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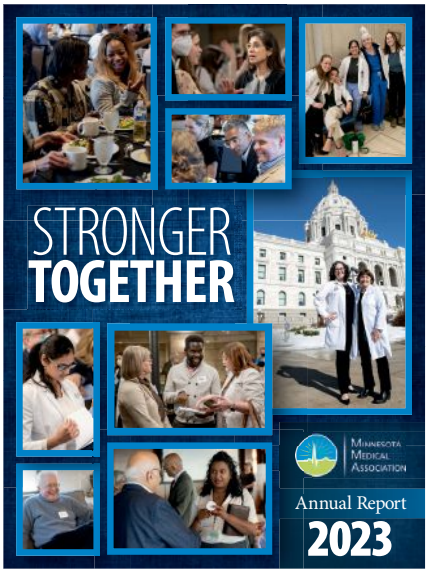
CORRECTION
The cover and cover story of the January–February 2024 issue featured original photography by Mike Krivit of Krivit Photography. We failed to credit the photographer for his work. *Minnesota Medicine* regrets the error.

DEPARTMENTS



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Christopher Wenner, MD

Medicare Advantage in Minnesota—advantage, insurance companies

Medicare Advantage plans, which pay for the healthcare costs of enrolled Medicare beneficiaries via private insurance companies, were authorized by Congress to cut costs 20 years ago. These plans have been wildly popular with beneficiaries due to the bundling of Medicare parts A, B, and D into one product and eliminating the need for supplemental insurance. Some plans also offer dental and vision coverage—which traditional Medicare does not. In 2023, according to KFF, 55% of Minnesota Medicare beneficiaries were enrolled in a Medicare Advantage plan. Trends indicate this number will continue to climb.

It is important to understand, however, that Medicare Advantage plans are not a net boon to healthcare. According to Medicare Payment Advisory Commission (MedPAC), Advantage plans cost the U.S. government $27 billion more than straight Medicare, a 6% premium. Risk coding to estimate and adjust for the health status of patients, a relatively new phenomenon, exacerbates this issue. Many insurers are moving their book of business away from commercial products and entrenching further into Medicare Advantage plans, largely due to the average rebate of $1,915 (read: guaranteed profit) per enrolled beneficiary. A *New England Journal of Medicine* article indicates that private equity firms have joined in the cash grab, starting their own Medicare Advantage plans.

It is important to understand that Medicare Advantage plans are not a net boon to healthcare…. Many insurers are moving their book of business away from commercial products and entrenching further into Medicare Advantage plans.

Locally, there are two major issues we need to be aware of and firmly oppose. The first regards unsubstantiated prior authorizations. We are all aware of the ridiculous PAs for generic meds and preventive services and the staggering amount of energy this consumes for our administrative staff. Most Medicare Advantage plans have narrow networks, requiring PAs for tertiary specialty care. Thankfully, the MMA has been advocating hard on our behalf to mitigate this restrictive burden and will continue to do so.

The second issue may have greater repercussions on our ability to practice in the state. A local insurer and purveyor of Medicare Advantage plans recently enacted a policy that cuts reimbursement 50% (yes, you read that correctly) on Evaluation and Management codes for Medicare Advantage claims with a -25 modifier. The -25 modifier indicates a "significant and separate" service is provided at the same visit of a separate service. For example, a -25 modifier and attendant E&M code would be added to the G-code of an annual wellness visit if chronic conditions were also addressed.

In my practice, most Medicare beneficiaries have multiple chronic conditions. This is not unique to my practice. I address these conditions during an annual wellness visit to minimize the burden on the patient—and the system. Again, not unique to me. This service, addressing multiple comorbidities during a Medicare-directed annual wellness visit, should be lauded and reimbursed. Shockingly (or perhaps not), a local insurance company is balancing its books on the backs of physicians by drastically discounting this endeavor. For primary care physicians with thin margins, especially those in rural areas where Medicare beneficiaries are well over 50% of a typical patient panel, this draconian measure is unsustainable. Said insurance company cites it is within its Medicare Advantage purview to act with such disregard for physicians. Without opposition, other companies will likely follow suit.

Our profession has a tepid history of standing up to self-serving motives of insurance companies. It is time to recognize the current malfeasance, stand firm, and overturn the aforementioned abuses obstructing the practice of medicine in Minnesota. **MM**

Christopher J. Wenner, MD, is the founder of Christopher J. Wenner, MD, PA, an independent family medicine practice in Cold Spring. He is one of three medical editors for *Minnesota Medicine*.

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Losing sleep is worth losing sleep over

The change to daylight saving time doesn't affect everyone equally. For some, the effects are pervasive and long-lasting.

BY GREG BREINING

When we "spring forward" to daylight saving time, many of us will be jumping with both feet into what sleep specialists call "social jet lag."

That's the mismatch between our internal circadian rhythms and the "social clock" that society generally runs on. Many of us are out of synch with our work and school schedules, and advancing our clocks each spring hurts more of us than it helps. To make matters worse, research has shown the effects of switching are not just temporary, but often long-lasting with serious health effects.

"Your body's circadian rhythm is easily the most important physiological process that you never think about," says Michael Howell, MD, FAAN, FAASM, professor of neurology at the University of Minnesota and also chief medical officer of GEM Sleep, a virtual sleep apnea clinic for diagnosis and treatment. "A human being, what their body is doing, whether or not it's in their liver cells or their hearts or their skin, it varies over the course of the day. Now, the most obvious manifestation of this is sleep. But it's much deeper than that in terms of when your appetite kicks in, when your gut moves, when you feel like you need to go to the bathroom, when you feel most alert and sharp."

Springing forward

Our circadian clocks are linked to our exposure to light—specifically bright daylight— in the morning. And during standard time, daylight roughly corresponds to our daily routines. We wake up as it's getting light and begin to end the day as it gets dark. The match isn't perfect, especially in winter at northern latitudes. Some of us wake in darkness, and kids trudge to school in twilight.

Our routines generally get more out-of-synch with the move to daylight saving. We still wake when the clock says 6 a.m., but now it's even darker and the daylight we need to set our biological clocks is an hour farther into the future.

Some of us are early birds. We rise at dawn—or earlier—without the help of an alarm clock or young children. "So for those people, actually, the springing ahead is a benefit," says Howell, bringing their early morning habits more in line with the social clock. The sun rises an hour later; they can perhaps sleep later relative to the rest of us and manage to stay awake long enough to watch a movie with friends.

But that's not true of most of us. "If I had to guess it's probably a 15%–85% situ-

"Your circadian rhythm, in large part, is kind of like your height and your eye color. It's kind of who you are. We all have our own intrinsic circadian rhythm, and it's not easy to move that around."

MICHAEL HOWELL, MD, FAAN, FAASM
PROFESSOR OF NEUROLOGY, UNIVERSITY OF MINNESOTA
CHIEF MEDICAL OFFICER, GEM SLEEP

ation," says Howell. We routinely struggle to wake up refreshed in the morning, and the sun's rising an hour later only makes things worse.

The results can be profound, especially considered on a societal basis. According to a summary of research in a 2024 paper in the *Journal of Clinical Sleep Medicine*, there are many acute effects of moving to daylight saving time:

- "[L]ower vagal tone resulting in higher heart rate and blood pressure, immune system alterations, and a variety of cellular derangements, including altered myocyte gene expression, altered epigenetic and transcriptional profile of core clock genes, and increased production of inflammatory markers, all of which have been observed with the 1-hour spring time shift.
- "[A]n increased risk of multiple adverse health outcomes…. Cardiovascular event rates are increased. The risks of myocardial infarction, stroke, and hospital admissions due to acute atrial fibrillation increase during the spring time change. Consequences to mental health include death secondary to suicide and overdose. An increased risk of pregnancy loss following in vitro fertilization has also been observed. The impact on health care utilization includes increased emergency room visits and return visits to the hospital, missed medical appointments, medical injuries, and medical errors.
- "[I]n the days following the ST to DST transition, significant increases in motor vehicle accidents, injuries, and fatalities have been observed, both in and outside the United States…. Objectively measured driving metrics indicate that the impact of DST includes altered situational awareness, increased risk behavior, and poorer reaction time.
- "[A]n increase in human-associated wildfire accidents and volatility in US stock markets on the Monday after the transition to DST. While reasons for some of these specific outcomes are not entirely clear, proposed mechanisms include the impact of sleep deprivation on frontal lobe functioning."

You'd think we'd adjust. But we don't, because our circadian clocks don't adjust very easily. "Evidence indicates that the body clock does not adjust to DST even after several months, so that ongoing sleep debt and circadian misalignment continue to persist," according to the report. "Studies have shown that social jet lag is associated with an increased risk of obesity, metabolic syndrome, cardiovascular disease, depression, and poorer academic performance."

"Your circadian rhythm, in large part, is kind of like your height and your eye color. It's kind of who you are," says Howell. "We all have our own intrinsic circadian rhythm, and it's not easy to move that around."

Falling back

Falling back to standard time in autumn, though it may promote equilibrium in the long run, causes its own disruption to the routine. According to the report, it "has been associated with sleep disruption, mood disturbance, patient safety-related incidents, suicide, and traffic accidents. Furthermore, the autumn DST-to-ST transition, while commonly thought to be beneficial because it is associated with 'an extra hour of sleep,' still elicits significant variations in serum lymphocytes, cortisol, thyroid-stimulating hormone (TSH), and melatonin, which may be associated with the abrupt transition. The DST-to-ST shift also has been associated with increased incidence of unipolar depressive episodes and frequency of medical leave due to ulcerative colitis and Crohn's disease (a surrogate marker of acute flares of inflammatory bowel disease)."

For decades the twice-a-year change of time has been accompanied by widespread grumbling. In 2020 the American Academy of Sleep Medicine advocated the country keep its clocks on standard time. Other professional organizations concurred.

Nonetheless, the U.S. Senate did just the contrary, voting to establish daylight saving as the standard. The House didn't follow suit. So federal law remains: Moving to permanent daylight saving time requires congressional approval, but individual

states can opt out of daylight saving. Some states have supported moving permanently to one time; some other states to the other time. Minnesota's Legislature voted in 2021 to move permanently to daylight saving, if Congress approves.

Were it up to Howell, he would "tow the party line with the AASM—that standard time would be better. Second choice would be if you're going to do daylight saving time to just switch it and stop," he says. "But my guess is we'll probably just keep rolling along like we always have."

That won't solve the problem of the patient whose internal and external clocks are out of synch—during daylight saving time or any other time. So what are they to do?

"First of all, there's a lot of self-discovery that needs to happen. I just would appreciate if more people kind of had greater self-knowledge of what their own intrinsic circadian rhythm is," says Howell. "Where you actually can kind of sleep ad libitum at your own natural rhythm, that's ideal. That's not always practical. In fact, the majority of time it's not practical with school and work times and all the rest of it."

And if it's not possible, he says, a tiny amount of melatonin before bedtime and a 10,000-lux light for the first half-hour each morning can nudge night owls closer to a socially acceptable schedule. **MM**

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Greg Breining is editor of *Minnesota Medicine*.

Rx for an ailing Earth

Healthcare is taking on a bigger role in environmental sustainability, for the good of patients, the bottom line, communities—and the planet.

BY MARY HOFF

Michael Menzel, MD, has seen lots of changes over his 32-year career as an anesthesiologist. Many were positive. But one, not so much.

"I watched the transition from reusable equipment in the operating room to disposable, and it just was striking how much garbage is created per surgery," he says. He recognized the role that waste plays in generating greenhouse gases, and had long been concerned about climate change as a threat to people and the planet. "That kind of lit this light bulb in me. I said, we've got to figure out a way to do this better."

Menzel has spent much of his career doing just that—and mobilizing other healthcare professionals to do so, too. In 2014 he co-founded Health Professionals for a Healthy Climate. He's been gratified to see the light bulb go on for many Minnesota healthcare organizations at the same time. From reducing fossil fuel

MICHAEL MENZEL, MD
Co-founder
Health Professionals for a Healthy Climate

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use and material waste to rethinking anesthetic gases, they are increasingly heeding the call to minimize their climate and other environmental impacts. In the process, they're finding that climate action can meet other goals as well—saving money, improving efficiency, enhancing patient well-being, and boosting employee satisfaction.

Compelling contribution

It's no secret that Earth's climate is warming and weather is becoming more erratic because human activities like burning fossil fuels and cutting down forests are increasing the concentration of carbon dioxide and other heat-trapping gases in the atmosphere. The changing climate in turn is spurring an increase in the incidence of heat waves, floods, infectious disease, droughts, and fires.

Just about every human enterprise contributes to the problem. Constructing, heating, and cooling buildings; producing and preparing food; making, transporting, using, and disposing of stuff—all generate greenhouse gases. And healthcare is no exception. According to The Joint Commission, a nonprofit that accredits healthcare organizations and programs, hospitals generate up to five times more pollution than office buildings. In fact, according to a 2020 research article published in *Health Affairs*, nearly 9% of all greenhouse gas emissions in the U.S. come from the healthcare sector.

It's not that healthcare is performing worse than other sectors of the economy, given that healthcare accounts for 18% of the nation's GDP. But it is uniquely compelling, because climate change harms health. Greenhouse gases and smoke from climate-related wildfires contribute to respiratory illness. As the climate changes, morbidity and mortality risks from extreme heat, vector-borne disease, water pollution, and disasters are on the rise. In fact, *The Lancet* has called climate change "the biggest global health threat of the 21st century."

The 2020 *Health Affairs* study found that greenhouse gas and other air pollution attributable to the healthcare sector is responsible for 388,000 disability-adjusted life-years in the U.S. alone. That's plenty good reason for healthcare institutions and professionals to make mitigating healthcare pollution a priority.

"I don't know any healthcare leaders that disagree that this is an important issue," says Jodi Sherman, MD, a co-author of the study and founding director of the Yale Program on Healthcare Environmental Sustainability at the Yale Center on Climate Change and Health. "Environmental harm affects human health and the patients we serve, and it's our duty to minimize that."

JODI SHERMAN, MD
Founding director
Healthcare Environmental Sustainability
Yale Center on Climate Change and Health

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Energy smart

A big focus for many Minnesota healthcare systems is reducing nonrenewable energy use. Building energy audits reveal opportunities for reducing demand for heating fuels and electricity. Common actions include prioritizing energy-efficient features in equipment purchasing, converting lighting to LEDs, and switching to energy-saving temperature and humidity settings in procedure rooms when not in use.

Incorporating renewable energy is also becoming increasingly common. Allina Health, HealthPartners and Mayo Clinic have installed solar photovoltaic panels on facilities. All also obtain additional electricity from offsite solar gardens or other renewable energy sources available through their utilities.

"We've saved over $270,000 through community solar in 2022," says Allison Egan, sustainability program manager for HealthPartners.

On the transportation end of things, telemedicine offers opportunity for reducing emissions as well. HealthPartners says its patients have avoided production of over 5,500 tons of greenhouse gas emissions through virtual care options between 2018 and 2023.

ALLISON EGAN
Sustainability program manager
HealthPartners

"We've saved over $270,000 through community solar in 2022.... And compared to our 2018 baseline, in 2022 our greenhouse gas emissions from anesthetic gases dropped nearly 30%, largely due to the elimination of desflurane."

When it comes to building new facilities, climate-smart opportunities abound. Essentia Health's new hospital in Duluth features a heat-recovery chiller and all-LED lighting. Allina Health has committed to designing all new buildings to LEED standards. And a new Mayo facility in LaCrosse, Wisconsin, will use geothermal energy to cut down on fossil fuel use.

"I am excited to start to see these transitions happening and know we're going to see a lot more of this," says Amanda Holloway, director of Mayo Clinic's Office of Sustainability.

Operating orders

Unique to healthcare—and giving it extra leverage for reducing greenhouse gases—is the role of anesthetic and inhaler gases, far more powerful than CO_2 at trapping heat. A study of healthcare in England published in *The Lancet* in 2021 found these to be responsible for 3% of the sector's total climate impact in that country.

Particularly problematic are desflurane and nitrous oxide, which is notorious for

FEDERICO ROSSI, MD
Gastroenterologist and climate activist
MNGI Digestive Health (formerly Minnesota Gastroenterology)

"It's unbelievable, the amounts of trash produced by a hospital every day. Tons is stuff that can be recycled but that doesn't get recycled. So waste management is certainly one of the places to look."

Doctor's orders

Most health professionals recognize the harms of climate change and want to do something to help alleviate its impacts. But what can one physician do? Plenty, says health systems sustainability expert Jodi Sherman, MD. She suggests clinicians engage at three levels, starting with personal clinical practice and expanding out to the policy realm.

PERSONAL

- Reduce the need for material-intense care by helping patients stay healthy.
- Avoid under- and overuse of tests and procedures.
- Coordinate care among providers to minimize transportation needs. Plan care to minimize patient driving needs by synchronizing appointments and using televisits.
- Reduce the use of materials and replace disposables with reusables where possible.
- When safe to do so, choose drugs, supplies, and treatment plans that minimize environmental emissions.
- Turn off lights and equipment when not in use.
- Promote preventive care and early diagnosis, which not only are good for the patient, but also reduce the need for resource-intensive care down the road.

INSTITUTIONAL

- Ask why you and your team do things the way you do—and consider whether there might be an environmentally friendlier approach that still achieves the healthcare goals.
- Connect with your professional association's sustainability effort. If it doesn't have one, start one.
- Work with administrators to make sustainability a core value for your organization.
- Find out what your system is doing and what more could be done. Advocate for improvements.
- Encourage your organization to pursue sustainable options for facilities management, food service, investment, data center use, transportation, and so on.
- Encourage your organization to promote the use of home care where appropriate.
- Make sustainability a standing item on meeting agendas.
- Encourage patients to adopt sustainable habits.
- Talk with colleagues about why climate is a healthcare issue and what they can do.
- Find like-minded colleagues and team together to create a critical mass of attention and interest around climate and sustainability.

SYSTEMIC

- Connect with your professional association's sustainability committee to transform practice and policies. If it doesn't have one, start one.
- Encourage local, state, and federal policymakers to enact climate-friendly policies.
- Advocate for laws, rules, and regulations that help reduce environmental emissions, such as mandatory greenhouse gas reporting, building efficiency standards, and affordable and clean public transit options.

leaking out of central piping systems. To reduce the impact, the American Society of Anesthesiologists encourages reducing flow rates, using intravenous approaches where possible, and replacing nitrous oxide piping with tanks.

M Health Fairview has "reduced significantly" the use of desflurane and also looked at ways to reduce nitrous oxide waste, says quality improvement consultant Jo Bjorgaard. Allina Health has switched from desflurane to a less expensive and more climate-friendly option. HealthPartners stopped using desflurane last year.

"Compared to our 2018 baseline, in 2022 our greenhouse gas emissions from anesthetic gases dropped nearly 30%, largely due to the elimination of desflurane," Egan notes.

Waste not

By far the healthcare sector's greatest opportunity to help mitigate climate change is in the realm of what greenhouse gas scorekeepers call "scope 3" emissions. These are greenhouse gases produced in the process of producing and transporting the disposables, consumables, pharmaceuticals, equipment, building materials, and supplies healthcare facilities use—everything from surgical drapes and food to the literal bricks and mortar. Other scope 3 categories include but are not limited to waste, employee commuting, and investments. And they make up around three-fourths of healthcare's overall emissions.

Top contributors in this area include equipment, pharmaceuticals, and the ubiquitous disposables that make up the more than 30 pounds of waste generated per hospital patient per day. Holloway says one routine surgery generates as much trash as a family of four does in an entire week. All told, researchers estimate throwaways are responsible for more than three-fourths of the total climate footprint of healthcare.

"It's unbelievable, the amounts of trash produced by a hospital every day," says Federico Rossi, MD, gastroenterologist and climate activist with MNGI Digestive Health (formerly Minnesota Gastroenterology). "Tons is stuff that can be recycled but that doesn't get recycled. So waste management is certainly one of the places to look."

One big way to reduce the scope 3 impact of healthcare is to minimize the use of materials in the first place. "Best is to avoid using the stuff that gets wasted," says Suzanne Savanick Hansen, environmental sustainability manager for Allina Health. "Try to reduce first." In many instances throwaways make up 20% of a system's carbon footprint.

"Over time we've seen a move away from reusable products to disposables," Holloway says. However, she notes, reversing that trend can be a challenge because of the need to keep infection prevention a key consideration.

And then there's the cafeteria. Among the biggest climate-friendly actions anyone can take is to adopt a plant-rich diet and reduce food waste. Paying attention to food's climate impact can not only reduce a hospital's footprint but also set an example that patients, families, and staff can follow at home. Allina Health and HealthPartners have both worked to reduce the climate impact of food waste by trying to minimize production through food service awareness and sending waste that does occur to hog farms or compost. And Mayo has increased plant-based options, which generally have a lower carbon footprint than meat-based foods, in its menus.

In addition to reducing materials use, eliminating disposables where possible, and boosting recycling, some health systems are working to reduce scope 3 emissions by preferentially sourcing equipment and supplies from suppliers that are working to reduce their own carbon footprint. HealthPartners and Mayo Clinic practice environmentally preferred procurement, and Allina Health has begun asking suppliers about their climate goals.

Room for improvement

Although attention to sustainability is growing, there is still plenty of room for improvement. Allina Health aims to reduce their emissions—including scope 3— 50% from 2019 to 2030 and achieve net zero emissions by 2050. HealthPartners has a goal of reducing scope 1 and 2 emissions (those generated directly and through producing energy used by facilities) by 50% between 2018 and 2030, and Mayo has committed to a similar goal by

JO BJORGAARD
Quality improvement consultant

M Health Fairview has "reduced significantly" the use of desflurane and also looked at ways to reduce nitrous oxide waste.

SUZANNE SAVANICK HANSEN
Environmental sustainability manager
Allina Health.

"Sustainability and saving money are not opposite. You can do both. Millennials and people younger than millennials really care about sustainability, so part of this is also recruiting and retaining staff."

2032. Allina Health has included scope 3 in its new climate action plan, and Mayo and HealthPartners are both aiming to dive into scope 3 emissions in 2024.

Perhaps the biggest barrier to reducing emissions is that because health systems have so many other challenges to attend to, sustainability has trouble bubbling to the top. "Healthcare leaders have many crises," Sherman agrees. But, she adds, that's no excuse. "We don't have the luxury of taking care of one crisis at a time."

It can help to recognize that what's good for the planet is good for other areas of concern as well. HealthPartners saved more than $175,000 in energy costs in 2022 alone through sustainability improvements.

"Sustainability and saving money are not opposite," Hansen says. "You can do both." In addition, with high interest in climate crisis high among millennials and Gen Z, climate action can help attract employees as well. "Millennials and people younger than millennials really care about sustainability," Hansen says. "So part of this is also recruiting and retaining staff."

"It's a win-win-win," Rossi says. "A win for the environment, a win for the company, a recruitment and a retention win. And it's also a marketing win. Patients will say, this is a healthcare system that recognizes the environment is key."

Opportunities abound

As healthcare professionals and organizations increasingly turn their attention to doing what they can to make healthcare less a part of the problem and more a part of the solution, opportunities and resources are plenty. In 2021 the U.S. Department of Health and Human Services established an Office of Climate Change and Health Equity. That same year, the National Academy of Medicine set up an initiative for decarbonizing healthcare. And more than 70 countries have signed on to a World Health Organization commitment to reduce the climate impacts of healthcare.

The international nonprofit Health Care Without Harm offers healthcare organizations assistance and incentives for becoming more sustainable. An affiliate membership organization, Practice Greenhealth, provides members with specific advice and tools, and Greenhealth Exchange helps healthcare organizations identify environmentally friendly purchasing options. The two offer an annual conference, CleanMed, that provides a chance to network and share ideas and resources.

The American Hospital Association offers a roadmap for incorporating sustainability into healthcare systems. And on January 1, the Joint Commission launched Sustainable Healthcare Certification for hospitals. Along with guidance for implementing climate action, the program offers a spectrum of resources and recognition for measures facilities undertake to enhance their sustainability. On a more local level, Health Professionals for a Healthy Climate provides Minnesota physicians and other healthcare providers with resources for advocating for climate action within their own spheres of influence.

When it comes to using resources efficiently, Choosing Wisely is a multi-specialty professional resource. Resources for those interested in reducing anesthetics' impact include Yale's Gassing Greener app, an anesthesia carbon calculator, and other anesthesia resources through the American Society of Anesthesiologists.

On top of all that, the federal Inflation Reduction Act (IRA) passed in 2023 can serve as an important source of funding for healthcare systems looking to cut greenhouse gas emissions while also improving facilities and resilience, and reducing the cost of operation.

"Health care organizations today face an extremely challenging set of circumstances," a National Academy of Medicine paper noted recently. "With the help of the IRA, it is now possible for the industry to do their part to address the climate crisis, while still attending to their own needs."

In sum, when it comes to sustainability in healthcare, interest, opportunities and responses are all growing.

"Even though these are really big challenges, it's a really exciting time," Holloway says. "It's exciting to see colleagues across the organization lean into the conversation and ask how we can do things differently. The needs of the patient come first, but we recognize ways we can both provide high-quality healthcare to our patients while also doing it in ways that are beneficial to the environment." **MM**

AMANDA HOLLOWAY
Director
Office of Sustainability
Mayo Clinic

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Mary Hoff is a Stillwater-based science writer and editor with special interest in environment, natural resources, and health.

New tools to treat obesity

How are local obesity specialists using GLP-1 anti-obesity medications to help patients manage their weight?

BY SUZY FRISCH

Carolyn Bramante, MD, MPH, has known for years that glucagon-like peptide-1 (GLP-1) receptor agonist medications can be valuable tools for her patients being treated for obesity. Since 2016, she has prescribed them—to great effect—to people who have struggled long-term with obesity. Now the rest of the world is catching up, and demand for this class of medications has been soaring recently.

People who take GLP-1 medications for weight loss, under the generic name semaglutide, have been consistently losing between 6% and 17% of their body weight. In addition, many see improvements in their high blood pressure, cholesterol, blood sugar, sleep apnea, and nonalcoholic fatty liver disease. A common report is that these drugs make a life-changing difference in patients' appetites and satiety.

"Often right after starting these medications, individuals don't feel a drive to eat and don't feel as interested in sugar as they used to," says Bramante, an obesity medicine specialist at M Health Fairview and core faculty member in the Center for Pediatric Obesity Medicine at the University of Minnesota Medical School.

"We can usually achieve a good amount of weight loss for them, and it's really rewarding to see how that makes people feel more able to move and ultimately be healthier," Bramante adds. "And then on a macro level, there are more new medications coming out in the near future and procedures as well, so there are going to be more and more options."

GLP-1 medications are so effective because obesity is rooted in dysregulation of the body's neurohormonal and digestive systems. Such drugs target this dysregulation by mimicking the GLP-1 hormone incretin, which is produced in the gastrointestinal tract. The medications boost the body's production of insulin only when blood sugar is high. In greater amounts, GLP-1 agonists also work at the brain level, targeting areas that regulate appetite and feelings of fullness.

Some GLP-1 agonists like Ozempic (semaglutide) and Mounjaro (tirzepatide) are FDA-approved for treating diabetes. But for years, physicians have prescribed them off-label for weight loss. In 2021, the FDA approved Wegovy (semaglutide) specifically for weight management, allowing for higher doses of the same medication as Ozempic. (Both are made by Novo Nordisk.) Weekly injections of this higher dose often helps patients lose more weight than the lower dose drugs, says Neelima Nyayapati, MD, an obesity medicine specialist and lead physician at Allina Health Medical Weight Management Program.

There is additional promise with Eli Lilly's Zepbound (tirzepatide) for weight loss, a sister drug to Mounjaro. Approved by the FDA in November 2023, Zepbound is a GLP-1 and glucose-dependent insulinotropic polypeptide (GIP) agonist, says Daniel Leslie, MD, a bariatric surgeon and obesity medicine specialist at M Health Fairview. He works with a team of obesity experts which typically prescribes anti-obesity medications for patients both before and after bariatric surgery so that they gain confidence in their ability to lose weight. He is impressed with the new offerings.

"The current anti-obesity medications are much more potent than those we were using five and 10 years ago. I am able to see the effects on patients who previously had no success with weight loss in the period of time around bariatric surgery and also at our comprehensive team meetings.

CAROLYN BRAMANTE, MD, MPH
Obesity medicine specialist
M Health Fairview

Core faculty member
Center for Pediatric Obesity Medicine
University of Minnesota Medical School

GLP-1 medications are approved for chronic, indefinite use by the FDA, however, "that is not the case from an insurance standpoint, so there is a frustrating mismatch there. Part of it comes back to an overarching lack of understanding that obesity is a chronic biological process in the body and not just someone's fault."

DANIEL LESLIE, MD
Bariatric surgeon and obesity medicine specialist
M Health Fairview

Another challenging aspect of GLP-1 medication includes the hoops healthcare providers and patients must jump through to obtain them. Since 2021, "it's been very frustrating because there is no uniform availability of the drug, and there is no uniform payor coverage for the drug. We have to go through so many different iterations of trying to see if it's available, at the dose the patient needs, and is it going to be paid for? If it is, what are the prior authorization requirements? It has been a major headache for our team members to get it right for every patient."

When tolerated at an appropriate dose they can have a huge impact on health," Leslie says. "On average, patients in controlled studies on semaglutide had 16% total weight loss, and those on tirzepatide lost 21%. *The Wall Street Journal* recently called tirzepatide the 'King Kong' of anti-obesity medication."

Demand for GLP-1 medications is sky-high because of these stunning outcomes, celebrities' public embrace of Ozempic and Wegovy, and Novo Nordisk's direct marketing to consumers. When people can get insurance approval for these new drugs and they are in stock, the medications have made a significant difference for individuals.

Advanced practice provider Kayla Gish, CNP, sees weight management patients at the University of Minnesota Health Clinics and Surgery Center. It's common for them to have lost 50 to 100 pounds, then regained it, three to four times over decades. "They can't remember a time when they were a normal weight," Gish says. "They know how to lose weight and they have done it before, but it's not sustainable to be on a diet for the rest of their life."

That's why the GLP-1 agonist medications are profoundly helpful. Many people report that the intrusive internal "noise" or "chatter" they constantly hear about food drastically declines. "They don't have that extra burden of food on their brain all the time," Gish says.

People taking GLP-1 agonist medications generally report reduced hunger and improved satiety due to the medication's effect in the brain and on the GI tract, says Shawn Day, DO, an obesity medicine specialist at CentraCare in St. Cloud. "In some ways, it levels the playing field for someone who has struggled with weight their whole life because of genetics or hormonal changes associated with this health condition. They report rapid satiety, less hunger, and more noticeable weight change. They report feeling in control of their nutrition plan," Day says. "Overall, people are very appreciative."

Physicians are appreciative, too. The new medications are a breakthrough option, similar to how bariatric surgery advanced care for obese people, says Jeremiah Eisenschenk, MD, an obesity medicine specialist and weight management clinic director at Essentia Health in Brainerd. They provide physicians with numerous effective ways to help patients with obesity. "It's a wonderful time to be practicing obesity medicine. I so enjoy what I do," Eisenschenk says. "These medicines have taken the practice to the next level. On the whole, I'm grateful that we have these available."

Troubling trends

Obesity in the United States is prevalent, with 41.9% of adult Americans living with the condition—more than 100 million adults in the United States, according to the 2017–March 2020 National Health and Nutrition Examination Survey. In youth ages 2–19, the rate is 19.7%. Minnesota has not been faring particularly well. In telephone surveys, which typically

KAYLA GISH, CNP
Advanced practice provider
University of Minnesota Health Clinics and Surgery Center

"Patients can't remember a time when they were a normal weight. They know how to lose weight and they have done it before, but it's not sustainable to be on a diet for the rest of their life."

SHAWN DAY, DO
Obesity medicine specialist
CentraCare St. Cloud

"We set expectations about realistic outcomes—and also encourage patients to focus on nonscale outcomes that matter such as improvement in energy, mobility, breathing, and sleep, as well as improvements in comorbid health issues like diabetes, hypertension, acid reflux, and hyperlipidemia."

underestimate the burden of obesity by 5–10%, 33.6% of adults in Minnesota now have obesity, compared to 17.4% in 2000. The state's obesity standing dropped from eighth least to 25th, suggesting that the pandemic has not been good for overall obesity-related health in Minnesota.

But until recently, the medical establishment did not consider obesity a disease. "It was a lifestyle problem. It was finally acknowledged to be a complex chronic disease [by the American Medical Association] in 2013," Leslie says. "And obesity is a key driver of many other diseases," including diabetes and cardiovascular conditions.

Eisenschenk has many medical weight management patients inquiring about GLP-1 agonists. Though they are a "really powerful tool," he emphasizes that they are one component of a comprehensive medical weight management program. GLP-1 agonists work to their full potential when they are paired with additional changes.

"We want to avoid rebound weight gain. So, we're using the tool thoughtfully and titrating accordingly, and we're really helping people with their food relationship and sleep and stress management, and working through their previous trauma, and encouraging activity," Eisenschenk says.

When advising patients about GLP-1 medications, Day aims to put everything in perspective. "Our experience has been very positive, and we have seen weight reduction that mirrors the clinical trials. But we're also honest with patients and help manage their expectations, telling them that weight loss will stabilize at some point on these therapies. It is normal to lose a percentage of weight, and then stabilize, like you would on a blood pressure medication," he says. "We set expectations about realistic outcomes—and also encourage patients to focus on nonscale outcomes that matter such as improvement in energy, mobility, breathing, and sleep, as well as improvements in comorbid health issues like diabetes, hypertension, acid reflux, and hyperlipidemia."

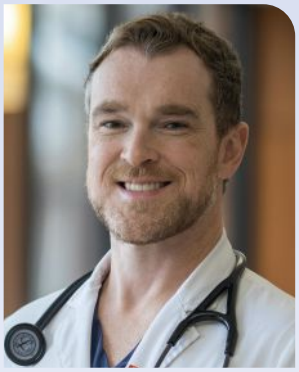
Some of those outcomes truly are far-reaching, Nyayapati says. Initial research shows that people taking GLP-1 medications benefit in many ways from their weight loss, including a reduction in their risk for cardiovascular disease and stroke, she says. Beneficial effects include improved control of blood sugar, cholesterol levels, and waist circumference.

Some side effects

To start benefitting from GLP-1 agonists, people must overcome three key barriers: cost, availability, and tolerability, Eisenschenk says. Many physicians observe that it's common for their patients to experience side effects like nausea, cramping, diarrhea, and bloating.

A recent University of British Columbia study, published in JAMA, found that people taking GLP-1 medications (semaglutide and liraglutide) may face higher risks for digestive problems like biliary disease, pancreatitis, bowel obstructions, and stomach paralysis compared to those on other weight loss medications. In addition, clinical trials found that overall risks are higher for people over 65, including more prevalent gastrointestinal side effects, low blood pressure, fatigue, osteoporosis, and reduced muscle mass.

For millions of people, though, the benefits far outweigh the risks. Physicians who prescribe GLP-1 agonists note that their patients experience an immediate difference. "It's overwhelmingly positive—and most people will tell you they are life-



JEREMIAH EISENSCHENK, MD
Obesity medicine specialist and weight management clinic director
Essentia Health in Brainerd

"We want to avoid rebound weight gain. So, we're using the tool thoughtfully and titrating accordingly, and we're really helping people with their food relationship and sleep and stress management, and working through their previous trauma, and encouraging activity."

changing. There are some exceptions and people who don't tolerate them, but it's not a huge percentage of patients. For most people, we can figure out a dose that works or the side effects get better over time," Day says.

Sometimes the positive effects take longer, especially people who are higher on the obesity spectrum and those with metabolic dysfunction, Eisenschenk says. They begin to notice a real difference as they slowly move up to higher doses.

NEELIMA NYAYAPATI, MD
Obesity medicine specialist and lead physician
Allina Health Medical Weight Management Program

"Once you receive approval, many people can't find enough supply of these medications due to high demand or sometimes they can't find the right dose of Wegovy [semaglutide] for what they need to start. We typically tend to start patients on a lower dose of the medication and then gradually up-titrate it based on clinical benefit and patient tolerance."

Noting that side effects are common, Mayo Clinic developed its Mayo Clinic Diet Rx companion program to help patients be successful on GLP-1 agonists, says Andres Acosta, MD, PhD, a consultant in gastroenterology, hepatology, and obesity medicine. The program guides patients on how to handle side effects with diet or other medications. It also provides group coaching and expertise that advises patients about foods that help with nausea, how to minimize side effects, and when to call the doctor. "The majority of side effects can be managed with education," he says.

When people have chronic side effects, Bramante says, they can return to a lower dose, keep portion sizes small, or try older options like metformin for diabetes. Similarly, alternatives like Qsymia (phentermine/topiramate) work—though not quite as well—when there are difficulties getting or tolerating GLP-1 medications.

Noting cost and side effects, many patients ask Day whether they will need to take GLP-1 or similar medications for life. He likes to explain that obesity is a complex, multifactorial condition with genetic, metabolic, and hormonal controls—a disease and not a personal choice. Just as people often need medication long-term to control chronic conditions like high cholesterol, they likely will need medication, paired with comprehensive nutrition and exercise programs, to manage their weight.

GLP-1 medications are approved for chronic, indefinite use by the FDA, Bramante says. However, "that is not the case from an insurance standpoint, so there is a frustrating mismatch there," she adds. "Part of it comes back to an overarching lack of understanding that obesity is a chronic biological process in the body and not just someone's fault."

Barriers to care

Another challenging aspect of GLP-1 medication includes the hoops healthcare providers and patients must jump through to obtain them. Since 2021, "it's been very frustrating because there is no uniform availability of the drug, and there is no

uniform payor coverage for the drug," Leslie says. "We have to go through so many different iterations of trying to see if it's available, at the dose the patient needs, and is it going to be paid for? If it is, what are the prior authorization requirements? It has been a major headache for our team members to get it right for every patient."

Concerns about obtaining insurance coverage or determining how to pay for GLP-1 medications has been the biggest limiting factor for patients, Nyayapati says. This dates back to the days of Saxenda, a liraglutide medication for weight loss that the FDA approved in 2014. Today, some insurers require patients to try oral medications or lifestyle management. If their weight loss is minimal, then they might be approved to try GLP-1 agonists.

"Then once you receive approval, many people can't find enough supply of these medications due to high demand or sometimes they can't find the right dose of Wegovy [semaglutide] for what they need to start," Nyayapati adds. "We typically tend to start patients on a lower dose of the medication and then gradually up-titrate it based on clinical benefit and patient tolerance. If the patient is not able to access the medication at the starting dose we may consider other options like Saxenda."

It's difficult to get insurance approval for the diabetes medication Ozempic for weight loss, and out-of-pocket costs are $1,000 to nearly $1,400 a month. It's also a mixed picture for patients whether their insurance covers Wegovy for weight loss, Day says.

Even if people can get prior authorizations from insurance, shortages have been rampant due to GLP-1 agonists' popularity. Some of Gish's patients call pharmacies themselves to find medication in stock, while clinicians also fill gaps by prescribing other, similar options. "We really try to work with patients to find something that we can help them with. It changes week-to-week or day-to-day whether we have availability of the drug," Gish says. "It's very frustrating because people are really desperate for treatment of a disease that they've had for so many years. They can finally see that there is a possible treatment, but they can't access it."

Shortages and high costs have led some people to wellness clinics that sell compounded semaglutide, Gish says. They aren't manufactured by Novo Nordisk or formulated the same way. They also aren't regulated. In addition, the FDA has warned the public against taking compounded versions of the medication. Calls also have increased 1,500% at poison control centers related to people accidentally overdosing on semaglutides.

Using precision medicine is another way to ease some of the difficulties surrounding anti-obesity medicine. Acosta, head of Mayo's Precision Medicine for Obesity Laboratory, is a fan of GLP-1 medications. Yet based on his research and expertise in precision medicine, he does not find them to be a good fit for everyone with obesity.

It starts with Acosta's understanding of the disease's four phenotypes: abnormal satiation or hungry brain, when signals of fullness don't get communicated effectively; abnormal satiety or hungry gut, when a sense of fullness does not last; emotional hunger, including high levels of cravings; and abnormal energy expenditure, or slow burn—including a slow metabolic rate and low muscle mass.

"Obesity is a chronic, multifactorial disease, and we have many tools to help patients manage their weight and get their obesity treated or cured," Acosta says. "We're working to find the right medication for the right patient."

While the GLP-1 medications do work somewhat for everyone, Acosta says, they are most effective for people with the hungry gut phenotype because they usually feel constantly hungry. Those with hungry brain lose more weight when they take Qsymia compared to Wegovy. And that's a win because Qsymia is a fraction of the cost of GLP-1 injections (about $200 a month). Contrave (naltrexone/bupropion) is the best medication for emotional hunger, while people with the slow burn phenotype benefit most from an intensive exercise program.

ANDRES ACOSTA, MD, PHD
Gastroenterology, hepatology, and obesity medicine consultant

"Obesity is a chronic, multifactorial disease, and we have many tools to help patients manage their weight and get their obesity treated or cured. We're working to find the right medication for the right patient."

Acosta co-founded a Mayo spinoff called Phenomix Sciences that recently launched its MyPhenome test. It helps physicians identify patients' phenotype and personalize their weight loss approach to the individual, eliminating cost, plus trial and error.

Medications continue to evolve, with many of the obesity medicine specialists particularly excited about Zepbound, which is the newest medication approved by FDA for weight loss . "I'm an optimist," Nyayapati says. "I really feel that these are very exciting times in the practice of weight management. There is a lot of active research happening in this field given the increasing prevalence of obesity in our communities and the significant economic and clinical benefits that we see by helping patients lose weight." **MM**

Suzy Frisch is a Twin Cities freelance writer.

The science of racism and health

Racial disparities in health are obvious and pervasive. **Can research help get rid of them?**

JAIME SLAUGHTER-ACEY
RESEARCHER, EPIDEMIOLOGY AND COMMUNITY HEALTH
UNIVERSITY OF MINNESOTA SCHOOL OF PUBLIC HEALTH

Health disparities between Black and white patients in the United States turn up everywhere—from treatment for colorectal cancer, to diagnosis of sleep apnea, to the likelihood of stroke, to dying in childbirth.

Finding disparities is the easy part. More challenging is determining what drives these disparities and then using that understanding to bring greater equity to health and healthcare.

Jaime Slaughter-Acey, a researcher in epidemiology and community health at the University of Minnesota School of Public Health, has spent much of her career looking for those answers, attempting to bring scientific rigor to the question of why these disparities exist and how they impact health, particularly health of Black mothers and their babies. Slaughter-Acey is on leave from the University of Minnesota and soon will start full-time with the University of North Carolina Gillings School of Public Health.

Her research has examined how exposure to racism affects maternal and natal health and the effect of depression on preterm birth among Black mothers. *Minnesota Medicine* asked her to discuss what research can tell us about racism and health. This interview has been edited for brevity and clarity.

How would you characterize your research?

My research focuses on health disparities and really trying to characterize the depth of the disparity—and the sources. So, thinking about what are the fundamental factors that create the disparities. But then there's got to be something that connects the two, understanding how, let's say racism, can manifest into poor health outcomes.

Some of your research is, broadly speaking, devoted to systemic racism, but also drilling down on more specific things like colorism—discrimination on the basis of skin color by both Black and white people—and appearance-based bias, how to measure racism and discrimination, and the

impact of racism on maternal and infant health.

I've been in public health for close to 20 years now. The first 10 years of my career, there were lots of studies in which people cited Black-white racial disparities in—like you said, name the health outcome. And a lot of the studies hypothesized that racism was this fundamental factor that led to that. If we look at United States history, yeah, that's it. I mean, you can say that that is true, right? I'm not going to negate that.

But, as an epidemiologist, my job is to build evidence that demonstrates how racism is connected to the health of not just one population, but multiple populations. So racism may benefit one population, and disadvantage another population with respect to health. And so measuring that, but also recognizing that racism has multiple forms. One could say, racism has many faces.

I shouldn't just assume that a single measure is going to capture all of the ways in which racism manifests to affect people. Most of the measures that people use involve self-reporting, and they only capture what one would call major experiences of racism—acute experiences, like being denied a loan, or not getting a job or promotion, being harassed by the police.

Those are big life events. You're not applying for a bank loan every day. And in terms of those big life events, you don't always know when you're being discriminated against. So one of the reasons you got turned down for a loan with respect to buying a house is because of race. Unless you see the documents you don't know for sure, right?

> "In one of our studies, we found that racial microaggressions were positively associated with an increased risk of preterm birth for Black women."

But there's this other type of racism that we call racial microaggressions, or your everyday hassle related to race. And they seem very minuscule, or subtle, up front, but they very much add up over time, because they tend to be chronically experienced over one's lifespan. So you can think about it as a bucket and a faucet and it's dripping—drip, drip, drip. Initially, no big deal. But over time, that cumulative dripping, that cumulative impact of those microaggressions, can impact our health. In one of our studies, we found that racial microaggressions were positively associated with an increased risk of preterm birth for Black women.

Let's talk about that study. In discussing the health effects of those kinds of microaggressions, I imagine the challenge was to get some kind of measure of the severity and frequency of the insults as well as trying to gauge the health effects.

So when thinking about one's exposure to racism, you have to think about several different things. One is the occurrence of that. So if somebody tells you a racist joke, that's an occurrence.

And then there's the frequency of the occurrence. But there's another piece to it—how much did that occurrence bother you? That also influences how racism negatively impacts people.

And so in that study, we had this scale that asked people about 20 different items that represented 20 different situations that equated to microaggressions. Women were asked to look at each of these items, and say yes or no as to whether or not they've experienced that racial microaggression in the past 12 months. And then they were also asked to speak to how often in the past 12 months—fewer than once a year, monthly, a couple of times a month, or weekly, that sort of thing. And then we also asked them how stressful it was, or how much did that situation or that microaggression bother them when they experienced it. Some people will say it didn't bother them at all; they kind of brush it off. And then other people, it will bother them a whole lot. And so the main analysis combines the occurrence and frequency with how much these experiences bothered each person. And so we found that combined, that affected women's risk of preterm birth. And we also ran each of those separately, where you're just looking at occurrence and you're just looking at bother. Each of them was associated with risk of preterm birth, but not to the same degree as when you combine them.

> "We know that people's perception of events matter—and it to some degree matters regardless of whether the perpetrator intentionally meant to discriminate or be biased. That's one of the reasons that makes studying racism and its impact on health outcomes really difficult. There's no single measure that captures all the different forms of racism. And I don't think there's really a truly objective measure of racism that exists because of how complex racism is."

When you ask someone to self-report on anything, whether it's microaggressions or what you had for lunch, there's a subjective component. The people for whom these things roll right off their backs, they're less likely to remember it. Then other people really

take it to heart. I imagine they remember every instance that has occurred to them. I suppose it's hard to separate the objective from the subjective.

It is. It's very hard to separate the objective from the subjective. We know that people's perception of events matter—and it to some degree matters regardless of whether the perpetrator intentionally meant to discriminate or be biased. That's one of the reasons that makes studying racism and its impact on health outcomes really difficult. There's no single measure that captures all the different forms of racism. And I don't think there's really a truly objective measure of racism that exists because of how complex racism is.

You've done some research on the effects of colorism, discrimination on the basis of skin color by both Black and white people, and how it might affect maternal health and preterm delivery and birth weight. Talk about that a little bit.

There are attributes that people have that may expose them to disadvantage more than others—or advantage more than others. And so the question to me was, do people with more Eurocentric features—the lighter skin tone that you use to approximate whiteness—how has that correlated with people's lived experiences of discrimination? And so I wound up looking at the relationship between racial microaggressions and Black women entering into prenatal care. But how did that relationship between the racial microaggressions and prenatal care vary by women's darker complexion? Do Black women with darker skin experience more racial microaggressions than their lighter complexioned counterparts? And were they also the most most likely to receive late prenatal care? Dark complexioned Black women and racial microaggressions were more highly correlated with having late prenatal care. For women who were lighter, that relationship between racial microaggressions and prenatal care was not nearly as strong.

When it comes to microaggressions and their effect on birth and natal health, the implication is that the burden of discrimination over time contributes to these poor health outcomes. But to what extent does discrimination either explicit or implicit occur within the clinic or hospital to affect maternal health and birth outcomes?

People who have been historically discriminated against by an institution that is supposed to serve them can become gun-shy on interacting with that institution or other institutions. So in terms of that healthcare setting, if you haven't had great experiences with a societal institution, then a form of coping may be avoidance and maybe a delay in seeking healthcare. And so during the pandemic, we had this study that we call the "colorism in healthcare setting" study, and we recruited people who identified as Black or African American via social media, and they completed a quantitative and qualitative survey. And some of them avoided seeking healthcare because they knew that when they entered the healthcare setting they would be treated differently because of their race or their skin tone, or maybe they would be talked down to, their complaints wouldn't be listened to—that sort of thing.

People develop a hyper vigilance, in which they anticipate being discriminated against. They wind up doing things to help minimize or prevent being discriminated against. So, for example, to prevent being talked down to or not listened to, Black women talked about making sure their hair is flat-ironed straight and, you know, in a more Eurocentric hairstyle than in an Afrocentric hairstyle. Changing the way that they speak so that they would be treated as equal.

One of the things that we've found is that the race of the provider was beneficial, meaning we had women say that they felt more seen and respected and their concerns were listened to if their providers or their provider team was of the same race as them. But it didn't completely solve everything. Just having a Black provider didn't completely erase differential treatment. So this woman who participated would go to the doctor with her husband. And her husband was lighter than her. And the physician was Black. And whenever the woman asked a question, the provider would respond directly to the husband. And so you have little things like that, that people pick up on. Whether that was because the provider knew he was doing that or was directing his response to the husband because he was the man or because he was lighter, at the end of the day, that woman didn't feel heard or seen or respected. That affects patient-provider relationship, trust, your patient's satisfaction with the healthcare.

It seems to me that most of what you've talked about just now have been implicit sorts of discrimination, microaggressions. But to what extent do you feel that Black patients are subject to explicit discrimination? I often read that Black patients are less often prescribed pain medication, for example. What do we make of that? Is that an implicit thing? The provider thinks, well, this person really isn't in pain and doesn't really need this? Or is it more overt than that?

I think it's sort of both. There are a lot of racial stereotypes and myths and misperceptions that people hold about Black people. You can look through this study that came out of the University of Virginia in which medical students believed Black

"People who have been historically discriminated against by an institution that is supposed to serve them can become gun-shy on interacting with that institution or other institutions."

people had a higher tolerance of pain. And so if you have this belief that Black people can tolerate greater pain, I wouldn't say that that's an *implicit* bias that you're acting on. I would say that that is more explicit—not listening or recognizing someone's statement or concerns about pain.

I also think that there are some practices within medicine that disadvantage Black women. If you look at C-sections, the recommendation for a woman who has increased medical risk—so maybe she has diabetes, gestational diabetes, or pregnancy-related hypertension—you're supposed to monitor that, but it should not automatically equate to having a cesarean delivery. And Black women are more likely to receive a cesarean, even if they stated they didn't want one, in part because they tend to be more medically high risk. The question is, is the decision to deliver via cesarean, is that really being based off of the fact that this pregnancy at this point is a medical risk in which mom or baby are in danger and the cesarean is necessary? I think there are just too many times in which decisions are made without thinking through why are we making this decision?

So what's the way forward to reducing health disparities?

That's a really good question. And I guess if I knew the full answer, I would be very happy to put myself out of work. Training is a part of it. Having a more diverse workforce would help within the healthcare setting, but it wouldn't completely solve the issue because everybody that lives in this society is drinking from the same poisoned well of racism. Looking at policies and practices, and thinking about whether the way they're implemented is equitable. Because we can have colorblind policies. But the way that they are administered and who they impact may be racially disproportionate. And so a colorblind law that has a very colorful impact is still a racist policy.

So you're in the process of moving to the University of North Carolina. What's in the future? What are some of the projects you're working on?

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I currently have a follow up to the LIFE [Life-course Influences on Fetal Environments] study that was in Detroit. The LIFE-2 study is also occurring in Detroit, it's occurring about 15 years after the original study. And we are thinking about how racism and colorism and aspects of classism get under the skin to impact maternal health, but also birth outcomes for the baby. And so women who agree to participate in our study, they provide us a blood specimen, and we also get a blood specimen from their own archived newborn bloodspot that the state of Michigan has in storage. And so we'll be able to look at biological aging. Cumulative stress, especially, can impact whether or not your body is biologically over your chronological age—sort of like you've been weathered.

So you're looking at biomarkers that would be associated with stress?

And whether or not those biomarkers are associated with preterm birth. In the LIFE study, we had measures of racism, and we had pregnancy outcomes. And so in seeing whether or not these measures of racism and measures of psychosocial stress were correlated with the pregnancy outcome, we hypothesize different avenues by which that may lead to their correlation. And one of those pathways is cumulative stress or cumulative load of being exposed to racism and colorism, and whether it may lead to that biological weathering and increase your risk of having preterm birth.

There is some research that suggests that you can reverse some signs of biological aging. So maybe a future step would be if we can demonstrate that biological aging is playing a role in connecting experiences of racism with women's risk of preterm birth; then that gives you a point to possibly intervene.

What do you hope to accomplish through your research?

I hope to train the next generation of physician scientists so that they can think about this work in a different way than I'm thinking about it. They can move it forward faster than I am right now.

Most importantly, I think it's identifying places where we can intervene or prevent racism from having an impact on moms and their families. From my work looking at colorism and racism within the healthcare setting, my hope is to not just publish it, but actually do some workshops with providers, develop training that could make a difference in the care of Black mothers.

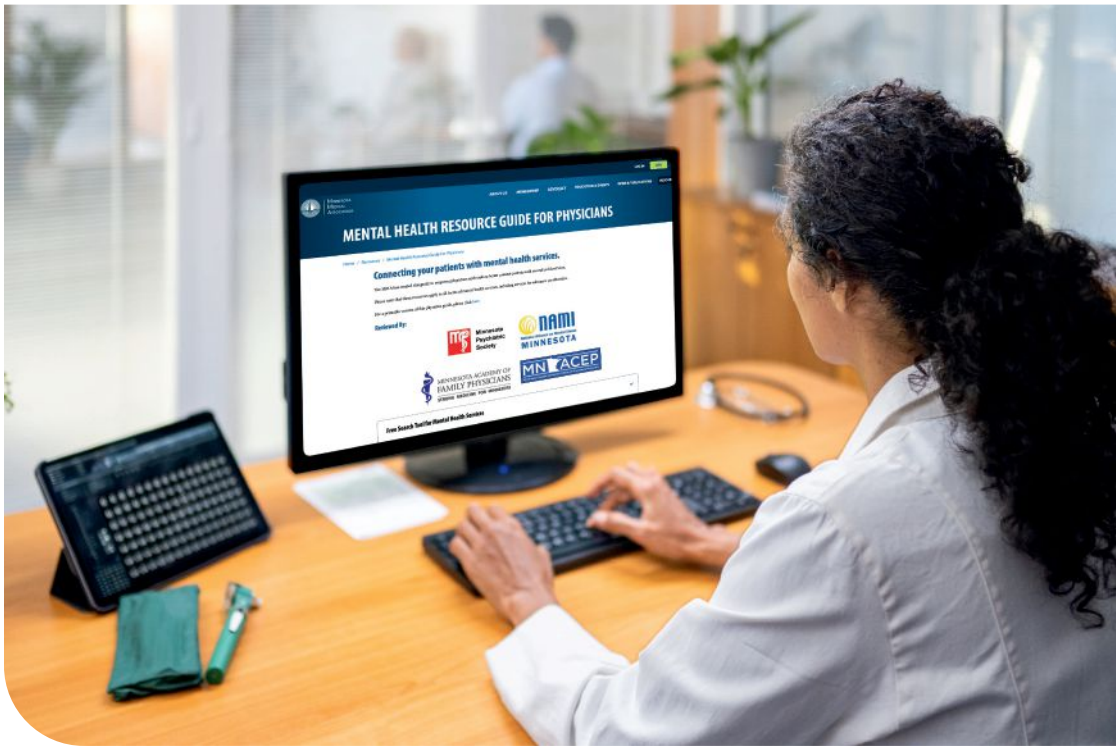
When it comes to disparities in healthcare, what advice would you give to physicians?

In truth, it really is very simple. Treat your patients the way that you would want to be treated. You would want to know that your provider is listening to you. **MM**

Interview by Greg Breining, editor of *Minnesota Medicine*.

MMA resource guide for mental health now available online

The MMA has launched a "Mental Health Resource Guide for Physicians" on its website (www.mnmed.org/resources/mental-health-resource-guide), which is designed to provide physicians with tools to better connect patients with mental health services, including substance use disorder services, across Minnesota.



The online guide includes:

- A free search tool for mental health services, with more than 600 mental health services and nearly 400 substance use disorder services across Minnesota, complete with real-time availability estimates for each. Information found on FastTrackerMN.org comes directly from Minnesota providers partnering in this unique collaborative partnership solution.
- A free psychiatric assistance hotline, through which Minnesota healthcare professionals can speak with clinical mental health triage staff and receive psychiatry consults.
- Free CME-approved training and education to nonpsychiatrist prescribers to build their confidence in psychopharmacology and other topics in mental health.
- Instructions on how to better integrate mental health services in your clinic through the adoption and implementation of the Collaborative Care Model, endorsed by the American Psychiatric Association as the most evidence-based means to integrate mental health and primary care.
- Tools to connect boarding patients to appropriate services, including the Mental Health Collaboration Hub and Minnesota Mental Health Access website.
- Resources to share with your patients, such as the 988 Suicide and Crisis Lifeline, which provides free, confidential crisis counseling via phone and text 24-7.

Several Minnesota medical societies and mental health advocacy organizations provided a formal review and endorsement of the guide, including the Minnesota Psychiatric Society, Minnesota Academy of Family Physicians, Minnesota Chapter of the American College of Emergency Physicians, and National Alliance on Mental Illness Minnesota.

The MMA's creation of the "Mental Health Resource Guide for Physicians" is one of several initiatives the MMA is pursuing to reduce the incidence of emergency department boarding of patients with psychiatric diagnoses. By connecting patients to mental health services in a timely manner, physicians of all specialties can help patients manage their symptoms and reduce the risk of mental health crises. Moreover, by providing patients and their families with education on mental health crisis support services in advance, physicians of all specialties can empower families to seek crisis services outside of emergency departments when appropriate.

News Briefs

State launches recuperative care for those without homes

At the beginning of the year, the Minnesota Department of Human Services launched its new recuperative care program that covers medical care and support services to Minnesota Health Care Programs (MHCP) members who are experiencing homelessness and are unable to recover from a physical illness but don't need to be hospitalized.

Recuperative care program services may include basic nursing care, counseling, and social services. These services may help prevent or reduce hospitalization, emergency department visits, or hospital readmissions for eligible members.

During the 2023 legislative session, the MMA supported coverage for recuperative care services that would allow Minnesotans experiencing homelessness to receive needed short-term care in their recovery following hospitalization.

For additional questions, call the MHCP Provider Resource Center at 651-431-2700 or 800-366-5411.

"Red-flag" firearm safety law goes into effect

Families and law enforcement in Minnesota can now use an extreme risk protection order (ERPO) to temporarily restrict firearm access for those at risk of harming themselves or others.

Often referred to as a "red flag" law, this new legislation allows families and law enforcement to petition a court to temporarily restrict firearm access.

"This new law will temporarily remove a firearm when a person is in crisis," said MMA President Laurel Ries, MD. "It is an important step that has shown to reduce firearm death and injury in states that have adopted this."

Minnesota is now among 20 states with similar legislation. Other states that have implemented similar laws have seen decreases in firearm-related deaths, specifically steep declines in firearm-related deaths by suicide.

The MMA advocated on behalf of this law during the 2023 legislative session.

3 from MMA join state's equitable healthcare task force

Three MMA members were appointed to the state's new Equitable Health Care Task Force in mid-December.

Members Mumtaz (Taj) Mustapha, MD, Cybill Oragwu, MD (MMA-endorsed), and Erin Westfall, DO, are joined by three other physicians and 14 other members on the task force that will examine inequities in how Minnesotans experience healthcare based on race, religion, culture, sexual orientation, gender identity, age and disability. The task force will identify strategies for ensuring that all Minnesotans can receive care and coverage that is respectful and ensures optimal health outcomes.

Brooke Cunningham, MD
Minnesota Commissioner of Health

"Year after year, the data show Minnesota is one of the healthiest states with some of the worst health disparities," Health Commissioner Brooke Cunningham, MD, said. "One of my primary goals as commissioner is to make sure all Minnesotans have the opportunity to be as healthy as possible."

The task force was established by the Minnesota Legislature during the 2023 session. To accomplish its goals, the task force will conduct community engagement across multiple systems, sectors, and communities to identify barriers for these population groups that result in diminished standards of care and foregone care. The task force is also charged with identifying promising practices to improve the experience of care and health outcomes for people in these population groups.

The task force's work will conclude with recommendations for changes in healthcare system practices or health insurance regulations to address identified issues. Those recommendations will be included in reports submitted for legislative consideration and posted online.

Regents approve new medical school campus

In early December, the University of Minnesota Board of Regents officially approved creating a new medical school campus in St. Cloud.

The first cohort, beginning in 2025, will include 24 students. It is expected that the program will accommodate 96 students by 2029.

"This is an exciting day for Minnesota and its families and communities," said Jakub Tolar, MD, PhD, dean of the University's Medical School and vice president of clinical affairs. "This program expands on our commitment to greater Minnesota, building on our highly regarded programs in Duluth and through our Rural Physician Associates Program."

The campus will be located at CentraCare and will focus on training physicians to care for rural Minnesotans and immigrant populations.

MMA creates new section for LGBTQ+ issues

The MMA Board of Trustees recently voted to create a new section to convene LGBTQ+ physicians, physicians-in-training, and physicians specializing in LGBTQ+ health issues for networking, support, education, and advocacy.

One goal of this section is to expand the scope of MMA's current health equity initiatives to include issues facing members of the LGBTQ+ community, who are, for example, less likely to have health insurance and a regular healthcare provider.

Meetings will take place via Zoom and will likely be held in the evening. If you are interested in getting involved, please email Mandy Rubenstein, MMA's membership director (mrubenstein@mnmed.org).

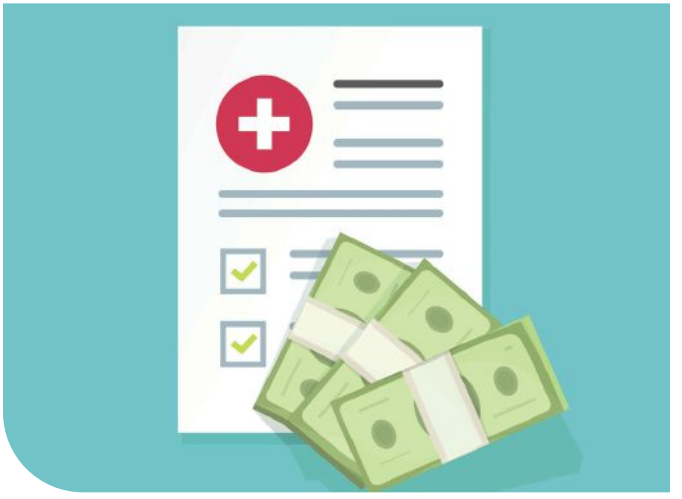
Private healthcare costs increased 7% in 2022

A report from MN Community Measurement (MNCM) released in November finds that the cost of healthcare services for Minnesotans with private health insurance increased 7% in 2022.

The report highlights cost and utilization trends by type of healthcare service, and variation by region within Minnesota and by medical group. The report, "Health Care Cost & Utilization in 2022," analyzes data for about 1.2 million people with private health insurance and nearly $10 billion in healthcare spending in 2022.

Key findings in the report include:

- Statewide, the total cost of care for people with private insurance increased 7% per person in 2022. Growth in 2022 was slower than the 12.5% experienced in 2021, much of which likely represented "catch-up" back-to-normal levels of service utilization following pandemic declines. The most recent three-year average growth rate was 5.5%, which was higher than the average annual growth of 4.9% from 2014 to 2019.
- Costs grew fastest in 2022 for prescription drugs (17.1% per person). The slowest rate of growth was for inpatient hospital services, which increased 0.4%. Costs for outpatient hospital services and professional services grew 8.3% and 4.3%, respectively.
- Costs per person with private insurance vary substantially by region of the state. The lowest cost region in 2022 was St. Cloud, with costs 8.8% below the state average due primarily to lower use of services, but also lower prices. The highest cost region was Rochester, with costs 37.4% above the state average, due to higher prices. The regional analysis is based on where patients live, not where they receive services.
- For most service types, utilization continued to rebound in 2022 from declines experienced during the COVID-19 pandemic. Among service categories analyzed for this report, outpatient surgery had the largest increase at 8%.
- One exception to the trend of increased utilization was inpatient hospital admissions, which showed a 4.3% decline in 2022. Inpatient hospital admissions are the only category of service included in the report, with utilization that remains below prepandemic (2019) rates for patients with private health insurance.
- The report also sheds light on variation in prices for individual services. For example, in 2022 the cost for a chest X-ray ranged from $49 to $348, depending on where the service took place. The prices paid by private health insurance are substantially higher than other insurance types. For example, in 2022, private health insurers paid over double Medicare reimbursement rates for a basket of comparable services tracked over time by



MNCM. The gap between private insurance and Medicare rates has been increasing over time.

- The report is based on analysis of claims data for 2022 from Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, and Preferred One. The analysis used the nationally endorsed Total Cost of Care methodology developed by HealthPartners. Patients are attributed to medical groups based on where they receive most primary care services. For analysis at the regional and medical groups levels, the data are risk-adjusted, and high-cost outliers are truncated. More details on the methodology are available in the report.

State approves new delivery method for medical cannabis

The Minnesota Department of Health (MDH) announced in November that the state will add dry herb vaporization to the list of approved delivery methods in the state's medical cannabis program. Under state law, the new delivery method will be available to patients beginning August 1.

Minnesota Commissioner of Health Brooke Cunningham, MD, PhD, approved the new delivery method to provide an additional fast-acting option for patients.

Currently, patients enrolled in Minnesota's medical cannabis program have three fast-acting options—sublingual tinctures, oil-based vaporizers, and combustible smoking. Fast-acting products can take anywhere from one to 15 minutes for effects to set in. These products tend to last anywhere from one to four hours. Dry herb vaporization provides patients with an alternative to combustion smoking.

MDH's Office of Medical Cannabis received seven petitions to add new delivery methods during the 2023 process. Petitions for plants, concentrates, oil and weed nuggets, and rosin were dismissed, while the petition for dry herb vaporization was moved forward. The failed petitions were not supported by peer-reviewed studies that demonstrate evidence of benefit to patients.

The office also received petitions to add conditions including anxiety, attention-deficit/hyperactivity disorder, and opioid use disorder. Because of a lack of evidence or because they had been previously considered, none was approved. MM

FROM THE CEO

Partnering for success

Meaningful success or progress is rarely accomplished alone. We all benefit from the work, ideas, skills, and support of others—whether as part of a work team, a sports team, or a family team. Good partners are also critical to MMA's success.

The MMA's most frequent and valuable partners are our members—physicians and physicians-in-training who provide leadership on the board, who share their expertise on committees and task forces, who contribute to *Minnesota Medicine*, who advocate for change at Physicians' Day at the Capitol or in their communities, and who participate in events and other programs. The financial and personal support of members is critical to our work. The MMA also engages organizational partners to advance our mission and, particularly, our advocacy agenda, including specialty societies, hospitals or clinic organizations, and community groups, such as the American Cancer Society Minnesota and National Alliance on Mental Illness.

The MMA is also involved in a variety of formal partnerships that can better help us accomplish our goals and support the needs of Minnesota physicians. Here are a few of them:

The Center for Advancing Serious Illness Communication (CASIC). After several years of planning and community input, and with financial support from Blue Cross and Blue Shield of Minnesota, the MMA and the Minnesota Hospital Association established a joint initiative to elevate serious illness conversations as a community standard. CASIC serves as a training and education hub for clinicians and care teams across the state. CASIC aims to address current gaps related to identification of patients with serious illness; how to have effective conversations about care goals; and how to modify workflows to embed serious illness conversations in care delivery. CASIC recently launched its initial training—a three-module, on-demand series that is available at no cost to all care team members serving patients with serious illness. Additional training is planned for 2024. You can learn more at www.advancingsic.org.

Minnesota Alliance for Patient Safety (MAPS). In 1999, the Institute of Medicine report, "To Err Is Human," documented the number and extent of medical errors and implored the healthcare community to pursue systems change. In response, the MMA, under then CEO Paul Sanders, MD, together with the Minnesota Hospital Association and the Minnesota Department of Health, established a broad stakeholder collaborative across the state to elevate patient safety and "just culture" (a term coined by David Marx to describe a model that acknowledges that organizations are responsible for the systems they have designed and for responding to the behaviors of their employees in a fair and just manner). Significant change and progress have occurred over the past 20 years, but medical errors remain a serious problem. Today, MAPS is a nonprofit subsidiary organization of Stratis Health that continues to pursue "safe care everywhere" through patient and family engagement, education, and cross-organization collaboration. You can learn more at: https://mnpatientsafety.org.

COPIC Professional Liability Insurance. Thanks to a unique partnership between MMA and COPIC, MMA members can receive a 10% discount on professional liability insurance coverage. But it is more than the discount that connects MMA and COPIC. It is also COPIC's commitment to patient safety, to transforming the liability environment to support open and honest communication, and to investing in local communities that make them unique. In partnership with the MMA Foundation, the annual COPIC Humanitarian Award honors a physician for volunteer medical services and contributions to their community. The recipient of the award designates a $10,000 donation from COPIC to be provided to a healthcare-related 501(c)(3) organization within Minnesota.

I'm grateful and proud of the many partners who support and help advance the work of the MMA. As we continue our work to make Minnesota the healthiest state and the best place to practice, I look forward to building additional partnerships in 2024.

Janet Silversmith
JSilversmith@mnmed.org

VIEWPOINT

Our physician workforce needs a boost—stat

Minnesota finds itself at a critical juncture, grappling with current physician workforce shortages, while projecting future challenges that demand action now.

The physician shortage that has long been looming is finally here.

In Minnesota, 20% of all physicians, and one in three rural physicians, plan to leave practice in the next five years.

Projections indicate a widening gap between healthcare demand and the physician supply, nationwide. An Association of American Medical Colleges report from 2020 projected that the U.S. will face a shortage of between 54,100 and 139,000 physicians by 2033. Factors such as retirements, population growth, and evolving healthcare needs contribute to this looming crisis.

The aging population, coupled with an increased prevalence of chronic conditions, amplifies the strain on healthcare resources and physicians. To maintain current rates of utilization of medical care by patients, Minnesota will need an additional 1,187 primary care physicians by 2030, a 28% increase compared to the state's current workforce.

Strategies to combat the physician shortage address the need for retaining, recruiting, and training physicians. Possible solutions include increased access to training programs, particularly residencies and residency funding, and educational loan forgiveness programs. Ensuring adequate compensation through Medicare payment reform will help practices stay open by addressing the 26% decline in Medicare reimbursement relative to inflation since 2001. Developing workforce in areas of need, such as rural communities, will be key. And maximizing complementary skill sets of healthcare professionals through physician-led teams will allow improved access to care for our patients.

The CentraCare Regional Campus in St. Cloud will enroll its first medical school class of 24 students in 2025, with a focus on rural healthcare.

Our MMA has aggressively advocated for the continued coverage of audio-only telehealth services to ensure that all individuals have access to high-quality healthcare.

We must prioritize the retention of practicing physicians.

Given the cost and length of training required for physician training, we cannot rely exclusively on training new physicians for these positions. Retention goes beyond appreciation. Employers must address the factors that drive burnout, such as administrative burden, and create work environments where physicians can be their best selves. Physicians need safe, flexible, lucrative, and family-friendly jobs. Physicians need resources for self-care and opportunities for personal growth and development.

Our MMA recently launched a SafeHaven program (www.mnmed.org/safehaven), a confidential, independent resource designed to support physician well-being.

In 2023, our MMA launched the Minnesota Physician Leadership Institute (www.mnpli.org), which offers world-class leadership skills exclusively for physicians.

Laurel Ries, MD
MMA President

Strategies to combat the physician shortage address the need for retaining, recruiting, and training physicians.

Since 2020, our MMA has offered noontime physician forums online to help members keep up to date on emerging healthcare topics.

Navigating the physician workforce landscape in Minnesota demands a multifaceted approach. While addressing shortages through strategic initiatives is crucial, ensuring the retention of physicians requires a concerted effort to create a supportive and fulfilling professional environment.

You can be assured that our MMA will be there advocating for change that ensures that Minnesota is the best place to practice medicine and that Minnesotans are the healthiest in the nation. **MM**

AMY BOLES, MD, CMD (CERTIFIED MEDICAL DIRECTOR)

- Leads the extended care team for the Mankato Clinic, a physician-owned multispecialty clinic with nearly 200 physicians and practitioners serving the Mankato region. The extended care team provides on-site primary care at local skilled nursing facilities, managing residents' complex health issues.
- MMA member since 2014. Serves on the MMA Policy Council and the Physician Well-Being Advisory Committee.
- Grew up on a family farm in the small town of Rosholt in northeast South Dakota. (Of course I belonged to 4-H! While in high school, I became an EMT on our local volunteer ambulance service.)
- Earned undergraduate degree at the University of South Dakota in Vermillion. Medical school at University of South Dakota School of Medicine, Vermillion. Completed Family Medicine Residency at the La Crosse Mayo Family Medicine Residency in La Crosse, Wis.
- Has lived in Mankato with her husband, James, an internal medicine hospitalist, and three children for over 17 years. Laura is a junior in college, Amanda is a junior in high school, and Melissa is an eighth-grader. We have a 14-year-old King Charles spaniel and a 4-year-old Siberian husky. We also have two rescue cats. In our spare time, we enjoy traveling, going to movies, and gardening.
- Typical day includes answering calls from Skilled Nursing Facility staff, rounding on patients at one of six facilities. As medical director for several facilities, I monitor standing orders and protocols, such as infectious outbreak protocols, to keep processes up to date. Our patients are often the most ill and frail within our community. Managing the delicate balance of their health is very complex and keeps me learning all the time. It is a great honor to serve these patients and their families as they navigate what, for many, are the last months and years of their lives.

I became a physician because...

I have always wanted to be a physician. I was the little girl that wanted a doctor's kit at age 3.

The greatest challenge facing medicine today...

The healthcare system is very complex and difficult to navigate. Understanding many different insurance plans, prior authorizations, complex coding, and documentation needs have come between the true practice of medicine and the physician-patient relationship. One of the reasons I was drawn to the Mankato Clinic is that it is a physician-owned medical group. As a physician-driven organization, we have more autonomy in making the physician-patient relationship a priority.

The Boles family traveled to northern California in 2023. In the lavender fields are, left to right, Amanda, Amy, and Melissa; Laura and James in back.

How I keep life balanced...

As a dual-physician household, we struggle to find a balance at times! Our children are helping more at home, and having two children that can drive has been a game-changer. Because of our work and call schedules, we have found that our time with family—such as meals, gatherings, and special occasions—may not include both of us.

If I weren't a physician…

That is a tough question for someone who has felt a calling to be a physician since being a toddler. I have volunteered for several nonprofit organizations in Mankato, so probably working with a nonprofit. I truly love that the Mankato Clinic has its own foundation funded by our physicians and dedicated to improving health and wellness in the communities we serve. In the last 10 years, the Mankato Clinic Foundation has donated more than $2 million to nonprofit organizations that make life better for so many in our region.

STRONGER TOGETHER

MINNESOTA MEDICAL ASSOCIATION

Annual Report

2023

Janet Silversmith

IMPACT AND INNOVATION IN 2023

On behalf of the MMA, I am delighted to share with you the combined MMA and MMA Foundation 2023 Annual Report. And what a year of progress and impact it was!

The MMA's legislative advocacy yielded important victories for physicians and patients – new firearm safety protections, preservation of the patient-physician relationship with respect to reproductive healthcare, a new non-adversarial and confidential adverse event response option, the end of restrictive covenants in physician employment contracts, new post-discharge services for Minnesotans experiencing homelessness, public health protections for Minnesota's new recreational cannabis program, and more.

In 2023, we also launched the first cohort for our new Minnesota Physician Leadership Institute. We empowered physicians with new skills and information at our first in-person annual conference in four years, and we elevated the voices of a diverse group of physicians to call attention to persistent racism in medicine and medical training.

The MMA Foundation continues to extend the work and impact of the MMA. In 2023, the Foundation provided community health grants and medical student research and advocacy scholarships. Through new grant funding the MMA and its foundation piloted a new program, SafeHaven, designed to support physician work-life balance and overall wellness.

I invite you to read more about our work in the following pages and the ways your membership support is making a difference.

On behalf of the MMA's dedicated physician leaders, active volunteers, and incredible staff, thank you.

Best wishes for a safe, healthy, and impactful 2024!

Janet L. Silversmith, CEO

MMA LEADERSHIP

(JANUARY THROUGH SEPTEMBER 2023)

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Will Nicholson, MD


Laurel Ries, MD


Randy J. Rice, MD


Kim Tjaden, MD, MPH


Edwin Bogonko, MD, MBA

MAKING MINNESOTA THE HEALTHIEST STATE

Physicians are dedicated to improving the health of Minnesotans, one patient at a time. The MMA, too, is dedicated to improving the health of all Minnesotans as part of our mission to make Minnesota the healthiest state. To that end, 2023 proved to be a successful year for the association, with passage of new legislation and development of new programs.

Firearm safety

The MMA championed multiple new laws at the Capitol to address the vexing issue of firearm deaths and injuries. These measures included expanded background check requirements for private firearm sales and transfers, and a new extreme risk protection order (also known as a "red flag" law) that allows families and law enforcement to petition a court to temporarily restrict firearm access for those at risk of harming themselves or others.

Reproductive health

Consistent with MMA policy that recognizes that abortion is an essential component of reproductive healthcare, the MMA supported the Protect Reproductive Options (PRO) Act, which established the right to an abortion in Minnesota statute. The Legislature also repealed several statutes intended to obstruct access to an abortion and passed the Reproductive Freedom Defense Act (RFDA), which provides legal protection to patients accessing reproductive services and physicians providing those services.

In addition, the MMA supported legislation, now law, that protects those seeking gender-affirming healthcare in Minnesota and prohibits the use of so-called "conversion therapy" for individuals under the age of 18.

Recuperative Care

Recognizing the critical relationship between housing and health, the MMA supported expanding Medical Assistance (MA) coverage for recuperative care. Coverage for recuperative care services will allow patients to receive needed short-term care in their recovery following hospitalization.

Telehealth

The MMA aggressively advocated for the continued coverage of audio-only telehealth services to ensure that all individuals have access to high-quality healthcare. This coverage will continue into 2025. Throughout the legislative session, the MMA argued that audio-only telehealth was a critical tool for physicians and other healthcare providers, and necessary for patients who may not have access to video technology.

Recreational Cannabis

On August 1, Minnesota became the 23rd state to legalize cannabis use for people 21 and older. Broad commercial availability of cannabis isn't expected until 2025, as the state must adopt a regulatory framework. The MMA advocated for public health protections in the 2023 law, including requirements for warning labels regarding the impact of cannabis use on brain development, and the increased risk of developing psychiatric disorders among vulnerable individuals.

POLST

The MMA led efforts to develop a statewide electronic registry for Provider Orders for Life Sustaining Treatment (POLST) forms. Legislation was adopted in 2023 directing the commissioner of health, with expert input, to develop registry specifications and financing recommendations. A statewide registry will help ensure that patient end-of-life treatment preferences are available to EMS and other healthcare providers.

Improving Serious Illness Care

The Center for Advancing Serious Illness Communication (CASIC), a joint project of the MMA and the Minnesota Hospital Association with funding provided by Blue Cross and Blue Shield of Minnesota, launched its first program in 2023 – a three-module training series to introduce physicians and other healthcare team members to serious illness communication (SIC) and to the Serious Illness Communication Guide developed by Ariadne Labs. CASIC is focused on creating a dedicated statewide community standard on how to address SIC, with a focus on training, implementation, and workflow processes; encouraging consistent and higher usage of SIC by providers; and helping to normalize SIC practice across all healthcare organizations to the benefit of patients, their families and clinicians.

The Role of the MMA Foundation

It takes a collective effort to advance the MMA's mission, and the MMA Foundation (MMAF) plays a pivotal – and growing – role in supporting the MMA's work.

The MMAF is committed to helping physicians feel better prepared to talk with patients and colleagues about suicide risk and lethal means safety. Thanks to the generosity of donors who are committed to reducing suicide, the MMAF continues to offer physician-led training on two evidence-based suicide training programs – Question-Persuade-Refer and Counseling on Access to Lethal Means. MMA member Josh Stein, MD, leads the training, which is free of charge for members.

Through the MMAF's Community Health Grant programs, physicians are empowered to take the lead in community health projects that foster positive change to advance optimal health and health equity for all. MMA member Vince LaPorte, MD, utilized an MMAF community health grant in 2023 to support Basic/Advanced Life Support in Obstetrics training in rural hospitals; Mary Daisy Braaten, MD, used a grant to provide wound care for people experiencing homelessness in Duluth; and Tim Ebel, MD, is currently using his grant to bridge gaps between patients and family members, including the difficult conversations about death and dying that are often left unspoken.

MAKING MINNESOTA THE BEST PLACE TO PRACTICE MEDICINE

The MMA advanced its mission to make Minnesota the best place to practice medicine by advocating at the Capitol and throughout the state in 2023.

Our work focused on physician wellness, improving health equity, empowering physicians to navigate change, improving patient safety, and removing barriers that threaten patient care.

Here are some of the highlights of our work in 2023.

Non-Adversarial Response to Adverse Events: CANDOR

The MMA successfully led efforts to enact CANDOR legislation that: 1) improves patient safety by encouraging open and honest communication with a patient and their family following an adverse event; and 2) protects those communications, and any documents created for the open conversation, from discovery in a lawsuit. CANDOR is a voluntary process for healthcare facilities, healthcare professionals and injured parties to respond to and resolve adverse events.

Restrictive Covenants

In 2023, the MMA helped champion passage of new legislation to outlaw the use of restrictive covenants, including "non-competes" in all Minnesota employment contracts signed on or after July 1, 2023. This legislation provides physician employees with important safeguards and helps to protect the patient-physician relationship.

Amicus Brief in Medical Malpractice Case

The MMA, along with the AMA and the Minnesota Hospital Association, participated in a lawsuit as an *amicus*, or "friend of the court," in a wrongful death case against a Twin Cities residential care facility. In *Rygwall v. ACR Homes*, the next of kin of Amy Rygwall argues that Rygwall, a vulnerable adult, experienced respiratory distress while at the facility. She was taken to an urgent care facility and then transferred to an emergency room where she passed away some 14 days later. Rygwall's family has sued ACR Homes claiming that their negligence in failing to take immediate action contributed to her deterioration and eventual death. MMA participated in this case to argue in favor of Minnesota's longstanding requirement that an expert witness provide facts sufficient to prove causation in a medical malpractice case to be able to proceed to trial. The plaintiffs have argued that causation should be left up to the determination of a jury, going against longstanding precedent. This case is important in that Minnesota's longstanding expert witness causation requirements can weed out frivolous lawsuits and prevent excess money from being spent on malpractice litigation. The case is now before the Minnesota Supreme Court for a decision.

SafeHaven: New tools to support well-being

In its ongoing efforts to improve professional satisfaction and promote well-being for its members and their families, the MMA launched a new comprehensive suite of resources to address career fatigue and promote work/life balance. The new **MMA SafeHaven Program** (www.mnmed.org/resources/safehaven), developed in partnership with VITAL WorkLife, includes a subscription to a package of resources such as clinician peer coaching, concierge services, in-the-moment telephone support, and in-person and virtual counseling.

Minnesota Physician Leadership Institute: Developing physician leaders

In September, the MMA launched the inaugural cohort for its new **Minnesota Physician Leadership Institute (MNPLI)** (www.mnpli.org). The MNPLI offers innovative, best-in-class leadership training to provide Minnesota physicians with the skills, insights, and competencies required to build leadership acumen. The 10-month program was developed by physicians, for physicians, and designed to help all physicians realize their innate leadership potential. The University of Minnesota Carlson School of Management is the MMA's faculty partner for the program.

The Role of the MMA Foundation

The MMA Foundation (MMAF) utilizes its multiple scholarship programs to help train future physicians. Maritza Steele, University of Minnesota Medical School student, was one of five **Barry Friedman-Juan Bowen Primary Care Scholarship** recipients in 2023. She is using her scholarship to educate the public on monkeypox. Mayo Clinic Alix School of Medicine student Jordan Richardson is using her scholarship to offer safe, trauma-informed, sex-positive and gender-inclusive sexual and reproductive health education. Petra Elias, MD, a resident at the Mayo Clinic, was the inaugural recipient of the **Nicholas Reuter-Richard Lien Well-being and Equity Scholarship**. She used her award to explore the impact of language and ethnicity on the rate of unintended dural punctures in patients undergoing neuraxial analgesia.

The MMAF also created a **new scholarship program to honor the life work of Frank Indihar, MD**. This new scholarship supports the next generation of advocacy leaders by funding their work to drive meaningful policy and structural changes that produce equity and justice. Another strategically aligned initiative is the **MCAT Fee Reduction Scholarship Program**. The MMAF is committed to increasing diversity in medicine to ensure all backgrounds, beliefs, ethnicities, and perspectives are adequately represented in the medical field. Thanks to the financial support of Minnesota physicians and friends of medicine, the MMA Foundation offers the MCAT® fee grant program to help pay the MCAT fees for students from racial and ethnic populations underrepresented in the medical profession relative to their numbers in the general population.

Changing the Culture of Medicine to Improve Health Equity

The MMA is committed to improving health equity and reducing structural racism in medicine.

Conversations on Race & Equity (CORE) can be challenging, but are necessary to overcome avoidance of these issues, promote understanding, and advance equity. The MMA facilitated live conversations for physicians to discuss topics that relate to inclusion in healthcare that included dialogue based on curated content on topics such as anti-racism, implicit bias and microaggressions, cultural humility, racism in medicine and allyship. A CORE toolkit was developed to enable future conversations at medical groups.

Racism in Minnesota Video Series. This year, MMA curated personal stories from diverse physicians in Minnesota with the goal of centering their perspectives, building appreciation for their experiences, and providing a space for them to share their experiences. This series features physicians' personal stories to address the harmful effects of racism, microaggressions, and implicit bias on physicians who come from marginalized groups and communities. Efforts toward making medicine more inclusive require an understanding of the experiences of these physicians, and reconciliation requires providing a platform for those most impacted to communicate their narrative.

Implicit Bias Workshops. Both live training and private workshops allow participants to examine implicit bias in healthcare settings, understand how it contributes to health disparities, and learn practical strategies for mitigating the effects. Nearly 300 physicians and other healthcare providers participated in these MMA-offered programs in 2023.

The Community of Practice (CoP) is a peer network dedicated to advancing health equity and addressing the significant racial and ethnic health disparities that persist throughout Minnesota. Health equity leaders and professionals come together quarterly to exchange expertise, network with their peers, and discuss issues and priorities.

The MMA is now offering intercultural development resources to members who have diversity, inclusion, and health equity goals. The **Intercultural Development Inventory®** (IDI®) is the premier cross-cultural assessment of intercultural competence. It can be used in a variety of ways, such as for individual development, for group/team training and development, or for baseline assessments and organizational development. All MMA leaders and staff completed an IDI in 2023.

In October, the MMA sponsored Rainbow Health's **All Gender Health conference** that brought together a diverse community of lawyers, advocates, providers, and community members committed to challenging and overcoming systemic and institutionalized barriers that disproportionately impact LGBTQIA2S+ communities. Jesse Ehrenfeld, MD, MPH, president of the AMA, provided a keynote address.

In November, the MMA, in partnership with UCare, took part in **Medical Discovery Day for BIPOC Youth: Powered by Gillette Children's and Black Men in White Coats** to inspire youth to consider careers in healthcare. The work is aligned with MMA's goal to help diversify the physician workforce. This goal is further advanced thanks to the work of the MMA Foundation (MMAF), which created the Changing the Face of Medicine initiative this year. This program is a dedicated funding source to support initiatives that tear down the barriers that stand in the way of too many whose dream is to become a physician. The work of MMAF's Changing the Face of Medicine standing committee is led by Verna Thornton, MD; Kasey Justesen; MD, Dave Agerter, MD; and University of Minnesota Medical Student Tiffany Onyejiaka.

MMA'S 2023 AWARD WINNERS

Five physicians, three physicians-in-training, the former head of the Minnesota Board of Medical Practice and Hennepin Healthcare were all honored with MMA awards in 2023.

Distinguished Service Award

George Schoephoerster, MD, of St. Cloud, received the MMA's highest honor, the Distinguished Service Award, for his years of service to the association and to medicine. Schoephoerster, a retired geriatrician, has been a member of the MMA since 1986. He is a former trustee, past president of the association, and has served on the board of MEDPAC, the MMA's political action committee. He is currently the president of the MMA Foundation. He served on numerous MMA committees, including public health, membership and communications, nominating, awards, finance and audit, and ethics. He was chair of the former Medical Practice & Planning Committee and the Prescription Drug Prior Authorization Task Force.

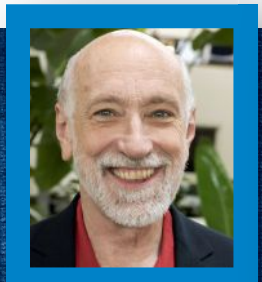
President's Award

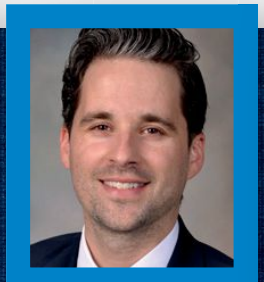
Patrick Bigaouette, MD, Larry Hook, MD, and the estate of **Charles E. Crutchfield, III, MD,** received the MMA's President's Award, which recognizes those who have made outstanding contributions in service to the mission of the MMA - making Minnesotans the healthiest in the nation and making Minnesota the best place to practice medicine.

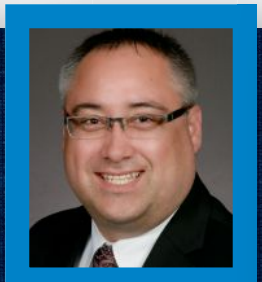
Bigaouette, a practicing psychiatrist based in Mankato, has been described as having a unique ability to connect with people from all backgrounds, which enables him to provide culturally sensitive and personalized care. He is a champion of physician well-being and active in the Mankato community raising awareness of mental health issues and championing inclusion efforts. He is highly regarded by his peers, patients, and the wider healthcare community for his leadership skills. He has served as a mentor to numerous residents, trainees, PA, pharmacy, and NP students. His commitment to education and research is evident in his publications, presentations at national conferences, and participation in clinical trials with a Rochester group aimed at advancing psychiatric treatments and interventions.

Hook is the medical director of hospital-based psychiatric services at St. Cloud Hospital. In 2021, his advocacy and passion led to the opening of CentraCare's EmPATH psychiatric stabilization unit. Its opening has been a significant benefit to the people of central Minnesota and exists as a testament to Doctor Hook's vision and determination to see it to completion. He has supported his colleagues in expanding programs within the hospital to address the crises of addiction and psychiatric disorders. Because of his work, CentraCare has been able to start additional consultation services for women's mental health and for addressing substance use disorders in a more comprehensive fashion for its patients. He is described as doing his work with grace, wisdom, and humor.

Crutchfield, who passed away in June 2023 after a lengthy battle with non-Hodgkin's lymphoma, has been called a pioneer in his field. Throughout his career, he was a leader in the field of dermatology. He was one of the first medical professionals to tailor skin treatments for people of color. He was a respected


George Schoephoerster, MD


Patrick Bigaouette, MD


Larry Hook, MD


Charles E. Crutchfield, III, MD


Sally Jeon

researcher and educator, always at the forefront of new developments. He served as the team dermatologist for the Minnesota Twins, Minnesota Timberwolves, Minnesota Wild, and Minnesota Vikings. He was active with the Minnesota Association of Black Physicians.

Medical Student Leadership Award

Sally Jeon and **Nick Hable, MPH** received the Medical Student Leadership Award, which recognizes physicians-in-training who demonstrate exemplary leadership in service to medical students, the profession of medicine and the broader community. Both attend the University of Minnesota Medical School.

Resident and Fellow Leadership Award

Rebecca Yao, MD, MPH, received the Resident and Fellow Leadership Award, which recognizes physicians-in-training who demonstrate exemplary leadership in service to residents and fellows, the profession of medicine and the broader community. Yao is based in Rochester.

COPIC/MMA Foundation Humanitarian Award

Janet Chestnut, MD, a retired family physician in Lake City, received the COPIC/MMA Foundation Humanitarian Award which recognizes an MMA member who goes above and beyond to address the healthcare needs of underserved populations in Minnesota. The award includes a $10,000 donation from COPIC to a healthcare-related 501(c)(3) in Minnesota. Dr. Chestnut directed her donation to the C.A.R.E. Clinic in Red Wing, where she volunteers much of her time.

James H. Sova Memorial Award for Advocacy

The former head of the Minnesota Board of Medical Practice (BMP), **Ruth Martinez, MA,** of St. Paul, received the James H. Sova Memorial Award for Advocacy. Sova was the chief lobbyist for the MMA from 1968 until the time of his death in December 1981. This award is given to a person who has made a significant contribution to the advancement of public policy, medical sciences, medical education, medical care, or the socioeconomics of medical practice. During Martinez's tenure, the BMP collaborated with the MMA and others on several important initiatives, including implementing the Health Professionals Services Program, establishing telemedicine registration, modifying medical license application questions related to mental health, and having Minnesota join the Interstate Medical Licensure Compact.

Eric C. Dick Memorial Health Policy Partner Award

This award is given to an individual, group of individuals, a project or an organization that demonstrates their commitment to pursuing sound public policy, building coalitions, creating and/or strengthening partnerships with the goal of improving the health of Minnesotans or the practice of medicine in Minnesota. Dick was the MMA's manager of state legislative affairs from 2010 until his untimely death in January 2021. The 2023 recipient was **Hennepin Healthcare,** which led work, supported by the MMA, to establish Medical Assistance coverage for post-discharge recuperative care services provided to Minnesotans experiencing homelessness.

2023 Advocacy Champions

Each month, the MMA recognizes a member who has served as an advocacy champion, whether through testifying at the Capitol, raising their voice at a City Hall meeting, or being the person who stands up and advocates for change. When physicians advocate for improving patient care and improving the profession, it serves as a great reminder of why they went into medicine.

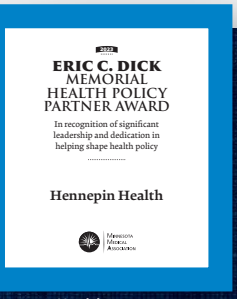
January Thomas C. Kingsley, MD, MPH
February Vineet Raman (medical student)
March Thomas E. Kottke, MD, MSPH
April Macaran Baird, MD, MS
May Victor Sandler, MD
June Jakub Tolar, MD, PhD
July Ryan Kelly, MD, MS
August Dennis O'Hare, MD
September Rebecca Yao, MD, MPH
October Cybill Oragwu, MD
November Robert Koshnick, MD
December Lisa Mattson, MD


Nick Hable, MPH


Rebecca Yao, MD, MPH


Janet Chestnut, MD

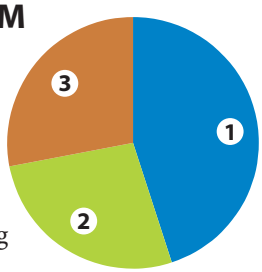

Ruth Martinez, MA



Hennepin Health

2023 MMA Financial Highlights

Total MMA revenue: $3.4M



1 **DUES** 45%

2 **NON-DUES REVENUE** 27%
Advertising, sponsorships, event registration, grants, lobbying services, educational programming and accreditation services

3 **SPENDING POLICY** 28%
Portion of investment returns used to support operations

How your dues are used

1 **MEMBER ENGAGEMENT** 15%

2 **ADVOCACY** 18%

3 **COMMUNICATIONS AND EDUCATION** 30%

4 **GOVERNANCE** 10%

5 **INFRASTRUCTURE AND OVERHEAD** 27%

2023 membership information

Total: 9,695

Minnesota Medical Association

3433 Broadway Street NE, Suite 187; Mpls, MN 55413
PHONE: 612-378-1875 or 800-342-5662
FAX: 612-378-3875
EMAIL: mma@mnmed.org
WEB: mnmed.org
JOIN US ON FACEBOOK, TWITTER, INSTAGRAM AND LINKEDIN

2023 MMA Foundation Financials

Total Net Assets: $1.933M

MEDICAL STUDENT & RESIDENT SCHOLARSHIP FUNDS
- Friedman-Bowen $279k
- Reuter-Lien $64k
- Indihar $9k

COMMUNITY GRANT & INITIATIVE FUNDS
- MMA Community Health & Health Equity Innovation $17k
- Stearns Benton Community Health. $68k
- Changing the Face of Medicine $51k
- Physician Volunteerism. $57k

UNRESTRICTED $1.388M

Total Revenues: $413K

CONTRIBUTIONS

MEDICAL STUDENT & RESIDENT SCHOLARSHIP FUNDS
- Friedman-Bowen $22k
- Reuter-Lien $3k
- Indihar $1k

COMMUNITY GRANT & INITIATIVE FUNDS
- Changing the Face of Medicine $8k

Unrestricted $64k

GRANTS
- COPIC $65k
- Physicians Foundation. $42k

Investment income $208k

Total Expenses: $191K

MEDICAL STUDENT & RESIDENT SCHOLARSHIP FUNDS
- Friedman-Bowen $2k
- Reuter-Lien $5k

COMMUNITY GRANT & INITIATIVE FUNDS
- MMA Community Health & Health Equity Innovation . . $5k
- Stearns Benton Community Health. $8k

GRANT EXPENSES $107k

OTHER PROGRAM COSTS $4k

ADMINISTRATIVE COSTS $60k

Net Income: $222K

MMA Foundation Impact

Scholarship dollars awarded: $7,000

Physician-led community health grant dollars awarded: $13,000

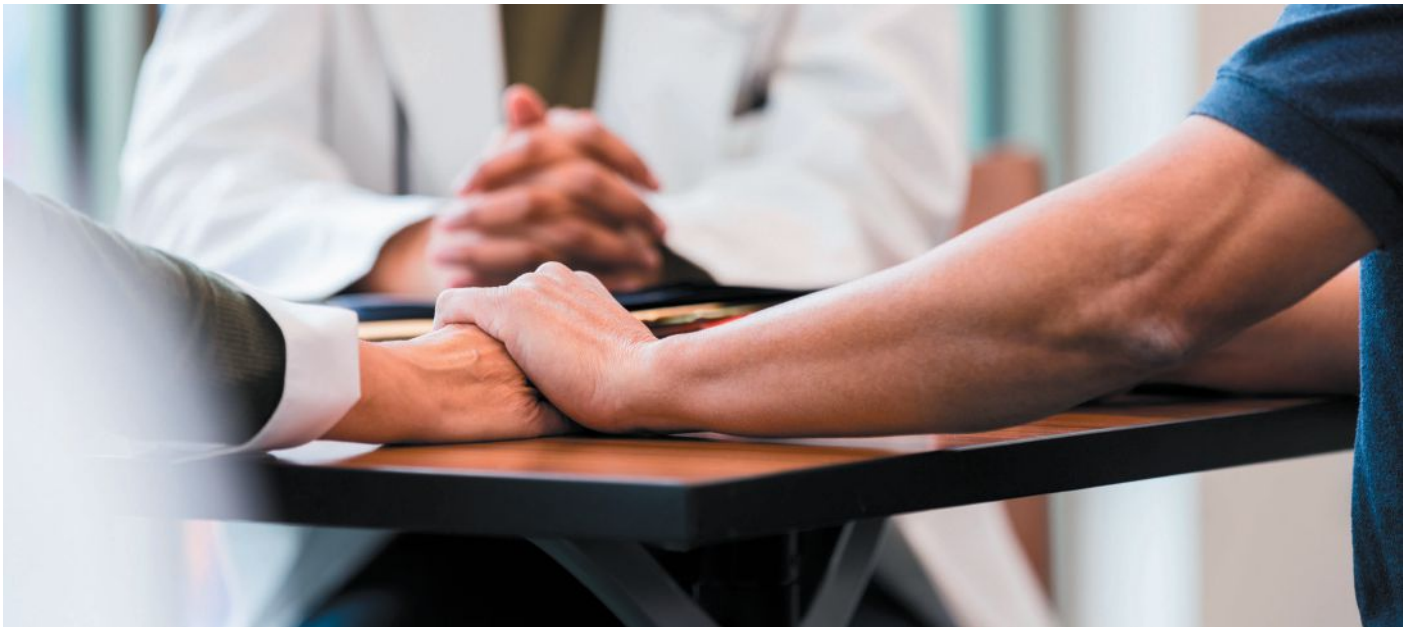
COPIC & MMA Foundation Humanitarian Award: $10,000

Number of physicians trained in suicide prevention: 34

The Center for ADVANCING SERIOUS ILLNESS COMMUNICATION

A JOINT INITIATIVE OF THE MMA & MHA

www.advancingsic.org



Minnesota Hospital Association

Minnesota Medical Association

The Center for Advancing Serious Illness Communication is a joint project of the Minnesota Medical Association and the Minnesota Hospital Association.

BlueCross BlueShield Minnesota

Funding for this project is provided by Blue Cross and Blue Shield of Minnesota, as part of their long-term commitment to improving the health of Minnesota communities, and ensuring that all people have opportunities to live the healthiest lives possible.

The Center for Advancing Serious Illness Communication

invites you to participate in our three-module on-demand training series. The series will introduce you to serious illness communication and to the Serious Illness Communication Guide, an evidence-based tool developed by Ariadne Labs, which is a joint center for health systems innovation at Brigham and Women's Hospital and the Harvard T.H. Chan School of Public Health.

The training is available **at no cost** and available to all care team members serving patients with serious illness. These modules have been approved for CME credits.

The modules include:

Part 1: Serious Illness Communication—An Introduction

Part 2: The Serious Illness Conversation Guide

Part 3: Implementing Serious Illness Communication

Please visit our website at ***www.advancingsic.org/training-and-events*** to learn more and to view the training videos.

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