

# MINNESOTA MEDICINE

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## THE MERGERS

# FUTURE

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MINNESOTA MEDICAL ASSOCIATION



## Faces of a St. Paul Family

The Twin Cities was recently named as the 'Best Place to Live in the United States' (Patchofearth.com). Why not? We're green; we have great food and entertainment, and a robust job market.

But what really makes a city great? The people. And what makes great people? Great families, and here are some faces of a great St. Paul family.

Our Capitol City boasts a great family of its own: The Crutchfields.

Arriving to pursue education, Dr. Charles Crutchfield Sr. and Dr. Susan Crutchfield became two of Minnesota's best-known and respected physicians over the past half century. The first African American woman to graduate from the University of Minnesota Medical School in 1963 (at age 22, also the youngest, ever!), Dr. Susan achieved diplomate status on the American Board of Family Medicine, spending twenty years practicing occupational medicine as Vice President and Medical Director for the Prudential Insurance Company of America and has served in a range of positions including medical director of McAllister College and the Metropolitan Health Plan.

Dr. Charles Sr. broke ground as the first African-American OB/GYN in Minnesota. An Alabama native, he went from "shining shoes and picking cotton to saving lives." An early sign of success, Dr. Charles Sr. was Intern of the Year at Ancker (now Regions) Hospital. In over 40 years of practice, he has delivered nearly 10,000 babies between Fellowships in the American College of OB/GYN and teaching at his alma mater.

As civic leaders, Dr. Susan served as chair of the Minneapolis Children's Hospital Board, and Dr. Charles served as chief of OB/GYN at United Hospital. They continue to work tirelessly to improve children's health and health care access for minority women.

The Crutchfields' children and grandchildren excel in medicine, law, movie production, photography, philanthropy, and cultural education. Their accomplishments are featured regularly in published accounts of historical and present-day St. Paul.

Their son, Dr. Charles III is one of our community's leading dermatologists with a practice known as a national model of delivering effective care. He serves as team dermatologist for the Twins, Vikings, Timberwolves, and Wild. He is a frequent guest on TV and radio, has published more than 100 dermatology articles, co-authored a textbook and children's book on sun protection, and holds multiple patents for skin medication.



Charles Crutchfield Sr., MD and Charles Crutchfield III, MD, present day



Charles Crutchfield Sr., MD and Susan Crutchfield, MD at the U of M Medical School graduation in 1963. Charles Crutchfield III, was 3 years old.

"My parents' stature as physicians made practicing medicine in Minnesota easy," he explains. "Here I am. Same city. Same name. People come to me as a doctor because of their reputations. I do my best to honor the Crutchfield name by serving my patients to the best of my abilities."

Dr. Charles III established the "Doctors Charles and Susan Crutchfield Annual Lectureship" at the University of Minnesota. Focused on advancing the treatments for 'Skin of Color,' the Crutchfield Lectureship fittingly reflects a commitment to improving lives in Minnesota and beyond.

"My parents and I have the same philosophy," says Dr. Charles III. "When you do something you love in a place you cherish, it is not work at all. I love the ability to use my skills to help people in my community when they most need it."

The Crutchfield family has created a rich medical legacy in the Twin Cities; Indeed.

**Charles E. Crutchfield III, MD**, is a graduate of the Mayo Clinic Medical School and a Clinical Professor of Dermatology at the University of Minnesota Medical School. Dr. Crutchfield is an annual selection in the "Top Doctors" issue of Mpls. St. Paul Magazine and is the only dermatologist to have been selected as a "Best Doctor for Women" by Minnesota Monthly magazine since the inception of the survey. Dr. Crutchfield has also been selected as one of the "Best Doctors in America," Dr. Crutchfield is the co-author of a children's book on sun protection and dermatology textbook. He writes a weekly health column for the Spokesman Recorder Newspaper and was selected as one of the "50 Over 50" honorees by AARP. He is a member of the AOA National Medical Honor Society, an expert consultant for WebMD and CNN, and a recipient of the Karis Humanitarian Award from the Mayo Clinic School of Medicine.



# HOW TO BE HEARD

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## STEP 1

### SHARE YOUR IDEA

*through one of these six channels*

- 1 CALL, EMAIL OR WRITE THE MMA
- 2 POLICY FORUMS
- 3 MMA WEBSITE
- 4 LISTENING SESSION AT YOUR CLINIC
- 5 COMPONENT MEDICAL SOCIETIES
- 6 SPECIALTY SOCIETIES

UPON RECEIPT, YOUR ISSUE PROCEEDS TO

## STEP 2

## STEP 2

### ISSUES ARE TRIAGED

- 1 BROAD IMPACT ON MINNESOTA PHYSICIANS?
- 2 WITHIN MMA'S ABILITIES/EXPERTISE?
- 3 LEGALLY PERMISSIBLE?
- 4 FURTHER INFORMATION NEEDED?
- 5 ALIGNED WITH MMA'S MISSION?

ISSUES WITH THE HIGHEST IMPACT MOVE TO

## STEP 3

## STEP 3

### ISSUES ARE CONSIDERED

*through one of these three forums*

- 1 POLICY COUNCIL
- 2 STANDING COMMITTEES
- 3 TASK FORCES

IF ONE OF THESE GROUPS ACTS ON YOUR ISSUE, IT PROCEEDS TO

## STEP 4

## STEP 4

### LAST STEP!

Issues are acted upon by the Board of Trustees.

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ADOPTED IDEAS BECOME

## MMA POLICY



# NEW POLICY

SHARING YOUR ISSUE  
MADE A DIFFERENCE

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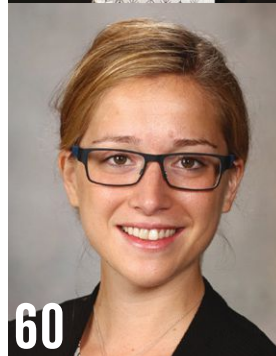
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# MINNESOTA MEDICINE

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Our challenge is to focus on the compassion of care, and to support delivering it within a system that is healthy for all stakeholders.

## Looking to the future

Technology must support compassion

The future of health care is informatics—the collection, storage, aggregation, dissemination and application of information or, more simply, information science.

The present and future of health care is driven by business—although this is not where health care began and the transition to a business orientation has been at best awkward. The true heart of health care is patients and the business we are providing is clinical care. Attempting to fit the restrictions of cost into the context of care delivery is messy. On the bright side, these restrictions have forced health care providers—both systems and individuals—to adapt to the introduction of technology more quickly than might have occurred without pressure.

However, this intersection of divergent goals is unsatisfying for both patients and clinicians, as evidenced by rising physician burnout and diminished patient satisfaction with the time and quality of clinical encounters involving the use of a computer.

Many studies have evaluated the ability of artificial intelligence to replicate the work of physicians; recently, one showed that computers were able to outperform pathologists at identifying breast tumors. Most important, together they outperformed what either one could do alone. This finding is the central dogma of informatics: information technology is not better than a human, but informatics and humans together can be.

Our future is to optimize this opportunity so we can deliver compassionate care at a reasonable cost. This requires that healthcare administration be driven by clinicians as well as business leaders—and by patients. If both those delivering the service and those receiving the service are unhappy, we need to make a change.

The many domains in which informatics are applied in medicine will require the collaborative efforts of all involved stakeholders. Fortunately, Minnesota is uniquely positioned as a national leader in healthcare delivery, informatics and biomedical device development and we can set an example for our colleagues everywhere.

A speaker at this year's Minnesota Medical Association annual conference pointed out that compassion heals what medicine cannot. This simple and astute observation embodies what motivates physicians to do their job. We are more than just pill dispensers or procedural robots.

The much discussed dissatisfaction and burnout of physicians providing clinical care is at least partially because technology is not helping us be more compassionate, but less. The gap appears to be in the intersections of clinical care, technology and administrative demands. Until we leverage multidisciplinary individuals or teams to address clinical and administrative needs together, we likely will continue to develop suboptimal solutions.

Our challenge is to focus on the compassion of care, and to support delivering it within a system that is healthy for all stakeholders.

In the short term, we may need to use our limited resources to manually collect data, implement simple process change and disseminate relevant findings so we can demonstrate how point-of-care clinicians can improve processes aligned with organizational goals. Despite institutional barriers, we must stop telling our concerns and instead start showing how informatics-oriented changes can add business-relevant value. **MM**

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

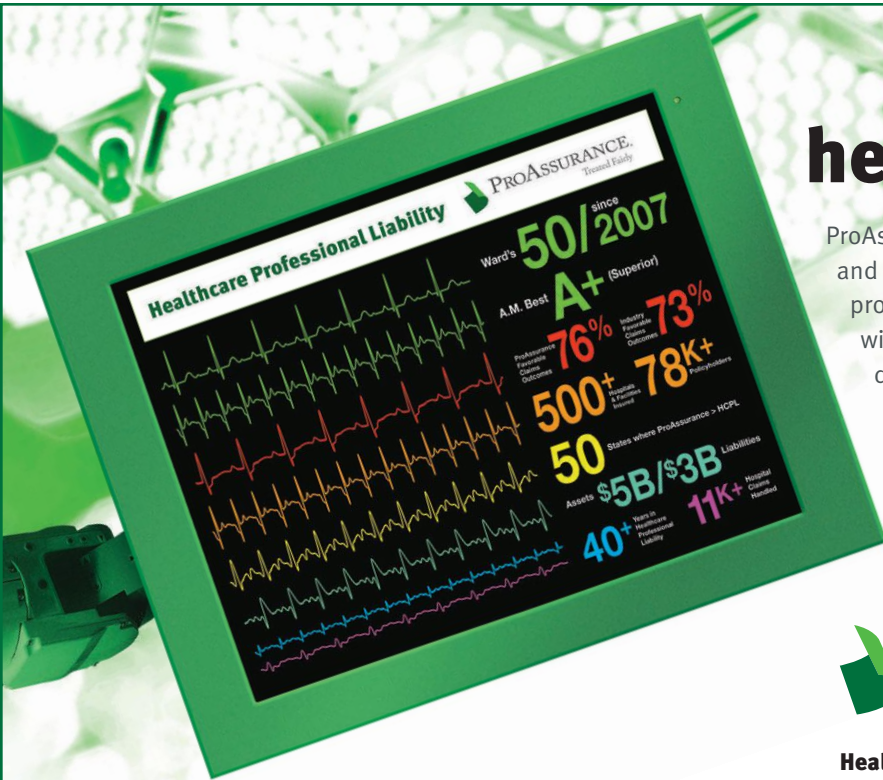
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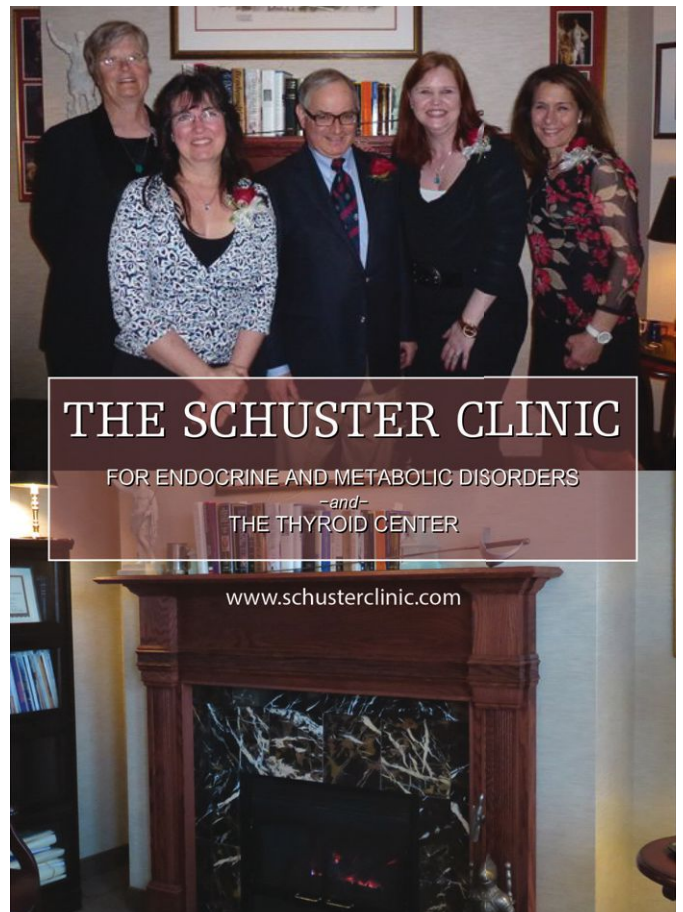
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# How to contact your physician? Let me count the ways

BY JON HALLBERG, MD

Remember when you either talked to patients in your clinic or followed up a visit with a phone call?

It seems like the distant past today, although many of us started our careers when that was the case. We might have missed some things, especially the patients who “didn’t want to bother” us with a phone call—even when that might have helped them avoid pain or complications.

But ah, those were almost halcyon days for the physician.

After a busy clinic day recently that included responding to emails, voicemails and other messages, I decided to list the ways that my patients now get in touch with me—or at least try to:

1. Face-to-face clinic visit.
2. Face-to-face visit outside of clinic—like on the sidewalk, in a restaurant, coffee shop, etc.
3. Phone call directly to my office.
4. MyChart (or similar EHM/EHR) message.
5. Private email message.
6. Letter to clinic.
7. Fax to clinic.
8. Note left on clinic office desk.
9. Walk into private office space in clinic (despite “Private” sign).
10. Wait in lobby/near entrance for physician to arrive.
11. Verbal message left through staff (front desk, CMA, nurse).
12. Message conveyed through spouse/partner.
13. Letter to my home address.
14. Pager.
15. Call to my cell phone (I don’t give my number to patients).
16. Call to my (private!) home phone
17. Message left on academic office phone—despite instruction saying not to leave a message.
18. Letter to my academic address.
19. Fax to my academic address.
20. Facebook (with a post on my “wall”).
21. Facebook Messenger.
22. Text messages.

I’ve been contacted in every one of these ways at least once within the past year.

My preferred way of communicating with patients—other than actually seeing them in clinic, during a scheduled appointment or talking to them on the phone—is MyChart, because the commu-





nication is in the record and I can respond to their specific concerns, having my staff help as needed. I don't prefer email as a means of patient communication, but at least it allows me to read what I write before I send it. I have older patients who tell me they are not going to do MyChart, but I have to remind them that it will be much harder to get in touch with me. Typically, I'm a pretty fast responder to MyChart questions from patients—so when I don't get back quickly, they wonder what's wrong. I know I'm building in expectations that I can't always maintain.

How did we deal with this before? How did we get through the day when not every patient could instantaneously get in touch when he or she wanted? There are days when I'm absolutely exhausted and just can't deal with one more thing. And then a MyChart message appears with three dense paragraphs of symptoms. And then an e-mail. Then a call to my phone. Then a page. No wonder some of us get burned

There are days when I'm absolutely exhausted and just can't deal with one more thing. And then a MyChart message appears with three dense paragraphs of symptoms.

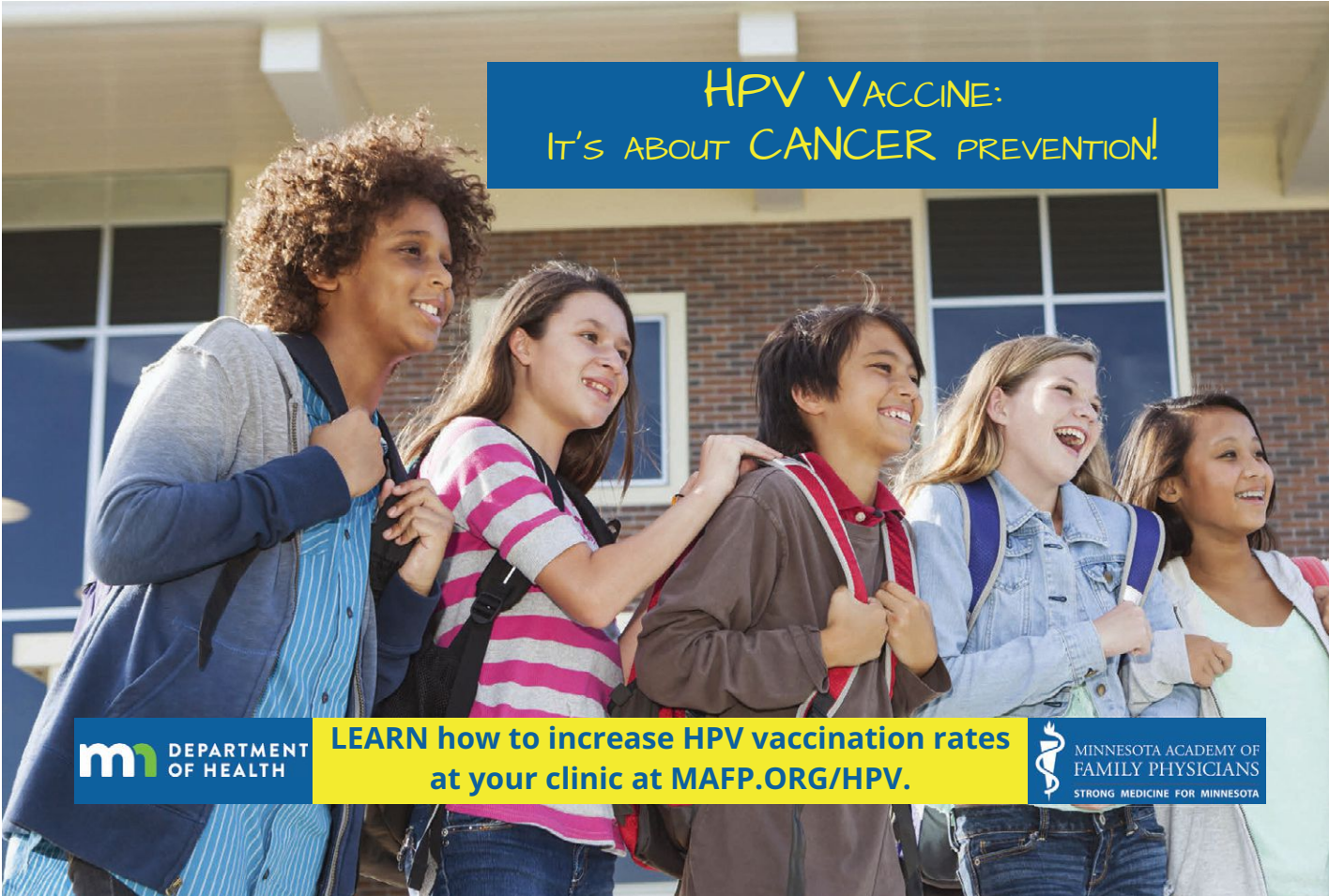
out when we can be contacted 22 different ways.

I once spoke to an extremely tech-savvy physician who suggested that we make it clear in our practices how we prefer to

communicate with our patients up front. Not all of us need to communicate in every possible way. If someone wants to give their cell number to patients, great! Others might only communicate through MyChart with routine information and phone calls with significantly abnormal results. Collectively, a clinic can use a number of means of connecting.

If a message of any kind comes in during a weekend when I'm not in clinic and not on call, I often just pretend that I didn't see it, then I deal with it on Monday. At least in theory. As a Type A doc with OCD-like tendencies (like most physicians), it's hard to let things accumulate. I like an empty in-box, both real and virtual. MM

Jon Hallberg, MD, is medical director of the University of Minnesota Physicians Mill City Clinic, associate professor of Family Medicine and Community Health and director of philanthropy in the Department of Family Medicine and Community Health of the University of Minnesota Medical School.



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*Minnesota Medicine* started 2018 with a look at history—of the magazine, which launched in 1918, and of medicine in Minnesota.

The past is easy; we know how it all turned out, at least so far. The future is hard—and sometimes scary—because with the advances in science and medicine we’re seeing right now, come challenges in everything from resources to ethics to priorities.

We asked a number of experts to talk about what the future of medicine might look like. Their thoughts help us understand the world we’re facing—and make us want even more information.



**THE MERGERS**  
**FUTURE**  
DATA INFORMATION COLLABORATION INFORMATICS TECHNOLOGY  
ACQUISITIONS GENOMICS ACCESS  
DEMO RATION GRAPHICS  
MICRO ENVIRONMENT

# What if...?

Let's talk about the future we want

BY MARK EGGEN, MD

There are so many issues in U.S. health care, the single largest industry ever created anywhere in both relative and absolute terms. The medical-industrial complex looms large in government affairs, and its contributions to elected officials tend to dampen any real productivity improvements. But if we start asking the “what if ...?” questions—even what seem like outrageous ones—we might see our way to a new future, where health care is better, better delivered, less expensive and more often provided at the right moment (early rather than during a health crisis).

Mark Eggen, MD, is an anesthesiologist in Minneapolis.

**What if** we had a Health Care Board, in the fashion of the Federal Reserve? Congress sets a health care budget and the Board determines how to spend the limited resource for the best return on investment? Think how this could drive down pricing; every vendor would want to be on the paid-for part of the list of all potential care. Best of all, for the most part, it would get elected officials out of the equation.

**What if** rural access hospitals provided only urgent care, with transportation to larger facilities for most other care?

**What if** we applied Moore's Law—which says that the number of transistors in a dense integrated circuit doubles about every two years—to health care? Said another way, the cost of transistors is halved every two years. Health care has no option but to get “better, cheaper and faster” like every other industry. Serious disruption is in order.

**What if** we had a health care system focused on “better, cheaper and faster”?

**What if** cost of care was transparent and patients/customers could shop for health care services?

**What if** we were able to cut public health care expenditure in half, from \$2 trillion to \$1 trillion a year. What could be done with a \$1 trillion windfall? Pay down the national debt (>\$20 trillion), improve education, tax relief. Wait a minute, the Federal budget is running a \$1.2 trillion annual deficit. Maybe we could just live within our means.

**What if** we had a health care system that expected more “skin in the game” from the patients?

# Mergers and

## But with a Minnesota difference

HealthPartners and Park Nicollet, the University of Minnesota and Fairview, Fairview and HealthEast, Allina and Aetna...

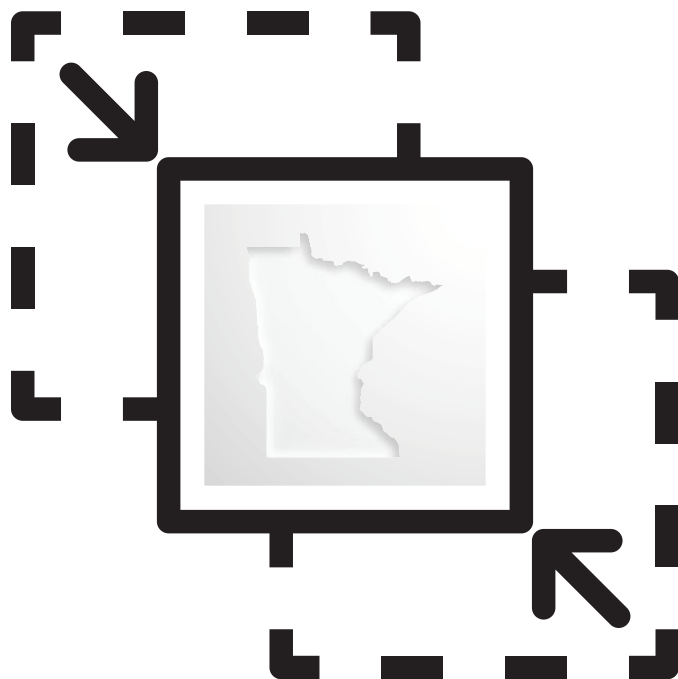
Mergers and acquisitions of health care organizations have been proceeding apace in the last few years, and they're not likely to stop, says Stephen Parente, PhD, MPH, MS, professor of finance and the Minnesota Insurance Industry Chair at the Carlson School of Management and Finance at the University of Minnesota. It's the story of health care nationally and in Minnesota—in particular, the Twin Cities.

But, as in so many things, “the Twin Cities as a market is different,” says Parente. “The big folks have been getting bigger and better.”

“Short-term, those waves are going to continue,” says Parente, who was nominated in April 2017 as assistant secretary of planning and evaluation for the U.S. Department of Health and Human Services. “The thing that is interesting to think about in the future is mega-mergers. Suddenly there's an acquisition from out of state.”

The Twin Cities is ripe for acquisition or merger by a health system like Kaiser Permanente out of California or Geisinger Health out of Pennsylvania, says Parente, and at the same time, health systems in the Twin Cities are less likely to be subject to acquisition or merger because of their own strengths.

“Right now, everything we have that is a major brand is a Minnesota brand,” says Parente. “Mega-mergers could happen in the future, but it requires the culture of an institution to agree to that type of merger. If there's anything we've learned in looking at the



medical profession and the hospital profession it's that there's intense pride in what people do in these professions and the dedication they have and the legacy they have. And there's the community as well, the community wants it to be theirs as well. Typically, you don't see these kinds of acquisitions unless the community has exhausted all of its resources. The Twin Cities and Minnesota is a pretty vibrant economic community.”

Technology has, theoretically, made it easier for health systems to acquire clinics and hospitals, but the promise of technology—in particular, electronic medical records—is still not fully fulfilled. Large mergers, mega mergers, “require EMRs to work on a unified platform,” Parente says. “Technologically, that's possible, because a lot are buying from the same vendors. But it's not plug-and-play standardization. In part the gap is caused by the technology costs, but it's more the human capital costs of using the technology.”

Systems that have been successful in acquisitions and growth have led with their IT platforms, Parente says. “I think that's still

# acquisitions

right because that way you can measure performance and it helps to adapt a culture from the very beginning about performance. And you need that if you want to make the economic argument about why you want to have mergers.”

Will there be more consolidation within the Twin Cities market, in particular, even without mega-mergers? Yes, Parente says. With larger local health systems, there will be fewer independent groups. “I think there will still be some,” Parente says, “but definitely the trends are going more and more to employee doctors, particularly in this region. The notion of salaried physicians is more acceptable in this region.”

That is not only a financial positive for the health care organizations, it fits the preferences of many new physicians coming out of medical school and residency. “The labor force for the physician market today is a lot different,” Parente says. “Half the folks in med school today are women and whether men or women, they are demanding a different work-life balance. You go back 30, 40, 50 years, the profession was very male-dominated. Then, you put out your shingle, you have one or a handful of partners working with you. It was a pretty entrepreneurial, independent game. That world just doesn’t exist anymore.”

Today, “It’s so challenging now to work in an environment where you have to deal with the insurance companies, claims submission, earning enough money with claims to just keep everything running. With care management system investments, EMRs, coding challenges and time-consuming documentation requirements, one can see why people hire a clinic manager. New medical school graduates finish with significant debt, on average, and have few economic options when they start, other than taking a salary.”

Becoming an employee of a large organization can take a lot of the non-clinical responsibilities and financial uncertainty off the backs of physicians.

The increasing number of salaried physician positions in Minnesota may make it easier for acquisitions by local health care giants or for a mega-merger in the future; an important part of the culture is already in place.

From a patient perspective, Parente is very positive about the creation of larger health systems. “If I’m a patient and it’s a bigger system that prides itself on a brand of taking care of people, that

to me is potentially a big win,” he says. “What I want is someone that I give access to my EMR and no matter where I am, they access it and they add to it. If they’re all in the same system, that’s easier.”

Several things about the health care environment in Minnesota are unique, Parente says:

- The Mayo Clinic and health system, “which is obviously operating on an interstate, global basis. They pioneered that in a way other systems didn’t.”
- HealthPartners, “which is the most equivalent to Kaiser but with a different design. They are an insurer and a provider and they have been acquiring systems and new practices.”
- United Health Group, “which has Optum and Optum is making strategic investments to be a national provider operation.” “That puts us in a pretty unique spot, which is not a bad spot.”

Will Minnesota, or the Twin Cities, end up with one major health system? “I could see a scenario where there are two or three,” Parente says. “A lot of it becomes a question of brand and strategy. Maybe two or three regional major players that have ambitions beyond where they are. In the near term, the brands for the health systems that are here right now are fairly strong and it’s not clear that we are going to go to one super brand any time soon.” – INTERVIEWED BY LINDA PICONE, EDITOR, *MINNESOTA MEDICINE*

# A path forward to fixing health insurance coverage

It's likely up to Minnesota and other states **BY LYNN A. BLEWETT, PHD**

The Affordable Care Act (ACA) of 2010 provided new pathways to affordable health insurance coverage by providing new coverage to close to 20 million U.S. citizens. Key coverage provisions included the option for states to expand their Medicaid program, and Advanced Premium Tax Credits (APTCs) offered to individuals purchasing coverage on the Health Insurance Marketplaces. The evidence is clear—health insurance coverage increases access to needed care; increases use of preventive care, including flu shots and immunizations; and reduces medical bills sent to collection agencies.

Even Minnesota, with its historically high rates of health insurance coverage, was able to reduce its uninsurance rate by half—from 8.2 percent in 2013 to 4.3 percent in 2015. Minnesota expanded its Medicaid program to reach individuals with incomes at 138 percent of the federal poverty level (FPL), transitioned its long-standing MinnesotaCare program to a Basic Health Program under the ACA to provide subsidized coverage for those with incomes between 138 and 200 percent FPL and established a state-based Health Insurance Marketplace, MNsure, to administer APTCs for those with incomes between 200 and 400 percent FPL.

A few areas of the ACA needed continued work and still do—most notably for those purchasing coverage on their own without the advantages of employer-sponsored insurance: the individual or nongroup market. But the ACA has become so political and polarized that fixes at the national level are at an impasse. Attempts by Congress to repeal and replace the ACA in 2017 were futile; now those efforts have turned toward regulatory changes to dismantle key provisions of the ACA. These efforts include the elimination of the tax penalty associated with the individual mandate, shortening the marketplace enrollment period, eliminating funding for the navigators that help people enroll in MNsure and MinnesotaCare and, more recently, allowing greater flexibility for non-compliant ACA plans (for example, association health plans and short-term, limited-duration plans) that will continue to erode the risk profile of the individual market.

The undermining of the non-group market is working; the gains in coverage at both the state and national level are showing signs of erosion. Recent national data show a significant increase in the number of uninsured across 14 states. A Minnesota-specific survey conducted jointly by the Minnesota Department of Health and the University of Minnesota's State Health Access Data Assistance Center (SHADAC) saw one of the largest singular increases in the rate of people without health insurance since 2001—from a low of 4.3 percent in 2015 up to 6.3 percent in 2017.

Minnesota and other forward-looking states are developing their own strategies to sustain the gains in coverage and to stabilize their individual markets. Minnesota started down this path first, with state-funded premium rebates in 2016 for those purchasing coverage in the individual market without a premium subsidy. In 2017, the state secured a subsidized reinsurance program for insurers offering coverage in the individual market. But these were both temporary fixes; the rebates a one-time adjustment and reinsurance funded for just two years.

The new governor and his administration will need to provide the leadership to make additional changes. Fortunately, there are a lot of ideas on the table, including:

- A MinnesotaCare buy-in proposal to allow individuals to purchase MinnesotaCare coverage at the full premium.
- A bipartisan legislative proposal to establish a tax credit for those not eligible for premium subsidies on MNsure, so that no one pays more than 9.6 percent of their income on insurance premiums.
- A possible state-level individual mandate to bring younger, healthier individuals into the risk pool.

Additional efforts should consider options for universal coverage for Minnesotan children (approximately 50,000 are currently without health insurance coverage), as well as immigrants who have limited options for affordable coverage. Perhaps key to affordable coverage are efforts to align incentives that encourage both the public and private sectors to control costs, improve quality and pass savings achieved on to consumers. Much more needs to be done; given the chaos at the national level, now more than ever, it's up to states to act.

Lynn A. Blewett, PhD, is professor of health policy in the Division of Health Policy and Management, School of Public Health at the University of Minnesota and director of the State Health Access Data Assistance Center

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# Demographic change

## Minnesota will become older and more diverse

The population of Minnesota—like that of the nation—is changing, and that will create new challenges for medical care providers and for patients, according to Minnesota State Demographer Susan Brower, PhD, MPP.

Brower outlined key overall demographic trends, and what they might mean to *Minnesota Medicine*:

### An aging population

As far as patients go, aging is going to really impact medical care in the coming decade. Right now the oldest Baby Boomers are in their 70s and the youngest are in their 50s. If you start thinking about people in their 70s reaching their 80s and all the health care needs that arise in the eighth decade of life, it will really impact the provision of health care into the next few decades.

The flip side of the aging trend is that the workforce is emptying out and we don't project a whole lot more growth than we have right now. We expect to see the most growth in need in health care and yet we don't see a whole lot more growth in the workforce. This is a trend that's just beginning.

Some places are starting to feel the impact of that already, particularly but not limited to rural areas. Any kind of health care that requires two people to be in the same place at the same time is going to be impacted.

### A more diverse population

About 19 percent of the population is made up of people of color, or about a million residents. We expect that percentage to grow over time. Regardless of what happens with immigration in the future, we expect to continue to become more diverse.

The group of people who are poised to become parents is becoming more diverse. About 30 percent of those under age 5 are children of color. We're talking about cultural and linguistic and orientations toward health and medicine and all those aspects of diversity that are going to continue to grow.

### More poverty

We're seeing a rise in poverty among young people, which has long-term health consequences. I think that's something people don't always understand. It's not directly tied to the economy; it has more to do with changes in family structure, such as the growth of the single-parent household.

### What it means

These demographic changes will bring big challenges to public budgets, to our communities, to our health care systems, to our institutions. I think we can expect to see change occur in the way we deliver and pay for services.

Don't get too comfortable in the ways things are today; it's likely to change. But on the positive side, if you have a good idea about how to do things, you may get the opportunity to try it.

— INTERVIEWED BY LINDA PICONE, EDITOR, *MINNESOTA MEDICINE*

- **Minnesota's total population** is estimated to exceed 6 million by 2032, and grow to nearly 6.8 million by 2070.
- In the coming two decades, the **under 18 population** will grow modestly, gaining about 32,000 between 2015 and 2035. Meanwhile, the state's 65 and older population will grow much more rapidly, adding more than half a million people (510,000+) over those same years. As a result of this growth, in 2035, the age 65+ group is expected to eclipse the under 18 population for the first time in our state's history.
- The share of the total population that is **age 18 to 64** will fall from 62% in 2015 to 57% by 2028.
- The percent of Minnesota's population represented by **people of color** (those self-identifying as one or more races other than white, and/or Latino) is projected to grow from 14 percent in 2005 to 25 percent by 2035.

From the Minnesota State Demographic Center <https://mn.gov/admin/demography/data-by-topic/population-data/our-projections/>

# Prescriptions for

The future of health is in the home

BY DOUGLAS WOOD, MD

A quiet revolution, which may predict the future of health care, is occurring all around us. One piece of this transformation can be found in a 5,500-square-foot working laboratory in downtown Rochester, Minnesota—the Well Living Lab. This collaboration between Delos, a pioneer in indoor wellness environments, and Mayo Clinic is much more than a series of isolated scientific experiments on new types of home or office enhancements. It is the beginning of a fundamental shift in philosophy for practicing physicians.

While the Well Living Lab is one force in the rapidly changing health care marketplace, it cannot stand alone. As physicians, we need to examine our own profession. We must acknowledge that most of us meet with our patients and diagnose them in a clinic or hospital setting. We learn about their medical history, review their health records and perform tests to determine symptoms or causes of ailments. But by limiting our scope to interactions within medical facilities, we are, in essence, ignoring the environment where they spend most of their time: their home. Home is where they sleep, eat and play. For some, it is also where they work.

Normally, if a patient is having difficulty sleeping, we have only anecdotal information about the home environment in which they sleep. We don't have access to scientific data that can tell us the type of lighting, the temperature and the humidity of the bedroom. But what if we did?



Imagine having access to a bank of data that could tell us the history of the home sleeping environment and compare that with patient health records. And what if we were able to write a prescription and implement that prescription by inputting data directly into that home's system? This prescription would change the lighting, temperature or humidity so that our patients would be able to sleep better.

Another example would be if we see the mobility of a patient declining at a certain time of year, we could prescribe a change to the humidity of his or her home. That solution could ease his or her immediate discomfort and diminish the chances of future



# the house



PHOTO COURTESY OF THE WELL LIVING LAB AT MAYO CLINIC

The Well Living Lab, a collaboration between Delos and Mayo Clinic, is a research facility that uses advanced sensor technology and remote monitoring to observe and track participants in its research at home, work or play.

negative health events, such as a fall.

Once we begin to embrace the home as part of our practice, we can expand our thinking to use the environment as a therapy—one that most physicians rarely consider at this time.

To make this medical practice of the future feasible, we need three components:

- *Information from wearable and in-home sensors.* These sensors already exist in many forms and some are used for the research the Well Living Lab conducts. These sensors provide us with the information about our patients' reactions to various elements within the built environment, whether that is light, temperature or humidity.
- *Detailed health records.* Again, we have these, and most health records are digital, making them easy to share and integrate into other systems.
- *Machine-based learning to*

*take all that data from the cloud and interpret it.* This is our next horizon, which we are in the midst of crossing. In the future, physicians will be able to use the fruits of that knowledge to help our patients. But how realistic is this concept? My prediction is that within the next five to 10 years, we will begin to see substantial progress in the intersection of the built environment and medical practice, and a fundamental change will occur in physicians' approach to health.

If we can refocus our thinking to health at home, we will have new avenues to treat many maladies, such as sleep disorders, heart failure or airborne diseases. Already, some of the technolo-

gies that deal with health of the home environment are available online or at our local Best Buy, Home Depot or Lowe's. Some of our patients already are exploring these avenues, but without our guidance. I'm not suggesting that we go down the product road. We aren't trained or knowledgeable about these devices, and we don't get paid for prescribing them or suggesting them. But I foresee there will be an opportunity for physicians in the future to interact with our patients' home environment through cloud-based data.

Bottom line: We need to be more forward-thinking about our role as physicians. It is my belief that physicians should be compensated to keep people well in their homes and offices. Wouldn't it be revolutionary if we would be compensated for keeping our patients healthy so that they don't have to come into our clinics or hospitals? We need to be thinking more about how we can integrate the home environment into our current practices and improve our patients' lives.

Here's another way to think about it: Most of the interactions with our patients relate to illness—not health. We need to open ourselves up to an entirely new dimension of health. We need to think of health in terms of our patient's role—being a mother, son, husband, wife, caregiver or breadwinner. We need to think about health at home—not at a clinic or hospital. By doing this, we will be able to more accurately assess health in terms of the entire scope of a person's life.

Douglas Wood, M.D., cardiologist and internist, is medical director of the Mayo Clinic Center for Innovation. He is president-elect of the Minnesota Medical Association.

# More than IT

Health informatics may reshape the way medicine is practiced

When you are charting a patient on the computer in your office, or looking at an x-ray sent to your tablet, or a patient sending you their blood glucose meter reading via a patient portal, you may not think of it as being on the front edge of medicine. And you may not call it “health informatics.” It’s just practicing medicine in the 21<sup>st</sup> century. But harnessing the power of electronic information in order to better test, analyze and treat patients ultimately will transform how health care is practiced, according to Deepti Pandita, MD. “Every provider who has touched an electronic medical record is using health informatics; we have so many decision points and so much knowledge built into the electronic medical record.”

Pandita practices internal medicine and is the chief health information officer at Hennepin Healthcare. “Health informatics is the chasm between people, process and technology, as it relates to health care,” she says. “It is not IT [information technology] although yes, technology is a piece of it.”

She gives the example of how health informatics might come into play with the opening of a new clinic. Electronic medical records (EMR) would need to be set up, but to do that in a way that makes it most useful, the unique challenges of the clinic would need to be considered. “Who checks in the patient? Who sees the patient?” says Pandita. “That’s the process piece, and no two places are alike in terms of process. And then there’s a people piece.”

Informatics ties the front end of the clinic’s work—information about the patient and the reason he or she has come into the clinic—with the back end, the way claims are submitted to insurance and bills generated.

Health informatics is not limited to clinical informatics, however. There are several subgroups—bioinformatics, pharmacy and radiology—and new fields opening up. “Pharmacy is going full speed because of genome mapping,” Pandita says. “People have their genetic codes and informatics can embed those traits in the EMR, then that can drive and support clinical decisions at the point of care.”

# Genomic

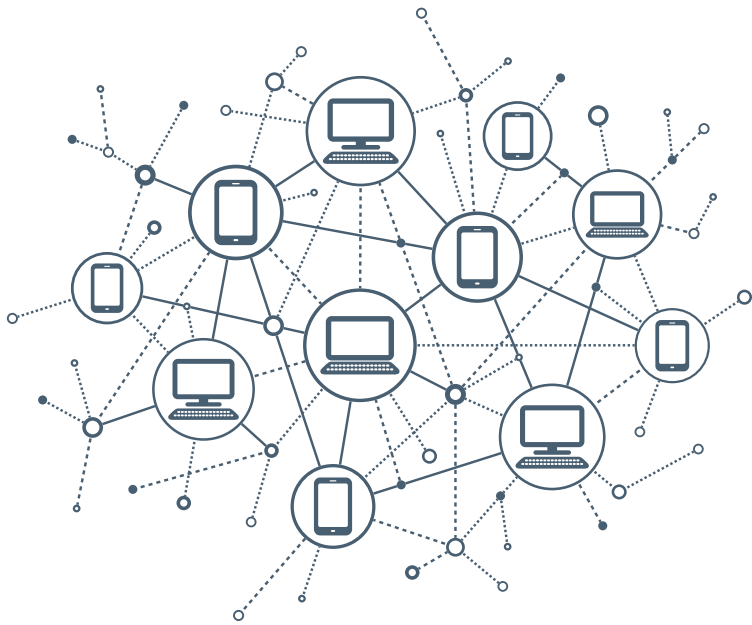
Building the foundation for successful integration into clinical care

BY SUSAN M. WOLF, JD, AND KATHRYN GRIMES, MA

Since the first full draft of the human genome sequence was released in 2001, we’ve moved from the familiar world of genetics to a new era of genomics. While genetic tests have been used as diagnostic tools for decades, the new capabilities and vast amount

of data generated by genomic sequencing raises new questions and opportunities in every sphere of health care.

As genomic sequencing evolves from being primarily a research tool to clinical application, a project funded by the National Institutes of Health (NIH) entitled LawSeq<sup>SM</sup> is focusing on building the legal foundation for genomic medicine. The law of



Health informatics is a burgeoning field, and it's happening with great speed. It became a board-certified specialty only in 2014. At that time, Pandita says, there were about 250 people nationwide specializing in it. Today, it's about 1,600. "In about five years, it has really grown," she says. "It has become a very desirable specialty after residency, for those who want to practice, but also to do informatics."

An informatics fellowship is a two-year program; the only fellowship in Minnesota currently is at Mayo Clinic, but the Twin Cities will get its first clinical informatics fellowship program at Hennepin Healthcare, effective July 2019. The new fellowship is being launched in collaboration with the Veterans Administration and may provide a pipeline to future informaticists in the Twin Cities.

Health informatics are mostly in use in health care systems, but there is growing interest from industry, payers and health departments, both state and national. "That's where the growth is occurring" says Pandita. "3M, Optum, Medtronic ... they want to hire people with an informatics background," she says. According to Pandita, the Amazon-Berkshire Hathaway-JPMorgan Chase group that hopes to change the way health care is delivered—and paid for—with an emphasis on measured quality, just hired several physicians, most of whom have informatics backgrounds.

"The main caution is data overload," Pandita says. "We have more devices people are using and different ways to deliver care that are not face-to-face. And all that is data. Who owns that data? How do we store it, protect it, utilize it optimally? There is some risk with every interaction; hacks are very common on the EMRs. Cybersecurity is a mounting concern and it's adding a lot of layers of cost to healthcare systems to increase their security measures." – INTERVIEWED BY LINDA

PICONE, EDITOR, MINNESOTA MEDICINE

For example, she says: "A patient comes in with a simple thing, like a sore throat. We treat it a certain way. But informatics-driven genomic data in the EMR might show that amoxicillin doesn't work for this patient. We all have these patients that we wonder why they aren't getting better, but as we increase and improve our use of informatics, we'll have better answers."

Another important area for informatics is population health, Pandita says. "The ecosystem is around the needs of the patient, beyond just healthcare. What is happening now is that we are trying to incorporate non-healthcare data that include social determinants of health into the EMR, which can be visible to all, including payers—who can then understand that no two patients are alike."

# medicine

genomics is currently unclear, poorly understood and contested. Scholars at the University of Minnesota and Vanderbilt University are collaboratively leading a national working group to analyze federal and state genomics law and then recommend changes to support successful integration of genomics into clinical care.

Genomic sequencing—including whole exome sequencing (WES) and whole genome sequencing (WGS)—offers crucial diagnostic insights and treatment opportunities in a range of scenarios. These include diagnosis of children with puzzling neu-



rodevelopmental conditions and identification of new therapeutic targets and strategies in cancer patients. In addition, many patients can benefit significantly from treatment options tailored to their genotype. The field of pharmacogenomics—tailoring drug selection and dosing to relevant differences in genes affecting drug metabolism—offers to revolutionize medication prescribing practices. These exciting developments call for clear standards and law governing the use of genomics in clinical care.

Health care providers are already grappling with legal issues raised by genomics. Physicians may feel their training left them ill-equipped to recognize when genomic testing is indicated and poorly prepared to interpret the results. Patients may even come to clinical appointments with genetic information they've



received as a result of direct-to-consumer (DTC) testing. Medical geneticists, genetic counselors and expert laboratory personnel will be crucial partners, offering expert interpretation and recommendations. Physicians may nonetheless have concerns about their own exposure to liability as genomics increasingly pervades cancer care and other medical domains. Physicians may also worry about divergent genomic interpretations across laboratories and what quality standards are in place. And because genomic analyses rely on the collection of large amounts of genetic information from individuals and interpretation using genomic databases, concerns about how to secure the privacy and confidentiality of genomic information loom large. All of these issues—liability, quality, and privacy—are central concerns in the LawSeq<sup>SM</sup> project.

The need to clarify the law and standards governing use of genomics in health care is the catalyst for the LawSeq<sup>SM</sup> project. The project brings together researchers, clinicians, laboratory experts, informaticians, attorneys and policymakers to clarify what the law currently is and to formulate recommendations on what

the law should be. The project is focused on the law addressing liability (including tort and contract exposure of clinicians, laboratory personnel and their institutions); quality (analytic validity, clinical validity and utility of genomic sequencing results); and privacy and access (including what results should be entered into medical records, and what access patients have to laboratory reports). LawSeq<sup>SM</sup> will help establish a framework for when the law and rules of research should apply versus those of clinical care, a growing challenge with the rise of translational research approaches that blend research with clinical care.

To support the translation of genomics into the clinical setting, the LawSeq<sup>SM</sup> team is developing a website offering tools to search and retrieve federal and state law on genomics. It will provide a free public database of the relevant statutes, regulations and reported judicial decisions. In addition, the site will offer a curated selection of core articles, so users can access commentary and scholarly analysis.

The project is also conducting empirical research, in order to analyze what key professional stakeholders see as the major legal issues affecting genomics and query them on possible solutions. This empirical research is helping inform the LawSeq<sup>SM</sup> team as we generate forward-looking recommendations for legal improvements to support genomic medicine.

In many domains of medicine, genomics is playing a key role in creating the future. The LawSeq<sup>SM</sup> project will significantly advance the resources available to researchers, clinicians, their institutions, research participants, patients and the public. By creating a central resource on genomics law, the project promises to advance the integration of genomics into clinical practice in Minnesota and across the country.

A national public LawSeq<sup>SM</sup> conference and webcast will be held on the campus of the University of Minnesota on April 25, 2019. To learn more and register, visit [z.umn.edu/LawSeqConference](http://z.umn.edu/LawSeqConference).

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# Natural Causes

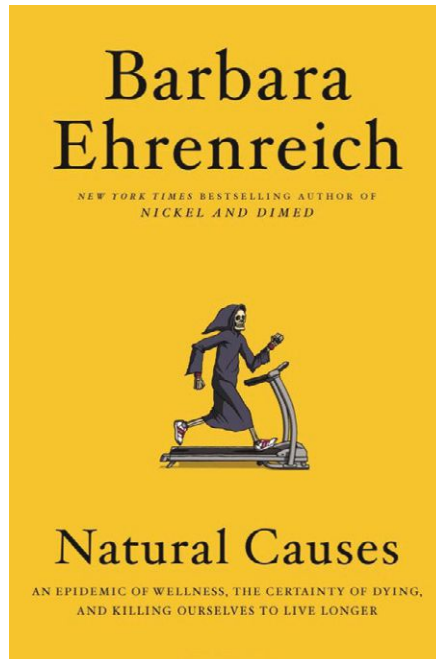
Barbara Ehrenreich explores our lack of control over life and death

BY CHARLES R. MEYER, MD

When my children were growing up in the 1980s, they watched a Nickelodeon TV program called *Out of Control*, which featured a hyperkinetic actress named Diz McNally whose signature shtick was a high-pitched bird-like noise followed by her yelling “out of control, out of control.” The trope caught on in our family and whenever our household got crazy, as it inevitably did with three small children running around, one of us would ape the birdcall and yell “out of control, out of control.”

Out of control could be a mantra for 2018 life. The tizzy that is social media and the bizarreness that is American politics provokes a grab for something stable, something predictable. But those social and political imponderables are child’s play next to the unsettling, weighty consideration of our mortality and our fragility as living organisms and as a species. Age nibbles away at our joints, brains and arteries. Disease can strike seemingly at a whim and suddenly nothing in our lives seems controllable. Essayist Barbara Ehrenreich tackles the unpredictable and uncontrollable in her recent book *Natural Causes: An Epidemic of Wellness, the Certainty of Dying, and Killing Ourselves to Live Longer*, in which she contends that the desire for control—especially over our bodies—is universal: “Even the most unassuming and humble is expected to want to control what lies within the perimeter of our own skin.”

The symptoms for this need are Cross-Fit classes to control our bodies, restrictive diets to control our cholesterol and meditation and psychotherapy to control our emotions, a “health-conscious mindset” in which “health is indistinguishable from virtue.” Yet, according to Ehrenreich, any appearance of control is illusory. Disease happens. Aging happens. It is as if our



*Natural Causes: An Epidemic of Wellness, the Certainty of Dying, and Killing Ourselves to Live Longer*  
Published April 2018  
By Barbara Ehrenreich

bodies and the cells within them have their own agenda, which they are going to follow despite our wishes. Drawing on her training as an immunologist, Ehrenreich singles out the macrophage as an example of a cell that doesn’t always behave in a way that is friendly to the rest of the organism, straying from its beneficial function of defending against foreign invaders to its detrimental participation in the spread of cancers or the promotion of autoimmune disease. She calls macrophages “cheerleaders on the side of death” which “collude” with cancer and create autoimmune disease. She says macrophages don’t have consciousness or intention but do have “agency” through which they go renegade, conflicting with the best interests of the organism.

Ehrenreich sounds betrayed by her body, which is not behaving as expected.

She also sounds betrayed by the medical profession as she recounts numerous demeaning encounters with medical providers. Citing medical practices poorly supported by scientific evidence, she rejects the common wisdom of the medical establishment about prudent preventive and therapeutic procedures such as routine mammograms and physical exams, even though she herself has survived breast cancer. Rather than follow the frantic health pursuits of her contemporaries, she has decided that she is “old enough to die” and any strenuous attempts to alter the physical course of the rest of her life would be a quixotic quest (although she does exercise regularly).

As Ehrenreich builds her argument, her analysis seems to veer into many questionably relevant areas such as shrinking attention spans, societal embracing of drugs such as Adderall, and the addiction to electronic and social media. Her complaints about the medical profession, although containing a kernel of truth, repeat an oft-heard critique about patriarchal, insensitive, non-listening practitioners. Yet her reaction to the near-universal painful loss of control that is aging will resonate with most readers over 40.

Eventually, Ehrenreich predicts, we will see a science that accepts a “natural world shot through with nonhuman agency” and she hopes to “die into the actual world, which seethes with life, with agency other than our own.” She hopes her death will be “not a terrifying leap into the abyss, but more like an embrace of ongoing life.” She will be out of control—but she is okay with that. **MM**

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

# Caring providers

At the **Franklin-Hiawatha Encampment**, physicians reconsider their approach to care

BY ANDY STEINER ALL PHOTOS BY RICH RYAN PHOTOGRAPHY

It started at the beginning of the summer with one tent pitched near East Franklin and Hiawatha Avenues in Minneapolis, not far from the Little Earth subsidized housing community. Before long, more and more tents appeared nearby. By the end of the summer, some 300 people, most of American Indian descent and many struggling with addiction, were making their homes there.

This new community, which came to be known as the Franklin-Hiawatha Encampment, was hard for anyone to ignore, but especially difficult for the many physicians and other health care providers who work at three comprehensive medical clinics located nearby: Community-University Health Care Center (CUHCC); Indian Health Board (IHB) and Native American Community Clinic (NACC).

Patrick Rock, MD, a family physician and chief executive officer of IHB, was one of the concerned health care providers. As soon as he saw what was happening on the

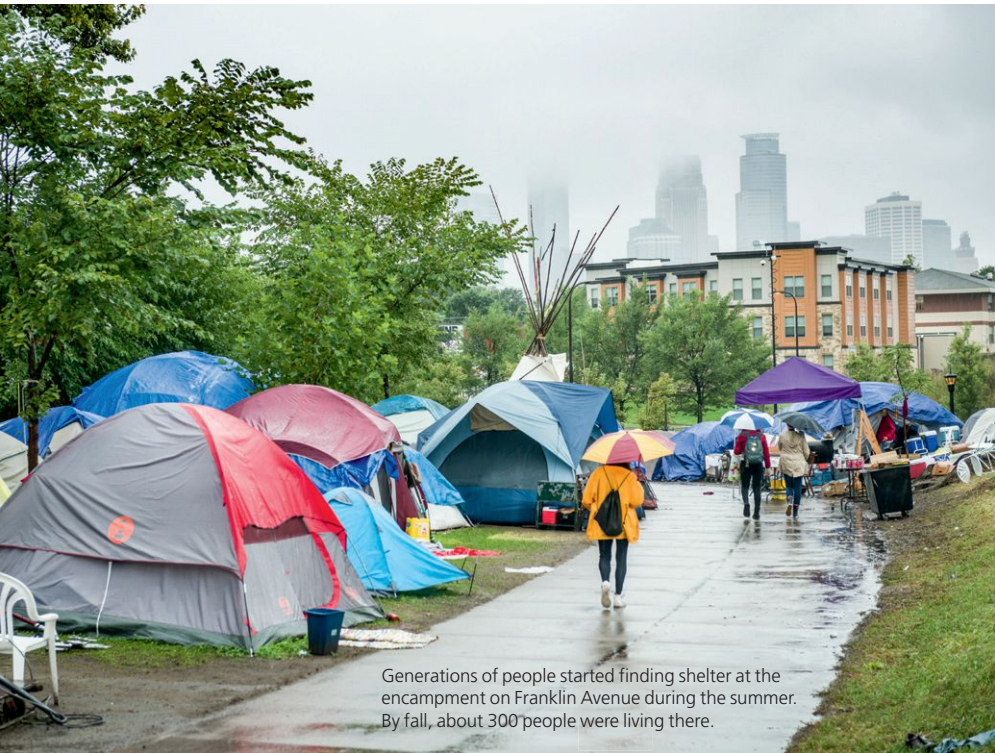
wedge of grass abutting a sound wall on the Franklin-Hiawatha corridor, he knew that something had to be done.

“My colleagues and I couldn’t ignore what was happening,” Rock says. “We wouldn’t do that. That would be counter to our mission, counter even to our own humanness.”

Just across the street from the encampment, at CUHCC, physicians and staff had the same reaction. As the tents multiplied, many began to ask people living there why they had chosen to cluster in that spot. What they learned, says Roli Dwivedi MD, CUHCC’s chief clinical officer, was that encampment residents were a group of people who had chosen to live near each other for safety and solidarity.

“They were feeling alone and segregated,” Dwivedi explains. “They thought, ‘Rather than living in the dark or under bridges, why don’t we come together and live collectively in a place that is more vis-





Generations of people started finding shelter at the encampment on Franklin Avenue during the summer. By fall, about 300 people were living there.



Patrick Rock, MD, a family physician and chief executive officer of the Indian Health Board, says the encampment is a symptom of the historic trauma native people have faced for many years.

ible, where we could feel safe and secure? That's how it all started."

**Careful collaboration**

It didn't take long for clinic physicians to realize that CUHCC, IHB and NACC had, in the past, provided medical care to most of the people living in the encampment. Because of that and because, like Rock, they felt they could not ignore what was happening in their community, clinic staff at all levels quickly came together to figure out an action plan to provide health care and other supports to encampment residents.

"We started collaborating with our sister clinics in order to see how basic medical care could be provided at the camp and how we can help residents make connections to our clinics so they can get all of their medical needs met," Dwivedi says.

While basic services like immunizations and wound care were eventually offered in a health and hygiene tent set up by Hennepin County Healthcare for the Homeless, legal regulations limit the kind of medical services that can be offered on site; physicians instead work to encourage residents of the encampment to come to their clinics for care.

To make clinic visits easier for encampment residents, the collaborative care team developed an on-site appointment system: care coordinators, armed with laptops, scheduled clinic visits for encampment-dwellers. Free rides to the clinics were provided.

Because they have been living on the streets or in shelters, many encampment residents haven't been able to keep regular medical appointments. This means that chronic conditions and addictions are exacerbated and new health concerns emerge. Because the camp lacks basic sanitation services like bathrooms or sinks, the risk of infectious disease is high. By early October, at least three residents had died at the camp.

Colleen McDonald Diouf, CUHCC chief executive officer, says limiting deaths

and disease transmission was high on the list of goals for the care team.

“Our biggest concerns have been around outbreaks,” she says. “That could mean terrible outcomes for people. We have to work to keep that under control.”

Another key collaborator in the encampment-care effort is the City of Minneapolis. Gretchen Musicant, City of Minneapolis commissioner of health, explains that her staff worked with residents and the health care provider team to determine how the city could best be of service.

“As we thought about the encampment and the sheer number of people living in close proximity without many resources available to them, we thought of some of the hygiene issues that would eventually arise,” she says. “We began supplying porta-potties and washing stations with potable water.”

One of the City’s primary roles has been to share requests and concerns of the community with the health providers and to coordinate requested care between the clinics, Hennepin County and the Minnesota Department of Health, according to Pam Blixt, preparedness manager for the City of Minneapolis

**Focus on relationships**

Because regulations mean that physicians’ roles were limited at the encampment, many doctors spend their time there simply speaking with residents, providing information about services offered at their clinics — and offering a listening ear.

Ryan Kelly, MD, a hospitalist and primary care physician in the departments of Medicine and Pediatrics at the University of Minnesota Medical School and a primary care physician at CUHCC,

has visited the encampment three days a week. He works out of the hygiene service area hosted by the American Indian Community Development Corporation, across the street from the encampment. He says



Ryan Kelly, MD, a hospitalist and primary care physician in the departments of Medicine and Pediatrics at the University of Minnesota Medical School and a primary care physician at CUHCC, says visiting the encampment several times a week has expanded the way he thinks about the practice of medicine.



Drug sales, use and overdoses are all problems at the homeless encampment. Naloxone or NARCAN®, an opioid antagonist, can be used for immediate treatment of an overdose to help restore breathing.



the experience has expanded the way he thinks about the practice of medicine.

Kelly explains, “I’ve tried to focus on meeting people where they are at.” The reasons that people have chosen to come together and live at Franklin-Hiawatha are complex, he says, with no two stories exactly the same. In order to inspire lasting, positive change for encampment residents, providers need to dig deep, to ask questions, to listen, to work to get to the root of trauma.

“We have to build rapport,” Kelly says. “We have to focus on relationships.” For residents facing addiction, he adds, “We have to offer nonjudgmental conversations about substance dependency and provide them with help and assistance.”

Working with those from the encampment has inspired Kelly to expand his ideas about where he practices medicine. “Previously I would have been guilty of



Angela Erdrich, MD, is an enrolled member of the Turtle Mountain Band of Ojibwe; Patrick Rock, MD, is an enrolled member of the Leech Lake Band of Ojibwe. Providing medical care to the largely Native American population at the homeless encampment is their professional responsibility, but also a personal commitment.

simply practicing health care within the walls of an institution,” he says. “I’ve gotten a lot more comfortable with the idea of working outside hospital walls.”

That expansive definition of medical care may be a first step toward solving the larger societal problems the encampment represents.

Rock, an enrolled member of the Leech Lake Band of Ojibwe, says he believes physician response to the encampment needs to be much more lasting and comprehensive than simply prescribing medicine or finding residents a temporary place to stay. Such fixes may help in the short term, he says, but unless providers dig deeper for solutions, there is no guarantee that another, similar encampment won’t pop up again next year.

“We’re still dealing with the historical trauma that native people have faced over the years,” Rock says. He was struck by this reality one day when he was on site doing outreach work at the encampment.

“I realized that an entire generation is living down there. There are kids in those tents and they see the same things that their parents see. They will be carrying that reality into their adulthood and then into the subsequent generation unless we do something.”

Because he is a self-described “optimist by nature,” Rock wants to believe that

physicians, working together, could influence lasting, positive change. But, because he also has a realistic side, he’s cautious.

“What we do is up to us,” Rock says, firmly, “but the power is in our hands.” MM

Andy Steiner is a freelance writer in the Twin Cities

Just a short distance from downtown Minneapolis, along a busy Franklin Avenue, homeless people of all ages, from seniors to infants, found a home in a tent encampment. Physicians, social service agencies and the City of Minneapolis have been trying to keep people in the encampment safe—and to look for long-term solutions.



At the time *Minnesota Medicine* went to press, the homeless encampment was still at Franklin and Hiawatha avenues in Minneapolis, although the City of Minneapolis and other organizations were looking at options to house many of those living at the encampment and/or moving the encampment. On Sept. 26, the Minneapolis City Council agreed to a plan to relocate the encampment to a “navigation center” south of the Franklin Avenue light rail station, where large trailers would be set up to house about 150 people.

Envision Community would provide shared bathrooms and kitchens in a community center, as this model demonstrates. William Walsh, MD, (at right) has been working with a team of homeless and formerly homeless people from Street Voices of Change that includes Rome Darring, Dewayne Parker, Junail Anderson, Sherry Shannon and Freddy Toran.



# One tiny home at a time

Envision offers a community solution to homelessness

BY LINDA PICONE ALL PHOTOS BY RICH RYAN PHOTOGRAPHY

**W**illiam Walsh, MD, spends about 75 percent of his time as part of the facial trauma team at Hennepin County Medical Center (HCMC). He sees a lot of patients in pretty bad shape.

“People are being assaulted on the streets,” he says. “When they come in to see me, their face may be in pieces.”

The facial trauma team does its work, repairs broken bones and lacerated skin and then ...

“What’s the next step after the hospital?” he asks. “For patients experiencing homelessness, there isn’t one. The menu of options is pretty small.”

Often—too often—patients are being discharged back to where they came from, the streets. “There’s no one to take care of them at home, because they don’t have a home,” Walsh says. That means just getting regular meals may not happen, let alone special diets, wound care and a good night’s sleep.

Walsh’s frustration and the other part of his job—deputy chief innovation officer of *Upstream* Health Innovations, the innovation team for Hennepin Healthcare—made him want to find solutions to a problem he sees in front of him all the time.

*Upstream’s* approach uses human-centered design, meaning that the people and communities it serves are part of both framing problems and solving them. “We partner with the people most impacted by the work,” Walsh says.

As Walsh and his team began to look at homelessness, a pastor at First Covenant Church in Minneapolis told him he needed to talk to Street Voices of Change, an activist group of homeless and recently homeless people who meet in several downtown Minneapolis churches. Walsh and other members of *Upstream* Health started going to Street Voices meetings, a bit warily, wondering if they would be accepted. “We came with humility,” he says. In addition to attending Street Voices meetings, the *Upstream* Health team interviewed more than 100 people experiencing homelessness to learn about where they would want to live.

“For me, that’s when the project changed,” Walsh says. “It converted from research to action. Me, working as a physician, got us a little of the way solo, but I didn’t really know anything. The people in Street Voices are true experts about the situation of homelessness; their experiences are infused throughout this work.”

## Envision Community

“This work” is Envision Community, a proposal for a new collaborative community of tiny homes with both individual spaces and significant shared space, including cooking areas and bathrooms. “Envision is about two things,” Walsh says. “Tiny homes and intentional community.”

Although the impetus for the idea of Envision was providing living space for homeless people, the community would, ideally, be mixed, with 20 percent of the spaces for chronically homeless people who are the highest utilizers of health care; 20 percent for people who have never been homeless; and 60 percent for people who are currently homeless but relatively healthy.

The process of creating Envision was different in a number of ways, but perhaps the most unusual was that it started with the financial model, then created a community that would work with the finances that should be available through health care savings (it’s estimated that housing will reduce health care costs by 25 percent for chronically or acutely ill homeless people) and Minnesota Housing Support funds. Capital funding to build an Envision Community is estimated to be paid off in five years.

### The details

The proposal for Envision Community includes:

- Six-plex groupings that can house eight people—four single units and two units that can house couples.
- Common houses with shared bathrooms, kitchens and common space for up to 24 residents. “The community house is large, enough for the full community to gather” says Walsh. “People want to be together.”
- Energy-efficient building practices and materials.
- Low- to no-cost land. “We will design around local housing codes and compliance and we’ll do it incrementally, building as we go.”
- Donated labor. Envision hopes that potential residents, community groups and skilled labor professionals will donate their labor so the cost of the community can stay low.

A grant from the United Health Foundation funded the early human-centered design; now Envision is looking for partners to help create a two-year demonstration project with 18 units for 15

to 30 people on a location to be determined, at an estimated cost of about \$416,000. “We need partners who are willing to jump in without having all the answers,” Walsh says. “We can stand on our own financially if we just get the initial push.” Both qualitative and quantitative outcomes of the demonstration project

will be carefully assessed, measuring how connected residents feel to each other and to services they need to be healthy, housing stability, employment and volunteer opportunities, costs, etc.



Housing “pods” would cluster around a shared community building. The design for Envision Community was developed through a cooperative led by Hennepin Healthcare’s *Upstream* Health Innovations; William Walsh, MD, (right) is deputy chief innovation officer for *Upstream*, as well as a facial plastic and reconstructive surgeon. People in Street Voices of Change, who have lived—or are still living—without homes, were crucial to developing the right plans. Among those working on Envision Community are Dewayne Parker, Rome Darring, Shery Shannon, Junail Anderson and Freddy Toran.

### Walsh and Street Voices

Envision Community will not be for everyone; it is designed specifically for people who want to live smaller and live in community. “It might not be right for me, but it might be right for someone,” says Junail Anderson, of Street Voices of Change. She has spent time in homeless shelters and, because of shelter hours—she had to be out by 6 a.m. each day—found it hard to stay on schedule with her medications and to deal with her sleep problems.

Frederick Toran is now in transitional housing, but he has spent time on the streets. “Most of the time it’s really hard, carrying luggage around from place to place,” he says. “I started sleeping in the park, walking all night. I got jumped one night by three people.”

For Rome Darring, homes in Envision Community might be tiny, but they would be just what he needs. “I could get my kids and stay with them,” he says. “It’s a new start on life.”

Any meeting with Walsh to talk about Envision is going to include people from Street Voices. They are the experts as to what homeless people need, he emphasizes: “My voice has low authority. This is totally different than anything I’m trained to do.”

And yet, his experts on homelessness think he’s doing pretty well. “I’m glad Bill has us,” says Anderson. “What he’s doing, we like.” MM

Linda Picone is editor of *Minnesota Medicine*.



William Walsh, MD, deputy chief innovation officer for Hennepin Healthcare’s *Upstream* Health Innovations and a facial plastic and reconstructive surgeon, was frustrated at seeing patients leave the hospital with nowhere safe to go. Envision Community could change that, he believes.

# Working toward health equity

Our choices as physicians can make a difference

BY MICHAEL AYLWARD, MD; AARTI BHATT, MD; AND NATHAN CHOMILO, MD

One family struggles with obesity; as a result, their 18-year-old daughter already has hypertension. Another family bikes together on weekends without worry about chronic medical conditions. One patient's child died in infancy. Another patient has a child who is thriving in pre-school. One patient gets her gallbladder out and goes home the next day. Another patient gets her gallbladder out and leaves a few days later with a bill that's \$7,000 larger than that of the first patient. Some patients have better outcomes than others. The factors that contribute to these differences may be a medical mystery, but often there is nothing medical or mysterious about why two seemingly similar stories have different endings.

The history of your ancestors matters. Where you are born matters. Where you grow up matters. Where you live matters. Who your parents are, their health and their history of incarceration matter. Education and opportunity matter. What you look like to those around you and how that impacts your sense of self, matters.

The majority of health outcomes are associated with what happens outside the clinic or hospital—the social determinants of health. It is estimated that only 10-20 percent of health outcomes are directly attributable to health care. The health differences that arise from economic, social or environmental disadvantages are called health disparities.

Minnesota has long been a national leader in health and educational outcomes,



but the outcomes are not the same for every group. White Minnesotans, in general, are healthier than non-white Minnesotans. African American and American Indian babies have twice the mortality of white babies. African American, Latino and American Indian youth have higher rates of obesity than their white counterparts. African American and Latino women are more likely to be diagnosed with late-stage breast cancer ... the list goes on.

“  
Health disparities define the problem; health equity defines the solution.”

Health disparities can seem overwhelming because they often arise from “upstream” causes. Populations of color have significantly higher poverty rates and unemployment rates and significantly lower income and intergenerational wealth than white Minnesotans. These disparities occur because of systems in our society that were intentionally set up to unfairly advantage certain groups of people and disadvantage others. In America, slavery and the downstream effects of slavery (for example Jim Crow laws, racial housing covenants, redlining) are part of the foundation of this country. The legacy of

slavery as an intentional economic system set up to unfairly advantage certain groups and disadvantage certain groups based on skin color (what we call race) has real and lasting impacts on the health outcomes of people in our state. Implicit bias, explicit bias and structural racism perpetuate these disparities in our healthcare systems. Health inequity saps human potential from our society.

In other words, we are all complicit in the health disparities that exist in Minnesota. Put differently, we all have the opportunity to meaningfully improve these disparities, by working to close the gap between those who have good health and those who do not. This is where the work of health equity lives. Health disparities define the problem; health equity defines the solution.

Health equity is a commitment to reduce and eliminate health disparities. This definition is simple, but it closely relates to massive issues of social justice, education and health in all policies. Seen from this perspective, the work of health equity appears to be overwhelming. However, as with any journey, there are small but significant steps we can all take as physicians to make the daunting become doable. Physicians can advance health equity by working at the personal, community, system and legislative levels. In order to do the work well, physicians also must take the time to understand our nation's history and how the structures of racism in our society perpetuate inequity.

The intentional actions of physicians as citizens and community members can be an important contribution to health equity. Physicians make significantly more than the median income in the United States; that allows us to be discerning in the ways we spend that money. Instead of looking for the best deal on an item, we can look at how a store does or does not contribute to the community. Co-ops, for example, are typically more expensive than chain stores, but provide excellent pay and benefits to their employees. We can support companies that are socially conscious and avoid spending money at companies that act in ways that don't advance health equity. For example, physicians might preferentially shop at Dicks Sporting Goods or Wal-Mart because of their change in stance on selling guns and ammunition. We can put our wealth to work by using banks that contribute to the community, or that are minority-owned or that share our values in other ways.

Physicians vote less often than other professionals. Simply voting and considering the measures we vote for is a step toward advancing health equity. Nearly any policy likely has health equity implications, from education to environment to transportation to taxes. We can bring to light how these policies affect the health

of our communities in discussions with friends, family and community members.

Physicians have the authority and credibility to drive decisions that impact health equity in the clinics and health systems where we work. Most directly, we can address issues related to equitable care. Equitable care is the part of health equity that we as physicians and members of health systems own. A key aspect of providing equitable care is understanding where our own health disparities exist by looking at outcome and process data through a health-equity lens. Typically, this means looking at data sorted by race, ethnicity and language. If we don't collect and view data in this way, then we cannot see the potential for inequitable care. We should be asking our health systems to provide the data we need to make solid clinical decisions in all aspects of care. Shining a light on our own practices can be difficult, but it is a critical step toward insuring that we are providing the best care for all of our patients, not just the ones who look and act like us.

### **Examine our clinic and hospital policies**

If we pay attention, we can see how the policies and procedures in our clinics and hospital systems may disadvantage certain populations. We can get at this directly by asking our patients from marginalized backgrounds about their experiences in our systems. We must then act on their concerns, especially if a pattern becomes apparent over time. For example: our clinic late/no-show policy may not take into account that not all our patients have reliable transportation. Posting a police officer or security guard in the emergency room may make patients of color less likely to seek care there. Having a check-in policy that requires homeless youth to explicitly and publicly state their reason for coming into the clinic may keep them away when they need care.

### **Push our health systems to champion equity**

Using our collective voice as the drivers of our health systems is one of the most

significant ways we can begin to champion health equity in ways that go beyond just health care. Health systems employ roughly 5 percent of the workforce in Minnesota. The hiring and employment policies of these systems—systems whose success depends on us—play a direct role in eliminating (or fostering) health disparities. For example: research has demonstrated many benefits to the health and well-being of parents and children when they are able to spend the critical first days and months after birth (or adoption) together. If health systems institute generous paid parental leave policies for their own employees, they can directly impact the health and well-being of a sizable portion of Minnesotans. Some clinics and hospitals have partnered with law firms to help patients get better housing, fight eviction and have access to an array of legal services, recognizing that addressing health issues is nearly impossible if food and housing insecurity are present. These medical-legal partnerships work best when the lawyers are part of the care team—in fact several health systems have “law consult” order sets in their electronic medical records.

### **Invest in the community**

All health systems in Minnesota have traditionally (until a recent change in the law) been non-profit entities. As such, they are required to invest their “profits” back into the communities they serve. Physicians can play a role in advocating for a community voice in these decisions, so that it is the communities, not the health systems, that get to decide how best to use those funds. Additionally, most health system margins are driven, in part, by investment profits. We should be insuring that our systems and employers are taking health equity into account when deciding which funds and opportunities to invest in.

### **Have a voice with lawmakers**

Physicians are a powerful, but not fully realized, voice at when it comes to talking to lawmakers. When we meet with a city councilmember or state representative, we can speak directly to how nearly all policies in some way impact health. More

## **Get involved with legislation**

- Identify an area of policy you feel strongly about and educate yourself on the current background and history of that policy or issue.
- Reach out to an organization working on that issue to identify relevant legislation and help you craft a message.
- Have a conversation with a lawmaker that stays on message, and that shares your personal insight and relevant stories of patients. This can be over coffee, at a town hall or at the Day at the Capitol many organizations hold.
- Follow up your meeting with a legislator. Advocacy is a continuity visit, not an acute one! Ask him or her how you can help move the idea forward.

importantly, we can share patients' stories on how specific instances of inequity play out. Data can start the conversation, but real-life stories are what drive legislative discussions. When physicians speak, legislators listen; we are trusted members of our communities. As a result, nearly any way that we can engage in the legislative and policy making process can be effective, from joining a public health advisory committee to testifying at the city or state level to meeting with our state representatives and senators.

Physicians can't do this work alone, and should not be the only ones leading it. However, we can partner with those who also work day in and out with the people who suffer the most from health inequity. We can spend more time on our patients' social histories and look for opportunities to provide resources, rather than just medications or procedures. For policy discussions, legislators need physicians who see patients every day and can tell their stories.

Ultimately, health equity is at the core of what we signed up to do as physicians: treating the whole patient, with every tool at our disposal. **MM**

The authors practice in the Twin Cities and are members of Minnesota Doctors for Health Equity, a grassroots organization whose mission is to activate health professionals to work towards health equity. Further information can be found at [mdhealthequity.com](http://mdhealthequity.com)

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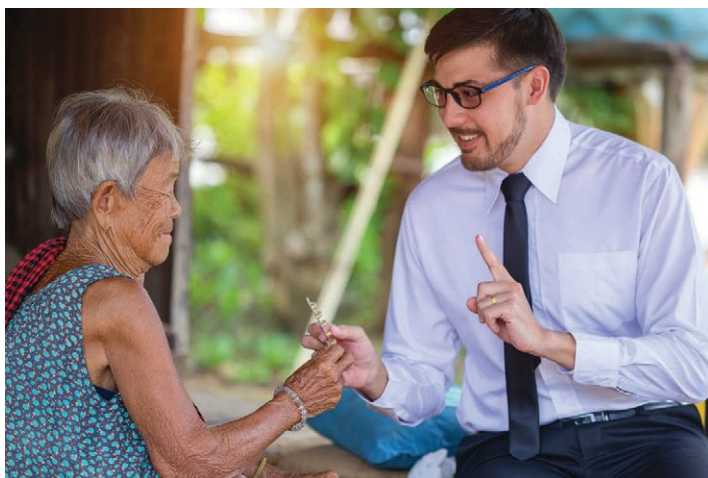
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**Join the MMA at Day at the Capitol**

The Minnesota Medical Association (MMA) encourages and supports advocacy by physicians, medical students and residents. Improved health equity is one of MMA's goals.

The MMA's annual Day at the Capitol is an opportunity for physicians to meet with legislators in-person and advocate for MMA's top legislative priorities. MMA's 2019 Day at the Capitol is scheduled for Wednesday, Feb. 13. Go to [www.mnmed.org](http://www.mnmed.org) Education & Events for more information.



**Achieving Health Equity**



MINNESOTA MEDICAL ASSOCIATION

**Join the MMA on Facebook Live**

as we discuss how the medical community can unite to achieve health equity in Minnesota.

The two-part series is presented by the MMA, the Minnesota Chapter of the American Academy of Pediatrics (MNAAP) and the Minnesota Academy of Family Physicians (MAFP).

**JOIN US!** [www.facebook.com/mnmed](http://www.facebook.com/mnmed)

**January 22 (Noon to 1)**

*Addressing health disparities within the Native American community*

**February 20 (Noon to 1)**

*Structural racism and other barriers to health equity*

American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN®  
Minnesota Chapter



Minnesota Academy of Family Physicians



Members Ken Crabb, MD (left) Laurel Ries, MD and outgoing President George Schoephoerster, MD, discuss the state of medicine at a pre-conference reception.

# Annual Conference takes the pulse of Minnesota's health

PHOTOGRAPHY BY SCOTT WILSON

The 2018 MMA Annual Conference focused on the state of health in Minnesota, featuring a keynote by Health Commissioner Jan Malcolm and several sessions by Minnesota physicians and health care workers on rural maternity care, opioids and the social determinants of care.

The conference also included the installation of new MMA officers, the MMA annual awards, a medical student/resident/fellow poster symposium and the last House of Delegates.

## New officers

Doug Wood, MD, a cardiologist and medical director of the Mayo Clinic's Center for Innovation in Rochester, was inaugurated as the 152nd president of the MMA.

In his speech to conference attendees, Wood said: "The MMA and the medical profession can be the greatest factor for

good in Minnesota. This can be accomplished by leading our communities and the state in the development and implementation of strategies to improve the health of people and the communities in which they live and at the same time restore the pride of physicians in their work and in the profession of medicine."

Other MMA officers for 2018 include Keith Stelter, MD, a family physician in Mankato, as president-elect. George Schoephoerster, MD, a geriatrician in St. Cloud, assumed the role of Immediate Past President. Edwin Bogonko, MD, a hospitalist in Shakopee, became secretary/treasurer. Randy Rice, MD, a family physician in Moose Lake, continues as board chair.

## Other elected officers:

- Rice continues as the trustee representing the northeast portion of the state.

- Amrit Singh, MD, is a new trustee representing the southwest portion of the state. Singh is a hematologist/oncologist in Mankato.
  - Abby Solom, a medical student at the University of Minnesota Medical School, will serve as the student trustee.
  - John Abenstein, MD, MSEE, an anesthesiologist in Rochester, continues as an AMA delegate.
  - Laurel Ries, MD, a family physician in St. Paul, will serve as an alternate AMA delegate.
  - Dennis O'Hare, MD, a family physician/geriatrician in Minneapolis, will also serve as an alternate AMA delegate.
- All AMA delegation terms begin Jan. 1, 2019.

## MMA Awards

Four MMA members were honored with MMA Awards, which are given each year

to those in medicine who go above and beyond.

### Distinguished Service Award

Cindy Firkins Smith, MD, received the Distinguished Service Award, which is given to a physician who has made outstanding contributions to medicine, the MMA and the physicians of Minnesota during his or her career. Smith is a dermatologist in Willmar and co-CEO of Carris Health.

Smith, who's been an active MMA member since 1991, served as its president in 2013 and most recently has served as an MMA delegate to the AMA. She has served on a variety of committees including the MMA's membership and communications committee and the Annual Conference planning committee.

### President's Awards

Thomas Kottke, MD, and Charlie Reznikoff, MD, received the MMA's President's Award, which recognizes physicians who have given much of his or her free time to help improve the association.

Kottke is a clinical cardiologist and HealthPartners' medical director for well-being. He has been a strong advocate for gun control efforts at the State Capitol. He has also been a champion on behalf of the environment and how the health of our communities is linked to the global community. He has also advocated on behalf of tobacco cessation through his efforts to pass city ordinances that would prohibit tobacco sales to those under 21. He has also been active with the Twin Cities Medical Society serving as its president this past year.

Reznikoff is an internal medicine and addiction medicine physician at Hennepin Healthcare who works tirelessly to fight prescription opioid misuse. He has worked with the MMA on several occasions to help educate his fellow physicians on the topic of opioids. He has served as an addiction consultant to the National Basketball Association, is medical advisor to the Steve Rummeler Hope Network (SRHN), serves as the CME activity director for the MMA and SRHN Pain, Opioids and Ad-



Medical student Abby Solom makes a point during the Open Issues Forum on Saturday morning.

diction Lecture Series and is a member of the state's Opioid Prescribing Work Group, the University of Minnesota's Opioid Advisory Task Force and the Governor's Task Force on Medical Marijuana.

### Medical Student Leadership Award

Abby Solom received the MMA's Student Leadership Award, which recognizes

medical students who demonstrate exemplary leadership in service to fellow medical students, the profession of medicine and the broader community.

Solom, who is in her third year at the University of Minnesota, is active in the MMA's Medical Student Section and serves on its executive committee. She's that group's delegate to the AMA and in the MMA's recent member-wide elections, was voted in as medical student trustee for the MMA's board of trustees.

### MMA Foundation Volunteer Award

Dann Heilman, MD, founder and medical director of the C.A.R.E. Clinic in Red Wing, received the MMA Foundation's 2018 Physician Volunteerism Award. Heilman, a long-time pediatrician in Red Wing, has been the medical director of C.A.R.E. Clinic since its inception in 2009. The clinic has been operated by 20 to 25



Heather Bell, MD, and Kurt DeVine describe their work curbing the opioid epidemic in Little Falls, Minn.



Dozens of exhibitors displayed their wares at the conference. Here, member Lisa Erickson, MD, talks with a CentraCare representative.



volunteer medical providers over the past nine years in large part due to Heilman's efforts.

### Poster symposium winners

The Fifth Annual MMA Poster Symposium had two top posters:

Oluwaseun Acquah chats with Bob Moravec, MD about her research.



Muna Khalif discusses healthcare/legal partnerships as Eileen Webber looks on.



Katy Kozhimannil, PhD, speaks on the challenges of rural maternity care.



Saturday keynote speaker Allison Massari reminded attendees of the power that physicians have with their patients.



“Food Insecurity: Identification of an Effective Screening Process” by Oluwaseun Acquah. Her co-authors included Amanda Honsvall Hoefler and Isaac Zoller.

“The Opioid Crisis in Minnesota—A Platform for Advocacy Education” by Thomas Schmidt. His co-author was Tracy Marko.

### House of Delegates votes to dissolve

The 2018 MMA House of Delegates (HOD) will be its last; the group voted to continue the Policy Council as the body to gather broad member input on important policy issues and to permanently sunset the HOD as a policy-making body.

The action is years in the making.

Until 2013, the HOD was the primary policy-setting body for the MMA. In 2013, the MMA adopted several governance changes and suspended the HOD for three years while testing these changes. The HOD reconvened in 2016 and adopted most of the governance changes, but chose to suspend its meetings for two more years as recommendations were developed to increase the effectiveness of the Policy Council and its advocacy efforts, with a final vote this year.

Since 2013, the MMA has:

- Created a 40-person Policy Council to address critical issues facing medicine and to recommend policy positions to its Board of Trustees.
- Reduced the size of its board from 33 to 15 members to be more nimble. Mem-

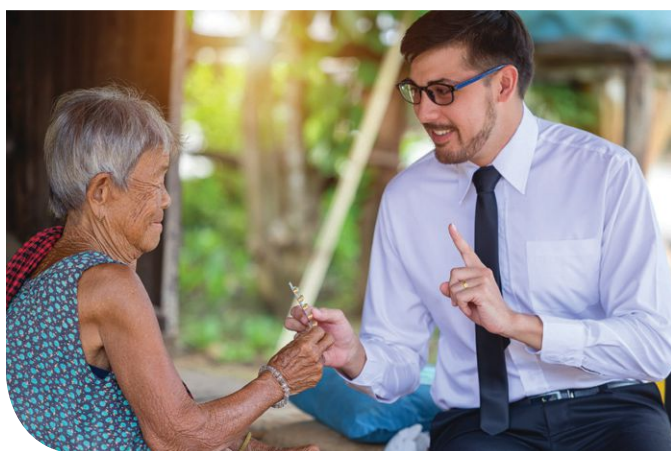
bers represent both geographic regions and diverse competencies.

- Developed a newly structured Annual Conference with a mix of educational programs, policy discussion and networking opportunities.
- Approved additional policy forums and listening sessions to gather member input on key policy issues throughout the year, instead of only once a year at the HOD.
- Instituted all-member elections to elect officers, Board of Trustee members and AMA delegation members.

In presenting the resolution to sunset the HOD, MMA President Doug Wood, MD, said: “The challenge of the House of Delegates was that it only met one time each year and it was a reactive body, based on what resolutions were submitted. The Policy Council meets at least four times each year and members are encouraged to submit issues throughout the year.”

At this year's HOD, delegates voted to end the House but also voted to modify the Policy Council to not only discuss policy issues but to empower it to consider governance structure and consider administrative issues.

# News Briefs



## MMA to host Facebook Live events to address health disparities

The MMA will host two Facebook Live ([www.Facebook.com/mnmed](http://www.Facebook.com/mnmed)) events during the first quarter of 2019 to address health care disparities in Minnesota.

The first event will be Jan. 22 from noon to 1 p.m. and will cover health disparities within the Native American community. The second will be Feb. 20 from noon to 1 p.m. and will cover structural racism and other barriers to health equity.

Speakers at the Jan. 22 event will include:

- Angela Erdrich, MD, member of the Turtle Mountain Chippewa (Ojibwe) from Wahpeton, North Dakota, and a pediatrician with the Indian Health Board of Minneapolis.
- Mary J. Owen, MD, director, Center of American Indian and Minority Health at the University of Minnesota Medical School-Duluth campus who spends her clinical time at the Cass Lake Indian Health Service.
- Sandeep Patel, MD, MPH, international travel and pediatrics at Hennepin Healthcare.

Speakers for the Feb. 20 event include:

- Lisa Skjefte, health equity specialist and American Indian community liaison, Children’s Minnesota.
- Maria Veronica Svetaz, MD, MPH, Hennepin Healthcare

## On the calendar

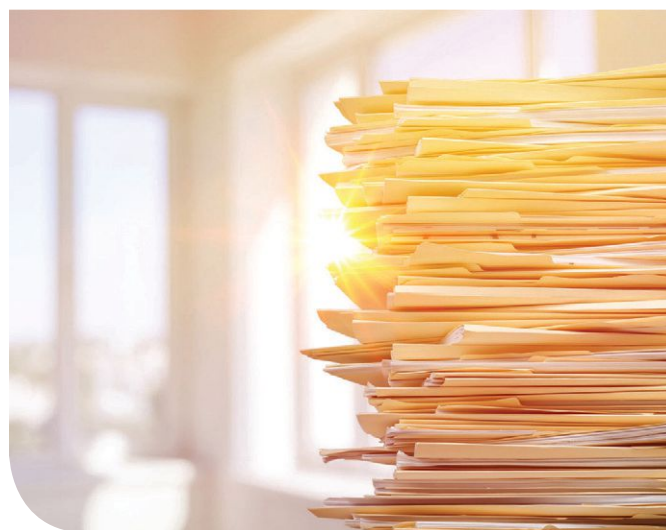
Event	Date	Location
“Addressing health disparities within the Native American community”	Jan. 22, 2019 (noon to 1 pm)	Facebook Live
MMA Day at the Capitol	Feb. 13	St. Paul
“Structural racism and other barriers to health equity”	Feb. 20 (noon to 1 pm)	Facebook Live

Events are in partnership with Minnesota Chapter of the American Academy of Pediatricians and the Minnesota Association of Family Physicians.

## MMA joins letter to CMS regarding administrative burdens

In August, the MMA signed on to a letter with the AMA, 170 state medical associations, specialty societies and other health care groups voicing support for the Centers for Medicare & Medicaid Services’ (CMS) “Patients Over Paperwork” initiative, which is geared toward reducing administrative burdens. The letter also raises serious concerns with some proposed changes that may harm patient access.

“We appreciate your outreach to our community and are solidly behind your goal of reducing administrative burdens for physicians and other health care professionals so that they can devote more time to patient care,” says the letter, sent on Aug. 27 to Seema Verma, CMS administrator.



The letter urged immediate adoption of:

- Changing the required documentation of the patient’s history to focus only on the interval history since the previous visit.
- Eliminating the requirement for physicians to re-document information that has already been documented in the patient’s record by practice staff or by the patient.
- Removing the need to justify providing a home visit instead of an office visit.

The letter also highlighted concerns from all the groups related to the proposed collapsing of payment rates for Evaluation & Management (E&M) codes and the proposal to reduce payment levels for multiple services provided on the same day.

It states opposition to these changes and asks CMS to conduct further work on appropriate coding, payment and documentation requirements for E&M services. Related to the collapsing of E&M codes the letter stated:

“We oppose the implementation of this proposal because it could hurt physicians and other health care professionals in specialties that treat the sickest patients, as well as those who provide

comprehensive primary care, ultimately jeopardizing patients' access to care."

While the collapsing of codes was proposed to reduce administrative burden, the fear is that it will have an unintended consequence of reducing access to care for patients with complex conditions.

The letter notes that the signees support the AMA's creation of a workgroup of physicians and other health professionals with deep expertise in defining and valuing codes, and who also use the office visit codes to describe and bill for services provided to Medicare patients.



### Survey says burnout still a major issue of physicians

Nearly 80 percent of physicians say they have experienced a feeling of burnout, according to the Physicians Foundation's 2018 Survey of America's Physicians released in mid-September.

The Physicians Foundation, a nonprofit organization that seeks to advance the work of practicing physicians and helps them facilitate the delivery of healthcare to patients, surveyed nearly 9,000 physicians across the country and asked them to share their views on such topics as burnout, the social determinants of health and electronic health records (EHRs). The survey is conducted every other year.

Of those surveyed, 186 practice in Minnesota. To see how Minnesota responses compare to those across the nation, visit [www.mnmed.org/mma/media/hidden-documents/mhafoundation2018mn.docx](http://www.mnmed.org/mma/media/hidden-documents/mhafoundation2018mn.docx).

A few survey highlights:

- One of the chief culprits contributing to physician burnout is the frustration physicians feel with the inefficiency of EHRs.
- Some 88 percent of physicians report that some, many or all of their patients are affected by social determinants. Conditions such as poverty, unemployment, lack of education and addictions all pose a serious impediment to their health, well-being and eventual health outcomes.

- A total of 56.8 percent of physicians who received value-based compensation (47.1 percent of them did) did not believe that such metrics improve the quality of care or help to reduce costs.
- Patient relationships continue to be the greatest source of professional satisfaction for 79 percent of physicians.
- The average physician spends 23 percent of their time, or 11.37 hours per week, on non-clinical paperwork.
- Only 10 percent of physicians believe they have a good or great ability to significantly influence the healthcare system.

### MMA board approved "Sedation to Unconsciousness" policy

At its September meeting, the MMA's Board of Trustees voted to adopt a new policy on "Sedation to Unconsciousness at the End of Life" as recommended by the MMA's Ethics and Medical-Legal Affairs Committee.

The policy mirrors that of the AMA with two exceptions. The MMA's version accounts for previously expressed wishes of the patient and for pharmacological and other interventions to address existential suffering.

Sedation to unconsciousness is a practice used at the end of life to palliate symptoms; it may not be used to intentionally cause a patient's death. The MMA opposes euthanasia. The MMA also opposes any aid-in-dying legislation that fails to adequately safeguard the interests of patients or physicians. Such safeguards include but are not limited to:

- Must not compel physicians or patients to participate in aid-in-dying against their will.
- Must require patient self-administration.
- Must not permit patients lacking decisional capacity to utilize aid-in-dying.
- Must require mental health referral of patients with a suspected psychological or psychiatric condition.
- Must provide sufficient legal protection for physicians who choose to participate.

### Two more cities join the list of cities enacting Tobacco 21 ordinances

This fall, the cities of Minnetonka and Excelsior became the 12th and 13th Minnesota municipalities to pass a Tobacco 21 ordinance.

The MMA sent a letter of support to Minnetonka in July, asking the City Council to: 1) raise the minimum legal sale age for tobacco products to 21 and 2) restrict the sale of flavored tobacco products to adult-only tobacco shops.

In addition to Minnetonka and Excelsior, these cities have passed similar ordinances: Bloomington, Edina, Falcon Heights, Minneapolis, North Mankato, Plymouth, Richfield, Roseville, Shoreview, St. Louis Park and St. Peter.

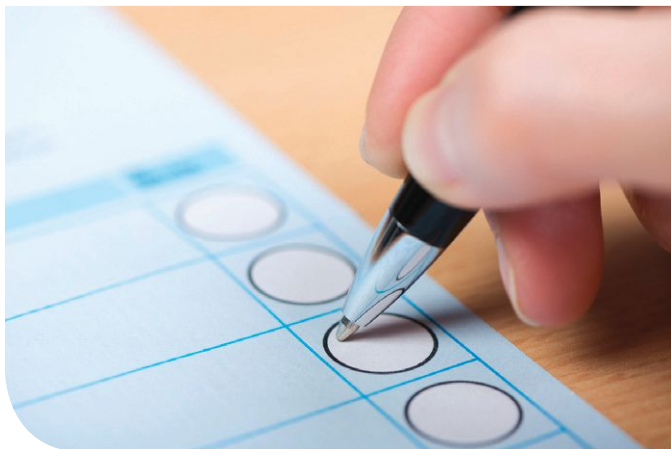
The MMA has supported efforts to raise the age at which you can purchase tobacco to 21 both at the state and local level.

New rules go into effect for Advanced Practice Estheticians

Final rules on the licensure of Advanced Practice Estheticians (APE) have gone into effect. Clinics, salons, and individuals providing cosmetic APE services must comply with these rules by Aug. 1, 2019.

Under the rules, the Minnesota Board of Cosmetology (MBC) created a new APE license and defined the APE scope of practice to include cosmetic treatment of the epidermal layer of skin, including dermaplaning, microdermabrasion, skin needling and other advanced cosmetic skin care treatments.

These rules reflect an agreement reached in 2015 between the MMA and the Board of Cosmetology to avoid salon licensure requirements for medical clinics. Per this agreement, a clinic is not required to be licensed as a salon if it employs APEs or other professionals to perform delegated medical services. Existing salon licensure requirements continue to apply to clinics that provide both medical and cosmetic services. Additionally, the practice of medicine, either performed or delegated by a physician, does not require APE licensure.



### State Fair poll shows health care is on public's mind

State Fair-goers had a lot of public health issues on their minds this year.

The Minnesota House of Representatives and Senate have hosted booths at the Fair for decades. Each year they ask attendees a series of questions about important policy issues facing the state. While the results are not scientific, they can offer an insight into how Minnesotans view a variety of issues, at least according to more than 8,100 people who participated.

Participants in the House's poll overwhelmingly supported universal background checks on all firearm purchases, with 89.3 percent saying they favor extending the background checks to include private transactions and gun show sales. Only 8.1 percent were opposed, with the remainder undecided.

Survey takers also strongly supported requiring pharmaceutical companies to pay a fee on all opioids sold within the state, with more than 65 percent supporting the so-called "penny a pill" or stewardship fee proposal to fund additional addiction prevention and treatment services. A little more than 20 percent opposed the proposal, with 13 percent undecided. Efforts to pass the

stewardship fee came up short in the 2018 legislative session, with strong opposition from drug manufacturers, wholesalers, the Minnesota Chamber of Commerce and others. The Senate survey asked whether the Legislature should place time limits on opioid prescribing, and 48 percent supported limits from three days to 14 days. Thirty-three percent opposed limits, while 19 percent were undecided.

Notably, support for the legalization of marijuana for recreational use has increased. This year, 56.2 percent supported legalization, an increase from the 50.6 percent of respondents who supported the idea when asked at the 2017 State Fair.

The Senate survey results also indicated strong support of restrictions on the use of cell phones while driving, with more than 80 percent of respondents showing their support. Survey takers indicated mixed support for a statewide law requiring later school start times for high schools, a proposal on which there is growing research to suggest that students – particularly teens – need more sleep to optimize learning. More than 48 percent of survey takers supported a statewide law; 44 percent of respondents opposed the proposal, arguing that such questions should be left to local school districts.



Scott Wilson



Janet Silversmith

## MMA in Action

In mid-September, **Scott Wilson**, manager of member outreach, hosted a dinner for the Resident/Fellow Section in Rochester. Wilson and medical student Abby Solom discussed the MMA and the American Medical Association to first- and second-year medical students at the University of Minnesota in September.

MMA CEO **Janet Silversmith** took part in a health care roundtable with candidates to discuss pre-existing conditions in October. She also presented the MMA's quality measurement activities to the Minnesota Department of Health's SQRMS Measurement Framework Work Group in early September. Also in September, she met with Fairview CMO Mark Welton, MD; Winona Health CEO Rachelle Schultz and Brett Whyte, MD, chief of staff; and Arnie Anderson, the executive director of Minnesota Community Action Partnership.

President-elect Keith Stelter, MD, met with candidates to discuss health care issues in October.

## VIEWPOINT

# Physicians must lead in their communities

In the current age of rapid access to information from print and electronic media, social media, email, SPAM and push messages, it is easy for misinformation to suddenly find rapid popularity and even credence.

This can be quite problematic for people who are searching for answers to their health questions. It is a challenge to find reliable health information, but it is even more difficult for many people to understand the implications of their search results in the context of their own illness or condition.

Two decades ago, physicians were not only the source of most health information for their patients but were also regarded as the adjudicators of conflicting information and valued partners for people in understanding their health concerns. The same was true when physicians were sought out by their communities to help plan solutions to public health problems.

At the annual Mayo Clinic Transform Conference in late September, I listened to a stirring first-person account of how a courageous physician was able to overcome these challenges to get a community to realize what they had not seen for years, specifically that their very water source was toxic and an immediate risk to health.

Some of you may recognize that this is the story of Flint, Mich. But most of you are unfamiliar with the strong-willed and determined physician who not only confronted the problem but was able to use science to overcome a determined campaign by politicians and public officials to discredit her research and her findings about the problem. This physician, Mona Hanna-Attisha, recently published a book

about her experience, *What the Eyes Don't See*, with all the details of this public health disaster as well as some important lessons.

Physicians are powerful when they translate data and science into stories that are meaningful to people; specifically, we can make the invisible visible when we personify the importance of the data we see. Physicians still enjoy a degree of trust among the public. But, we must work harder to earn that trust and now, more than ever, solve the health problems of our communities.

Many of us likely feel unprepared for this role. This is a new form of advocacy that is possibly more powerful than traditional advocacy because it is for our patients. The mission of the MMA is to make Minnesotans the healthiest people in the country. This requires our usual efforts to control tobacco and to make sure that vaccine-preventable diseases don't occur. It also means that we must pay attention to other problems that we don't see—like the crisis in Flint.

We need to think much more about how we will assure the security in housing, food and physical and emotional health that will drive the health of our communities. Physicians in every community in the state must be prepared to lead in this effort. Please let us know ([mma@mnmed.org](mailto:mma@mnmed.org)) what we can do to help you in this important work.



Douglas Wood, MD  
MMA Vice President

Physicians must work harder to earn trust and now, more than ever, solve the health problems of our communities.

*Although the FDA has not approved the use of ketamine for treating depression, some physicians are trying it experimentally. The two Minnesota studies published here are part of what may be seen as a trend.*

*A review of the literature on ketamine and depression, published in Current Neuropharmacology in September 2014, found that ketamine may be considered a valid and intriguing antidepressant option for the treatment of treatment-resistant depression, but that the optimal dosage, frequency of administration, and long-term efficacy require further studies.*

# Development of the primary care/psychiatry collaborative ketamine clinic for treatment-resistant depression

BY MICHAEL M. MESSER, MD, AND IRINA V. HALLER, PHD, MS

Patients with treatment-resistant depression (TRD) have limited treatment options. Subanesthetic doses of ketamine have been shown to have rapid and sustained antidepressant effect in some patients with TRD. Both the intravenous and intramuscular ketamine treatments administered in a clinical setting, where the dose, frequency, and patients' response can be monitored by the clinical staff, provide safe and effective treatment. The availability of intramuscular ketamine allows the expansion of TRD treatments to the primary care settings, especially in rural communities where access to specialized treatment modalities is limited. This report focuses on ketamine treatment of TRD using a collaborative and consultative approach between psychiatry and primary care and describes a clinical protocol for ketamine treatment for TRD in this setting.

## Introduction

Treatment-resistant depression (TRD) in patients with major depressive disorder (MDD) is defined as an inadequate response to appropriate courses of multiple antidepressants. An estimated 33% to 66% of patients with MDD do not respond to the first antidepressant, and between 15% to 33% of patients do not respond to multiple interventions.<sup>1</sup> TRD is associated with higher annual healthcare costs, lost productivity, and lower quality of life, indicating a substantial clinical, economic, and societal burden of this condition.<sup>2</sup>

Clinical guidelines recommend electroconvulsive therapy (ECT) for treating patients with TRD who do not respond to multiple pharmacological treatment trials.<sup>3</sup> However, factors such as the availability of specialized clinical staff and equipment needed to conduct ECT limit the use of

ECT for TRD, especially in rural areas.<sup>3</sup> Clearly, there is an unmet need for efficacious care of TRD in areas without access to ECT.

Ketamine, a N-methyl-D-aspartate receptor antagonist, has been shown to have rapid and sustained antidepressant effect in low, subanesthetic doses in patients with major depression<sup>4,5</sup> and has emerged as a potential alternative to ECT in patients with TRD. Published cases also report the use of ketamine series to achieve a recovery of depressive symptoms in patients with TRD followed by a maintenance treatment regimen to sustain the recovery.<sup>6-9</sup> Since multiple modalities for ketamine administration are available, ketamine treatments for TRD could be extended into primary care settings using a collaborative approach between psychiatry and primary care.

## Primary care and psychiatry collaboration to treat TRD

There are several important challenges for patients with mental illness in rural areas, challenges that are amplified for patients with TRD:

- Primary care clinicians provide care to a large proportion of these patients.<sup>10</sup>
- The need for mental health services in rural settings is significant.<sup>11</sup>
- Travel distances to receive services (accessibility), shortages of mental health professionals (availability) and the stigma of needing to receive mental care (acceptability) are particularly challenging.<sup>12</sup>

## A patient's story

A 51-year-old woman from a rural community (approximately two hours from a psychiatric hospital) was admitted to a psychiatric unit after having a long his-

tory of TRD. She had many unsuccessful pharmaceutical antidepressant trials and a course of ECT. Previous hospitalizations resulted in some mood improvements after cognitive behavioral therapy, but those improvements did not last. On admission, she was severely depressed (Beck Depression Inventory [BDI] score of 42). She had no history of personal chemical dependency, but reported a family history of alcoholism. During hospitalization, she received three intravenous ketamine treatments with a remarkable response to treatment (BDI score of 9, which corresponds to an undepressed state). She continued maintenance ketamine treatments every three weeks following discharge from the psychiatric unit. However, returning to the hospital for maintenance treatments became difficult, especially during winter months with hazardous road conditions. A conversation with the patient's family physician prompted creation of the ketamine working group offering ketamine treatment in the rural community. The patient continued maintenance treatment for three years. After many months with no depression symptoms, she was discharged from ketamine treatment.

### Ketamine clinic

The ketamine clinic was established for off-label ketamine use for TRD in the psychiatry department of an urban multi-specialty medical center in 2008 and was expanded to rural sites in 2012. The collaborative approach between psychiatrists and primary care clinicians from the rural communities allowed local delivery of care for patients with TRD. Since 2008, 46 TRD patients have been treated with ketamine, 16 (35%) of them residing in rural communities. Twelve of these patients received ketamine treatments locally. Overall, more than 2,800 ketamine treatments have been administered by the ketamine clinic physicians.

In addition to the rural primary care clinic, a rural psychiatric clinic with two psychiatrists and a psychiatric nurse practitioner (about 3.5 hours away from our center) joined the ketamine working group. The ketamine working group has

been meeting quarterly via videoconferencing to discuss literature and patient cases. Each meeting includes a review of recent literature pertinent to the use of ketamine for depression, clinical presentations and discussion, observations of care process and case review, maintenance of the ketamine registry, observed side effects, and safety considerations.

When a family practice physician is involved in treating patients with TRD, one of the ketamine-trained psychiatrists reviews the case to confirm treatment resistance and to assure that no other alternative treatments are available. After this assessment, patients are referred to the family medicine clinic for intramuscular ketamine treatments according to the established protocol.

### Tools to support collaborative care

The ketamine registry was established to assure consistent and safe care for patients with TRD, with focus on clinical, safety, and patient-reported outcomes and clinicians' adherence to the established clinical protocol for off-label use of ketamine for TRD. Data elements captured in the ketamine registry include patients' demographics (unique patient identifier, date of birth, gender), body height and weight at treatment initiation, start and end dates enrolled in ketamine care, components and the total Maudsley Scoring System, 13 BDI score at treatment initiation, personal and family history of chemical dependency, and other psychiatric comorbidities.

The BDI has been imbedded in the electronic health record. BDI scores, vital signs, and other relevant clinical observations are documented electronically during treatment encounters and easily linked with the ketamine registry data to assure longitudinal monitoring and treatment outcomes among patients enrolled in the ketamine collaborative care.

### Ketamine treatment protocol

#### *Indications*

Exhibit 1 shows the criteria for use of ketamine in patients with TRD adapted in our setting. Patients are required to have

#### EXHIBIT 1

### Indication and contraindications for use of low-dose ketamine for treatment-resistant depression

#### Indications

- Two or more failed antidepressants at maximum dose from two different classes of antidepressants (Maximum dose requirement ensures medication failure).
- Psychiatric assessment of additional treatment options, which may include monoamine oxidase inhibitors, augmentation strategies or ECT (This requirement is optional if ECT is contraindicated or ECT series has not been effective).
- Maudsley Staging Method score 11 or greater.
- Beck Depression Inventory score 18 or greater at initial screening.

#### Contraindications

- Psychosis.
- Active substance abuse (within past 6 months).
- Severe personality disorders or Axis II disorder as primary diagnosis.
- Pregnancy.

had adequate trials of medications from multiple families of antidepressants. The depression must surpass mild mood states and be at the very least in the borderline depressive category for initial assessment as measured by BDI. The Maudsley Staging Method<sup>13</sup> is used to confirm severity of treatment resistance. Patients with Maudsley scores of 11 or greater (corresponding to moderately severe to severe treatment resistance) are likely to have poorer outcomes with traditional treatments. With these criteria, ECT must be completed or refused as an end-point of FDA-approved treatments for TRD. Ketamine can be used after ECT as part of the treatment continuum for TRD.

#### *Contraindications*

Literature suggests several contraindications for ketamine treatment. Patients with psychosis should not receive ketamine

treatments since ketamine is known to cause dissociative effects and sensory disturbances, even in subanesthetic doses.<sup>14,15</sup> Active chemical dependency could lead to forming erroneous symptoms or psychological dependency to the effects of ketamine.<sup>16</sup> A severe personality disorder as a primary diagnosis could result in poor adherence to the treatment process.<sup>17</sup> The adverse effects of subanesthetic ketamine on pregnancy and fetus are unknown since no systematic evaluations in humans have been conducted to date.<sup>18,19</sup> However, a recent study using an animal model reported that in utero ketamine exposure caused abnormal development of prefrontal cortex in rats.<sup>20</sup>

### Dosing

In early cases,<sup>8,21</sup> we used a dose of 0.5 mg per kg of actual body weight as was suggested by Zarate et al<sup>22</sup> clinical trial. However, in a patient with high BMI, an initial dose of ketamine based on actual weight led to significant negative emotions with visual and sensory disturbances.<sup>21</sup> A consultation with an anesthesiologist resulted in using “ideal body weight” (IBW) to determine initial ketamine dose. This approach enables initiation of treatment with a safe dose, achievement of an antidepressant effect and ability to titrate to higher doses (between 0.5 mg/kg to 1.25 mg/kg IBW) when clinically necessary, minimizing potential untoward emotional and sensory effects. This approach also allows standardization of dosing independent of patients’ weight changes and permits consistent assessment of doses and their antidepressant effects.

### Initial treatment series

The ketamine treatment initiation series can include six to nine treatments (three treatments/week for two to three weeks). Response to treatment, defined as a 50% reduction in the BDI score (reduction in depressive symptoms), is assessed after an initial three treatments. If 50% reduction in symptoms is not achieved, three additional treatments with an increased dose of ketamine are attempted. If little change in depressive symptoms is achieved after the

sixth treatment, the dose is increased one more time for three additional treatments. The ketamine treatment is terminated if no benefit is observed after this series of treatments or if the depression worsens.

### Maintenance treatment

The maintenance regimen begins using the last effective dose for the patient after an initial treatment series that resulted in response to treatment. During maintenance treatment, the dose may be increased up to 1.25 mg/kg IBW. Based on prior observations,<sup>8,9</sup> the frequency of maintenance therapy may range between once a week to once in four weeks. Most patients receive maintenance therapy every two to three weeks. The duration of maintenance treatment in our ketamine clinic ranged from one to nine years.

Maintenance treatment is important for preventing a relapse into depression. A relapse can be dangerous, triggering greater intensity of suicidal ideation—a profound and severe hopelessness that results after the return of depression following a recovery from a long-term depression. Patients may be less suicidal in the chronic depressive state than after having experienced a good recovery.<sup>8,21</sup>

### Route of administration

Ketamine can be administered by intravenous, intramuscular, oral, nasal, sublingual, and rectal routes. However, the bioavailability of ketamine varies considerably between routes of administration: intravenous (100%), intramuscular (93%), nasal (45%), sublingual and rectal (30%), and oral (20%).<sup>23</sup> Clearly, the variation among the non-parenteral routes of administration could complicate the dosing and consistency of treatment. Moreover, the use of non-parenteral routes could lead to potential safety, diversion, and/or abuse issues.

In 2008, we began using intravenous ketamine as described in the literature<sup>22,24</sup> and added intramuscular ketamine treatments in 2012 after reports of similar antidepressant benefits using intramuscular route.<sup>25</sup> Either intravenous or intramuscular routes can be used, depending on

the availability for venous access as well as the benefits of one route versus the other. The intravenous route (concentration 10mg/1ml) allows us to pause or stop the treatment in case of discomfort, anxiety, or significant hypertension and to assess the patient’s tolerance to the initial dose of ketamine. The intramuscular ketamine administration (concentration 100mg/1ml) results in a more rapid increase and higher serum ketamine concentration<sup>25</sup> compared to the intravenous course of ketamine given over a period of 40 minutes. As anticipated, some patients feel overwhelmed due to higher intensity of ketamine effect approximately 5 minutes after the intramuscular injection.

The intramuscular route is the least expensive and least complicated way to provide a parenteral ketamine treatment. The intramuscular route is the only option for initiating and maintaining ketamine treatment in some rural settings without access to the infusion facilities. In addition, intramuscular route may be more acceptable for economic reasons associated with the cost of care. In our experience, it appears that there are no significant differences in the treatment outcomes between intravenous and intramuscular routes of administration and the dose calculation is the same. However, some patients do not tolerate the intensity of the intramuscular injection during the first 15 minutes.<sup>25</sup>

### Treatment workflow (intravenous ketamine administration)

Patients scheduled for a ketamine treatment are asked to fast for at least four hours before treatment. Patients with prescribed antihypertensive medications are asked to take their usual dose prior to treatment. IBW is calculated by the pharmacy staff or by using a formula (Exhibit 2).

Intravenous ketamine infusions are conducted over 40 minutes; if tolerated, the time may be reduced to 30 minutes to achieve greater intensity of treatment. During treatment, vital signs and observations (oximetry, blood pressure, heart rate, and behavior) are conducted every 15 minutes. The infusion rate can be reduced



up to 50% of the initial rate if dissociation or anxiety results. If anxiety is expected based on prior history, a 20 mg dose of propranolol by mouth can be administered before the infusion. Ondansetron should be administered to patients with history of nausea during ketamine treatments at least 30 minutes prior to the treatment. Additional medications may be used if side effects become significant during infusion: oral or intramuscular lorazepam to alleviate anxiety; 1-2 mg oral prazosin for hypertension; oral or intramuscular 4-8 mg of ondansetron for nausea. During intravenous infusions, a significant amount of ketamine remains in the tubing of the infusion pump; using a 50-ml saline flush following a ketamine infusion gives the patient the full intended dose.

Patients are observed at 30 and 90 minutes post-treatment for vital signs and behavior. They are assessed using the Nursing Delirium Screening tool<sup>26</sup> to assure clearance of ketamine effects and assure a zero score on all five parameters of delirium at the time of discharge. The BDI is administered prior to and after the treatment, when the effects of the ketamine have been cleared. At the time of discharge, the patient's gait, station, and speech must show no effects of ketamine. We also require that patients do not drive or operate machinery on the day of the treatment. They are discharged only into the care of another person who can drive them home.

### Treatment workflow (intramuscular ketamine administration)

Patients who undergo intramuscular ketamine treatments are subject to the same observation requirements for vital signs,

behaviors, and clearance post-treatment used during intravenous treatments. Some patients report a markedly clearer sensorium after the intramuscular ketamine treatment as compared to the intravenous route. Initially, the gluteal muscle was used for injection sites, however, the clinical response varied considerably, potentially due to greater content of adipose tissue in the muscle. An injection in the deltoid muscle has proven to have more predictable absorption and consistent results.

### Safety

Ketamine has been shown to be safe as an anesthetic at doses between 1 and 3 mg/kg.<sup>27</sup> Subanesthetic doses used for treatment of depression have been associated with neurocognitive/sensory disturbances, dissociation, and increases in heart rate and blood pressure.<sup>27</sup> These effects usually dissipate shortly after ketamine administration. Patients with a history of cardiovascular disease require additional monitoring during treatment due to potential increases in blood pressure.<sup>28</sup> Chronic ketamine abusers show signs of cognitive impairment, hepatic involvement, and urinary cystitis.<sup>29</sup> Thus, long-term maintenance therapy with ketamine requires regular monitoring.

A complete blood count, urine drug screen, urinalysis, hepatic profile, and hCG for women of childbearing age and ability are obtained prior to initiation of the treatment and every 90 days thereafter. ECG is ordered if patients have history of a cardiovascular illness. Patients with positive illicit drug screen results are discontinued from further ketamine use until they complete chemical dependency evaluation and can maintain sobriety.

Since ketamine is known to be used as a recreational drug, parenteral routes of administration (intravenous or intramuscular) are preferred for patient safety and therapeutic benefit. Treatment should be administered in a controlled setting under clinical observation for potential side effects known to be associated with ketamine even in low subanesthetic doses. Other modalities of ketamine administration are available, but without close clinical

management of dose and frequency of administration, non-parenteral routes could lead to medication misuse or diversion.<sup>30</sup>

### Conclusion

A collaborative approach to delivery of specialized care can significantly expand access to care, minimize disease burden and improve patient outcomes. The ketamine clinic was initially established in the psychiatric unit of a regional health care delivery system with a large rural service area and focused on providing off-label ketamine for patients who were not willing to use ECT or for whom ECT was contraindicated. Patients from rural and frontier communities who have TRD experience greater burden of the disease compounded by limited access to treatment options.

The key features of the collaborative care in the regional ketamine clinic included creation of a regional ketamine registry and other tools imbedded in the electronic health record to allow consistent assessment and monitoring of patients receiving ketamine treatment, focus on the up-to-date evidence in all aspects of ketamine use for TRD, cooperation among clinicians in reviewing and following patients with TRD, and access to a consultation with a ketamine trained psychiatrist.

To assure consistent treatment within the collaborative model, all ketamine clinic clinicians have been participating in the ketamine working group. Continuing education, case discussion, and established evidence-based clinical protocol for the use of ketamine for TRD allow provision of much needed treatment option for this patient population regardless of place of residence.

While multiple options for ketamine delivery are available, the treatment in a controlled clinical environment, where dose and frequency of administration can be monitored by clinical staff, is essential for keeping ketamine treatments safe and effective. Parenteral routes of administration used in a clinical setting allowed access to and the benefits of ketamine

#### EXHIBIT 2

### Calculating ideal body weight (IBW)

- Men: IBW = 50 kg + 2.3 kg for each inch of height over 60.
- Women: IBW = 45.5 kg + 2.3 kg for each inch of height over 60.

**treatment when no other antidepressant treatment resulted in remission or recovery for patients with TRD. MM**

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- Summary of review articles and reports
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# Ketamine for treatment of refractory depression and suicidality at the end of life

BY KIMBERLY L SCHOONOVER, MD; MARIA I. LAPID, MD; LACES M. VAUGHN, RN; VIRGINIA H. THOMPSON, RPH; LUKE HAFDAHL, MD; AND KEVIN J. WHITFORD, MD, MS

Little is known about how to address refractory depression and suicidality in elderly patients at the end-of-life. An 84-year-old woman was admitted to hospice with severe depression refractory to standard therapy. Scheduled, oral ketamine was added, with substantial improvement in depressive symptoms and resolution of suicidal thoughts. Ketamine can be a rapidly-acting adjuvant therapy in refractory depression and suicidality for elderly patients enrolled in hospice.

## Introduction

Depression is prevalent in up to 40% of hospice patients.<sup>1</sup> As a part of the palliative care and hospice philosophy of relieving suffering, it is imperative to adequately address refractory depression.

We describe a case of a geriatric patient enrolled in hospice with a terminal diagnosis of chronic obstructive pulmonary disease (COPD) who had comorbid severe depression and suicidal ideation and who continued to suffer from depression and suicidal thoughts despite maximizing the multi-disciplinary holistic care that hospice provides. We report the use of ketamine as an augmentation strategy for depression treatment and illustrate the usefulness of this medication when all other avenues fail.

## Case presentation

An 84-year-old female, who was living in an assisted living facility, enrolled in hospice with a terminal diagnosis of chronic obstructive pulmonary disease (COPD) with active depression and passive suicidal ideation. Her past psychiatric history included anxiety and lifelong major depressive disorder with prior suicide attempts, one of which occurred seven years earlier when she jumped out of a second-story window and sustained multiple life-

threatening injuries. Her medical history included malnutrition, chronic pain, and insomnia. Medication trials prior to hospice enrollment to manage her depression and anxiety included citalopram and quetiapine, neither of which she tolerated. Her social history was notable for domestic violence and poor social support. On hospice admission, her psychiatric medications were mirtazapine 30 mg and clonazepam 1 milligram (mg) three times daily for anxiety. Her hospice admission assessment showed passive suicidality in addition to significant symptom burden using the revised Edmonton Symptom Assessment System Revised (ESAS-r),<sup>2,3</sup> which is a validated and publicly available tool used to assess symptoms in palliative care patients using numeric analog scales ranging from 0 to 10 (with 10 being the worst).

A hospice treatment plan developed by an interdisciplinary team consisting of physicians, pharmacist, chaplain, volunteer and bereavement coordinators, social worker, nurses, and nursing aides was implemented. As needed, opioids were available for pain, benzodiazepines for anxiety, and standard medical therapies for COPD. She received regular visits and psychosocial interventions from nurses, social workers, chaplains, and volunteers.

Despite these interventions, she transitioned from passive to active suicidal ideation. In addition to close monitoring and frequent safety checks, a trial of oral ketamine was pursued with regular assessment of the ESAS-r score. Ketamine was started orally at 20 mg before bedtime and then increased to 40 mg before bedtime one week later. There was improvement in the patient's total symptom ESAS-r score, depression, and wellbeing scores (from 52 to 37, 8 to 5, and 10 to 4, respectively) with resolution of suicidal ideation over several months. The improvement of overall total symptom ESAS-r score and depression occurred over the first two weeks after ketamine initiation and was relatively maintained. The improvement in her wellbeing score occurred after the first three weeks of ketamine initiation. The score on ESAS-r for dyspnea, was rated low overall, ranging from 0 (most commonly) to 2. Her overall opioid use decreased as well. Prior to her death, she developed terminal agitated delirium in the setting of underlying disease progression. Ketamine was reduced to 30 mg and haloperidol was added with improvement of her delirium. She passed away one week later.



## Conclusion

Ketamine, which works by blocking NMDA receptors for glutamate, has an established efficacy as an anesthetic agent. Ketamine use has been associated with reduced depression and anxiety in palliative care and hospice patients.<sup>4</sup> While intravenous ketamine has been studied in depression and suicidality,<sup>5</sup> the intravenous route is not ideal in the hospice setting. Oral ketamine is easier to administer,<sup>6</sup> is inexpensive, has a rapid onset of action, and achieves blood levels reliably with a 15-20% bioavailability.<sup>7,8</sup> The antidepressant benefit is often noted within one to two weeks. Common ketamine side effects are agitation, confusion, hallucinations, hypertension, and muscle tremors. Chronic use is linked to cognitive impairment, reduced verbal fluency, and bladder inflammation.<sup>9,10</sup>

Our case highlights a patient with treatment-resistant depression and suicidal ideation with a short life expectancy for whom standard antidepressant treatment likely would not have been adequate due to the delayed onset of efficacy of typical antidepressants. Electroconvulsive therapy in the hospice setting in a patient with end-stage COPD and frailty would have had a high anesthesia risk. Psychostimulants, such as methylphenidate, may have exacerbated anxiety. Despite maximizing many different approaches, she continued to have persistent issues with depression and suicidal ideation; a trial of ketamine was initiated with improvement in her depressive symptoms and resolution of her suicidal ideation. We should note that she was in a living situation where she could receive frequent checks from staff to maximize the success of starting this medication. During checks, staff could monitor her mood and provide her with assistance with ambulation, as she was a fall risk, in addition to looking at her overall safety.

In conclusion, oral ketamine may be an adjuvant and rapidly acting option for hospice patients suffering from severe, refractory depression and suicidality. **MM**

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## Minnesota Medicine no longer on PubMed

*Minnesota Medicine* is no longer indexed on PubMed. PubMed has changed both its process and the criteria for including publications on its site. We are doing what we can to be included once again, as we know that inclusion in PubMed is important to researchers who submit articles to *Minnesota Medicine*.



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# Making a difference

**2018**  
ANNUAL  
REPORT



MINNESOTA  
MEDICAL  
ASSOCIATION



JANET SILVERSMITH, CEO

## Reflecting with the Future in Mind

**It is my privilege to share this year's MMA Annual Report with you.** I assumed the role of MMA CEO on Jan. 1 and am very proud of the organization's progress over the past 12 months – a year marked by transitions and change. In this report, you will learn a bit about our recent work and accomplishments. You will also meet some MMA physicians and medical students who represent the best of medicine in Minnesota – those who are going beyond the walls of their practice (and the classroom) to improve the health of Minnesotans and who embody true professionalism.

**As satisfying as it is to reflect on the past, I am most excited about MMA's future.** Since January, the dedicated leadership and staff have been working to reimagine an MMA for the 21st century. We are finalizing a new strategic plan, working to diversify our membership and leadership, strengthening partnerships, and building new bridges and connections.

**More and more physicians are hungry for the opportunity to make a bigger difference** – in their communities, in the conditions in which many of their patients live, and in the complex health care environment in which they deliver care for patients. The MMA is where Minnesota physicians have collectively made a difference in the past, and where physicians will continue to make a difference in the future.

**This is your association – get involved;** add your voice; share your talents; contribute your expertise; recruit a colleague; celebrate the profession of medicine; make a difference. The voice of physicians matters and MMA, as the leading voice of Minnesota physicians, will demonstrate that physician leadership can make Minnesota the healthiest state in the nation and the best place to practice medicine.

I hope you enjoy the enclosed highlights from the past year and will continue to support MMA on our journey moving forward.

A handwritten signature in black ink that reads "Janet L. Silversmith". The signature is written in a cursive, flowing style.

JANET L. SILVERSMITH  
MMA CEO

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# Healthiest in the Nation

*Working to address public health crises and helping all Minnesotans gain access to care*



## **Confronting gun violence**

Following the mass shooting at a Parkland, Florida, high school, the MMA released a comprehensive policy statement on the public health crisis associated with gun violence. In it, the MMA called for gun laws that will promote safe and responsible gun ownership, including criminal background checks on all purchases and transfers/exchanges of firearms; enforcement of laws that will hold sellers accountable when they sell firearms to prohibited purchasers; investment in improved data collection, analysis, and research on firearm injury prevention; and, a renewal and strengthening of the assault weapons ban, including banning high-capacity magazines.

At the State Capitol, efforts to pass “common sense” laws to curb gun violence stalled. Specifically, these bills sought to implement universal background checks for all purchases, provide authority for law enforcement to remove a gun if a person is a danger to self or others, and increase authority to do research on gun-related injuries and death.

In May, the MMA sent a letter to the Minnesota Congressional delegation calling for action on the issue.



## Tackling the opioid epidemic

At the state Capitol, the MMA worked to reduce the harm of opioid use by supporting investments in patient and prescriber education programs, expanded addiction treatment programs, and the embedding of the Prescription Monitoring Program (PMP) into EHRs. Despite bipartisan support to address the opioid epidemic, efforts to pass legislation were unsuccessful. An opioid stewardship bill, which would have assessed a fee on opioid manufacturers, faced stiff opposition by House leaders, PhRMA, the Minnesota Chamber of Commerce and other stakeholders. The assessment would have funded the MMA-defined goals, and would have also adopted guidelines on opioid prescribing.

In 2018, the MMA continued to add content to its online Pain, Opioids and Addiction Lecture Series, a partnership with the Steve Rummier Hope Network and the University of Minnesota Medical School. By mid-2018, 30 lectures were available for viewing online. Since its launch in 2014, these lectures have been viewed by more than 5,700 health care professionals around the world including 47 states, the Caribbean, Europe, Asia, Australia and New Zealand.



## MMA addresses health equity in series of sessions

Large health disparities exist between Minnesota's various populations – be they African American, Latino or members of the LGBTQ community. In 2018, the MMA worked to shine a light on this issue and to identify ways for physicians to address the gaps.

More than 100 physicians and health care advocates gathered in downtown St. Paul in late January to examine the current state of health equity in the state and discuss ways to improve care for all Minnesotans. The forum was the culminating event for Health Equity Month, which was proclaimed by Gov. Mark Dayton in late 2017. The MMA also conducted an online educational event on health equity prior to the in-person event.

In May, the MMA hosted an event at the University of Minnesota on LGBTQ health. A panel of experts and keynoter explored the various barriers to care that most in the LGBTQ community face in the state. As with the January health equity event, the MMA held an online educational event on LGBTQ health prior to the in-person forum.



*Making Minnesota a place where  
physicians can focus on their patients*

# Best Place



## **Efforts to reduce administrative burdens results in new law**

For the past three legislative sessions, reforming medication prior authorization practices in Minnesota has been a top MMA priority. While it has been a frustrating journey at times, this past session produced a positive outcome when Gov. Mark Dayton signed into law a proposal that will give physicians and other prescribers expanded ability to override step therapy requirements.

With the law's passage, physicians and prescribers will be able to seek an override of a health plan's step therapy requirement for a patient if they meet certain conditions. Among those criteria are a demonstrated pattern of failure for a therapy the patient had previously tried, or if the patient is currently receiving a positive therapeutic outcome on a prescription.

The law is intended to help physicians prescribe drug therapies with demonstrated success for a patient, rather than forcing patients to repeat "fail first" requirements for drugs shown to be ineffective or that cause adverse side effects. The law was supported by an array of patient advocacy groups, as well as the MMA and other health care providers.



## **One year to go before provider tax repeal**

In anticipation of the 2019 sunset of the provider tax (often referred to as the sick tax), the MMA in 2018 confirmed its commitment to the safety net programs that benefit from its revenue – namely MinnesotaCare and Medical Assistance. In order to avoid disruptions in coverage for low-income, vulnerable Minnesotans that the 2019 repeal might cause, the MMA expects to lead the effort to define alternative sources of financing for consideration by the Minnesota Legislature. Since the provider tax was instituted in 1992, the delivery and financing of health care has changed dramatically, and the MMA intends to find a better option for 21st century health care.

# to Practice

## **MMA joins legal fight to protect physicians and how they practice**

The MMA advocates for Minnesota physicians through the courts by filing amicus briefs in cases with the potential to impact how physicians practice and provide care to their patients. This past June, the MMA filed an amicus, or “friend of the court” brief, with the Minnesota Supreme Court in a medical malpractice case to prevent meritless malpractice actions against physicians and protect the ability of physicians and allied professionals to collaborate to enhance patient care. The case is still in progress.



## **A continued fight to align Minnesota with HIPAA standards**

The MMA’s legislative team continued its efforts to urge lawmakers to align the state’s privacy standards with HIPAA. Minnesota is one of only a few states that require patients to “opt in” to sharing their medical information to provide optimal care coordination and other operational uses. Managing Minnesota’s unique law results in increased administrative burdens, challenges care coordination, and puts patient safety and care at risk. The bill, which eventually stalled, would have aligned Minnesota law with HIPAA for issues related to treatment, payment and operations.



# Advancing Professionalism

*An ongoing commitment to the recognition of physicians as central to the health of communities*



## **Overflowing crowd advocates for medicine at Day at the Capitol**

More than 120 physicians and physicians-in-training gathered for MMA's annual Day at the Capitol in March to meet with legislators and discuss MMA's top legislative priorities: fighting the opioid epidemic and ensuring patients have access to needed medications.

Before meeting with legislators, attendees heard from new Health Commissioner Jan Malcolm and Sen. Julie Rosen (R-Vernon Center), who described her efforts to address the abuse and misuse of opioids.

Following the Capitol event, the group convened for a reception at St. Paul's University Club, where they were addressed by Rep. Roz Peterson (R-Lakeville), the author of several MMA-supported patient protection measures related to drug pricing, and Sen. Matt Klein, MD (DFL-Mendota Heights), an MMA member and one of two physicians in the Senate.

## Celebrating medicine, peer to peer

This year, we re-branded our free social gatherings for physicians, residents and medical students and called them the “Doctors’ Lounge.” We strengthened the program by adding a short agenda. In St. Cloud and Mankato, we had a brief discussion on the various efforts to pass Tobacco 21 ordinances in Minnesota cities. In the Twin Cities and Rochester, our lobbying team reported on the 2018 session. In addition, we offered hors d’oeuvres, wine, beer and other beverages for guests. These social events are designed to celebrate medicine, thank our members, welcome new and prospective members. It’s a perfect, relaxed setting for physicians and physicians-in-training to connect and discuss the issues of the day.



## Working together

Physicians are louder and stronger when they blend their voices together. In 2018, the MMA continued to collaborate with the state’s specialty societies. Here’s how: MMA leadership and representatives from specialty societies gathered to discuss top strategic priorities for health care in Minnesota; we partnered with several specialties to host our Health Equity Forum in January, our annual Day at the Capitol in March and our LGBTQ Health Forum in May; we continue to provide lobbying services under contract for four specialty groups (Minnesota Academy of Family Physicians, the Minnesota Chapter of the American Academy of Pediatrics, the Minnesota Orthopaedic Society and the Minnesota Academy of Otolaryngology); and we partnered with more than 10 specialty societies in the state to provide continuing medical education to Minnesota physicians.



*No one has to tell you — being a physician is a full-time job. But some individuals find ways to fit even more activities into their daily lives. In 2018, the MMA recognizes seven physicians and two medical students who have gone beyond their day-to-day duties to help improve health care in Minnesota.*

# Members Making a Difference



## **Julie Anderson, MD**

Anderson, a family physician in St. Cloud, has got her hands full. This year, she opened a new practice offering direct primary care called Simplicity Health Direct. On top of her new business, she's busy advocating

for medicine. She has testified on behalf of a Tobacco 21 ordinance with the St. Cloud City Council (it passed, but was vetoed by the mayor). She also has been an active member in both her state and national specialty societies. She's a past president of the Minnesota Academy of Family Physicians, serves as a Minnesota delegate to the American Academy of Family Physicians (AAFP) and is a member of AAFP's Commission on Governmental Advocacy. She also serves as vice president of the AAFP Foundation.



## **Matt Klein, MD**

Klein is one of two physician senators at the Minnesota State Capitol, and a proud member of the MMA. Since his election in 2016, he has juggled his legislative duties with his work at Hennepin Healthcare. He is a member

of the Senate Health and Human Services Finance and Policy committee, and the Human Services Reform Finance and Policy committee. His experiences as a physician allow him to bring a needed perspective to health care legislation. Klein has also lent his voice to the MMA's advocacy efforts as a speaker at the past two Day at the Capitol events.



## **Tom Kottke, MD, MSPH**

Kottke has become quite the champion for public health. Along with his day job as a clinical cardiologist and HealthPartners' medical director for well-being, Kottke has been a strong

advocate for gun control efforts at the State Capitol, as well as various Minnesota cities' ordinances to prohibit tobacco sales to those under 21. His commitment to improving patient health goes way beyond the exam room. He has also been active with the Twin Cities Medical Society serving as its president this past year.



## **Lisa Mattson, MD**

Mattson believes in getting involved and making a difference. She was recently honored with the Distinguished Service Award from her alma mater, Macalester College, because of this attitude. The

ob/gyn has advocated for medicine in Washington, D.C.; volunteered for the Phillips Neighborhood Clinic; and served as director of the University of Minnesota's Women Health Clinic, where she introduced transgender services. She is currently chair of the MMA's Policy Council, a member of the MMA Board of Trustees, and acting speaker of the MMA's House of Delegates.



## Stephen Nelson, MD

Although Minnesota is known globally for its health care expertise, we are behind the curve when it comes to health equity. Nelson, a pediatric hematologist and oncologist, is trying to change that. He has made health equity in Minnesota his rallying cry. He has led webinars on implicit bias in the practice of medicine and has been an active participant in health equity activities including serving on two MMA advisory groups and taking part in the MMA's Health Equity Forum in January and the LGBTQ Health Forum in May.



## Will Nicholson, MD

Nicholson, a family physician and hospitalist at St. John's in Maplewood, has long been active in MEDPAC, the MMA's political action committee. This past year, he upped the ante by becoming its chair. Nicholson's interest in politics began while a medical student when he took a road trip to Iowa to participate in the Presidential caucus system to experience grassroots politics first-hand. Nicholson is engaging physicians in political action to promote the MMA's legislative agenda. He's another fine example of acting to promote a healthier state through advocacy.



## Vic Sandler, MD

This palliative care expert at Fairview Home Care and Hospice has been the co-chair for POLST MN Steering Committee for several years. In this work, Sandler has raised awareness about POLST and how physicians can better serve patients with serious illnesses and avoid unwanted treatment at the end of life. Sandler is the co-chair of the Ethics Committee at the University of Minnesota Medical Center, faculty for the University of Minnesota Medical School Hospice and Palliative Medicine Fellowship program, and president of the Minnesota Network of Hospice and Palliative Medicine Physicians.



## Tracy Marko and Tom Schmidt

These two University of Minnesota students are leading the Medical Student Sections' Hands on Advocacy initiative this year. From Day 1, Marko and Schmidt have demonstrated their commitment to the project and the important issue that they were tasked to address – the opioid epidemic. Their dedication to working on how the next generation of physicians can address the opioid epidemic is to be commended, and no two medical students are more deserving of recognition.

### Making A Difference Locally

#### MMA's Component Medical Society Leaders

##### HEART OF THE LAKES

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Robert A Koshnick Jr., MD

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PRESIDENT

Thomas E. Kottke, MD, MSPH  
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##### UPPER MISSISSIPPI MEDICAL SOCIETY

PRESIDENT

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##### RED RIVER VALLEY MEDICAL SOCIETY

PRESIDENT Sanjay G Patel, MBBS

##### WRIGHT COUNTY MEDICAL SOCIETY

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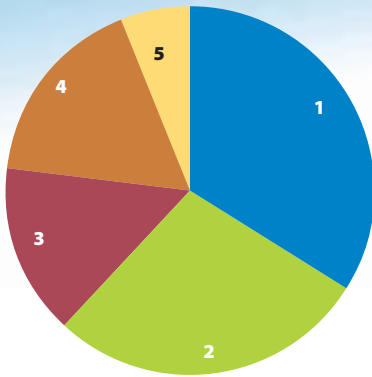
Dionne Hart, MD

CO-CHAIR/PRESIDENT

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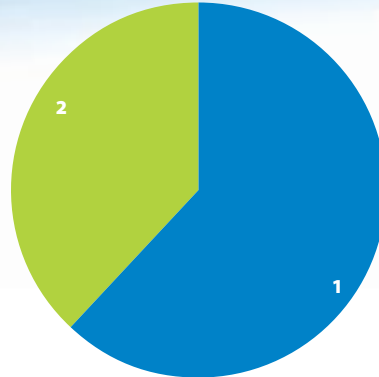
EXECUTIVE DIRECTOR Beth Kangas

## 2018 Financial Highlights



### How your dues are used

- GOVERNANCE 34%**  
MMA Board, AMA delegation
- ADVOCACY 28%**  
Legislative and regulatory lobbying, payer relations, quality, public health
- MEMBERSHIP 17%**  
Member relations, Annual Conference, outreach, education, events
- COMMUNICATIONS 15%**  
*Minnesota Medicine*, *MMA News Now*, website, special reports
- OTHERS 6%**  
Accreditation, co-sponsorships, credentialing, component society staffing



### Total MMA Revenue: \$3.17M

- DUES 62%**  
Dues payments from members
- NON-DUES REVENUE 38%**  
Includes:
  - revenue earned from advertising sold in *Minnesota Medicine*, *MMA News Now* and on the MMA website
  - revenue earned by the MMA for accreditation, sponsorships and lobbying support for medical specialties
  - income from investments, grants and events.

## Membership Overview

Year	Total Members	Year	Total Members
2000	9,089	2009	11,330
2001	9,162	2010	11,250
2002	9,109	2011	10,106
2003	9,116	2012	10,347
2004	9,297	2013	9,998
2005	10,858	2014	10,309
2006	10,835	2015	10,257
2007	10,909	2016	10,171
2008	10,969	2017	10,260
		2018	10,637*

\*Numbers as of Aug. 3, 2018

## Membership Types

Member Type	2018 Count
Regular	4,426
Resident/Fellow	2,945
Retired	1,497
Student	1,770

## Membership

NORTH CENTRAL TRUSTEE DISTRICT	397
South Park Region. . . . .	56
Stearns-Benton. . . . .	248
Upper Mississippi . . . . .	66
West Central . . . . .	17
Wright . . . . .	10

NORTHWEST TRUSTEE DISTRICT	242
Headwaters. . . . .	119
Heart of the Lakes Region . . . . .	59
Red River Valley . . . . .	64

SOUTHEAST TRUSTEE DISTRICT	4,039
Freeborn. . . . .	47
Goodhue . . . . .	70
Rice . . . . .	35
Steele. . . . .	64
Wabasha. . . . .	10
Winona . . . . .	14
Zumbro Valley . . . . .	3,799

SOUTHWEST TRUSTEE DISTRICT	576
McLeod-Sibley . . . . .	21
Nicollet-Le Sueur . . . . .	27
Prairie . . . . .	522
Waseca. . . . .	6

TWIN CITIES TRUSTEE DISTRICT	4,666
------------------------------	-------

### AT LARGE 717

Physicians in areas without a component medical society are considered "at-large" members unless they choose to join an adjacent society. Current at-large areas include the Northeast Trustee District, which contains areas formally covered by the Lake Superior Medical Society and Range Society; areas of the North Central Trustee District including Mille Lacs, Kanabec, Pine, Sherburne, Isanti and Chisago counties; and Wilkin, Otter Tail and Mower counties.

## TOTAL 10,637

Counts include: regular/active, retired, students, residents/fellows

Note: Resident and Student numbers fluctuate throughout the year.



MINNESOTA  
MEDICAL  
ASSOCIATION

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Minneapolis MN 55413

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FAX: 612-378-3875

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Find out more at [EPPAhealth.com](http://EPPAhealth.com)

## Join the Best.

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[lkaiser@entirafamilyclinics.com](mailto:lkaiser@entirafamilyclinics.com)



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Altru Health System is a non-profit integrated health system located in northeast North Dakota and northwest Minnesota.

We are seeking Family Medicine Physicians with or without OB to join our clinic practices in Crookston, Roseau and Warroad, MN.

**Crookston, Minnesota**

- » Multimillion dollar renovation and expansion to be completed in 2018
- » Expanded radiology services, operating room, and renovated exam rooms, infusion, and lab

**Roseau, Minnesota**

- » LifeCare Medical Center, a 25 bed critical access hospital, is attached to the clinic
- » Year-round outdoor activities including fishing, hunting, snowmobiling, golf and more

**Warroad, Minnesota**

- » Just 20 minutes from Roseau and LifeCare Medical Center
- » Located on Lake of the Woods, an ideal location for all outdoor water activities, but most notable for their "super-sized" fishing

**Michelle Adolphen, Physician Recruiter**  
701.620.1600 Mobile  
madolphen@altru.org | altru.org/physicians

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- ENT
- Nephrology
- Psychiatry
- Family Medicine
- Neurology
- Pulmonary/  
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- Gastroenterology
- OB/GYN
- Rheumatology
- Geriatrician
- Oncology
- Urgent Care
- Hospitalist
- Orthopedic  
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**FOR MORE INFORMATION:**

**Shana Zahrbock, Physician Recruitment**  
Shana.Zahrbock@carrishealth.com | (320) 231-6353 | acmc.com



**Carris Health is an innovative health care system** committed to reinventing rural health care in West Central and Southwest Minnesota.

Carris Health was formed in January 2018 and is part of CentraCare Health. Visit [www.carrishealth.com](http://www.carrishealth.com) for more information.

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## St. Cloud VA Health Care System

### OPPORTUNITY ANNOUNCEMENT

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

- Physician ( Care In the Community/ Integrative Whole Health)
- Physician (Hospice & Palliative Care)
- Physician Psychiatrist (Mental Health)
- Physician (Hematology/Oncology) Part-Time
- Physician (Pulmonologist) Part-Time
- Physician (Orthopedic Surgeon) Part-Time
- Physician (IM/FP) St. Cloud MN.
- Physician (IM/FP) Brainerd MN.
- Physician (IM/FP) Montevideo MN.
- Associate Chief of Staff/ Education ( Office of the Director)
- Associate Chief of Staff Primary & Specialty Ambulatory Medicine

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

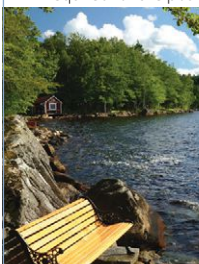


Since 1924, the St. Cloud VA Health Care System has delivered excellence in health care and compassionate service to central Minnesota Veterans in an inviting and welcoming environment close to home. We serve over 38,000 Veterans per year at the medical center in St. Cloud, and at three Community Based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

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Visit [www.USAJobs.gov](http://www.USAJobs.gov) or contact Jane Blommel ([STC.HR@VA.GOV](mailto:STC.HR@VA.GOV))  
Human Resources  
4801 Veterans Drive  
St. Cloud, MN 56303  
(320) 255-6301  
EEO Employer



Located sixty-five miles northwest of the twin cities of Minneapolis and St. Paul, the City of St. Cloud and adjoining communities have a population of more than 100,000 people. The area is one of the fastest growing areas in Minnesota, and serves as the regional center for education and medicine. Enjoy a superb quality of life here—nearly 100 area parks; sparkling lakes; the Mississippi River; friendly, safe cities and neighborhoods; hundreds of restaurants and shops; a vibrant and thriving medical community; a wide variety of recreational, cultural and educational opportunities; a refreshing four-season climate; a reasonable cost of living; and a robust regional economy!

# EMPLOYMENT OPPORTUNITIES



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HEALTH  
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Defining  
**EXCELLENCE**  
in the 21st Century

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*Come explore the heartbeat of the Iron Range!* This is a great destination for outdoor recreational activities, including snowmobiling, cross-country skiing, camping, fishing, hiking and biking.

The Hibbing Community Based Outpatient Clinic (CBOC) has an opening for a full-time Staff Physician. CBOCs within the Minneapolis VA Health Care System provide care to Veterans near their home town and serve over 18,000 Veterans throughout Minnesota and Western Wisconsin.

Comprehensive health care is provided through primary care. Focus on care include the chronic disease initiative areas of CHF, COPD and DM, mental health collaboration in the PC setting, MOVE program focusing on weight loss, diet and activity as well as health promotion/disease management.

Work Schedule: Monday-Friday, 8:00AM-4:30PM; No Emergency, nights, holidays, weekends or after clinic hours calls.

*For additional information please see the full description on the usajobs website:*

<https://www.usajobs.gov/GetJob/ViewDetails/491799700>



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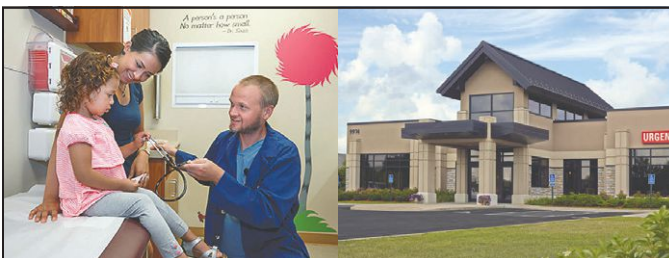
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### Fairview & HealthEast Physician Opportunities

- |                                   |                    |
|-----------------------------------|--------------------|
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| Cardiology<br>(Electrophysiology) | Medical Director   |
| Cardiology<br>(Non-invasive)      | Med/Peds           |
| Dermatology                       | Neurology          |
| Emergency Medicine                | OB/GYN             |
| Endocrinology                     | Otolaryngology     |
| Family Medicine                   | Pain Medicine      |
| Family Medicine w/OB              | Pediatrics         |
| General Surgery                   | Psychiatry         |
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## Minneapolis VA Health Care System

Opportunities are available in the following specialties:

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- Internal Medicine/Family Practice
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- Tele ICU - Las Vegas, NV
- CBOC providers, MD
  - Ely, MN
  - Hibbing, MN
  - Rochester, MN
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US citizenship or proper work authorization required. Candidates should be BE/BC. Must have a valid medical license anywhere in US. Background check required. EEO Employer

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a. Total Number of Copies (Net press run)	6,003	5,210
b. Paid Circulation (By Mail) (By First-Class Mail®) (By Retail Sales and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Channels)	4,519	4,453
c. Total Paid Distribution (Sum of 15b (1), (2), (3), and (4))	4,519	4,453
d. Free or Nominal Rate Outside-Country Copies Included on PS Form 3541	1,214	422
e. Free or Nominal Rate In-Country Copies Included on PS Form 3541	0	0
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h. Total Free or Nominal Rate Distribution (Sum of 15d, (e), (f), (g) and (h))	1,299	507
i. Total Distribution (Sum of 15c and 15h)	5,818	4,960
j. Copies not Distributed (See instructions to Publishers at page B30)	355	250
k. Total (Sum of 15i and j)	6,003	5,210
l. Payment Post (Indicated by ZIP class 00)	809	909

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c. Total Paid Distribution (Line 15c) + Paid Electronic Copies (Line 16a)	4,519	4,453
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**ALLISON DUCHARME-SMITH, MD**

- Resident in internal medicine
- Mayo Clinic
- MMA member since 2017
- From Rochester. Graduated from the University of Wisconsin-Madison and University of Chicago Medical School. Internal medicine residency at the Mayo Clinic. Medicine residence in Minneapolis. Has worked at Lakewood Health System since 1997.
- Husband is also a Rochester native. No pets ... yet!

**Became a physician because ...**

I grew up in Rochester, surrounded by the Mayo Clinic, but without any physicians in my family. I had the opportunity to shadow a family friend who was a physician at Mayo. He was this amazing clinician who knew everything under the sun, but at the same time had this charisma with his patients; they loved and felt so comforted by him. I remember wanting to be like him—an extraordinarily competent physician who at the same time remembered that we are treating real, live human beings and that both aspects are important to being a physician.

**Favorite fictional physician ...**

Not that I necessarily want to be these people, but I loved *Scrubs* when it was on and always enjoyed Dr. Dorian and Dr. Cox. I think I would like the patient care of Dr. Dorian and the passion of Dr. Cox. Plus, it was about internal medicine, which I knew was what I wanted to go into. I know there are better examples in books, but the thing about *Scrubs* was that it actually glorified internal medicine and the day-to-day of working in a hospital.

**Correction** In the September/October 2018 issue of *Minnesota Medicine*, the spouse of Gregory Plotnikoff, MD, MTS, FACP, was incorrectly identified. Plotnikoff's husband is Shawn Monaghan.

**GLENN NEMEC, MD**

- Family practice
- Stellis Health, Monticello
- MMA member since 1984
- MAFP president
- From Cambridge, Wisc. Graduated from the University of Wisconsin-Eau Claire and Medical College of Wisconsin-Milwaukee. Family practice residency at Mercy Medical Center in Denver. Has been with Stellis Health for 31 years.
- Wife, Caren, is a PACU nurse at Buffalo Allina Hospital. Two grown children: his son, Gregg, is an engineer at Arconic in St. Paul; daughter, Jacqueline, is a teen program coordinator for Young Life in San Diego.

**Became a physician because ...**

I was always interested in biological science. I got a job as a respiratory therapy assistant, helping manage ventilated patients and I saw many poorly handled in end-of-life situations. I wanted to be in a position to do it better.

**Greatest challenge facing medicine today ...**

Making the EMRs work well for us and rebuilding the U.S. medical care structure around primary care.

**Favorite fictional physician ...**

Bones (from *Star Trek*)—I'm a Trekkie. He fused fantastic technology with high touch.





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