and CHIP Reauthorization Act).

The letter called on Congress to replace the 2020-2025 physician payment update freeze with positive payment adjustments for physicians, extend the Advanced APM bonus payments for an additional six years and implement several additional technical improvements to MACRA.

MACRA passed Congress with strong bipartisan majorities in 2015 and was strongly supported by most of organized medicine. Among MACRA's notable provisions is the permanent repeal of the Sustainable Growth Rate (SGR), the formula—widely acknowledged as flawed—used for calculating updates to the Medicare physician fee schedule. In place of SGR, MACRA establishes two paths for determining future Medicare payment for physician services: the Merit-Based Incentive Payment System (MIPS) and alternative payment models (APMs).









Hippocrates Cafe

Thursday, Sept. 19 7-9pm

Kitchi Gammi Club 831 East Superior Street, Duluth Hippocrates Cafe, which is celebrating its 10th year in 2019, uses professional actors and musicians to explore health care topics through song and story. In this special edition, artists will present selected readings from the annual arts and medicine issue of *Minnesota Medicine*.

AT THE EVENT:

- Free appetizers
- · Cash bar
- · Attire is business casual

Hippocrates Cafe is the creation of MMA member Jon Hallberg, MD, an associate professor in family medicine at the University of Minnesota. He is an award-winning medical educator and is medical director at the University of Minnesota Physicians' Mill City Clinic. Hallberg has been a regular medical commentator on Minnesota Public Radio since 2003.

VIEWPOINT

Don't Fear Al

n recent weeks, several news articles have appeared with headlines noting that cognitive computing, (a.k.a. artificial intelligence) used to interpret images of skin cancers or CT images, fares better than humans in accurate diagnosis. Other articles have raised concerns about the likelihood that computers will effectively take over a significant number of jobs from humans.

Some commenters have expressed great worry and dismay about the further prospect of dehumanization of medicine by loss of physician roles to computers. But the opportunity to use artificial intelligence, or machine-based learning, to make physicians' jobs more fulfilling is substantial and the chance to use these tools to improve the lives of physicians and patient is exciting.

The problem of inaccurate diagnosis has been recognized for years, with some estimating that the incidence of erroneous diagnosis may be as high as 20 percent. There are several reasons for difficulty in diagnosis, including: limited ability to integrate information from multiple sources; the limitations of having humans recognize patterns in images or tracings when richer data sources are present; and the rush of clinical practice that does not afford physicians the time to listen to a patient's story in the Oslerian tradition.

The use of modern computing tools could substantially help physicians and patients by allowing natural language processing of text data obtained from speech recognition and applying machine-based learning to the narrative obtained from patients in a way that would provide physicians with a summary of symptoms and by providing suggestions for possible diagnoses prior to a clinical visit.

Even in a short, time-limited encounter, this may make a physician's job easier by helping to better organize a patient's description of symptoms and create an easier diagnostic framework for the physician to use in formulating testing strategies to confirm a diagnosis and plan treatment.

An additional benefit would be reduced utilization of testing resources and shorter time to decisions about treatment. Less wasted time and effort, and lower cost would be good for all of us. And, I suspect, our professional satisfaction would be much greater because we would be able to spend more time making clinical judgments and decisions rather than entering data in an electronic repository.

The potential benefits of this technology applied to our work are indeed great, a true way to use technology to an advantage rather than the terrible, insidious impact of existing electronic record systems that reward clerical acumen and accuracy rather than clinical judgment and improvement in people's health.

William J. Mayo, MD, once remarked, "The ills of today must not cloud the hope of tomorrow." And so, I choose to look past the pessimism and burnout that is often attributed to the limitations of the current electronic record and its stifling of physician diagnostic thinking and instead envision a new era where medicine is restored as the most hopeful of professions.



Douglas Wood, MD MMA President

The use of modern computing tools could substantially help physicians and patients.



his spring, eight leading health care organizations committed to the principles of TIME'S UP Healthcare, the health care business sector's affiliate of TIME'S UP, a national coalition of women across industries dedicated to creating safe, equitable and dignified work and workplaces for women. A diverse group of health professionals, including physicians, advanced-practice providers, nurses, clinical pharmacists, dentists and others founded TIME'S UP Healthcare with the goal of ending sexual harassment, gender discrimination and inequality in our field.

As one of the 50 founding members of TIME'S UP Healthcare, I am proud that Mayo Clinic is among the founding signatories. Other founding signatories include Alpert Medical School of Brown University, Brigham Health, Dartmouth-Hitchcock, Drexel University College of Medicine, UW Health, University of Wisconsin School of Medicine and Yale Medical School.

TIME'S UP Healthcare is also supported by a range of partners, including the American Medical Women's Association, American College of Physicians, Service Employees International Union (SEIU), American Nurses Association and Council of Medical Subspecialties (CMSS).

Since the initial announcement, it is gratifying to see the number of supporting organizations on the TIME'S Up website (https://www.timesuphealthcare.org/signatories) continue to grow and include clinics providing health care services in local communities and neighborhoods.

TIME'S UP Healthcare is an initiative of the TIME'S UP Foundation, which supports a growing number of industry affiliates driving change. The TIME'S UP Foundation, a 501(c)(3) nonprofit, also supports the TIME'S UP Legal Defense Fund, which is administered by the National Women's Law Center Fund and connects those who experience sexual misconduct and related retaliation in the workplace or in trying to advance their careers with legal and public relations assistance.

What does all this really mean? It is fundamental for Mayo Clinic and I believe it will be the new standard for health care. Mayo Clinic's commitment starts at the top of our organization. In my conversations with Gianrico Farrugia, MD, president and CEO of Mayo Clinic, there was no hesitation: he wanted Mayo Clinic to be involved at the beginning of this initiative. We are proud that Mayo Clinic's participation highlights the commitments that Mayo is already working toward. As an example: two years ago, Mayo Clinic commissioned an outside consultant to conduct an evaluation of Mayo Clinic physician compensation. While we have long believed that Mayo Clinic's salary-only compensation model created a system where men, women and racial and ethnic minorities doing the same work were paid equally, the findings were gratifying. It confirmed that despite widespread reports of gender pay inequity in the United States, as a woman noninvasive cardiologist at Mayo Clinic, I am paid the same as a man performing

the same work. In addition, we continue to hold our top leadership team accountable to gender equity by including diversity and inclusion metrics in their annual reviews and on the CEO's dashboard. We've also created a more robust process to report, address and eliminate sexual harassment and have shared the aggregate findings with our entire workforce.

At Mayo Clinic, our goal for TIME'S UP is to double down on our commitments to our colleagues, our staff and our patients in the area of gender equality, fairness and safe work environments. As a founding signatory of TIME'S UP Healthcare, Mayo Clinic pledged to support these core principles:

- Sexual harassment and gender inequity have no place in healthcare.
- Every staff member should have equitable opportunity and be compensated fairly.
- We are committed to tracking and measuring sexual harassment and gender-based inequities in our organization, as well as taking the appropriate steps to respond to issues and prevent them from happening.

Why should we physicians be directly involved in this effort? We have a heightened responsibility to address these issues across the full spectrum of health care settings and environments because these issues directly affect our patients. Health care workers who are being harassed or who are in unsafe work environments cannot provide the best care to our patients. Further, the TIME'S UP Healthcare principles must extend across the myriad environments in which care is provided, including hospitals, medical schools, clinics, nursing homes and private homes. As an industry, we must face some hard statistics:

• In the United States, women represent 95 percent of home health aides, 80 percent of all health care workers and 50 percent of medical students, but they serve in a minority of the most powerful and highest compensated roles. Only 11 percent of health care CEOs are women. When I started in cardiology, women made up only 4 percent of that specialty;

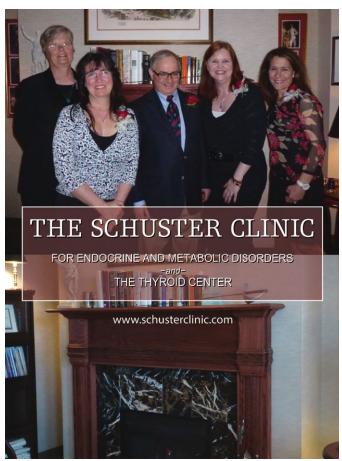
- three decades later, that number is not quite 20 percent, a fact that disappoints and concerns me.
- Health care professionals represent the second-largest group of people who have contacted the TIME'S UP Legal Defense Fund for assistance; only workers in the arts and entertainment industries were ahead of them.

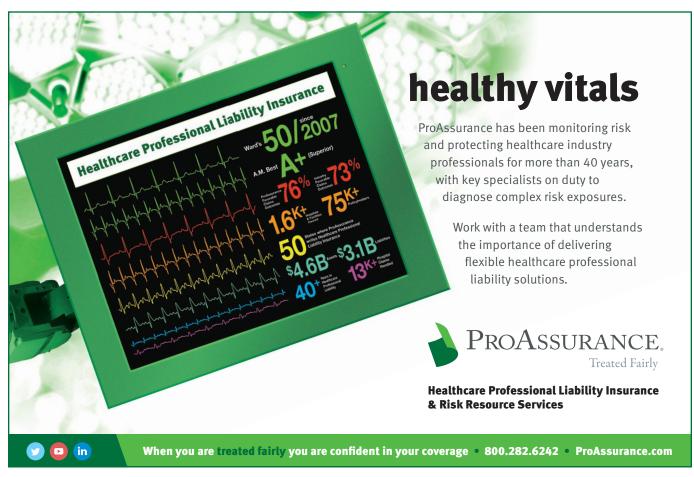
Those facts alone demonstrate there is much to be done. As physicians, we must commit to this work, because at the center of every health care work environment is the patient. Ultimately, it is our patients who are at risk if women health care professionals are afraid to speak up out of fear of retribution. Our patients suffer, if a woman health care professional feels less valued because of pay inequity. And, it is our patients who lose when our best and brightest leave the profession as a result of being bullied or harassed in the workplace.

Together, we have much work to do. Our hope is that the TIME'S UP Healthcare spotlight will accelerate our efforts. Our goal is to have more than 100 TIME'S UP Healthcare signatories to commit to these principles by the end of 2019.

For more details on TIME'S UP Healthcare or to become a partner or signatory, please visit www.timesuphealthcare.org. MM

Sharonne N. Hayes, MD, is professor of cardiovascular medicine at Mayo Clinic; founder of the Women's Heart Clinic, Mayo Clinic; and Mayo Clinic's director of Diversity & Inclusion.





Cannabis and Alzheimer's disease

Tested and effective treatments for behavioral disturbances already exist

BY ALVIN C. HOLM, MD, FACP

n late 2018, I noticed that families of my patients were asking about the use of medical cannabis for the treatment of behavioral disturbances due to Alzheimer's disease (AD). As the medical director of a cognitive and behavioral disorders program, these questions represented a clear shift in the thinking of caregivers struggling with the behavioral consequences of AD affecting their family members.

The Minnesota Department of Health, as a result of its legislated endeavor to sanction indications for the use of medical cannabis, at that time had preliminarily authorized its use to treat Alzheimer's disease, including associated behavioral disturbances. Alzheimer's disease becomes one of the qualifying conditions for use of medical cannabis as of July 1 this year.

Evidence for the use of medical cannabis for behavioral disturbances in AD is remarkably weak while behavioral disturbances are imminently manageable with conventional therapies. Why, then, would the State of Minnesota make such a determination? The answer to this question requires a review of the past and present state of our health care system relevant to this matter.

In 1976, Robert Katzman, MD, wrote of the impending epidemic of AD in his seminal editorial in the Archives of Neurology. At that time, more than 1.2 million Americans suffered from the illness. Today the estimates are approaching 6 million and the number will more than double by 2050. In the state of Minnesota, it is estimated that 94,000 adults suffered from AD dementia in 2018 with this number increasing to 120,000 by 2025, a 27.7 percent increase over seven years. These numbers are significantly higher when adults with less-than-dementia levels of cognitive impairment due to AD are included.

AD results in impairments in cognition, function and behavior and, while cognitive and functional impairments deservedly attract attention in any discussion of dementia, it is the nearly ubiquitous presence of behavioral disturbances complicating AD that significantly affects morbidity and economic costs associated with this illness. These realities dictate the need for health care institutions to provide greater access to appropriate care services in support of AD patients and their families.

A principal driver of interest in alternative and less proven therapies—now including medical cannabis—for behavioral management in AD relates to a common misperception that effective therapies for such complications do not exist. When I puzzle over why such a perception exists, I come to one conclusion: the structure and operation of today's health care system often fails to create opportunities for patients with neuropsychiatric complications of AD and their families to find and access effective care.

What is the evidence for the effectiveness of medical cannabis in the management of behavioral disturbance in AD? Not much. Although cannabis has been used both recreationally and medically for thousands of years, it has been only since the 1960s that the biochemistry and neurophysiology of the endocannabinoid system has begun to be unraveled. To date, only a handful of clinical studies relevant to this discussion have been published and none address the important matter of hormesis for single as well as combination cannabinoid therapies. This experience should be contrasted with the extensive body of literature validating currently available therapies. While not intended to discourage creativity in the development of new strategies to treat AD, we should

acknowledge the difference between a potentially promising therapy for AD with more proven approaches to management that are currently available.

There are decades of studies demonstrating effective approaches to the management of behavioral disturbances in AD that utilize the principles of geriatric medical, neurological and psychiatric care; behavioral and environmental management; and the judicious utilization of standard biological and somatic therapies. A study published by my group at Bethesda hospital 20 years ago identified comorbid neuropsychiatric illness to be the most common cause of dysfunctional behaviors in dementia. Treatment resulted not only in the elimination of dysfunctional behaviors but also the preservation of cognitive and functional capabilities.

The aforementioned informs us that the often-cited lack of FDA-approved therapies for behavioral disturbance in AD is not to be considered synonymous with a lack of effective treatment. We should acknowledge that currently available prescriptive therapies carry risks in treating Alzheimer patients. Frequently noted are the identifiable risks of morbidity and mortality associated with both first- and second-generation antipsychotics. Having an appropriate and balanced perspective of these risks, however, demands also an understanding and appreciation of the risks of morbidity and mortality associated with failure to effectively treat such complications and the appropriateness and potential risks of less proven therapies.

When I entered practice in St. Paul in 1989, there were no formal programs dedicated to the evaluation and treatment of medical and behavioral disturbance in AD and other dementing illnesses. The community perception was that such complications were, in fact, immutable aspects of dementia unless one were willing to render a suffering patient so dysfunctional with treatment that they could no longer engage in problematic behaviors. In 1992, the health care organization I worked for supported the development of an inpatient program specifically dedicated to the evaluation and management of such problems as part of a larger endeavor to address the cognitive and behavioral needs of adults with acquired brain injury. As noted, published research from our program demonstrated that appropriate treatment could result in improvements in global outcomes. These treatments relied upon standard therapies applied by a team of care professionals dedicated to the mastery of evaluative and therapeutic techniques provided within an inpatient setting. Subsequent experience with more than 10,000 patients over nearly 24 years at Bethesda Hospital only served to reinforce these conclusions.

This inpatient program at Bethesda Hospital closed in October 2016. Since then I have found it increasingly challenging to secure appropriate hospital settings for patients in need of acute care. There are geriatric psychiatry programs in St. Paul that explicitly refuse to admit older adults known to suffer from dementia. They are perceived as being inappropriate for standard inpatient psychiatry programs and commonly don't meet admission criteria to acute medical settings despite having complex needs. When admitted, it is often to a medical unit where appropriate team expertise for such care does not exist. At discharge, effective follow-up is often not available or provided; as a result, readmission to an emergency setting or further displacement from the home or long-term setting frequently en-

In my experience, the system priorities that should dictate more thoughtful analysis of how to provide effective care becomes lost in the parceling not only of care paradigms, but also of balance sheets that determine the success or failure of business models of care. Over the last 10 years, I have witnessed nothing short of

the deliberate dismantling of our generational investment in program development meant to serve the needs of our community as it relates to patients and families who struggle with brain injury. We, as health care providers, should expect more from our business leaders—and ourselves—in this important endeavor.

Meanwhile, the use of medical cannabis in the management of behavioral complications of Alzheimer's disease should be encouraged based upon its merits as demonstrated by a more rigorous scientific understanding of its clinical utility and not because of a misperception of a lack of effective therapies—a misperception enabled in part by health care systems that fail to provide adequate opportunities for patients and their families to find and access quality care for these complications of Alzheimer's disease. MM

Alvin C. Holm, MD, FACP, is the founder and director of the Cognitive and Behavioral Disorders Program at Bethesda Hospital in St. Paul and a staff physician in the GRECC at the VAMC in Minneapolis.



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LET ME HEAL: THE OPPORTUNITY TO PRESERVE EXCELLENCE IN AMERICAN MEDICINE

The history of residency programs is still being written

BY CHARLES R. MEYER, MD

973 marked the Watergate hearings with North Carolina Sen. Sam Ervin's slow drawl interrogating one White House miscreant after another and every day revealing another one of Richard Nixon's deceptions. Although the hearings were on my radar screen, my biggest blip that year was applying to internal medicine residency programs. In my peregrinations to visit seven or so programs, Ervin-like, I investigated what was important—call schedule, attending physician involvement in teaching and degree of responsibility granted to residents. Over the next three years I gradually acknowledged the wisdom of my match and exited residency grateful for what I had learned and how I had learned it. Medical school lit the fire for medical practice but residency launched me.

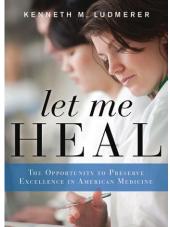
Residency is still a large blip on the screen of medical students but the blip has changed since 1973. The magic day in March when the results of the residency match are announced is still a breathholder for fourth-year medical students but the road to the match is tougher. Rigorous competition for prize residency spots can spawn 60 or more applications and multiple expensive trips for interviews. A disappointing match can lead to depression and a frantic scramble to find a position outside the match.

Residency in 2018 is the end result of an evolution in the training of doctors that began in the 19th century. Kenneth Ludmerer, MD, professor of history at Washington University, traces that evolution in his latest book *Let Me Heal: The opportunity* to preserve excellence in American medicine and reminds us that the training of physicians was originally haphazard at best. After completing medical school, a poorly disciplined program of two winter sessions of lectures and book learning followed by a test, physicians had to scramble to "learn the trade," hopefully to gain

hands-on experience with patients. Their primary option was an apprenticeship during which they contracted with a practicing physician to spend time in his practice. Unfortunately, that time might involve only menial tasks such as cleaning glassware or keeping the books. According to Ludmerer, "many preceptors made little effort to provide systematic instruction, keep up-to-date with recent medical developments, or offer trainees sufficient clinical opportunities." In 1867, the AMA proclaimed such training "worse than useless."

During the late 19th century, a fortunate few who fulfilled the requirements for "subordination, capacity for labor and conduct" landed "house physician" positions in which they followed attending physicians on their rounds at a general hospital. House physicians traded the valuable clinical exposure for an unpaid indentured existence that included a ban on marriage and a requirement to stay in the hospital at all times.

Post-graduate medical education advanced in the late 19th century as specialization began to escape its reputation as the haunt of itinerant quacks and charlatans; American physicians seeking clinical experience in their specialty initially had to travel to France or Germany. Prompted



by doctors who had this European experience, Johns Hopkins started the first residency program that promised physiciansin-training patient responsibility, faculty supervision and teaching of medical students with the goal of producing "clini-

cal scientists." These same themes recurred as post-graduate education matured.

Residency programs in the early 1900s burgeoned with their own peculiar variations, while incorporating those same principles. Ludmerer chronicles residency programs' response over the ensuing years to the challenges of DRGs which he says initiated the era of "high throughput" of patients, government funding with the advent of Medicare and Medicaid, changing lifestyle demands and needs of entering residents, the demise of the pyramid system that had tapered available residency slots as residents progressed through the system, the advent of the 80-hour work week requirements, and doctor burnout. Ludmerer's analysis of the history of residency is exhaustive and at times exhausting as he reiterates the themes of residency programs—sometimes to the point of tedium.

What Ludmerer does make clear is that the evolution of post-graduate medical education is not finished. As tectonic shifts in medicine and medical economics continue, residency programs will again have to adapt and medical students and residents will have to refocus their radar and rekindle their fire. MM

Charles R. Meyer, MD, is the former executive editor of Minnesota Medicine.

Screening for breast cancer in women with dense and very dense breasts: A survey of primary care practice

BY ELIZABETH A. GILMAN, MD; JENNIFER FRANK, APRN, CNP; SUMMER V. ALLEN, MD; AND DENISE M. DUPRAS, MD

Increased breast density is common and increases breast cancer risk by as much as 3%. The purpose of this survey was to determine breast cancer screening practices of primary care providers in women with dense and very dense breasts.

A 16-question, anonymous REDCap survey was sent to primary care providers at Mayo Clinic Rochester to determine the use of supplemental screening and assess provider knowledge, approach, comfort level and educational preference in discussions with patients. This study was approved by the Institutional Review Board.

Eighty-one of 178 primary care providers responded (46%). The majority (89%) counsel patients some of the time that breast density is a risk factor for breast cancer and 65% of providers reported they receive questions monthly about breast density. Most providers offer supplemental screening to patients, but less than half (48%) are comfortable discussing these options. Most want additional guidance about which patients should be offered supplemental screening. Only three respondents considered themselves extremely knowledgeable and 13 (16%) were not at all comfortable in discussing options. Cited resources regarding supplemental screening were lectures at meetings (42%) and Ask Mayo Expert (58%). Most providers (71%) said they would use a riskcalculation tool that includes breast density.

Primary care providers are aware of the risks of breast density and, in general, are comfortable having discussions with patients regarding risks and ordering supplemental screening tests. The majority, however, would appreciate additional aids for counseling patients with increased breast density on cancer risks and screening options.

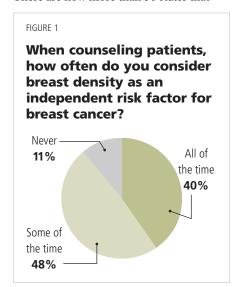
Introduction

Mammographic breast density is an independent risk factor for breast cancer. Breast density is most commonly designated using the American College of Radiology's Breast Imaging Reporting and Data System (BI-RADS) four-category scale: a = the breasts are almost entirely fatty; b = there are scattered areas of fibroglandular density; c = the breasts are heterogeneously dense, which may obscure small masses; d =the breasts are extremely dense, which lowers the sensitivity of mammography. Approximately 50 percent of women screened will fall into either category c or d, and are considered to have mammographically dense breasts.

The risk of breast cancer is increased in women who have very dense breasts (category d) compared with women who have predominantly fatty breasts (category a)², although the exact risk may be multifactorial. 3 This elevated risk is compounded by the fact that increased density limits the

ability of standard mammograms to detect small cancers.4

Legislation requiring notification of women with mammographically dense breasts went into effect on August 1, 2014 in Minnesota. The first state to initiate such legislation was Connecticut in 2009. There are now more than 30 states that



have adopted this requirement. At our institution (Mayo Clinic), a woman receives a letter if they have dense breast tissue (classification c or d), which encourages communication with their primary provider regarding the findings on mammogram. It is unclear how often a discussion takes place between primary providers and patients and whether or not this discussion is initiated by patients in response to the communication they receive regarding their breast density. There is a lack of consensus regarding supplemental screening options—and even whether additional screening is warranted. The United States Preventative Services Task Force has not made a recommendation regarding supplemental screening in women with dense and very dense breasts. Decisionmaking is further complicated because of the potential harms of false positive breast cancer screening and overdiagnosis, which is more prevalent in women with mammographically dense breasts. These harms include the potential of significant anxiety related to the findings on supplemental screening and potential unnecessary procedures, which could result from false positive screening.

The goal of this study was to describe the Employee and Community Health (ECH) practice at Mayo Clinic in Rochester, MN related to breast cancer screening in women with mammographically dense breasts. We sought to determine the provider's knowledge about and comfort with counseling women regarding supplemental screening options for women with dense and very dense breasts. We also wanted to determine who initiated the conversations about supplemental screening, and resources that they used to guide their knowledge and discussions. A final goal was to determine if decision support tools would be useful for their practice.

Methods

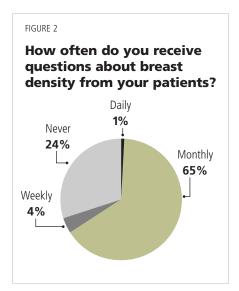
We created a 16-question survey designed to assess knowledge, comfortability around having discussions with patients, attitude and practice with regards to supplemental breast cancer screening, and needs/wants regarding further information and decision support (Appendix A). Voluntary anonymous demographic data was also collected.

The survey was administered and data collected using the REDCap Survey tool (REDCap Software - Version 5.0.20— ©2017 Vanderbilt University). The survey was emailed to all permanent staff (physicians, nurse practitioners, and physician assistants) in primary care practice in Employee and Community Health (ECH) at Mayo Clinic. This included internal medicine and family medicine providers. Providers were excluded if they provided only acute patient care, but not continuity patient care. Physician residents were excluded from the survey.

The initial survey was sent in March 2016. Reminders to complete the survey were sent two and three weeks after the initial survey email. The survey was closed after one month. All provider responses were collected anonymously. Survey results were analyzed qualitatively using

JMP software (JMP Pro 10.0.0; ©2012 SAS Institute Inc.).

Results



Surveys were sent to 178 ECH primary care providers at Mayo Clinic. Of these, 81 (46%) responded. Fifty of the respondents were female, 30 male and one did not specify gender. Fifty-three identified themselves as physicians (MD/DO) and the remaining 28 were advanced care providers (physician assistants/nurse practitioners). The respondents were from family medicine (51%) and primary care internal medicine (49%). Of those who responded, 38% had been in practice more than 15 years, 14% eleven to fifteen years, 21% five to 10 years, and 18% less than

Most providers reported knowledge of the definition of mammographically dense breasts, and the majority considered breast density as a risk factor for breast cancer (Figure 1). The majority of providers (84%) were aware that their patients receive written notification related to breast density. Seventy percent of providers reported receiving questions regarding breast density from patients one or more times a month (Figure 2).

When asked about knowledge and comfort regarding supplemental screening options for breast cancer in women with dense and very dense breasts, 48% were moderately or completely comfortable having these discussions, but 21% of providers responded as being "not very knowledgeable" or as "I have no knowledge" (Figures 3 and 4). More than 88% percent of providers offer at least some of their patients supplemental breast cancer screening.

Four out of 81 providers could not name a supplemental screening test. Tomosynthesis was mentioned 46 times, molecular breast imaging 31 times, Magnetic Resonance Imaging 20 times, and ultrasound four times. There were varying answers when asked what influences the choice of supplemental screening test. Ask Mayo Expert (a guideline and expert opinion-based tool developed at Mayo Clinic) was most frequently cited as a resource for management of a woman with mammographically dense breasts. It was also the most influential of the choices. The second most commonly reported resource was lectures at local/regional meetings. A third of providers took patient choice into consideration when choosing which supplemental screening test to order.

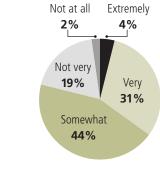
Only one provider reported no need for additional educational/resources for managing women with dense breasts. Almost two-thirds of responding providers wanted a breast cancer-risk calculator that includes breast density. Other common reported needs were continuing education and integration of information into Mayo Clinic's Generic Disease Management System, a system integrated with the electronic medical record (EMR) that provides recommendations for preventive services and disease management.

Discussion

Increased recognition of the relationship between breast density and cancer risk has led to a need to better define the options for supplemental screening in women at increased risk of cancer due to breast density. More than half of the states in the United States now require that women be notified if their breasts are dense on mammography. Mammographic density is an independent risk factor for the development of breast cancer and can also make it more difficult to visualize small cancers.6 Estimates suggest that if all women in the

United States were screened, more than half would be impacted by this legislation because they have dense or very dense breast tissue (categories c and d).7

FIGURE 3 How knowledgeable are you regarding the options for supplemental screening for women with dense or very dense breast tissue on mammogram? Not at all Extremely



It is unclear how legislation affects primary care practices at this point. A study was recently published looking at the impact of the breast density law on California primary care physicians. In this study, out of the 77 physicians that responded almost half (49 percent) were unaware of the legislation and only a third (32 percent) heard concerns from patients who had received the letters about density. Only six percent felt comfortable having conversations with female patients with dense breasts and answering patient questions. This California study did not address supplemental screening options.8

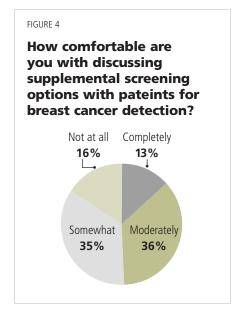
The primary goal of our study was to assess the knowledge of primary care providers and to define the primary care practice at Mayo Clinic in Rochester regarding the approach to patients with mammographically dense breasts. We anticipated the findings would identify opportunities for practice improvement and better support for providers in counseling patients with mammographically dense breasts. While more providers in our survey were comfortable having discussions with patients compared to those in the California study, providers still wanted more resources for

counseling on risk and determining the best, if any, supplemental screening test.

Although there may be benefits to notifiying women of breast density and supplemental screening tests for breast cancer, it is not without harms, including the risks of false positives that cause personal stress and more screening and ordering of supplemental screening tests. Radiologists may be inconsistent in mammogram reading and assigning density, which determines who gets notified and who may undergo supplemental breast cancer screening. Patients and providers must have the opportunity to have conversations regarding the results, patients' history, family history, costs of additional screening, and the personal values and beliefs of their patients; shared decisionmaking about supplemental screening for dense breasts is essential. We found that few providers reported having patients ask about the letter they received telling them about breast density. Eleven percent indicated they felt completely comfortable having conversations with women about breast density. Recommendations evolving on a national level and more information about breast density highlight an opportunity for education of primary care providers to help counsel patients about whether supplemental breast cancer screening is indicated, what tools are available to help determine risk, and which test should be offered on an individual basis. Having the knowledge and tools available in clinic could help busy clinicians have informed discussions with women.

This study has limitations. First the study only surveyed the ECH practice. Findings may not be generalizable to other primary care practices. Second, our response rate was 46% and we cannot determine if the non-responders were similar to the responders. Given the relatively small numbers of respondents, we cannot assess differences between subgroups based on gender, time in practice, or training. Additionally, we surveyed what clinicians say they would do; this may not be what they do in practice. Our findings are also limited to the impact of breast density, as we did not assess providers' knowledge of

other risk factors such as family history or increased personal risk with additional screening practices. Nor did we ask about conditions that would qualify for MRI



screening. Lastly, we did not ask whether cost was a factor in decision-making for supplemental breast cancer screening.

This study adds to the knowledge regarding the approach of primary care practices to the care of women with increased breast density and the impact of legislation mandating reporting of increased breast density reported on mammograms.

Primary care providers are aware of the risks of breast density, but they would benefit from more education regarding supplemental breast cancer screening and the majority indicated they would appreciate additional aids for counseling patients with increased breast density about cancer risks. MM

Elizabeth A. Gilman, MD, is an assistant professor of Medicine in the Division of General Internal Medicine, Mayo Clinic. Jennifer Frank, APRN, CNP, is an instructor in Family Medicine, Department of Family Medicine, Mayo Clinic. Summer V. Allen, MD, is an assistant professor of Family Medicine,

Clarification

In a clinical article in the May/June issue of Minnesota Medicine, the Methods section should have stated that data were obtained from the Fairview tumor registry as reported to the Minnesota Cancer Surveillance System (MCSS), not directly from the MCSS.

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Clinical AND Health Affairs

(continued from previous page)

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Institutional funding was used for this publication.

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JENNIFER DENS HIGANO, MPP, BA IN ARCHITECTURE

- Third-year medical student
- Mayo Clinic Alix School of Medicine, Rochester
- MMA member since 2017
- Originally from Brainerd. Graduated from University of Minnesota. After graduation, worked for the federal government doing design and construction management, then for the University of Minnesota as a campus planner. Finished her master's in Public Policy at the Humphrey School before going to medical school.
- Met her husband, Alex, when they were both in the University of Minnesota marching band. He is a percussionist and school counselor. They are expecting their first child this winter.

Became a physician because ...

When I was working in architecture and project management, I had the opportunity to work on several projects in health care, which gave me the chance to hear about the work of medicine from many different people. I liked what I heard about interactions with patients, thinking through medical problems, collaborating with others and the meaning physicians found in their work. At that point I was looking around for the next step in my career. For me, medicine seemed like the right combination of meaningful human connection, intellectual challenge and creativity.

Greatest challenge facing medicine today ...

Change at an unimaginable pace, not only with the actual medical science, but also with technological and Al advances that will change how medicine is practiced, and by whom medicine is practiced. Keeping up within this changing environment, both the actual technology but also the regulatory/policy context, will be a huge shift.

Favorite fictional physician ...

The unnamed doctor in Macbeth. He cares deeply and spends a great deal of time with his patient, the Queen, only to realize that her problems are actually not medical. One of the first instances of social determinants of health and one of the earliest portrayals of



doctors in fiction that set us up for a long and rich history of interesting fictional physicians.

If I weren't a physician ...

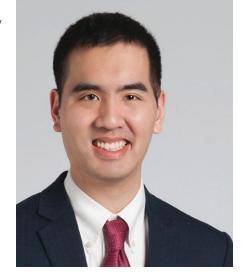
If I weren't going to be a physician I would probably have stuck with something in the architecture or design field, perhaps moving more toward health design or something similar.

CHRISTOPHER WEE, MD

- Hematology and medical oncology fellow
- Mayo Clinic, Rochester
- MMA member since 2018
- From Bloomfield Hills, Michigan.
 Graduated from the University of Michigan and then Wayne State University School of Medicine. Residency at the Cleveland Clinic Foundation.

Became a physician because ...

Initially, I considered a career in government because I felt this was how I could make a difference in the world. Ultimately, though, after shadowing and working with an ophthalmologist over a summer in college, I realized I valued the personal impact of medicine. The physician-patient relationship is what gives me fulfillment and ulti-



mately was the reason I chose to be an oncologist; I want to help guide patients through some of their most challenging times.

Greatest challenge facing medicine today ...

As medical knowledge continues to grow exponentially, we are going to have to work collaboratively more than ever. This will make health care delivery more complex, so we

will need to optimize systems to make sure we do not compromise the physicianpatient relationship.

Favorite fictional physician ...

JD from the TV show "Scrubs" is a favorite of mine because we get to see his growth as a physician from day one of his intern year to a career in medical education.

If I weren't a physician ...

I actually have a minor in music and would probably be a music teacher, perhaps a band director. While I do not use my musical skills directly in my career, the valuable lessons I learned from playing an instrument and being part of ensembles continue to guide how I work and live. In fact, I occasionally still play the tuba in the University of Michigan Alumni Band.

























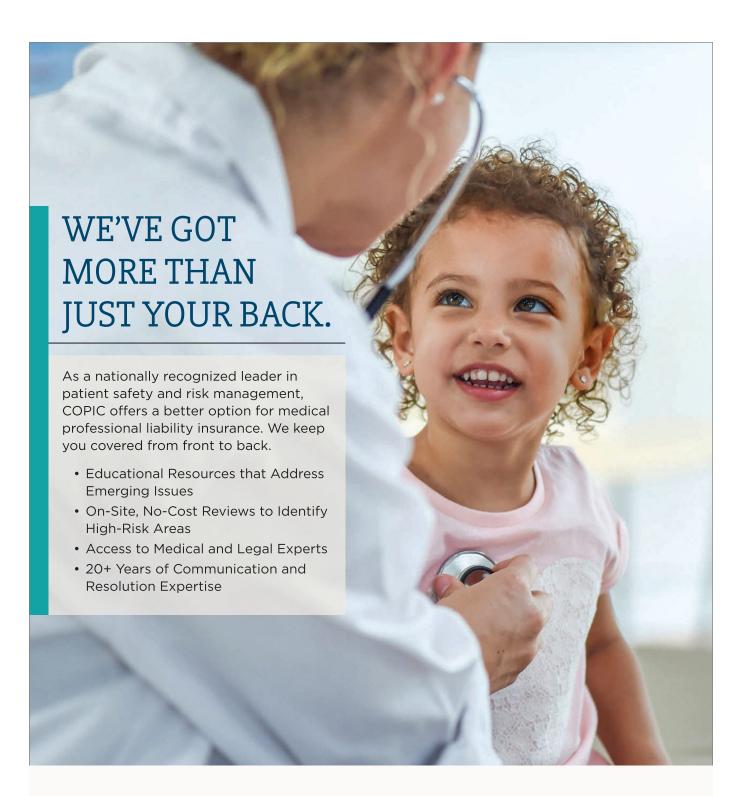


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