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Physicians who are related—by blood or marriage_ add support and a common bond to practicing medicine PAGE 16

ALSO

GIFTS from patients? PAGE 6 Better VIRTUAL MEETINGS PAGE 8 SOMALI SMILE—a poem PAGE 10



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ON THE COVER: Gillian Luscri, MD, and Nathan Luscri, MD, share a profession—both are pediatricians—and a family.

IN THIS ISSUE

Is it nature, nurture—or just the fact that the long hours and challenging work of physicians means they often come together as family partners... and then raise another generation of physicians? Four families share their histories and experiences.



ALL IN THE FAMILY

FEATURES

ON THE COVER

16 When physicians are related

It's not unusual to have more than one physician in a family, related through birth or marriage. The shared profession adds support and understanding. $_{\rm BY\,SUZY\,FRISCH}$

23 Ties that bind

Why do some families have a number of physicians in them? BY SUZY FRISCH

24 When you share a profession and a family

Tips for keeping relationships healthy by Deborah Lynn Blumberg

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The Crutchfield Family Physicians



DEPARTMENTS

4 EDITOR'S NOTE

6 ETHICS

What should you do when patients offer gifts? BY DIANE MORTIMER, MD, MSN, AND KATHY GUO, MD

8 RECLAIMING JOY

Virtual meetings can be more effective and more inclusive. BY DAWN ELLISON, MD, CPC

10 ARTS AND MEDICINE

Somali Smile—a poem BY JUSTIN YAMANUHA, MD, AND FATIMA SHABA, BS

11 RESEARCH

Study looked at the experiences of early-career women faculty at University of Minnesota Medical School. BY LINDA PICONE

13 RESEARCH

Young teens in communities with T21 policies reported significantly less use of tobacco products.

14 BOOK REVIEW

David Rooney, author of About Time: A History of Civilization in Twelve Clocks, thinks instruments of time control us. BY CHARLES R. MEYER, MD

26 RESEARCH

Review of procedures for women who give birth at sites that don't have an active program for obstetrical services.

BY SANDRA STOVER, MD; KELSEY HESSIL; EMILY ORTIZ; SAMANTHA C. FRIEDRICHSEN, MPH; AND REBECCA L. EMERY, PHD, LP

30 THE PHYSICIAN ADVOCATE

Divided Legislature makes 2022 a challenge for MMA priorities. AMA House of Delegates considers how to navigate ongoing pandemic and battle disinformation. Advocacy Action Team returns in new format. MMA supports pursuing legislation to resolve adverse events with CANDOR process.

35 RESEARCH

Outcomes of sepsis by race at M Health Fairview University of Minnesota Medical Center.

BY CAMERON MEYER-MUELLER, BA; DARLISHA A. WILLIAMS, MPH; MICHAEL WESTERHAUS, MD; AND RADHA RAJASINGHAM, MD

38 COMMENTARY

Saying "trust the science" isn't enough to persuade patients. BY ALEXANDER JACOBS

39 ARTS AND MEDICINE

Patterns in the Operating Room—a poem BY JAMEE SCHOEPHOERSTER

40 ON CALL

Bryan Neth, MD, PhD, and Caroline Haakenson, MD.





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OWNER AND PUBLISHER Minnesota Medical Association

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DIRECTOR OF COMMUNICATIONS Dan Hauser

ART DIRECTOR Kathryn Forss

CIRCULATION/WEB CONTENT Mary Canada

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SUBSCRIPTIONS

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

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Missing issues will be replaced for paid subscribers at no additional charge if notification is received within six months of the publication date. Replacement of any issues more than six months old will be charged the appropriate single back issue price. Single back issues of *Minnesota Medicine* can be purchased for \$25 (U.S.) and \$30 (Canada, Mexico, and other international). Send a copy of your mailing label and orders to Mary Canada, 3433 Broadway Street NE, Suite 187; Minneapolis, Minnesota 55413-2199 or fax it to 612-378-3875

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36

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EDITOR'S NOTE

Changes at *Minnesota* Medicine

e often make changes in the content and operations at Minnesota Medicine, but most are below the radar for readers. Two recent changes, deserve, we feel, more explanation.

Medical leadership for the magazine

Zeke McKinney, MD, MPH, MHI, stepped down as the chief medical editor for the magazine at the end of 2021, after just over three years of service. A relatively early-career physician, Zeke brought en-

ergy, interesting ideas and new perspectives to the magazine; his regular columns were insightful, meaningful and personal.

But Zeke has been in demand on several fronts, especially since the pandemic began. He was part of active COVID vaccine research and promotion of vaccination-particularly for underserved communities-and became the face of vaccine encouragement we saw everywhere in print, online and on television. He has been involved in efforts to bring equity to healthcare and to the medical profession. He is the new president of the Twin Cities Medical Society, which will no doubt have challenges in its first year of operation separate from MMA. And, of course, he has the demands of his occupational medicine practice with HealthPartners and the needs of his young family.

We will miss Zeke; if you've ever met him, you'll understand why.

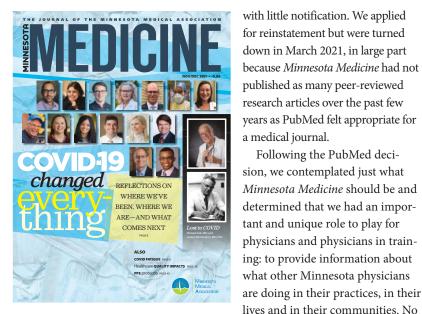
Rather than replacing Zeke with one physician, we are going to have a team of three medical editors. We hope that will provide us with more diversity in type of practice, geography, gender, interests and personal background. Each medical editor will write two columns/year and help shape the content of the magazine with suggestions for topics and expert sources.

Instead of an advisory board, we will call upon a group of medical advisors. Each will represent, in general, a kind of practice/ specialty and/or interests. So, for example, there may be a medical advisor for surgery and one for rural medicine and one for arts and medicine. They will suggest ideas, but also may be asked to review articles in their area of interest before publication to make sure they are accurate and medically sound.

We are in the process of putting together the three-physician team of medical editors and the medical advisors and expect to announce them in the next issue of Minnesota Medicine.

Research articles

We learned in early 2018 that the magazine was no longer indexed on PubMed. The change had happened several months earlier,



other publication is doing that.

Research is a part of that. We already have started presenting research articles differently, as you can see in this issue and in the November/December 2020 issue. Instead of following the strict AMA format, we are presenting articles about clinical research as narratives-sometimes as commentary, sometimes as features, sometimes under a Research label. None of these changes are made without the consent of the authors, but so far they have

been happy with how their articles have been edited. The goal is to make research articles more accessible so that more readers will engage with them.

We will report and write articles about ongoing research in Minnesota in specific areas. For example, we may interview several physicians conducting research on Alzheimer's disease and write summaries about their efforts. We also will



Following the PubMed deci-

include articles about research by Minnesota physicians that have been published in other journals (there are two in this issue).

There are many journals in which original peer-reviewed research can be published; our aim is to tell the story behind the research.

Please let us know your reaction to these changes—and any ideas you have about what we should be covering going forward. Remember, this is your magazine. Call 612-669-0623 or email lpicone@mnmed.org and share your thoughts. MM

- Linda Picone, editor, Minnesota Medicine

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HealthLeaders magazine named Ms. Swanson one of 20 Americans making a difference in health care. LawyersUSA named her one of the top ten attorneys in America. Alan Greenspan appointed her to the Federal Reserve Board's Consumer Advisory Council in 2004, which she was elevated to chair in 2006.

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Gifts from patients How to decide whether to accept them ...

BY DIANE MORTIMER, MD, MSN, AND KATHY GUO, MD

and how to say 'no'

Patients may want to give their physicians gifts, often as a symbol of gratitude or appreciation. Gifts, or the act of giving, usually stem from a place of kindness and may hold cultural significance for patients and their family members. There are no clear-cut standard rules about receiving gifts, and policies may vary depending on the hospital, which creates the dilemma of whether or not physicians should take them. As a result, physicians are often uncomfortable accepting patients' gifts.

This issue is quite nuanced. One source of ambiguity is how the gift might affect the physician-patient relationship. Physicians are cognizant of the special relationship they have with patients. It is possible that gifts from patients can be seen as outside the acceptable territory of that relationship. The physician is providing care, which is a service. Gifts have the potential to change that relationship. At the same time, if a patient is expressing gratitude or sharing a cultural tradition with a physician, accepting the gift could enhance the relationship. In this case, declining a gift may even be seen as disrespectful or unkind, and patients and their families may feel insulted.

If patients are offering or providing gifts in exchange for special treatment or preferential care, gifts could impede the physician-patient relationship. Such actions could also potentially negatively affect the physician's ability to provide care to other patients. If the gift seems to be stemming from a psychological need, the physician needs to address that need in addition to deciding about whether to accept the gift. In specific specialties, such as psychiatry, more weight may need to be placed on the ethical considerations of accepting gifts from patients due to the distinct nature of that patient-physician relationship.

Another consideration is the value of the gift. Physicians should not accept gifts that could cause the patient financial strain. Many physicians have much higher incomes than their patients. Even in situations where patients can afford expensive gifts, physicians should be extremely sensitive in deciding whether these gifts can be accepted. One potential guideline would be that a physician should not accept a gift if they would not be comfortable disclosing the gift's value.

The timing or intention of the gift also may affect the decision. Patients may want to recognize specific services, such a successful surgery or achieving cancer remission. They also might want to join in celebrating certain occasions, such as a special holiday or the birth of a physician's child. In these cases, it is unlikely that they are trying to influence future care or that they are engaging in any nefarious activity. Still, the physician may have questions about accepting the gift.

In some workplaces and healthcare settings, policies dictate whether physicians can accept gifts. At the VA, for example, federal rules prohibit employees from accepting nearly any item, service, gratuity or meal from patients or families. Some items, including greeting cards or modest amounts of food or refreshments, are acceptable. Any larger donations need to be made to an official representative of the facility. At other institutions, the policies may be less clear, leaving it up to the physician to make a judgment call on whether to accept a gift.

The AMA's Code of Ethics provides some helpful guidelines. They advise physicians to:

- Be sensitive to the gift's value. Physicians should not accept a gift that might cause the patient financial or emotional hardship.
- Don't allow the gift to influence medical care.
- Suggest, in lieu of the gift, that patients or family members make a charitable contribution—but don't propose any-

thing that could potentially be seen as benefiting the physician.

These guidelines can be useful, but are not universally applicable because individual situations can vary so widely.

As a rule of thumb, it seems fair to say that if accepting a gift would cause a reasonable person to question the integrity or impartiality of the physician, their program or their institution, then the physician should not accept the gift.

Physicians may struggle with the best way to accept or refuse a gift. It might be helpful to have some standard phrases to use in these situations. Physicians accepting small gifts, such as a box of candy, could say something like "Thanks for that chocolate. That's very thoughtful. I'll share the treats with our clinic staff."

Physicians refusing a gift may have more difficulty communicating the decision to the patient in a respectful manner. One way to go about it could be, "Thank you for your generosity, but as your physician my role is to care for you. I am not able to accept your gift. If you wish, I can connect you with the person at our facility who directs donations. Please know that this does not affect our relationship at all and I am grateful for your kindness."

Physicians enjoy the unequaled privilege of getting to know patients and providing care and services to them. Even though this is what we do every day, it can, in itself, be considered an enormous present, rendering other gifts unnecessary. As author A.A. Milne's character Winnie the Pooh so eloquently put it, "Sometimes, the smallest things take up the most room in your heart." MM

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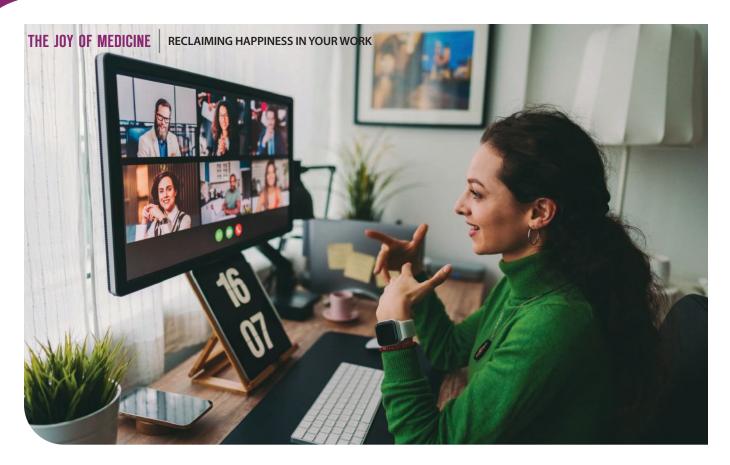


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Diane Mortimer, MD, MSN, is a physiatrist, Minneapolis Veterans Affairs Health Care System. Kathy Guo, MD, is a resident, Department of Rehabilitation Medicine, University of Minnesota Medical School.



GRATEFUL FOR VIRTUAL MEETINGS... ...and ways to make them work better

BY DAWN ELLISON, MD, CPC

have intentionally looked for gratitude during this time of overwhelming illness, isolation, divisiveness and virtual connections. It is a practice that I work on daily. It may surprise you, but it wasn't difficult for me to be grateful for virtual meetings.

I have been influencing others to use methods of holding conversations that encourage diverse perspectives, invite all voices and leverage the wisdom in the room since 2011. I have, on occasion, attempted to do this within an organization that didn't always appreciate the methods or understand the purpose. Some were satisfied when a decision was made, despite hearing from a minority in the room. What they didn't understand, or chose to ignore, was that the usefulness of the meeting was inversely proportional to the number of conversations that occur after the meeting and that those often were not in agreement with the outcome of the conversation in the meeting.

When people walk away from a meeting feeling unheard and believe they should be making the decision that has just been made by others, they don't do everything they can to support the decision. When meetings are dominated by a few people it may not be anyone's fault. Some people, usually men, do not need as much space between speakers before they feel comfortable speaking up (Deborah Tannen, 1990). As a result, those of us who do need space between speakers "can't get a word in edgewise." I have resorted to raising my hand—which, by the way, gets disapproving looks.

Virtual meetings make all this worse. The deafening silence is assumed to be agreement when in fact it is related to the awkwardness of technology. Everyone is worried about speaking over someone else and they are muted and they are using a different platform than the one they are used to and they can't find the "raise hand." This is why I am grateful! The virtual space is a great excuse for the application of a light structure that supports voices being heard.

Here are some methods that make virtual meetings more effective and more inclusive.

Check-in

Using a check-in increases participation in the meeting. When everyone is invited to be heard at the beginning of a meeting, they are more likely to contribute to the conversation. You can use a check-in to bring some humanity into the room, focus the conversation, brainstorm ideas, bring awareness to the purpose, build the team or just have fun. The most effective checkin is to ask a question that invites people to contribute in a sequential manner. For example: the host asks whoever will go first to succinctly answer the question, "What do you hope we accomplish in the next hour?" Once someone volunteers to go first, the host lets someone else on their participant list know that they will be next. Something like, "Mark, thank you for offering to go first, Nicole you will be next." Then when Mark is finished, "Thank you Mark, Nicole you are next then Sarah will be after you." You may need to set up guidelines if they haven't operated in this way, explaining that "we will be taking turns speaking and not responding to each person's contribution." A little order is necessary. If you have more than about 10 people in the meeting you may want to put them into breakouts and have them share with one or two other people rather than taking the time for everyone to speak to the whole group. Another way to cut down on time is to limit their answer to three words. You may need to inform them that, "I don't know how to say this in three words" is 10 words. The beauty of the virtual space is that it begs for this kind of light structure and people get the chance to see how well it works.

Breakouts

I have seen great and disastrous use of breakouts. Guidelines for effective breakouts include:

- **Purpose**. Give people a reason for being in conversation and an assignment for a report out. The skillful use of questions makes a huge difference in the productivity of the breakout. Participants in a breakout should be given an assignment to report back to the full group. As a workgroup, their task for the time in breakout may be to figure out next steps and they may be asked to report out what they need from the other work groups in order to move forward. When back in the full group, they don't need to talk about all of their discussion, just the points that are salient for other groups. Suggest that they designate someone to do the reporting as soon as they have checked-in.
- **Timing**. Recently, I was put in a breakout for 5 minutes with three strangers and given five questions to discuss. We barely completed introductions, and only three of the four people addressed one of the questions. It takes time to get a feel for how long to give people

in breakouts. Allowing for introductions of strangers or updates on work may be necessary. If there is a question to discuss, consider how many people are in the breakout and how long it will take for all the voices to be heard at least twice. Generally, for three or four people in a breakout, you will need at least 15 minutes to have any kind of reasonable discussion. The host can pop into breakouts and get a sense of how they are doing if the time is flexible, but it definitely is easier to sense the room when live. When there is ample time, 20-30

The virtual space is a great excuse for the application of a light structure that supports voices being heard.

minutes is preferred for discussion of one or two related questions.

- Number of people. It is broadly accepted that three or four people is the maximum for equitable discussion to take place. This also relates to the structure you impose within breakouts. One option is to continue the precedent set by the check-in and invite people to take turns. Most importantly, make them aware they need to share the air!
- Information harvest. Often the sponsors or leaders organizing a meeting have an interest in knowing what happens in the breakout conversations. You can invite breakout groups to add to a shared document. You may want to know who is in the breakout, what options they discussed, what concerns they had, who else they think needs to be involved in a decision and next steps, for example. This shared document is one way the hosts can observe the progress of the groups.
- Agreements. Agreements should express the guidelines for any breakout conversations. Listening to understand assures that voices are not only heard, but understood. Speaking with intention implies that people are cognizant

of the vocal space they are occupying and sharing the air. A confidentiality agreement may be appropriate in some settings. If there is an operative decision to be made, determine who is making the decision, the role of the people in the room (are they decision-makers or stakeholders?) and what process will be used to make the decision. Will it be a process that is autocratic, consultative, democratic or consent-based?

- Facilitation. The hosts should announce the time to return to the main room before going into breakouts and can broadcast a message warning the groups to be prepared to return with their report out. I recommend having a technical producer manage technical issues, such as people coming in late, falling out of groups, having difficulty with their connection or calling in by phone and the issues that causes with getting into breakouts on some platforms. The role of the hosts is design of the process and managing the content, making sure the conversations are meaningful and fruitful.
- Choice of breakouts. Sometimes it's best to allow people to choose their breakout group from different discussion topics. They may even create those topics and invite others to join them. If the technology doesn't allow individuals to choose breakouts, the technical producer will need to be able to place them into the breakouts they prefer.

One of the skills of leadership is curating topics that need meaningful conversations. People invited to meetings want to walk away feeling like they were part of a conversation that made a difference, not given information they easily could have read.

I hope that by using these guidelines in your virtual spaces now, your teams will see the utility and ask for them if they get back to in-person meetings. May your decisions be informed by diverse perspectives—and all the wiser! MM

Dawn Ellison, MD, CPCMD, CPC, CRT is an emergency physician, professional coach, resilience trainer, facilitator and corporate consultant with Influencing Healthcare, LLC at dawnellisonmd.com.

ARTS AND MEDICINE PHYSICIANS AND CREATIVITY

Somali Smile

BY JUSTIN YAMANUHA, MD, AND FATIMA SHABA, BS

This poem was inspired by the Somali children and their parents who have come to the University of Minnesota Eye Clinic. We are grateful they have put their trust in us as their physicians. Translation and cultural insight were added by Fatima Shaba, whose family is from Somalia, the Land of Poets.

We meet as Patient, Parent, and Doctor, united by the unforeseen. Our faces masked but our eyes open.

We gather in an exam room with computer monitors and microscopes, our eyes connected and ears ready to hear.

We call an Interpreter, a stranger to us both, who helps us listen and be heard; a voice connecting us even from afar.

We discuss our next steps to help find a cause and a treatment to heal and take the next steps in our journey.

We smile and laugh sometimes as we stay focused on our goal. These are moments that do not need interpreting.

Justin Yamanuha, MD, is assistant professor, Department of Ophthalmology, University of Minnesota Medical School. Fatima Shaba, BS, is a firstyear medical student, University of Minnesota Medical School.

Dhoolacadaaynka Soomaalida

Curinta Gabaygan waxaa loo waxyoodey carruurta Soomaaliyeed iyo waalidkood ee yimaada. Jaamacadda Minnesota ee Xarunta Indhaha. Waxaan uga mahadcelineynaa inay iyagu na aamineen annaga oo ah dhakhaatiirtooda. Turjumaad iyo aragti dhaqan oo ay ku dartay Arday Caafimaad, oo qoyskiisu ka soo jeedo Soomaaliya, Dhulkii Gabayaaga.

Waxan is baranay markaan ahayn bukaan, waalid, iyo dhaqtar. Waxaan ku midoobney wax aan la arki karin. Wejiygeena waxaa ku daboolnaa af qariye lakiin indhaheena weey furnayeen.

Waxaan ku kulaney qolka dhakhtarka, oo leh Diirada Kombiyuutarrada iyo mikroskoob. Indhaheenna wey is egayeen iyo dhegaheena waxay diyaar u ahayeen in aay is maqlaan.

Waxaan wacaney turjubaan oo naga fogaa labadeenaba si aan isu fahamno.

Turjubaankan ma anan garanayn, waxuna ahaa qof qalaad. Lakin noo turjumayey isago naga dhageesaneyey alada la isku maqlo.

Waxaan ka wada hadalney talaabooyinkeena xiga. Si lagaga caawin lahaa helitaanka sababta iyo daaweynta, iyo talabooyinka xiga oo aan qadeeyno safarkan.

Mararka qaarkood waan dhoola cadeyney oo aan qosolney, anagoo beegsaneyney ama diirada ku hayney hadafkeeni. Daqiiqadahini waxeey ahayeen kuwo aan u bahneen in naloo tarjumo. MM

Academic medicine during COVID

Article looks at experiences of early-career female faculty

BY LINDA PICONE

arly-career women in the medical faculty at the University of Minnesota already had been talking to each other about their frustrations, successes and paths to advancement as part of the Early Pathways to Career Success of the Center for Women in Medicine and Science at the University.

"We had been meeting in person monthly," says Sade Spencer, PhD, assistant professor of Pharmacology at the University of Minnesota Medical School. "And then the world shut down."

The program is designed to discuss things pertinent to the career advancement of women faculty, but once COVID forced the group into meeting virtually, rather than in person, and brought new complications into everyone's lives, "we started having these organic conversations about what was going on in the moment and what that felt like," Spencer says.

A senior faculty member recommended that the women collect information about what they were discussing, so there would be a record of the concerns of that particular community. That collection of experiences led to a an academic article, published in the December 2021 issue of *Preventive Medicine Reports*, laying out a framework for more diversity, equity and inclusion opportunities in medicine and science. Spencer was the lead author on the article.

The set of people observed whose concerns are cited in the article is small and relatively narrow—early career, female, medical faculty ... during a pandemic. But Spencer says the group believes that many if not most of the issues they noted apply beyond early career women faculty. "As we were writing it, we were thinking more broadly about our male peers. It is probably applicable to early career faculty overall."

The collection of data and the article were "more of a perspective than of research," Spencer says. The published article says: "We propose recommendations on issues related to research, education, financial, and work-life well-being identified as salient based on our own personal experiences but with the recognition that they apply to other marginalized, underrepresented, and disproportionately-affected communities."

The concerns cited in the article include impacts on:

Clinical care. Although many of the stresses for those involved in clinical care were the same as male colleagues were experiencing— physical distancing requirements, risk of personal exposure to COVID-



RESEARCH

19, changing protocols, a shift from specialty services, telehealth, etc. pregnant women faculty had additional serious concerns.

Research. Research that started before the pandemic was "almost universally altered," the article states. The quick turn to COVID-19 research "necessitated an established work process and network that many early career faculty inherently lack."

Education. Learning how to provide education virtually and navigating "a deluge of emails, training modules, and changing policies" took time away from preparing the educational content itself, the article says. "This lost time has impacted the career trajectory, publication rate and grant submissions/awards of early career faculty more than senior faculty, and women more than men," according to research by Myers in 2020.

Finances. Academic medical centers were hit hard by the pandemic, and many laid off or furloughed staff, reduced salaries, suspended travel-related reimbursements, etc., which, according to the article, will have a disproportionate effect on early career faculty, "who likely have more debt and less savings than their senior colleagues."

Work-life well-being. As in other fields, women in academic medicine experience more challenges with work-life well-being than male colleagues. Pre-pandemic research has shown that physicians and medical trainees have an increased risk of depression, burnout and suicide compared to the general population—and that the relative risk is even greater in female physicians.

Key recommendations

The article lays out a number of opportunities and recommendations for academic faculties to better engage early-career female physicians, including:

- Provide supports for remote work and work autonomy.
- Include early-career faculty in decision-making.
- Reduce institutional barriers to telehealth.
- Virtual conference meetings.
- Create an internal funding mechanism that prioritizes projects with multiple primary investigators that include junior faculty and diversity in gender and race.

RESEARCH 2000

- Promote and reward excellence of early-career clinical faculty work.
- Expand educational opportunity for distance learning.
- Measure and address gender-based salary disparity.
- Fund initiatives to support women at work, including childcare services and flexible schedules.
- Re-evaluate promotion and tenure practices.
- Encourage vulnerable and honest communication at every level of leadership.

One of the recommendations was to create "balance buddies" over the long-term. During COVID, on the hospital side, the University implemented "battle buddies," Spencer says, creating a support system for physicians on the frontlines.

"Our proposal is that this can and should be extended beyond the emergency" she says. "There should be some sort of buddy system for early faculty—or even later faculty. There have been attempts at that, but it's more common that it's in the form of mentoring committees for early faculty, focused on professional development." A "balance buddy" would be a support system where "you can talk about challenges, successes, failures, but you can also relate personal things that are going on."

What's next

The group created a survey for all University of Minnesota Medical School faculty and is now looking at the data from the responses. "We want to generate a report that we will get back to the University on what we found, but hopefully there will be a number of research products coming out of that," Spencer says, "including another paper on early-career faculty that I will take the lead on, maybe not exclusively focused on women but hopefully we will have the data to compare men vs. women, early-career, vs. senior faculty."

A key to significant change would be to look differently at how faculty are evaluated. The traditional measures of success include research, papers published, classes taught and academic services completed. "Faculty competencies should be evaluated holistically over the more narrow traditional metrics of success. In doing so, that might better take into account the challenges that we all face and the setbacks associated with this pandemic," Spencer says.

During COVID, the University of Minnesota gave medical school faculty an option to write impact statements about how they had been affected by the pandemic. Spencer says she would like to see something like that in an ongoing way, not just during an extraordinary time.

"It would allow you to have more of a narrative of your career," she says. "The 'pie' of what any faculty member does is much bigger than the traditional measures. We should be able to explain what our 'pie' is and how we have intentionally crafted our career beyond the traditional aspects of success." MM

Linda Picone is editor of Minnesota Medicine.

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Tobacco 21 works

Local policies reduce reported tobacco use among teens

study by researchers from the University of Minnesota Medical School and the Minnesota Department of Health, published in Nicotine & Tobacco Research, November 2021, found that eighth- and ninth-grade students in communities



with Tobacco 21 policies were significantly less likely to report that they used tobacco products, including cigarettes, e-cigarettes and flavored tobacco, than those in communities without Tobacco 21

policies. The researchers did not observe a significant relationship between locally administered Tobacco 21 policies and tobacco product use among 11th-grade students. The study used data from the 2016 and 2019 Minnesota Student Survey, which is conducted every three years among fifth-, eighth-, ninth- and 11th-grade students in all school districts, looking at risk behaviors, including tobacco use. Although schools aren't required to administer the survey, 85 percent of Minnesota Schools did so in 2016 and 81 percent in 2019.

BESEARCH

Eighth- and ninth-grade students in Tobacco 21 communities were less likely to report any tobacco use in the past 30 days in both 2016 and 2019: 9.2 percent vs. 13.4 percent in 2016 and 13.6 percent vs. 18.2 percent in 2019. E-cigarettes were the main form of tobacco use in both surveys and the increase in tobacco use during this period was largely driven by increases in e-cigarette use.

"Our findings suggest that Tobacco 21 policies are an effective strategy to reduce adolescent tobacco use, particularly among middle school- and early high school-age adolescents," says April Wilhelm, MD, MPH, a family physician with the University of Minnesota Medical School and M Health Fairview. "It's crucial to better understand the underlying reasons for the age-related differences in Tobacco 21 policy effects that we observed so that the policies can be optimized for a broader range of adolescents."

Wilhelm says more studies should be done to determine if additonal flavored tobacco or menthol restrictions and differences in implementation influence the effects of Tobacco 21 policies. MM

"MPA is a place where creativity is sewn like seeds in a garden, and as a parent, I'm always amazed at what pops out of that soil."

– Dr. Lashonda Soma, St. Paul Radiology, MPA Parent



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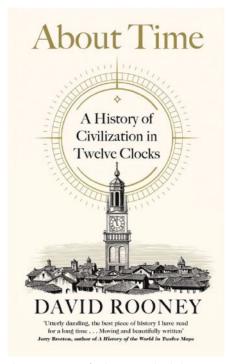
FROM SUNDIAL TO GPS How instruments of time control us

BY CHARLES R. MEYER, MD

uring my years in practice, I answered to many masters-insurance companies, Medicare, hospital bylaws. But the dominant ruler of my days was attached to my wrist. My watch was a potent presence that told me how my day was going, whether I was keeping up and measuring up, a nagging force that was unspoken but omnipresent. Clocks and the time they keep are the silent adversaries in a physician's day. David Rooney, historian and former curator of the Royal Observatory in Greenwich, England, has compiled an insightful history of that adversary that can help a doctor understand what they're up against.

Since childhood, I have nurtured a fascination for clocks and time. Trained as an engineer, my father obsessed about accurate time, investing in expensive Rolexes only to replace those with cheaper but more precise electronic watches when they became available. Probably because he was always talking about "hacking" your watch, a term of obscure origin, I too focused on time pieces and time. I was given my own Accutron as a high school graduation present. As I was discovering ham radio, I found WWV, the radio station of the National Institute of Standards and Technology, which broadcast monotonous beeps interrupted by a voice intoning time precision: "At the tone, the time will be exactly ... " During decades of seeing patients, I rarely went without a watch and I developed a sixth sense about what time it was and obsessively worried about whether I was running late.

Rooney dates similar obsessions with time to the advent of sundials, introduced in Rome by Valerius in 263 BCE. As sundials proliferated, they changed people's lives by making them more aware of the passing of time and quantifying that passing. He quotes a playwright of Valerius' day who complained that "The gods damn that



About Time: A History of Civilization in Twelve Clocks By David Rooney Published 2021 by W.W. Norton

man who first discovered the hours, and yes—who first set up a sundial here, who's smashed the day into bits for poor me! You know, when I was a boy, my stomach was the only sundial, by far the best and truest compared to all of these. It used to warn me to eat, wherever—except when there was nothing. But now what there is, isn't eaten unless the sun says so. In fact town's so stuffed with sundials that most people crawl along, shriveled up with hunger." Early Romans had acquired a master that governed their days, but this was soon supplanted by a 24/7 despot, the water clock, which didn't require the sun.

Rooney journeys from water clocks to acoustic clocks to mechanical clocks to pendulum clocks. In every era he finds that public clocks "mounted high up on towers or public buildings have been put there to keep us in order, in a world of violent disorder." He sees clocks as governmental instruments of control delivering the message, "know your place; stay in line; obey your rulers."

And not only political rulers. As electricity invaded society and facilitated networking of clocks across geographical boundaries to create a standard time, clocks ran the railroads, closed bars and guided financial deals dictating "when you wake up, when you go to bed, when you can and cannot buy alcohol, how long you are allowed to work in factories and shops, how much daylight you get in summer when the days are longer, how easily you can travel to other places."

Rooney fears that this control is not only sometimes irritating but also dangerous, epitomized by the atomic clocks at the heart of the global positioning system (GPS) that rules navigation, telecommunication, power grids and data transfer and which is susceptible to jamming and an attack called spoofing that can fool GPS localization by miles. Incidents such as these have already occurred, leading one politician to identify GPS as a "single point of failure of the modern economy" and another to predict that in a widespread GPS outage "people will die." Tiny electronics thousands of miles away run our world.

The clocks that run a physician's day aren't as potentially lethal as a GPS malfunction, but every practicing doc knows that a failure to listen to the tick-tock of his master can lead to unhappy patients and frustrated staff. Having no wall clock in my exam rooms, I preferred to listen to my internal tick-tock and hope that patients were in the same zone, feeling that I had given them enough time. MM

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

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Minnesota Medical Association



Physicians who are related by blood or marriage add support and a common bond to practicing medicine

MILY

13 an

BY SUZY FRISCH PHOTO BY RICH RYAN PHOTO GRAPHY

Gillian Luscri, MD, AND Nathan Luscri, MD SPOUSES

hen couples come home from work, it's common to vent about the day's difficulties or to share the joys of achievements big and small. Partners get to vicariously know the other's co-workers and the work environment. But for Gillian Luscri and Nathan Luscri. they're talking about the same place and the same job. Both are pediatricians at Park Nicollet clinics.

Though the married couple work at different locations, they speak each other's language when it comes to work. So much so that they have to prevent themselves from bringing too much of their workday home. They have a

natural gatekeeper in their daughter, who starts singing over their conversation if it gets too involved in work.

The Luscris set ground rules about avoiding work talk when they first get home, putting the topic on the backburner until later, she says. When they are able to talk, they often consult each other about how they might have handled a medical issue or patient concern.

"There are pros and cons. We have each other to talk to about work but it's harder to separate from work when we get home," Gillian Luscri says. "You have an understanding of each other's work and the stresses of the job, and we can chit chat about stuff happening in our group. I think that's really beneficial."

Both physicians work four days a week, with one shift until 7pm, as well as one weekend a month. This gives each pediatrician time at night with their two kids, time to themselves—and bandwidth to



OTO BY RICH RYAN PHOTOGRAPHY

"We have each other to talk about work but it's harder to separate from work when we get home. You have an understanding of each other's work and the stresses of the job, and we can chit chat about stuff happening in our group." – GILLIAN LUSCRI

keep the household running. When one person is on call, the other understands what their partner is experiencing. The downside to that, though, is that they both wake up when the on-call person is paged, Nathan Luscri says.

The Luscris met at the University of Minnesota when he was a third-year resident and she was a first-year resident. They didn't work together but got to know each other during social outings with other residents. Eventually, they both got jobs at Park Nicollet, he in Bloomington and she in Burnsville, and got married in 2012.

Being pediatricians for the same health system with the same last name has led to occasional patient confusion and crossover. Some families will ask to go to the other Dr. Luscri if one isn't available. Other parents learn about the dynamic duo while making appointments, when they are asked which Dr. Luscri they want to see. Occasionally, a family intends to see one Dr. Luscri but ends up at the wrong clinic.

Nathan Luscri once treated a patient whose parents' first language wasn't English at M Health Fairview Ridges hospital in Burnsville. He suggested that the family see his wife for follow-up care at the clinic across the street because it was closer than his Bloomington clinic. When Gillian Luscri walked into the exam room, the patient's parents were unhappily surprised that the original Dr. Luscri wasn't there. "They were so thrown off that it wasn't Nathan—they had their hopes up to see the doctor from the hospital," Gillian Luscri says. "It was lost in translation."

Neither takes it personally, and they view their life as married pediatricians as a strength. The Luscris have a built-in resource and support system—and a companion who truly understands their life's work.

Julie Bell, MD, AND Christopher Bell, MD PARENT/CHILD

other and son physicians Julie Bell and Christopher Bell share many career commonalities. They both are family medicine physicians who were inspired to medicine at a young age. They enjoy providing full-spectrum care to patients and have an interest in sports medicine. And they happen to work a couple doors down from each other at CHI St. Gabriel's family medical clinic in Little Falls.

Though they don't see each other that often at work, the moments they do are extra special. They might consult on a case or grab a quick lunch. It's even more meaningful for Julie Bell, knowing that she almost lost her son two years ago during a medical emergency. "For me, there's just the joy of even passing by and seeing him in between patients," she says. "When you almost lose someone, just having a few moments is special."

Julie and Christopher Bell both knew early on that they wanted to be doctors. The oldest of four boys, young Christopher would occasionally attend medical school classes with his mom.

"My mother and father had me when they were in high school, so I really grew up with them," he says. "I remember going to class with her and walking into the lab and seeing 50 brains. And I would go with my mom to work at the clinic and see the different things she would do. It sparked my interest in wanting to help people out."

Julie Bell got interested in medicine after watching her dad grapple with hip problems from childhood polio and later the lymphoma that caused his death at age 37. By fourth grade, she was already writing papers about her goal to become a doctor.

Mother and son each attended the University of Minnesota Medical School and completed their family medicine residency in Sioux Falls, South Dakota—the first time the program had welcomed the child of a previous resident. In 2012, Christopher Bell followed in his mother's footsteps in Little Falls, along with his wife, Heather Bell, MD, a family medicine and addiction medicine physician. There, co-workers got a kick out of the trio, calling them Ma Bell, He Bell and She Bell.

There are occasional mix-ups at work, when notes, test results or communications from physicians outside the clinic land on the wrong Bell's desk. Or the era when Chris Bell served as clinic medical director and enjoyed stating to others that he was his mom's boss. "He always tried to tell me that he was my boss, and I would say, 'That will be the day!" Julie Bell recalls. Her son adds, "She never listened to me anyhow."

The family finds joy in being able to share their experiences in healthcare. Another son, Eric Bell, DDS, is an orthodontist and his wife, Jessica Najarian-Bell, MD, is a pediatrician in Stillwater. The jury's out on whether any of the family's nine grandchildren will pursue medicine, too.



"I remember going to class with her and walking into the lab and seeing 50 brains. And I would go with my mom to work at the clinic and see the different things she would do. It sparked my interest in wanting to help people out." - CHRISTOPHER BELL

Susan Crutchfield, MD; Charles Crutchfield Sr., MD; Charles Crutchfield III, MD

SPOUSES/PARENTS/CHILD

hen Susan Crutchfield and Charles Crutchfield Sr. applied for medical school at the University of Minnesota in the late 1950s, they crossed their fingers and hoped that they wouldn't be called in for an interview. Then it would be revealed that they are Black.

Both stellar pre-med students, ages 18 and 19, they were admitted and received the training they needed to become pioneering physicians in the Twin Cities. Susan Crutchfield was the first Black woman to graduate from the medical school

and the youngest ever. She went on to a career in family medicine and medical leadership. The youngest male graduate in his class, Charles Crutchfield became an OB/GYN who delivered more than 9,000 babies during his career of more than 50 years, including during his 2-1/2 years as a captain in the United States Air Force following graduation from medical school.

"Susan and I were the only Black people in our chemistry class, and we became partners and then boyfriend and girlfriend," recalls Charles Crutchfield Sr. "She wanted to be a doctor, too, and we were dynamite together. She encouraged me, and I encouraged her."

That support was vital. Medical school is rigorous for everyone, but the Crutchfields faced added difficulties as the only Black students in their class. They experienced being confused for workers instead of medical students and struggled to find landlords who would rent to them. (The Crutchfields note that they were treated fairly by fellow students and professors.)



Then the couple added another challenge, but a joyful one: getting married and expecting their first child. That son, Charles Crutchfield III, was born while his parents were still in school. He carried on their legacy by becoming a dermatologist, practicing at Crutchfield Dermatology in Eagan and serving as a clinical professor at the medical school. Growing up, he was asked so many times whether he was going to be a doctor that the natural answer became yes.

After all, Crutchfield was steeped in medicine through his parents from his earliest days. That meant playing with their stethoscopes, listening to their conversations about medicine and work and accompanying them on rounds at St. Mary's and Ancker hospitals. During medical school, Crutchfield even got to complete his family medicine rotation with his mother.

"It's so important to have representation and role models. It's difficult to imagine doing something when you don't see someone like you doing it," says Charles Crutchfield III. "All of the people around my parents were doing it and I didn't have doubts that I could do it, too, if I wanted. I stand on the shoulders of giants with my parents."

There's plenty for Crutchfield to be proud of. Tireless physicians, the senior Crutchfields also devoted time to community service, leadership and academic medicine. They were pillars of the Twin Cities medical community who served all patients with excellence, persevering early in their careers when there were just

a handful of Black physicians.

Charles Crutchfield Sr. worked in private practice, delivered many generations of babies at United, St. Joseph and Regions hospitals in St. Paul and served as chief of OB/GYN at United. Living near downtown, Crutchfield often would be called to the hospital to deliver babies when patients' obstetricians couldn't make it in time.

As a family medicine physician, Susan Crutchfield enjoyed helping patients with a variety of concerns. Women physicians were rare when she began her career, but Crutchfield grew her practice by focusing on mothers and their children. "The mothers thought their children would get along better with a woman doctor," she says.

Later in her career, Crutchfield served as vice president of medical affairs for Prudential insurance, medical director of the HMO Metropolitan Health Plan and chair of the Minneapolis Children's Hospital board. "I have patients who come to see me because Mom and Dad were such good doctors," Charles Crutchfield III says. "They took Charles Crutchfield III, Charles Crutchfield Sr. and Susan
 Crutchfield, a family of physicians.
 Although not born in Minnesota,
 Charles Crutchfield III is home here.
 Susan Crutchfield was the first Black woman and the youngest person to graduate from the University of Minnesota Medical School.

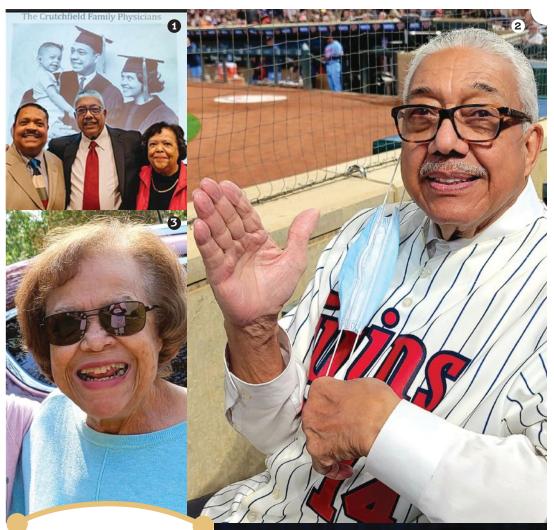
4 Charles Crutchfield III followed the path set by his parents right into medical school and a successful dermatology practice.

care of them or delivered them or took care of their kids."

The Crutchfields all found their way to medicine after impactful experiences with physicians. Throughout their careers, they have provided a foundation of support and encouragement to each other. And they bonded over their fascination with science and life goals to help others.

Although neither of the senior Crutchfields was a Minnesota native-Charles Crutchfield Sr. was born in Jasper, Alabama, but came to Minneapolis on vacation when he was 15 and then stayed, living with an aunt, and Susan Crutchfield's parents relocated from West Virginia to Minnesota when she was a small child—there is no doubt that Minnesota is home.

"We have done what we have done with all of our heart and soul and might to make a difference in the world," says Charles Crutchfield Sr. "The state of Minnesota was good to us, and I've felt that we gave back. We paid it forward and tried to help other people."



"It's so important to have representation and role models. It's difficult to imagine doing something when you don't see someone like you doing it. All of the people around my parents were doing it and I didn't have doubts that I could do it, too, if I wanted. I stand on the shoulders of giants with my parents."

- CHARLES CRUTCHFIELD III



Chris Wenner, MD; Michelle Wenner Chestovich, MD; Rachel Wenner Ruzanic, MD; AND Gretchen Wenner Butler, MD (IN BIRTH ORDER)

SIBLINGS

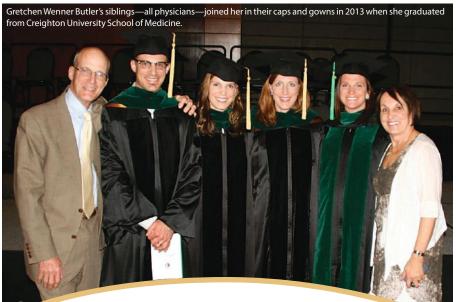
he Wenner family went four for four in medicine. Rachel Wenner Ruzanic, MD, likes to joke that she and her siblings all became physicians thanks to a strange genetic mutation.

Ruzanic is a dermatologist. Chris Wenner and Michelle Wenner Chestovich are family medicine physicians. And the youngest sister, Gretchen Wenner Butler, was a radiologist who died by suicide in 2021. Their father, Joseph Wenner, DDS, was a pediatric dentist and their mother, Mary Wenner, NP, was a pediatric nurse practitioner. They laid the groundwork for this passel of doctors by stressing the importance of education, helping others and keeping the community healthy, Ruzanic says.

Sharing a profession with siblings adds an extra layer of support and understanding, whether that means receiving care packages with gummy bears and special pens during board exams or advice from someone who's been through it all. And when it's time for a holiday meal and someone needs to work, there's no guilt trip, Chestovich says. Instead, there is empathy, gratitude, caring—and food set aside.

"For me, it's been really helpful to have that support. It is unique," Ruzanic says. "All jobs have their challenges, but in medicine, the stakes are high. It's people's lives and health. I'm lucky to have a support group of people who are my own family."

The Wenners note that there was no pressure from their parents or siblings to become doctors. They individually came to that decision, in their own way. Inspired by his parents' work in healthcare and other doctor relatives, Chris Wenner also realized he enjoyed the art and science of medicine.



"We share stories and help each other through. Medicine can be challenging and tough to talk about. [My siblings] know the rigors and the pressures of being in medicine, and it's helpful to talk through some of that with them." – RACHEL WENNER RUZANIC

Chestovich was fascinated by science and nature and knew she wanted to pursue a career that combined those interests with helping others. She and Ruzanic both decided during college that they wanted to go to medical school.

Butler, Chestovich says, was passionate about science and an athlete who loved to challenge herself. Initially planning on a career in orthopedics, having been injured several times herself, she ended up gravitating to radiology. She liked revealing to emergency medicine physicians, surgeons and patients the problem they were experiencing. Butler completed a fellowship in breast imaging at the University of Minnesota and worked at Hennepin Healthcare in the hospital and its breast care center.

Ironclad support runs throughout the Wenner family, starting with parents who encouraged their kids to pursue their interests. They also fed their curiosity and gave them a window into healthcare through job shadowing, Chestovich says. In addition, the siblings counsel and support each other throughout their medical experiences.

For Ruzanic, that meant inheriting her big brother's medical school textbooks and gaining a sounding board for questions. "We share stories and help each other through," she says. "Medicine can be challenging and tough to talk about. They know the rigors and the pressures of being in medicine, and it's helpful to talk through some of that with them."

Sibling reinforcement was vital to Wenner as he a considered a career change. Though he found practicing family medicine gratifying, he was struggling with working in a large health system. Talking it through with Chestovich, his fellow family

ON THE COVER

medicine doctor, gave Wenner the insight and support he needed to make a change. In 2009, he opened his clinic, Christopher J. Wenner, MD, PA, in Cold Spring, to provide small-town care to whole families.

"She told me, 'You can do whatever you want' instead of jumping ship from one corporate medicine job to another," Wenner says. Chestovich noted that their father ran his own successful dental practice for decades. "I was able to think critically and develop my own practice. It was so helpful to me."

Chestovich worked part-time for 17 years at Entira Family Clinic in West St. Paul, giving her work/life balance while raising four children. A certified coach, she recently retired from clinical practice to broaden her work supporting other physician moms. Chestovich was inspired to devote her time to healing the healers by her sister Gretchen's death and experience with burnout.

Through her coaching company Mama-Doc, a podcast called Re-Mind Yourself, and public speaking, Chestovich aims to offer wellness tools and advice for physicians facing burnout and mental health struggles.

"The culture of medicine needs to change. We are taught that we can do it all and fix it all, and I think women in particular try to put on a face that everything is fine. Women physicians are 2.5 times more likely to die by suicide," Chestovich says. "It's time to do something to prevent this tragedy from happening again." The family is still hurting, missing the one they called a bright star who burned out too soon. One particular memory of Gretchen buoys them. During Butler's 2013 graduation from Creighton University School of Medicine, her physician siblings were invited to don caps and gowns and stand on stage with her as she received her diploma.

"It was a very special moment. She came across the stage and we got to give her a hug and welcome her to the world of being a physician," Chestovich says. "We are in it together and we are so supportive of each other and my parents, who supported us all. I always say that Gretchen was my baby sister and I was her big sister and we all grew up to be peers." MM

Suzy Frisch is a Twin Cities freelance writer.

THE TIES THAT BIND Why is it that some families have numerous physicians? BY SUZY FRISCH

Looking at families with multiple physicians, the question often arises: What's the secret sauce? Why do some families just seem to produce physicians? For many, it comes down to a combination of being exposed to the career, having role models and absorbing the value of helping others.

In the Wenner family of St. Cloud, grandfather Waldemar Wenner, MD, paved the way as a beloved otolaryngologist. His sons, Joseph Wenner, DDS, and Wally Wenner, MD, went on to become a pediatric dentist and a pediatrician. Daughter-in-law Mary Wenner was one of the first pediatric nurse practitioners in Minnesota. And Mary and Joseph Wenner had four children who all went on to become physicians.

The oldest, family medicine physician Chris Wenner, MD, says that his family was steeped in the culture of medicine. That meant pairing curiosity about science and nature with a desire to help others, a way of life his parents modeled every day. "That culture was very comfortable for all of us," he says. "If you're not in medicine it can be a foreign culture and difficult to understand." No one was pressured to go into medicine. Rather, the Wenner parents encouraged their children to pursue whatever interested them. Michelle Wenner Chestovich, MD, a family medicine physician, took note of her parents' enthusiasm for caring for patients and emphasis on helping humanity.

"Their dedication was so contagious. They would say, 'We have been so blessed—let's help others," Chestovich says. Having relatives in healthcare "opens the door to possibilities. Some families don't have that, and people think medicine is out of their reach. I really do think it's special because you understand what goes on in medicine."

Having physician role models is a huge part of why dermatologist Charles Crutchfield III, MD, pursued medicine. His parents, family medicine physician Susan Crutchfield, MD, and OB/GYN Charles Crutchfield Sr., MD, showed him what was possible. Seeing that they were successful Black physicians in a very White world gave him something to aspire to.

(continued on next page)

ON THE COVER

Why is it that some families have numerous physicians? (continued from previous page)

Three female cousins from Georgia all became doctors after they were inspired by their aunt and uncle in Minnesota.

"Having role models and nurturing self-esteem in children—I think those are the two most important things," Crutchfield says. "Mom and Dad always made me feel like you can do anything if you work hard at it."

Rachel Wenner Ruzanic, MD, a dermatologist in Cold Spring, and Gillian Luscri, MD, a pediatrician in Burnsville, both looked

up to grandfathers who were physicians. Three of Luscri's grandparents were physicians, including two pediatricians, and an uncle was a psychiatrist. Their passion, commitment to global medicine and kind, caring ways motivated her to follow their paths.

Luscri and her husband, pediatrician Nathan Luscri, MD, know many couples who are both physicians. Some meet in medical school or during residency, when social circles are small and tight-knit. The partners often have similar interests and a shared

tions improve once residency is over, but all too often, physicians

continue to feel stressed by high patient loads and the growing de-

mands of documentation. "There's this constant stress that I think

PHYSICIANS AT HOME-WITH OTHER PHYSICIANS How to keep relationships healthy

BY DEBORAH LYNN BLUMBERG

When you work with a family member who's also a physician, it can be tempting to let your personal lives seep into the work day. At the same time, you run the risk of family

get-togethers devolving into gripe sessions about the office.

Whether you're an ER physician whose mother works in the same hospital in critical care, or ophthalmologist siblings with offices on the opposite side of town, it's important to establish boundaries both at and outside work



physicians a generation ago didn't have to deal with," says Mendenhall. As you interact with a family member who's also in medicine, keep frontof-mind that they, too, may be overworked and struggling to achieve a balanced lifestyle. Empathy can go a long way toward preventing any interpersonal conflicts.

Avoid "contests of misery." It can be easy for physician family members to get into so-called "contests of misery," trying to one-up each other on just how difficult their work day was, Mendenhall says. For example, when meeting for a glass of wine at a local bar's happy hour, an OB/GYN might tell her psychiatrist sister how a complicated birth kept her at work late and she missed a play that she had tickets for. Then her sister responds that she had a violent patient who threatened her, that she had to call security and then ended up missing a blind date that she was looking forward to. "It becomes this one-upmanship on who's got it worse," says Mendenhall. Instead, physician family members should pause, listen to each other and then validate the other person's feelings. "You could say 'Tm sorry that happened," he says,

to keep your relationship healthy and the workplace professional.

Tai Mendenhall, PhD, professor and medical family therapist in the Couple and Family Therapy Program at the University of Minnesota, often works with physicians and residents. For families in which more than one person is a physician, he suggests the following six tips to help cultivate healthy personal and professional relationships.

Recognize that you both may be overly

stressed. With long hours and heavy workloads, medical residents are at higher risk for depression, anxiety and alcohol use and even divorce, Mendenhall says. For many, condi-

understanding of what it's like to be a physician. Having a family with married physicians certainly can be a challenge, especially for physicians in demanding on-call fields like OB/GYN or surgery, Nathan Luscri says. But they make it work. Often, they then go on to inspire the next generation of physicians.

Christopher Bell, MD, is a family medicine physician in Little Falls whose mother blazed the trail to family medicine. Julie Bell, MD, introduced Bell to the profession by taking him to her medical school labs or the clinic when he was young. That influenced his desire to become a physician. "I think it's the exposure. You see what life is like being a doctor," Christopher Bell says. "And if that was important to your parents, then it likely becomes something important to you, too. Parents impart their values and interests to their kids, and kids look up to their parents. It's a natural thing that kids follow in their footsteps." MM

Suzy Frisch is a Twin Cities freelance writer.

"or just be there with them and give them the room to talk about their bad day."

Keep "dad" and "sis" out of the office. Keep it professional when you're at the office, Mendenhall says, by calling each other "Dr. Smith" and "Dr. Jones" if you're father and daughter instead of "Dad" and "Sally." Also, be careful not to slip into calling your grown child physician a childhood nickname at work, or calling your sister "sis" or brother "little bro." That applies whether you're in front of patients or your administrative staff, says Mendenhall. "It's not people's business to know who's related to whom or who's married to whom," he says.

Compartmentalize work and home. Keeping work and home separate is crucial to avoiding burnout. It also helps keep relationships free of conflict when you're working with a family member who's a physician. For example, don't talk about the planning you need to do for your daughter's fifth birthday party while you're in the operating room with your spouse. "When you're at work, you're at work," Mendenhall says. He also tells the doctors he works with not to bring their case notes home, only to then sit at the dining room table working and ignoring their family. Instead, stay late, finish work and then leave work at the office. It's okay to talk shop once in a while, he adds, as long as it doesn't turn into a contest of misery. To balance out frustrating experiences, commit to also talk about the positives-like a compliment from a superior, your medical assistant's touching engagement story or a patient who has really turned their health around for the better. "You've got to be purposeful about it, because it's not human

nature to focus on the positive," says Mendenhall. Physicians also need to be careful not to share identifying information when talking about cases, even if they're speaking to their trusted physician sibling or spouse.

Get vocal about boundaries. If conversations at family holiday gatherings or birthday parties always seem to circle back to the hospital and patients, one family member should take the initiative to help set a healthy boundary by announcing to the group that everyone is off the clock. Then, move on to a nonwork subject, says Mendenhall. It doesn't have to be delivered in a serious tone, he adds, it can be said playfully. You might say with a smile, "Okay, we're all off-duty now." Or, "All right, now I'm just Jon, not Dr. Miller." Then, you go outside and you throw a ball around together, Mendenhall says. "There's more to life than work."

Find a hobby. Mendenhall and his wife love riding Harley Davidson motorcycles together; they often take off on Saturday trips to explore their community and surrounding towns. Others might like volleyball, guitar, piano or painting. Whatever it is, find an interest or a hobby outside of work. Not only will it help you to decompress from work, it will also give you another interesting topic—outside of work—to talk about with your fellow physician family members. "Figure out what lights you up that's not work, and you'll enjoy both your work and your life more," Mendenhall says. MM

Deborah Lynn Blumberg is a freelance writer working from Houston.

RESEARCH



Post-delivery care

Limited at rural hospitals without active obstetric services

BY SANDRA STOVER, MD; KELSEY HESSIL; EMILY ORTIZ; SAMANTHA C. FRIEDRICHSEN, MPH; AND REBECCA L. EMERY, PHD, LP

C ommunity-based obstetrical delivery services are declining in rural areas in Minnesota and across the country. Complex reasons contribute to this trend, but there has been little exploration of what kind of post-delivery care is given at sites that don't have an active program for obstetrical services.

We were curious about current delivery care in Critical Access Hospitals (CAHs) in Minnesota and chose to look at programs where there were no active delivery programs to see what post-delivery care for mother and infant was provided. We also wanted to compare preparedness for delivery services at sites with and without active obstetrical programs, understanding that not all deliveries follow plans made in advance.

Many factors contribute to whether communities provide obstetrical care. Closure of delivery services occurs most commonly in smaller communities where there is already a limited obstetric workforce. It can be expensive for a hospital to maintain an active delivery program when patient numbers are low. A community may have unique challenges contributing to the closure of obstetric units, including hospital ownership/type and typical family income in the area.

Maternity program closures mean that many rural women have to travel further to hospitals for planned and emergent deliveries. Scheduled deliveries using induction or repeat c-sections allow some control over the timing of deliveries and help families in their planning, but they also may increase cost and individual patient risk. Even with a scheduled delivery, labor may begin before expected and births may occur at a site without an active obstetrical program.

These factors—longer travel, possible increased costs and patient risks, unique community challenges—have led to an increase in perceived stress among rural mothers during pregnancy.

When an emergent delivery occurs in a hospital without active labor and delivery services, there's still a need for postpartum care immediately following delivery; this is is a critical period for maternal and infant health. Best practices for postpartum care include allowing time for maternal-infant bonding, which maximizes breastfeeding

Hospital characteristics and obstetric training practices of critical access hospitals with and without obstetric services

	OVERALL (N=28)	PROVIDING OBSTETRIC SERVICES (N=14)	NOT PROVIDING OBSTETRIC SERVICES (N=14)
Hospital Characteristics	n (%) or mean (SD)	n (%) or mean (SD)	n (%) or mean (SD)
Number of hospital beds	20.0 (10.1)	22.8 (5.4)	17.3 (5.2)
Obstetric care provider types	2010 (10.17)	22.0 (5.1)	17.5 (5.2)
Obstetrician	8 (28.6%)	7 (50.0%)	1 (7.1%)
Family medicine	17 (60.7%)	14 (100%)	3 (21.4%)
Certified nurse midwife	6 (21.4%)	6 (42.9%)	0 (0.0%)
Emergency medicine	1 (3.6%)	0 (0.0%)	1 (7.1%)
No obstetric care providers	10 (35.7%)	0 (0.0%)	10 (71.4%)
If no obstetric care providers, primary provider type f			
Emergency medicine			7 (77.8%)
Family medicine			
			3 (33.3%)
Nurse practitioner Physician assistant			2 (22.2%)
,			3 (33.3%)
If no obstetric care providers, contract type for emerg	lent delivery provider (miss	ing n= 1)	4 (4 4 4 0 ()
Directly employed in system			4 (44.4%)
Contracted from locum firm			6 (66.7%)
Obstetric Training	<pre></pre>	10.0 (5.1)	1.0.(0.0)
Hours of facility training each provider completes per year for obstetric services (missing n=8)	6.4 (6.0)	10.0 (5.4)	1.9 (3.3)
Guidelines followed for obstetric training (missing n	=1)		
ACOG	22 (81.5%)	13 (100%)	9 (64.3%)
Other ¹	5 (18.5%)	0 (0.0%)	5 (35.7%)
Types of training provided			
Online	20 (71.4%)	11 (78.6%)	9 (64.3%)
Mock drills	15 (53.6%)	12 (85.7%)	3 (21.4%)
On-site	13 (46.4%)	10 (71.4%)	3 (21.4%)
Off-site	14 (50.0%)	7 (50.0%)	7 (50.0%)
Types of off-site training			
ALSO	6 (42.9%)	5 (71.4%)	1 (14.3%)
NALS	3 (21.4%)	1 (14.3%)	2 (28.6%)
CALS	11 (78.6%)	4 (57.1%)	7 (100%)
Other ²	3 (21.4%)	3 (42.9%)	0 (0.0%)
Provider types that receive obstetric training	5 (211176)	5 (12.576)	0 (0.070)
Medical doctor/doctor of osteopathy	25 (89.3%)	14 (100%)	11 (78.6%)
Certified nurse practitioner	12 (42.9%)	4 (28.6%)	8 (57.1%)
Physician's assistant	13 (46.4%)	4 (28.6%)	9 (64.3%)
Certified nurse midwife	6 (21.4%)	6 (42.9%)	0 (0.0%)
Other ³	3 (10.7%)	0 (0.0%)	3 (21.4%)
Do nurses receive training for the care of a newborn t			5 (21.470)
	5 ,	5	0 (61 50/)
Yes No	22 (81.5%)	14 (100%)	8 (61.5%)
	5 (18.5%)	0 (0.0%)	5 (38.5%)
If yes, types of training nurses receive (n=22)	10 (45 504)	E (2E 704)	
NALS	10 (45.5%)	5 (35.7%)	5 (65.5%)
Ear screening	8 (36.4%)	8 (57.1%)	0 (0.0%)
Maternal education	12 (54.6%)	10 (71.4%)	2 (25.0%)

Note: ¹Other guidelines include in-house training, in-house orientation to processes and equipment, none, and unsure; ²Other off-site training include NRP, S.T.A.B.L.E. program, and obstetric conferences; ³Other staff trained includes: registered nurses, nursing staff; ⁴Other nurses training includes: NRP, S.T.A.B.L.E. program, PALS training, mock drills, postpartum hemorrhage, care of newborn and prepare for transfer, and precipitous deliveries. ACOG = American College of Obstetricians and Gynecologists; ALSO = Advanced Life Support in Obstetrics; CALS = Comprehensive Advanced Life Support; NALS = Neonatal Advanced Life Support; NRP = Neonatal Resuscitation Program; PALS = Preeclampsia and Low Sodium.

and contributes to improved outcomes for babies and mothers. Supportive education before discharge is also linked to better outcomes for families; but low-resource hospitals have a harder time providing robust education programs.

RESEARCH

We—the author and a group of University of Minnesota Medical School Duluth students and collaborators—wanted to look at current delivery care practices in CAHs in Minnesota and to describe the care for mothers and infants after an emergent delivery occurs at a site without an active program for obstetrical care.

Our questions were directed at patient impact, including the length of stay postdelivery and travel time to higher-level care when required. We surveyed for the types of providers available—and the obstetric training of those providers, which we feel reflects on the hospitals' prioritization and potential cost-burden of obstetric care.

Participating hospitals and procedures

Data were collected between July and October 2020. At that time, there were 77 CAHs in Minnesota. We contacted either the director of nursing or the administrative lead for 60 of those and emailed them an electronic REDCap survey. Responses were received from 28 of them. Figure 1 shows the location of participating and non-participating CAHs.

Electronic survey items included demographics for the hospital and individual completing the survey (e.g., job title, number of hospital beds, obstetric care provider types), whether the hospital provides planned labor and delivery services, types of obstetric training provided and guidelines for obstetric training. For hospitals not providing planned deliveries, additional questions were asked about procedures for unplanned deliveries.

Given the small sample size and exploratory nature of this study, inferential statistics were not conducted. Rather, potentially meaningful differences were considered in the interpretation of the findings.

Results

Half of the participating CAHs provided labor and delivery services. Most CAHs without labor and delivery services reported that they stopped providing such care prior to 2014, with five reporting that they stopped such care between 2014 and 2019 and one reporting that it never provided such care. Only five of the CAHs currently partner with community entities to support obstetric and post-delivery services. All hospitals except one reported that the nearest hospital providing planned labor and delivery services is more than 20 miles away. Emergent deliveries were rare; the highest number at a CAH was four in 2019.

Table 1 shows additional hospital characteristics. Family medicine physicians provided obstetric care at all of the CAHs with labor and delivery services. Only half of these had obstetricians available to support specialty-level obstetric care, with even fewer employing certified nurse midwives for deliveries.

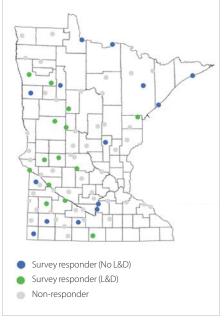
For the 14 CAHs not providing labor and delivery services, most (10) had no providers available to administer obstetricdelivery care. These CAHs were further asked about emergency delivery services. Of the nine responses received, seven indicated that emergency deliveries were overseen by emergency medicine physicians. The remaining CAHs reported that emergency deliveries were handled by family medicine physicians (three) and/ or physician's assistants (three), with two sites relying on nurse practitioners. Six of the emergency delivery providers were contracted from locum firms, with the remaining four directly employed in the CAH system.

Only one CAH without labor and delivery services reported allowing mothers to stay at the hospital after delivery. The remaining 13 reported that they transfer mothers following delivery; the majority within four hours of delivery, with the distance to the transferring facility being 30 minutes or more for most of them (Table 2).

FIGURE 1

Critical access hospitals, survey response, and planned labor and delivery status.

(Note: L&D = labor and delivery)



Obstetric training practices

CAHs with planned labor and delivery services reported providing an average of 10 hours of obstetric training for their providers each year, compared to just under two hours at CAHs not providing planned labor and delivery. All CAHs with labor and delivery services used training guidelines from the American College of Obstetricians and Gynecologists (ACOG) and at least half of these hospitals included online training, mock-drills and on- and off-site training. For CAHs not providing planned labor and delivery services, nine reported following ACOG training guidelines and the majority provided training online and/or off-site. The majority of CAHs, regardless of labor and delivery services, reported that physicians were the primary provider types who received obstetric care training. All of the 14 CAHs with labor and delivery services reported that nurses receive obstetric training, which was true for only eight of the 14 CAHs without labor and delivery services.

Discussion

The results of this study raise concerns about the care provided during the postdelivery time, adding to other discussions surrounding the ongoing loss of planned obstetric services in rural areas. This sensitive time impacts both mother and child as well as the facilities where emergent deliveries occur, compounding training budget issues and workforce shortages.

Deliveries happening at rural hospitals that do not have a program for obstetrical deliveries most commonly result in an emergent transfer of mother and infant post-delivery, often within hours of giving birth. Our findings show a preference to transfer emergent-delivery patients to a higher-level hospital with an active obstetric program as soon as possible; the majority (61 percent) transfer patients in less than two hours after giving birth; another 23 percent transfer patients between two and four hours after birth. with the majority of sites (61 percent) staying less than two hours and another 23 percent staying between two and four hours. This timeframe is a vulnerable period for both mother and infant, counter to optimal post-delivery care recommendations.

We found that CAHs without active delivery programs most often had emergency room physicians managing emergent deliveries, three-quarters of whom came from locum tenens firms. Emergency room physicians often are uncomfortable with obstetrical-delivery procedures. This introduces a potential for variable training and provider comfort in providing obstetric care. The implications for hospital staff anxiety as well as proficiency in providing delivery care is important for healthcare systems to be aware of for multiple reasons. Anxiety is a factor in provider burnout and patient stress. Patients should have a full understanding of the services provided as they make choices in their healthcare. It is important for community sustainability to have services available that can support the health needs of young families.

It can be expensive to maintain an active delivery program and to a greater degree in rural versus urban centers. Costs include both facility and professional costs

RESEARCH

TABLE 2

Post-emergent delivery care procedures for critical access hospitals that do not provide obstetric services (n=14)

	N (%)		
Does the mother stay at hospital after emergent delivery?			
Yes	1 (7.14%)		
No	13 (92.9%)		
How long are stable mothers kept post-delivery? (missing $n=1$)			
0-2 hours	8 (61.5%)		
2-4 hours	3 (23.1%)		
Other ¹	2 (15.4%)		
If transfer is needed, average transfer time			
<30 minutes	2 (14.3%)		
30-60 minutes	10 (71.4%)		
>60 minutes	2 (14.3%)		

Note: 10ther text includes: 24-48 hours, transferred out.

for maternal and infant care. We found that ongoing training occurred in both planned delivery and emergency delivery sites. Not surprisingly, CAHs with planned deliveries had a higher percentage of providers completing training and there were more on-site simulated practice opportunities. Despite having no program in place for planned deliveries, many sites could be expected to prepare for emergent deliveries. However, this increases costs for hospitals trying to maintain skills where low emergent delivery numbers would be reflected in low cost-reimbursement. As such, there is a need to identify affordable programs and strategies to maintain provider preparedness for emergent deliveries while minimizing the cost burden to hospital systems with low delivery rates. While the numbers of our study are low, the finances involved in skill maintenance are worth exploring for system stability.

This study is unique in that it provides an initial step in the unexplored area regarding maternal and neonatal care options following delivery in hospitals that do not have programs for planned obstetrical services. While a strength of this study includes a reasonable rate of return on the surveys at 46 percent, a limitation is the overall low number of facilities surveyed and only in Minnesota. There were only 14 respondents from CAHs that had emergency-only obstetric services available. In addition, our respondents were in a variety of administrative positions, and it is possible that not all respondents were fully aware of department-level policies in place to address emergency obstetric deliveries.

We didn't measure outcomes for the mother and child, but best practices clearly support having maternal/infant bonding time allowed to enhance breastfeeding and frequent patient evaluation to monitor for postpartum hemodynamic instability and fetal stress. Future studies should take a more comprehensive look at all hospitals in rural areas that have planned- and/or emergent-deliveries and explore maternal outcomes and families' perceived experiences.

Understanding the experience of providers managing unplanned deliveries is important and could be linked to provider wellness and sustainability in practice, financial costs to already low-resource systems and perceptions of community members to availability of care within their communities. We looked at types of training providers receive, but further exploration of this area could lead to coordinated resources for training modalities across systems by utilizing telehealth options and addressing other financial strains that hospitals face. Maternal, family-related and community experiences are other areas for further exploration. Few studies have explored the patient experience in low-resource rural communities after the loss of active delivery services. Adding a survey to better understand patient experience and outcomes with post-delivery transfer of mother and infant is essential in seeing the full impact to the families and communities involved.

We hope this introductory look at the non-planned delivery experience for rural patients and healthcare systems can spur further queries on this topic. We believe that further information regarding the continuum of care for babies, mothers and families in low-resource areas is fundamental to providing optimal healthcare options for rural communities and can inform hospital systems and policy makers, allowing for future planning for the provision of best practices in healthcare for all communities. MM

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SPLIT DECISIONS Divided Legislature will make 2022 a challenge for MMA and its priorities

When the 2022 legislative session kicks off on January 31, the MMA will be lobbying lawmakers on a familiar topic insurers' interferences with patient care. The association has been battling administrative burdens in one form or another for several years and that work will continue.

Given the split Legislature, odds are slim that the following issues will gain much traction, but they remain important to the MMA and its members:

- Promoting childhood and COVID-19 vaccinations to increase
- · Supporting efforts to reduce firearm deaths and injuries through support of universal criminal background checks for all sales, passage of the "red flag law" that allows law enforcement to temporarily remove firearms from persons who are a danger to themselves or others and support for expanded research of causes of firearm-related deaths and injuries.

Virtual Day at the Capitol is March 1

With House leadership's decision to meet virtually during the session, the MMA has decided that its annual Day at the Capitol will be held via Zoom again.

The event will be held online from noon to 1 p.m. on March 1; the MMA will work with members to arrange for online meetings with their representative and senator later that day.

"We were hoping to be able to hold the event at the Capitol but, with one body of the Legislature meeting virtually, we realized that wouldn't make sense," says MMA President Randy Rice, MD. "It's hard to match the visual of the Capitol filled with our white coats but we understand the decision."

"While it's not preferred, we will still be able to educate members online about our top priorities and provide them with tips on how to interact with their elected officials," says Renner. "Now, more than ever, physicians need to be meeting with representatives and senators to continue advocating for the practice of medicine and patients, whether it's online or in-person." MM

Specifically, the MMA will advocate to protect patient access to needed prescription drugs by limiting insurers' ability to force a patient to change drugs in the middle of a contract year. The MMA is also actively working with stakeholders to ensure previously passed prior authorization legislation is being adequately enforced by state agencies.

In November, the MMA board met to discuss and approve the MMA's legislative priorities for the session, a session that will have its share of challenges.

"This is an election year for all 201 legislators and the governor, so that will add a layer of complexity to our work," says Dave Renner, MMA's director of advocacy. "Also, the House, which is led by the DFL, plans to meet virtually during the session and the Senate, which is led by the Republicans, will meet in person. We anticipate a challenging few months at the Capitol."

Along with maintaining drug coverage, the MMA will focus on:

- Improving patient safety by protecting from discovery discussions that are held between physicians and patients following a patient adverse event. The MMA endorses the Communication and Optimal Resolution (CANDOR) model, which is designed to include patients and family members in timely and honest information following an adverse event, supporting caregivers and working to improve patient safety.
- Authorizing a feasibility study to establish a statewide registry for Provider Order for Life-Sustaining Treatment (POLST) to ensure EMS and emergency departments have access to POLST orders patients may have.





News Briefs

Minnesota Supreme Court hears medical malpractice case

In late November, the Minnesota Supreme Court heard oral arguments in the case of *Smits v. Park Nicollet*, which the MMA fears could place a significant burden on providers regarding warning third parties of a patient's unforeseeable violent behavior.

In the case, a patient was being seen for mental health services on an outpatient basis at Park Nicollet when he murdered his family and then committed suicide. The patient's next-of-kin sued Park Nicollet and HealthPartners, claiming that the patient's violent acts were foreseeable and more should have been done to prevent the acts, even though there was no history of prior violence and no threats of violence.

The Court of Appeals ruled that Park Nicollet physicians could have foreseen the violent acts because they prescribed the patient a medication that had a black box warning label for violence and aggression. This ruling, if it stands, places further burdens on providers to warn third parties of a patient's unforeseeable violent acts.

MMA, in partnership with the Minnesota Hospital Association, participated in the case as amicus curiae, or friend of the court, by submitting a brief explaining how this drastic expansion of liability would negatively impact the mental health system in Minnesota.

Stay tuned to *MMA News Now* for further details and a decision by the Minnesota Supreme Court.



State adds edibles to medical cannabis program, denies anxiety as disorder

The Minnesota Department of Health (MDH) announced in early December that it will approve infused edibles in the form of gummies and chews as a new medical cannabis delivery method in the state's medical cannabis program, effective August 1, 2022.

A rulemaking process that will outline requirements for labeling, safety messaging, packaging and testing will launch this month. Current permitted delivery forms include pills, vapor oil, liquids, topicals, powdered mixtures and orally dissolvable products, like lozenges. In March 2022, registered medical cannabis patients will also be eligible for dried raw, smokable cannabis, which was approved by the 2021 Minnesota Legislature. Rulemaking for dried raw cannabis is currently in process.

No new conditions were added this year. As in past years, MDH conducted a formal petition and comment process to solicit public input on potential qualifying medical conditions and delivery methods for medicine.

Since 2016, petitioners have requested anxiety disorder or panic disorder as a qualifying medical condition. Each year it has been denied due to lack of clinical evidence and the desire to avoid any unintended consequences.

This year, at the request of Health Commissioner Jan Malcolm, the MDH Office of Medical Cannabis conducted an in-depth review, which included a research review of anxiety disorder as a qualifying medical condition. The addition was not approved due to a lack of scientific evidence to support effectiveness, as well as concerns expressed by healthcare practitioners.

"We received many comments from healthcare practitioners treating patients with anxiety disorder, and they urged us to not approve it as a qualifying medical condition," Malcolm said. "We recognize that not everyone has equal access to therapy—which is considered the front-line treatment—but ultimately we concluded that the risk of additional harms to patients outweighed perceived benefits."

MMA urges Minnesotans again to get vaccinated, take precautions

Just before Thanksgiving, the MMA once again urged Minnesotans to get vaccinated, get a booster shot when available and continue masking up and keeping socially distant.

"We know that Minnesotans are tired of hearing this, but everyone has to do their part to slow the spread of this virus," said MMA President Randy Rice, MD, in a press release distributed statewide. "The best way to fight this is for more people to get vaccinated. Healthcare workers will continue to do their jobs, but we are struggling, and we need help. If you haven't gotten vaccinated yet, please do so, and then mask up and stay socially distant."

Hospitals across Minnesota are nearing capacity and, with the colder weather here and people planning to get together in large groups during the holidays, it's shaping up to be a difficult season for healthcare workers.

AMA focuses on pandemic and battling disinformation at November meeting

Navigating the ongoing COVID-19 pandemic and battling disinformation were at the top of the agenda at the AMA's House of Delegates (HOD) online meeting in November.

The HOD meeting included discussion of how vaccine mandates have impacted the healthcare workforce and the negative

THE PHYSICIAN ADVOCATE MMA NEWS

effects of COVID-19 disinformation campaigns. The HOD took action to direct the AMA to work with relevant professional societies to combat public health disinformation that undermines public health initiatives disseminated by health professionals.

The HOD approved recommendations from the Council on Science and Public Health to develop an organization-wide strategy to strengthen public health infrastructures. It also supported legal authority of health officials to enact reasonable, evidencebased public health measures, including mandates, when necessary to protect the public. Plus, it advocated for consistent, sustainable funding to support public health infrastructures.

The HOD adopted a strong position in support of Medicaid coverage for 12 months postpartum for all pregnant and postpartum women, regardless of their citizenship status.

"While meeting virtually is less than ideal, your Minnesota delegation worked hard to represent Minnesota's physicians," said Cindy Firkins Smith, MD, chair of the Minnesota delegation. "We were glad to see the AMA take strong action to support public health and expanding access to care."

Laurel Ries, MD, an alternate delegate, served on the AMA Committee on Rules and Credentials, and Ashok Patel, MD, another alternate delegate, served on Reference Committee G, which dealt with medical practice issues. MMA past president, Peter Amadio, MD, representing the American Association of Hand Surgeons, chaired Reference Committee A, which dealt with medical service issues.

Along with Smith, Ries and Patel, the Minnesota delegation included: David Estrin, MD, vice chair; Andrea Hillerud, MD; Dennis O'Hare, MD; David Thorson, MD; MMA president Randy Rice, MD; Lisa Mattson, MD; Dan Pfeifle, MD, (Resident-Fellow Section); and Adrine Kocharian (Medical Student Section).

Report shows COVID-19's effect on cost and utilization of services in 2020

In mid-November, MN Community Measurement (MNCM) released its annual health care cost report that offers a first glance at understanding the COVID-19 pandemic's impact on cost and utilization of services.

The Health Care Cost & Utilization in 2020 report highlights overall cost trends in 2020 for Minnesotans with private health insurance coverage. Using data for more than 1.3 million people with a total of \$9.1 billion in healthcare spending, the report compares results for 108 medical groups.

Statewide, the total cost of care (TCOC) for people with private insurance fell by 2.5 percent per person in 2020, after increasing by an average of 5.0 percent per year for the previous five years.

"Given the many disruptions to health care in 2020, it's not surprising to see that costs fell," says Julie Sonier, MNCM president and CEO. "However, we don't yet know about the implications of the care that was forgone in 2020 for future health outcomes and healthcare costs. This story is still unfolding, and it will take at least a few years to understand the long-term implications."



IOIN THE MMA Advocacy Action Team

Advocacy Action Team returns in new format for MMA members

The MMA's Advocacy Action Team (AAT) has returned in a new format, but is still focused on bringing members together to engage on policy-related issues and to advocate on behalf of medicine.

With the new AAT format, members can gain important skills, tools and resources to help them become effective advocates, and also engage in advocacy conversations on important policy issues. There is now just one team with three channels:

- Advocacy 101.
- Firearm Death and Injury Prevention.
- Vaccines.

More information about the Advocacy Action Team, including descriptions of each channel and how to sign up to become a member, can be found at www.mnmed.org/advocacy/MMA-Advocacy-Toolkit/Advocacy-Action-Teams.

MMA board supports transparency in adverse events

The MMA Board of Trustees voted at its November meeting to advance patient safety and timely and transparent resolution of adverse events by facilitating adoption of a model, known as CANDOR, by Minnesota physicians and other healthcare providers.

The board supports pursuing legislation that would protect physician/patient discussions from legal discovery in the aftermath of an adverse event. The board also supports continuing to promote and educate physicians and medical practices about the benefits of the CANDOR process.

CANDOR (Communication and Optimal Resolution) is a process used by healthcare facilities and healthcare professionals to respond to and resolve adverse events. The process involves immediate disclosure of an adverse event to a patient and/or their family and includes the patient throughout the entire investigation and resolution of the event. The CANDOR process has been shown to improve patient safety, better support the healthcare team members involved in the event and decrease malpractice claims.

CANDOR legislation has passed in Colorado and Iowa. MM



FROM THE CEO

MMA's legislative agenda for 2022

The 2022 legislative session, which begins January 31, is sure to be a doozy. Among the many variables at play are the strong political divide, the ongoing pandemic response, the shadow of 2022 elections (all 201 Minnesota legislative seats will are up for election, as is the governorship), legislative redistricting, a semi-virtual format (Senate in person and House remotely) and a staggering \$7.7 billion state budget surplus that is sure to spur many competing demands and fierce debates.

Health and healthcare, of course, are always important topics at the Capitol, as there is no shortage of stakeholder interests, gaps to fill and improvements to be made. The MMA similarly has a long list of member ideas for legislative advocacy, as well as a robust set of leadership-defined strategic goals. Yet, priorities must be set. With critical guidance from our expert legislative team on political feasibility, MMA leadership annually determines MMA's legislative agenda. That agenda is a subset of our broader advocacy priorities and consistent with our strategic plan and organization mission to make Minnesota the healthiest state and place to practice medicine. The perennial wild card is the need to adapt, respond and react to the priorities set by the governor, individual legislators and other interest groups.

With the legislative team planning to be engaged on countless legislative proposals affecting medicine and patient health, the following MMA legislative priorities are at the top of our list for 2022:

Protect patient access to needed medications

The administrative demands physicians face are significant and the seemingly constant changes in your patients' covered and preferred medications is one critical factor. Many patients select their insurance plan based on whether their needed medications are covered. Yet, nothing prevents insurers from changing their preferred drug list during the patient's enrollment or contract year. Insurance companies and pharmacy benefit managers (PBMs) claim such changes are made to reduce costs, but the financial benefit to patients is often illusory and can lead to complications and gaps in treatment. Meanwhile, physician practices bear additional costs to change prescriptions or try to get authorization for non-formulary medications. The MMA will again pursue legislation to limit changes to formularies so that patients with ongoing medication needs are not forced to change medications until the end of their insurance plan's contract year.

Improve patient safety with candid disclosure following adverse events

Minnesota has been a leader in improving patient safety with the first-ever adverse events reporting system, broad adoption of Just Culture policies and practices and extensive collaboration on patient safety prevention efforts. Despite this hard work and commitment, medical errors continue to occur, with approximately 10 percent of patients harmed while receiving care (Agency for Healthcare Research & Quality). Too often, patients report that they experience a "deny and defend" response from individuals and organizations following an adverse event, often because of liability fears. CANDOR, which stands for Communication and Optimal Resolution, is a voluntary process by which organizations can improve their response to patient harm by providing immediate, candid, empathic communication and timely resolution for patients, caregivers, and the organization. The MMA will pursue legislation to facilitate adoption of the CANDOR

model by protecting the communications, offers of compensation and other materials that are used in a CANDOR conversation from being admissible as evidence in a lawsuit.

Improve patient and clinician access to patients' POLST/end-of-life preferences

A Provider Orders for Life-Sustaining Treatment (POLST) form is a signed medical order that documents a patient's treatment preferences near the end of life. The MMA has worked to improve clinician and patient adoption of POLST, but it remains largely a paper-based form. As a result, compliance with POLST orders can be difficult in situations where the form is not readily accessible to emergency responders and other treating clinicians. The MMA will pursue legislation to study the feasibility of establishing and maintaining a statewide POLST registry to improve access to POLST orders.

Aggressively defend and promote vaccinations

As evidenced by actions taken in many other states, the political and public backlash to COVID-19 vaccines has the potential to spur legislation here that could limit COVID-19 vaccine requirements and/or erode Minnesota's existing school and childcare vaccination laws. The MMA will vigorously oppose efforts that seek to limit COVID-19 vaccination requirements or that seek to weaken current vaccination laws. The MMA will continue to support efforts to remove the "conscientiously held belief" exemption in current law and support efforts to increase overall vaccination rates.

Reduce firearm death and injury prevention

Injuries and deaths from firearms remain an alarming public health crisis. Minnesota experienced 465 firearm deaths in 2017, with approximately 80 percent of deaths due to suicide (MDH). The MMA will continue to support passage of laws to provide for universal criminal background checks, "red flag" laws and expanded research on firearm deaths and injuries.

Ultimately, the MMA needs your help to succeed. Although your membership support is critical, please plan to participate in our annual Day at the Capitol, scheduled for March 1. This event is the easiest way for you to meet your legislators, and raise your voice to make a difference in your practice and community. MM

and A Streamer

Senet Silversmith JSilversmith@mnmed.org

We soldier on ...

Colleagues! Welcome to 2022. Here's hoping we witness more of a return to normalcy this year than what we experienced in 2021. If you're like me, you thought it couldn't get worse than 2020 and then it did and then some. At times, we felt helpless as preventive measures against COVID-19 had different meaning to different people. We may yet see a lingering of the pandemic despite our best preparations and efforts to manage it.

I need not remind all of us that we've been through the ringer the past two years and counting:

- We've faced a coronavirus that defied description at first and we did it without sufficient PPE.
- Some of us had to shut down our clinics and wondered if they'd survive financially once they reopened.
- We pivoted to seeing nearly all of our patients via teleconferencing and we advocated so that we got paid properly for this type of care delivery.
- We had to deal with wave after wave of viral outbreaks.
- We may have expected our patients to know better and be vaccinated, yet, for those who are not, we have continually been present to meet their needs which are sometimes daunting. Nonetheless, we soldiered on.

When vaccines were approved, we acted as guinea pigs, in a sense, but gladly rolled up our sleeves for those first shots because we believed in the science. Then we cheered as the vaccines were rolled out to the rest of the public and we saw patients eagerly line up to get vaccinated. There was light at the end of the tunnel. We were told—and believed—that by the Fourth of July, life would gain that sense of normalcy we so craved. But we didn't reach herd immunity; too many of our fellow citizens refused to get the shot and soon the Delta variant began ravaging the United States and the world. In particular, the last quarter of 2021 saw Minnesota cases rise higher than in the rest of the country, placing undue stress on a healthcare delivery system already stretched to capacity

Still, we soldiered on.

When the fight against the pandemic begun, our fellow citizens applauded us. Physicians coming off shifts in New York City were serenaded by their fellow New Yorkers. Now, we are questioned. The disinformation campaigns have made an already difficult task that much more challenging. Patients we've known and cared for for years are now questioning our expertise. We have the tools to defeat this pandemic before us, yet so many of our fellow citizens refuse to use them—at great peril. We wonder, when will the suffering stop?

And yet, we soldier on.

According to a *JAMA* survey published in July 2020, led by two of our MMA colleagues—Liselotte Dyrbye, MD, and Colin West, MD, along with Christine Sinsky, MD—physicians exhibit higher levels of resilience than the general working population. This shouldn't surprise us. Despite setbacks, physicians bounce back.

What drives us? Why do we persevere? Because we know that what we do makes a difference. What we do saves lives. We became physicians to help others. For most of us, that sense of purpose remains and continues to fuel us.

On behalf of the thousands of physicians across the great state on Minnesota, a personal thank you from all of us who serve you at the MMA, advocating that our patients access safe and exceptional care as well as supporting physicians as we sustain our quest to make Minnesota the healthiest state in the nation. You are true heroes to the citizens of Minnesota, finding the strength every day to persevere and endure in spite of overwhelming obstacles.

Let's soldier on. Together. MM



Edwin Bogonko, MD, MBA MMA Board Chair

Patients we've known and cared for for years are now questioning our expertise. We have the tools to defeat this pandemic before us, yet so many of our fellow citizens refuse to use them—at great peril.

RESEARCH



Clinical outcomes of sepsis by race at M Health Fairview University of Minnesota Medical Center

Black patients present at a younger age, with more comorbidities

BY CAMERON MEYER-MUELLER, BA; DARLISHA A WILLIAMS, MPH; MICHAEL WESTERHAUS, MD; AND RADHA RAJASINGHAM, MD

Sepsis is a life-threatening condition due to a dysregulated inflammatory response, leading to organ dysfunction. Sepsis is associated with 25 to 30 percent mortality, and the Centers for Disease Control (CDC) estimates that one of every three Americans who dies in a hospital has sepsis. Sepsis disproportionately affects Black Americans and is a top-10 leading cause of death for Black people.

The CDC reports a higher percentage of sepsis mortality in the Black population compared to the White population in America,

Patient Demographics by Race

	WHITE (N=568)	BLACK (N=90)	P VALUE
Median Age (IQR) -year	61 (50 to 72)	50 (32 to 61)	0.002
Female —number (%)	274 (48%)	44 (49%)	0.909
Non-English Speaker -number (%)	3 (0.5%)	19 (21%)	< 0.0001
Medicaid -number (%)	83 (14.6%)	40 (44%)	< 0.0001
Medicare of those age >65 -number (%)	210 (37.0%)	19 (21%)	0.003
Median Expected Mortality (IQR)	0.051 (0.020 to 0.159)	0.0253 (0.012 to (0.066)	0.023

but there are inconsistent findings when measuring sepsis mortality by race. A 2007 study using data from the New Jersey State Inpatient Database found that Black patients had more than double the mortality rate compared to White patients (208.6 deaths per 100,000 population vs. 99.6 deaths per 100,000 population). However, a 2019 meta-analysis using six previously published cohorts, largely drawing from national surveys and databases including the National Institutes of Health (NIH), found no significant relationship between race and sepsis mortality.

Our study expands on past research on racial disparities in sepsis by examining the rates of sepsis mortality by race at the M Health Fairview University of Minnesota Medical Center.

Methods

We performed a retrospective cohort study of inpatients with a diagnosis of sepsis at M Health Fairview University of Minnesota Medical Center, an 874-bed, academic, tertiary referral center. Our hospital routinely collects de-identified sepsis data for quality assurance purposes. Using this database, we reviewed all sepsis diagnoses in adults between January 1, 2020 and June 30, 2020. The database included demographic information including age, sex, race, insurance status, primary language, expected and observed mortality score, discharge status (discharged to a facility, home or deceased), treatment information and in-hospital mortality. Length of hospital stay, admission to ICU and length of ICU stay were also recorded.

Self-reported race was collected during admission or, if the patient was incapacitated, later by the nursing staff. Self-reported race was categorized as African American, White, American Indian or Alaska Native, Asian, African, Hispanic or Latino, Hawaiian or other Pacific Islander, "some other race" and "two or more races." Patients who chose not to answer were excluded from the primary analysis, but included in a sensitivity analysis. As some African immigrants defined themselves as African American, while others considered themselves African, both groups were pooled under "Black." The primary outcome was mortality at hospital discharge. Institutional review board approval was obtained through the University of Minnesota.

The expected mortality scores are derived from mortality model groups where logistic regression computes expected mortality based on many factors including age, sex, malignancy, cardiovascular comorbidities, and status on admission. The expected mortality score is the standardized value used for hospital quality-improvement metrics. Observed mortality score is the actual mortality rate of each mortality model group. The Observed/Expected (O/E) ratio was computed to compare the mortality rate across patient populations. An O/E ratio of greater than one indicated a mortality rate higher than expected, while an O/E ratio less than one indicated a mortality rate lower than expected.

Results

There were 780 cases of sepsis identified at M Health Fairview University of Minnesota Medical Center between January 1 and June 30, 2020. Of those 780 sepsis cases, 568 or 73 identified as

RESEARCH

White, 90 or 12 percent identified as Black and 85 or 11 percent identified as another race (not Black, not White) (Figure 1). Thirty-seven patients either chose not to answer or were missing responses and were excluded from further analyses.

The median age for Black patients was 50 years, compared to 61 for White patients. Black patients were more likely to be on Medicaid—44 percent—than White patients, 15 percent; were more likely to be non-English-speaking, and more likely to have comorbidities at baseline. (Table 1). White patients were more likely to be admitted to the ICU (41 percent) during their hospital stay compared to Black patients (28 percent), however there were no statistical differences in length of hospital stay or length of ICU stay between groups (Table 2).

TABLE 2

Hospital Outcomes by Race

	WHITE (N=568)	BLACK (N=90)	P VALUE
Median Length of Stay (IQR) —days	7 (4 to 15)	5 (3 to 13)	0.659
In-Hospital Deaths -number (%)	107 (19%)	8 (9%)	0.024
ICU Admission -number (%)	230 (40%)	25 (28%)	0.021
ICU Median LOS (IQR) —days	3.5 (2 to 9)	4 (2 to 12)	0.858
Left AMA -number (%)	7 (1%)	4 (4%)	0.003
Median O/E ratio (IQR)	1.37 (0.50 to 3.60)	3.20 (1.22 to 5.83)	<0.001

Unadjusted survival at hospital discharge was 81 percent for Whites and 91 percent for Blacks. Unadjusted O/E ratio was higher in Blacks vs. Whites (3.20 vs. 1.37), meaning Blacks had higher observed mortality compared to what was expected based on their age and comorbidities. However, in a logistic regression analysis, after controlling for language, race, primary payer and expected mortality, race was not associated with in-hospital survival; Black patients had 1.46 increased odds of death compared to White patients (Table 2). Expected mortality was a significant predictor of mortality in our model.

In a sensitivity analysis, where expected mortality was not included in the logistic regression model, there was still no statistically significant difference in in-hospital mortality by race. In an additional sensitivity analysis, including those 37 patients with missing or unreported race data in the Black category, results did not change significantly.

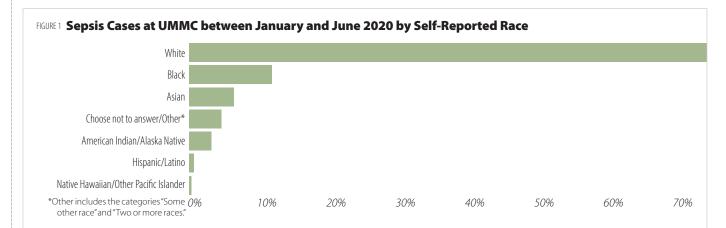
Discussion

After controlling for expected mortality (including age, sex and baseline comorbidities), language, race and primary payer, we found that race was not associated with survival. However, Black patients presenting with sepsis were younger and had more comorbidities at baseline than White patients. Systemic racism and disparities upstream of hospitalization likely contribute to these findings.

Systemic racism creates chronic stress, segregated neighborhoods and differential access to care, increasing the onset of chronic disease at a younger age among Black populations. The chronic stress of institutional and interpersonal racism raises allostatic load and the propensity for diabetes, hypertension and kidney disease. Discriminatory housing policies and practices, including red-lining and predatory lending, are responsible for residential segregation and neighborhood disinvestment, leaving Black communities with limited access to healthcare facilities. Worsened employment opportunities for Black Americans creates disproportionate reliance upon Medicaid, which contributes to delays in getting needed medical care.

Our findings are consistent with previous retrospective studies on sepsis disparities, which have found that Black patients present with sepsis at an earlier age than White patients and are more likely to use Medicaid. A 2019 meta-analysis on sepsis-related mortality found no significant relationship between mortality and patient race, which is also consistent with our findings. It is possible that an inconsistent relationship of sepsis-related mortality and race could be explained by the differing hospital demographics and socioeconomic status of patients' served.

A limitation of this study is its retrospective nature, which can introduce bias and confounding. This study used self-reported race to categorize patients, but we took the additional step of combining the two categories, "African" and "African American," into one group "Black," as African immigrants identified with either group. This could have introduced a misclassification bias. An African immigrant and an American-born Black person may have very different comorbidities and risk factors for sepsis, although they are all classified as "Black." Another limitation was the small number of



patients of races other than Black and White, which did not allow for statistical comparison of their health outcomes. Furthermore, the method in which race information was collected required the admitting department or nursing staff to ask the patient their racial identity. This could be uncomfortable and low-priority for a provider treating a septic patient, with a potentially life-threatening condition. This study was also constrained by the patient information included in the sepsis database, which was lacking socioeconomic details including income, education and ZIP code; these may be more salient factors in sepsis disparities than race. For example: we found White patients were more likely to be admitted to the ICU compared to Black patients, but we did not have sufficient data to further understand the reason for this disparity.

As our study found that Black patients treated for sepsis were significantly younger than White patients with more baseline comorbidities, future studies could further quantify the incidence and severity of comorbidities by race in our catchment area and pursue efforts to reduce such disparities in the outpatient setting. MM

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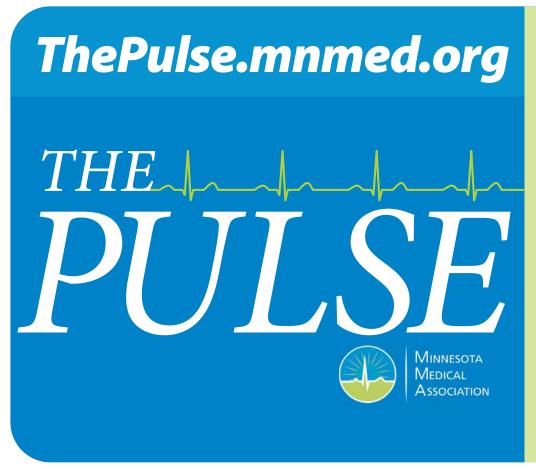
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THE PULSE will help MMA members:

- Submit policy proposals
- Comment on proposals
- Indicate support or opposition to them and
- Provide feedback on final actions taken by the MMA Board of Trustees.

COMMENTARY | POINT OF VIEW

We need to do more than 'trust the science'

BY ALEXANDER JACOBS

For the second year in a row, Minnesotans closed out the calendar while experiencing a devasting surge in COVID cases. The cyclical nature of contagion, cold weather forcing us indoors and waning post-vaccination immunity likely all play a part. The largest contributor to community spread, however, continues to be the segment of Minnesotans who remain unvaccinated. As a medical student, I've heard many of my peers and teachers wishing for nothing more this New Year than for unvaccinated Minnesotans to "trust the science."

Science enables so many of the comforts of modern life: antibiotics, wireless networks, aviation, vaccines. By demanding evidence, reproducibility and falsifiability, science liberates us from the cognitive constraints to which we are often prone. Science deepens our understanding and experience of the world.

So, what's not to trust? And why do so many Minnesotans continue to resist vaccination? During a pandemic, the motto "trust the science" seems at first glance unobjectionable. Indeed, when it comes to COVID-19 vaccines, study after study demonstrates their efficacy. What can we trust if not medical studies that reproduce similar findings again and again?

From the earliest stages of the pandemic, a significant number of citizens have pushed against government appeals at social distancing and immunization. They have diverse reasons for doing so, from pre-existing vaccine skepticism to fears of government overreach to distrust of the medical establishment stemming from its all-too-recent past as an agent of racist human experimentation. One response



from media, local government and the medical establishment to this vaccine resistance has been the exhortation to "trust the science." I think this is a mistake.

With vaccine proponents like me claiming the high ground of objectivity, we may fall for the trap of scientific complacency. While the scientific record illustrates the evidentiary baselessness of most vaccine skepticism, I believe a kernel of productive tension is generated by the ceaseless opposition of the so-called "anti-vaxxers." In their continued questioning of scientific consensus, anti-vaxxers have required those among us who prize evidence to justify the confidence of our judgments.

How many of us in medicine consult the primary literature, rather than the news or social media, for analysis of vaccine efficacy? How many of us can say what "95 percent effective" actually means? I'm sure that many, perhaps most, providers have a solid grasp of these issues. But, in my experience, a concerning number of medical providers and students-and I count myself among them-continue to confuse concepts like absolute and relative risk reduction, to say nothing of the salient distinctions between the various COVID-19 vaccines currently available. This is not an abstract concern; if we lack mastery over the literature, we may find ourselves relying too much on a "trust me" attitude with vaccine-hesitant patients. In this case, "trust the science" smacks of old-fashioned medical paternalism, even sanctimony.

People know when they are being condescended to. Approaching public health with a "trust me" attitude only reinforces vaccine skeptics' sense that their opinions and autonomy are being disrespected. While I don't think it is terribly productive to engage skeptics who are militantly inoculated against scientific evidence—our energies are better deployed elsewhere surveys show many still-unvaccinated Americans remain open to immunization.

We owe these persuadable patients, neighbors, friends and relatives a more convincing explanation than "trust the science." Instead, we can engage their questions and fears, regardless of whether they appear warranted. We owe them guidance supported by all available evidence-get vaccinated!—tempered by the humility that we all hold beliefs and fears that appear irrational to others. Appeals to patients' ties to vulnerable members of their communities, such as elderly relatives, hold more sway, I suspect, than appeals to "trust the science"—especially when the history of science contains plenty of instances of untrustworthy behavior.

I imagine most practitioners intuitively persuade their patients this way. But I fear that repetition of the phrase "trust the science" in our public life—even with life-saving intent—may have the exact opposite effect of its aim. Invoking trust in science or medicine requires that the conditions for trust exist, yet in the United States in 2021, mutual trust is in short supply. In such an environment, when overcoming patients' distrust of medicine has life-and-death implications, we need to do better than hammer a refrain whose effect is to blunt its audience's receptiveness to evidence. MM

Alexander Jacobs is a second-year medical student, University of Minnesota Medical School.

PHYSICIANS AND CREATIVITY ARTS AND MEDICINE

Patterns in the Operating Room

BY JAMEE SCHOEPHOERSTER it's easy to groove into patterns to fall into a rhythm mechanical action strengthened with repetition habituated, over-rehearsed finger tracing previous paths imprinted, well-known instruments gliding along lines in sync with the metronome of the monitor

but, it's the interruption, the redirection of these patterns, a deviation from the familiar steps in strategy, resistance to the strength of the currenthabituated, over-rehearseda commitment to an alternative course of action, a novel plan that requires intentionality deliberate movement active engagement strengthening new patterns, not yet known reimagining.

doorways and hallways lined in a row creation within and into, a new, meaningful set of patterns and rhythms a whole new sense of what it means to exist, and what it means to make change. MM

Jamee Schoephoerster is a third-year medical student at the University of Minnesota Medical School.

ON CALL MEET MMA PHYSICIANS

BRYAN NETH, MD, PHD

- Fourth-year neurology resident, Mayo Clinic.
- MMA member since 2018.
- Born in Florida, grew up in Corfu, New York, outside Buffalo. Medical school and graduate school in neuroscience at Wake Forest University in North Carolina. After finishing neurology residency in 2022, will do a fellowship in neuro-oncology and behavioral neurology at Mayo, then plans to enter academic medicine, studying the overlap between cancer and neurodegenerative disorders.
- Wife, Nicole, and daughter, Vera, plus two dogs and two cats.

Became a physician because ...

My interest in medicine stemmed from my passion for science and love of learning. From sixth grade, I knew I wanted to be a physician, with my interest in neuroscience starting largely during high school. As physicians, we have a privileged role in our patient's lives, something I didn't appreciate until medical school and residency. We can make a profound impact by listening, showing empathy and caring for each other as humans.

Greatest challenge facing medicine today ...

I think the costs of healthcare are problematic today and, if not adequately addressed, will lead to significant concerns for the United States with our aging population. Part of this is due to the billing/payment structure at many healthcare practices, which have been based on a fee-for-service model; the vast array of insurance companies that cover costs differently; and complete lack of understanding by patients and even healthcare providers of the price of various diagnostic/therapeutic interventions. Sadly, all too often the costs of healthcare lead to financial turmoil, compounding the stress of medical illness. By focusing on (mostly chronic)

disease prevention and patient outcomes with a value-based care approach, costs could be better managed with improved long-term outcomes.

How I keep life balanced ...

It's a cliché, but you must separate work and life, physically and mentally. I've struggled with this over my years of training—like many of us—but having a daughter is the perfect excuse to change. I carve out family time and don't work in this period. I work from home at times (research mainly), but only when family is sleeping or away. I try to be in nature, engage in the arts (painting/writing), read and learn outside of medicine (history, philosophy, business) as much as possible. Finding a way to be more than your work is paramount.

If I weren't a physician ...

Probably a research scientist, maybe a National Park Ranger. While an undergraduate, I served on my university's conduct board, an experience that put me out of my element. Over three years, I gained a respect for this role and certainly thought a lot about law school and ultimately being a judge.

CAROLINE HAAKENSON, MD

- OB/GYN with OB/Gyn Specialists, PA, Edina and Burnsville.
- MMA member since 2013.
- Born and raised in Minneapolis. Graduated from the University of Southern California. Medical school at Mayo Clinic College of Medicine. Residency, University of Utah Hospitals and Clinics. Worked at Intermountain Salt Lake Clinic and Park Nicollet Women's Clinic, Burnsville, before joining OB/Gyn Specialists.
- Husband, Colin, is a teacher at Valley Middle School in Apple Valley. Four children, ages 4, 9, 12 and 15—preschool to high school, the oldest born while she was in medical school, the second while she was in residency. (Her mother, Linda Picone, is editor of Minnesota Medicine.)

Became a physician because ...

I became a physician to improve the lives of women and infants. I studied abroad in Zimbabwe as an undergraduate, where I interned at a rural HIV outreach clinic and saw the need for women's health advocates worldwide. Additionally, I completed a Henry Luce research fellow-



ship in Thailand before starting medical school, at The Perinatal HIV Prevention Trial in Chiang Mai. I worked with OB/GYNs from around the world and realized the difference they were making.

Greatest challenge facing medicine today ...

The greatest challenge facing medicine today is costcontainment and private companies managing access to care. Private insurance companies and venture capital firms purchasing physician groups and healthcare

centers puts access to care and human life after profits for shareholders. This increases overall cost and limits patients' access to fair, quality care.

How I keep life balanced ...

I don't know if my life is balanced! I try to exercise regularly (I am a distance runner and completed the Boston Marathon in October) and spend time with my children. We are a very active family! My ideal day away from work is going for a long run (I run with South of The River Endurance Club) followed by watching the kids play soccer, football, basketball, etc. all afternoon. We emphasize family dinners where we can catch up on our days.

If I weren't a physician ...

If I weren't a physician, I would be a contractor/home flipper. My husband and I love home improvement projects. I spend many days refinishing furniture, tiling or doing plumbing/ electric projects and hope to learn how to do even more.



MMA's Day at the Capitol is your chance to advocate for your profession!



VIRTUAL DAY AT THE CAPITOL SAVE THE DATE: Tuesday, March 1, 2022

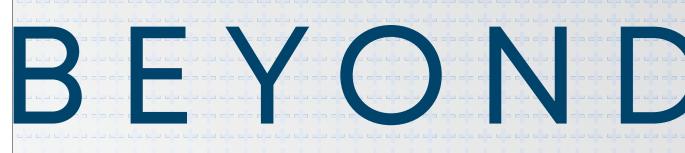
Join us **virtually** on March 1, 2022, for the MMA's Day at the Capitol, and learn how you and your colleagues can raise your voice and make a difference!

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