THE JOURNAL OF THE MINNESOTA MEDICAL ASSOCIATION

MINNESOTA MEDICINE

NOVEMBER/DECEMBER 2015

giving back

Finding the right volunteer opportunity isn't as easy as one might think. PAGE 16

Minnesota Medical Association

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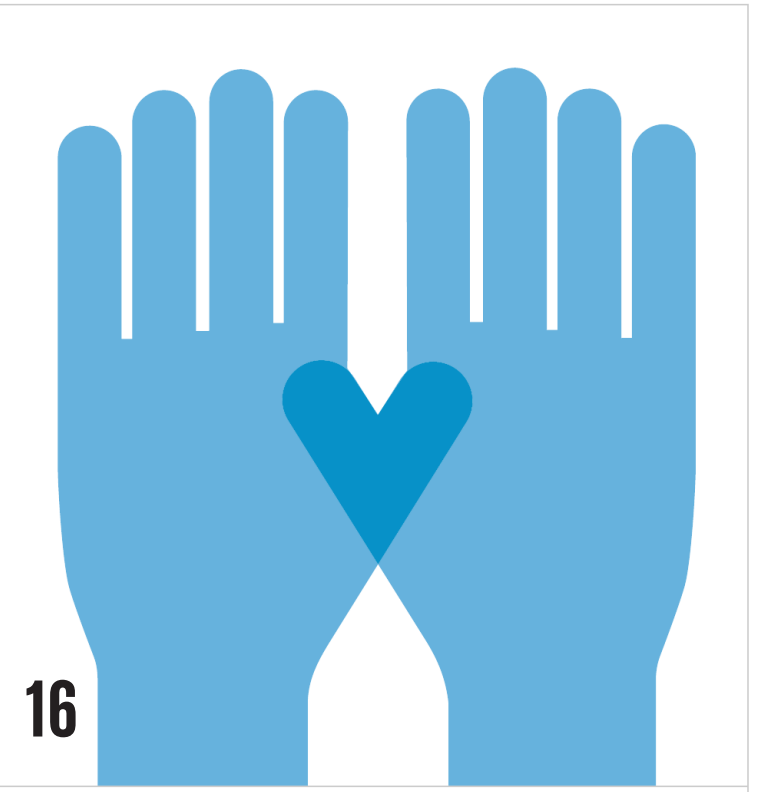

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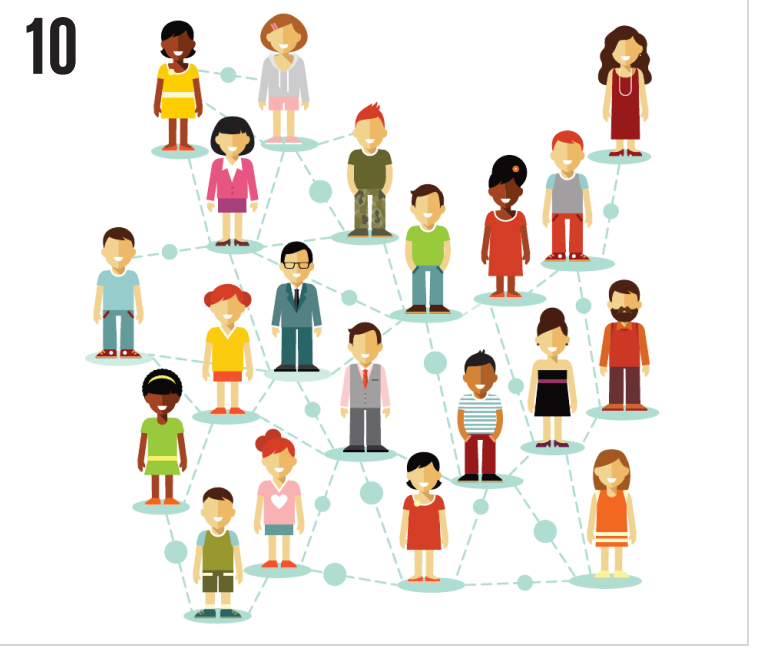

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PHOTO BY SCOTT WALKER

Charles R. Meyer, MD, Editor in Chief

Why volunteer?

Tending to a full-time internal medicine practice seemed like child's play compared with dousing the fires at my non-paying job.

One day when he was in high school, my youngest son looked quizzically at my wife and asked, "Mom, when are you going to get a job that pays?" Like most tongue-in-cheek comments, his question contained more than a kernel of truth. I actually had dubbed my wife a professional volunteer after her directorship of children's ministry was followed by moderator of the church which was followed by PTA president which was followed by directorship of a chamber music series at our church—all time-consuming duties done purely for the joy of serving.

Although clearly a minor leaguer compared to my wife, I have done my share of volunteer activities—medical staff leadership during the era when it wasn't reimbursed, committee chair at church, Cub Scout leader during that phase of my sons' lives. Each took ample amounts of time and more than a little brain space, especially when crises surfaced among medical staff and church members. During those brouhahas, tending to a full-time internal medicine practice seemed like child's play compared with dousing the fires at my non-paying job. More than once I asked myself, "Do I need this additional hassle?"

Similar questions likely keep other gainfully employed physicians from diving into the volunteer pool. Why complicate my already hectic life? How much can I contribute? What skills do I have to lend? Lots of reasons why not.

And why should physicians make the stretch to volunteer? After all, they work in a service profession. They help people. They labor long hours dealing with difficult, frequently unsolvable problems. Adding one more activity threatens to overflow an already crowded plate. Volunteering just doesn't make it onto many physicians' radar and, when it does, the "why nots" frequently win out.

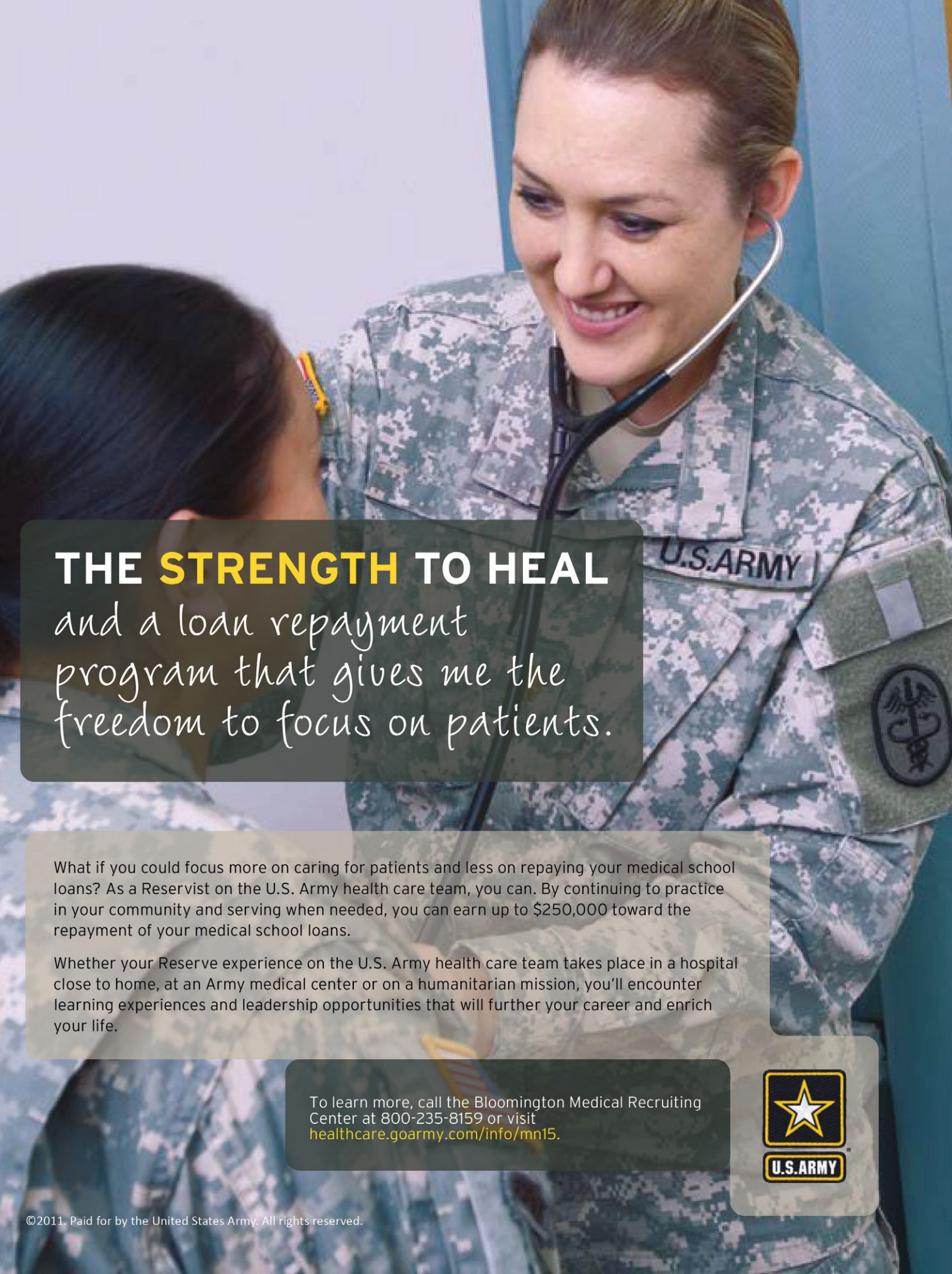
Our physician volunteers featured this month offer lots of reasons why including giving back, contributing to the community, and seeing a need and meeting it. Medical studies showing that volunteering may improve longevity add fuel to the pile of "whys." And organizations like the Minnesota Medical Association Foundation try to guide interested physicians past the roadblocks to participation, making "why" more possible.

I asked my wife, "Why do you volunteer?" As an unemployed woman who should have time on her hands, she gave a flip answer, "Because I can." "But," I persisted, "You could be playing tennis instead." She thought for a minute and then reached back into her religious background and said, "Because we're all God's children, and we should help when we can."

Certainly that's not the answer for everybody. God doesn't have to play a role. But seeing beyond oneself does. We all rotate in our own orbits and realizing there are solar systems out there that may need our attention can make our lives fuller and more meaningful.

In the Copper Country of Michigan's Upper Peninsula, there is an almost-abandoned mining town named Central with a lone Methodist Church. For the past 109 years for one Sunday in the summer, that church swings wide its doors and holds two services. For the past 35 years, at least half the choir for those services has been made up of Martins, my wife's family. Two years ago, my wife accepted the job, unpaid, of directing that choir. The professional volunteer has added to her resume.

Charles Meyer can be reached at charles.073@gmail.com.



THE STRENGTH TO HEAL

and a loan repayment program that gives me the freedom to focus on patients.

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To learn more, call the Bloomington Medical Recruiting Center at 800-235-8159 or visit healthcare.goarmy.com/info/mn15.

U.S.ARMY

Selling good goods

When tourists, college students and residents of St. Peter, Minnesota, peruse handmade goods from around the world at The Fair Emporium, little do they know that the people assisting them behind the counter often are owners Carrie Stelter, MD, and her husband, Keith Stelter, MD.

PHOTO BY ART SIDNER

Carrie and Keith Stelter, both family physicians, at their fair-trade store in St. Peter.

About a year ago, the two family physicians acted on a long-held dream to help people in economically disadvantaged areas, with a twist on what they initially envisioned. The couple always thought they would one day volunteer with an organization like Doctors Without Borders or do mission trips. Instead, they decided to launch a fair-trade business in their community.

"This was a way we could help some of the marginalized parts of the world in a different way," says Carrie Stelter, who sees patients at the Mayo Health System Clinic and the Minnesota Valley Health Center in Le Sueur, where she is medical director. "We had seen some Ten Thousand Villages Stores—fair-trade stores—and thought that was a fun idea and a way to give back to the world as a whole, as the artisans are fairly compensated for their work."

Keith Stelter, a family physician with Mayo Health System's Eastridge Clinic in Mankato and associate director of the University of Minnesota Mankato family medicine residency program, traveled in southern Asia between residency and practice. There, he became inspired by all of the beautiful crafts he saw, which fostered a desire to share such art with people in the United States. "Everything in our store is handmade, it's unique, and it allows our customers to see that the world is a smaller place and that we're all connected," he says, explaining that goods are created by artists in about 40 countries.

When an 1860 storefront in downtown St. Peter came on the market in June 2014, the Stelters bought the building and spent the summer getting it ready for occupancy. Although neither had retail or much business experience, they created a business plan and converted the space, which had previously been a custom sewing shop, with help from their children, one of whom is in high school and the other in college. The store welcomed its first customers in September 2014.

Open between 30 and 35 hours a week, the store is gaining business through word-of-mouth. The Stelters hope to educate customers about fair trade and continue building traffic for their jewelry, scarves, clothing, decorative items, tableware, gourmet chocolate and other goods over the next few years.

In the meantime, they both continue to practice medicine. Keith Stelter works full-time and Carrie part-time. At the store, they have a rough division of labor: Keith handles the accounting, bookkeeping and back-end operations (insurance, security and credit-card processing); Carrie places orders from certified fair-trade organizations, manages inventory and designs displays for the products.

On top of supporting artists and craftspeople around the world, Carrie Stelter often finds her worlds colliding when patients come into the store or want to talk about it during an office visit. "It helps with burnout," she says. "Sometimes in medicine at our age, you feel like you're doing the same thing again and again. By doing something totally different, when I go to my clinic days I'm a little more tired but I'm more fresh. It's a lot of work but it's been good work." – SUZY FRISCH

PHOTO BY MIKE KRIVIT

Share your passion

Do you have an interesting pastime? Do you know of a fellow physician whose passion we should showcase? Contact Kim Kiser at kkiser@mnmed.org.

Sounds of the hospital

Hospitals are noisy places, but not every hospital sound is annoying or worrisome. Some, in fact, are celebratory.

The sound of a bell ringing is common in radiation oncology departments across the country, marking a patient's completion of radiation therapy. "We've had a bell in the radiation oncology clinic for several years," says Kathryn Dusenbery, MD, head of radiation oncology at the University of Minnesota. The bell, resembling the kind found in an old-fashioned schoolhouse, is attached to a wall in the radiation oncology clinic waiting room at the university's medical center. "Patients really like the idea of ringing the bell when they're done with that phase of their cancer journey," she says. "There's a round of applause from other patients in the waiting room, staff and anyone walking by. It's very emotional."

Quieter, but equally joyful, is the sound of Brahms' lullaby played on chimes in Fairview hospitals to announce a birth. The tradition "began as an idea from birthplace staff and management to share day-brightening news with everyone," says Jennifer Amundson, Fairview Health Services communications manager. It started in the early 2000s at University of Minnesota Medical Center and expanded to all Fairview hospitals. "Staff enjoy it; it reminds us why we're here."

The chimes play throughout hospital hallways on the overhead system, so they can be heard in people's offices if their doors are open (they're not heard in emergency departments). "People always smile when they learn the reason for them," Amundson says.

St. Cloud Hospital used to broadcast a lullaby to celebrate births, but recently discontinued the tradition because "it caused deep feelings of grief for families and staff who experienced infertility, miscarriage, stillbirth and newborn death," says Ann Weismann of CentraCare Health, which owns the hospital. She says the Family Birthing Center is considering other ways to note the occasion.

PHOTO COURTESY UNIVERSITY OF MINNESOTA HEALTH

The bell that patients at the University of Minnesota's radiation oncology clinic can ring when they finish treatment.

Offering support during difficult times gave rise to the practice at HealthEast's Woodwinds Health Campus in Woodbury and St. John's Hospital in Maplewood of broadcasting chimes whenever "staff feel that a patient, family member or fellow staff member may need extra prayerful intention," says HealthEast Patient Experience Leader Cindy Bultena. The chimes can be heard in many areas of the hospital.

Woodwinds initiated "Pause for Prayer," as the sound is called, eight years ago after learning of a similar practice at North Hawaii Hospital.

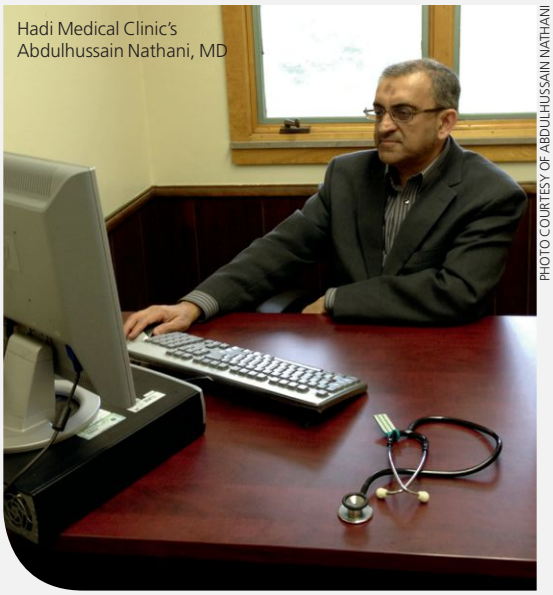
Staff reaction to the chimes? "Many take a deep breath, then send their prayerful energy to the universe, trusting it will go where it's needed," Bultena says. HealthEast plans to implement chimes at St. Joseph's Hospital in St. Paul as well.

– JANET CASS

The newcomers

Abdulhussain Nathani, MD, has seen the toll a lack of health insurance can take on patients. A hospitalist with Mercy Hospital since 2005, he felt helpless seeing so many people admitted with what he calls "extreme conditions"—kidney failure resulting from diabetes, massive heart attacks prompted by years of untreated high cholesterol and high blood pressure, an amputation caused by an untreated foot ulcer. "Again and again, I would go home and tell my daughter and wife, 'I wish I could have had the opportunity to help them much earlier,'" he recalls. "I felt there had to be some way to reduce people's suffering and lessen their medical problems."

At his family's urging, Nathani decided to do something to address the issue. In 2013, he started the Hadi Medical Clinic in Brooklyn Center, a free clinic offering primary care services for those who lack health insurance. Open every Saturday from 10:30 a.m. to 1 p.m., the clinic provides preventive screenings, monitors patients' chronic diseases, offers routine checkups and sees patients with common ailments such as respiratory illnesses, headaches and skin rashes. Hadi is run entirely by volunteers, including Nathani's daughter, Asiyah, and wife, Munira, and serves up to 10 walk-in patients on any given Saturday. A number of those patients are immigrants from East and West Africa.



Hadi Medical Clinic's Abdulhussain Nathani, MD

PHOTO COURTESY OF ABDULHUSSAIN NATHANI

> "I felt there had to be some way to reduce people's suffering and lessen their medical problems."
>
> – Abdulhussain Nathani, MD

Twenty-five miles south, Kacey Justesen, MD, and her husband, Jerad, began serving Minnetonka-area residents free of charge through the Mills Health Clinic that same year. Kacey Justesen, the clinic's medical director and a family physician at the University of Minnesota's Broadway Family Medicine Clinic, discovered that a free clinic was needed in the area when the couple was volunteering at ICA Food Shelf in Hopkins. A needs assessment indicted that about 18 percent of ICA's clients did not have health insurance and had unmet medical needs. "That came as a surprise, because ICA serves Hopkins, Excelsior, Minnetonka, Greenwood—communities that many don't consider to be 'in need,'" she says. That misconception meant that there were not a lot of free health care services available in the area.

Kacey Justesen says the conditions patients present with are similar to those she sees in her day job—diabetes, depression, asthma, hypertension, heart disease. "The difference is that many of the people we see at Mills Health Clinic haven't been to a doctor in years."

The clinic, which, like the Hadi Medical Clinic, offers primary care and chronic disease management, is open Tuesday evenings by appointment and serves about six patients a night. (It also offers optometry services every other Wednesday.) It is staffed by volunteer physicians, physician assistants, nurses and others who work the front desk, answer questions, coordinate follow-up appointments and help patients obtain medications. Jerad Justesen handles the clinic's finances and administration.

Learning curve

As newcomers to Minnesota's free clinic network, Nathani and the Justesens are learning as they go—figuring out how to get the sup-

Help starting a **free clinic**

Volunteers in Medicine

www.volunteersinmedicine.org

A national nonprofit dedicated to building a network of free primary care health clinics for the uninsured.

State of Minnesota Administrative Services Unit Volunteer Health Care Provider Program

http://mn.gov/boards/asu/volunteer-health-care-providers/

This site provides a list of requirements for registering as a volunteer health care provider and receiving free malpractice insurance.

plies and volunteers they need to keep the doors open and how they can best serve their patients.

Nathani says he has been touched by the amount of support he has received, particularly from health systems. North Memorial donated medical equipment including exam tables and blood pressure machines; Allina, his employer, donated computers. The Imam Husain Islamic Center, which owns the clinic location, provides the space rent-free. Nathani's son-in-law, an internal medicine resident in New York, set up a web-based EMR. Other supplies have been donated by individuals or purchased using contributions. "We don't ask patients to pay, but they usually leave a little something," Nathani says.

The Mills Health Clinic's Kacey Justesen, MD

PHOTO COURTESY OF KACEY JUSTESEN

> "Many of the people we see at Mills Health Clinic haven't been to a doctor in years."
>
> – Kacey Justesen, MD

When planning the Mills Health Clinic, the Justesens worked with Volunteers in Medicine (VIM), a national nonprofit that is building a network of free primary care clinics. "Through their online support and email chains, we were able to see examples of what other clinics did for things such as clinical policies and procedures, and intake forms for new patients," Kacey Justesen says, adding that a representative from VIM visited the clinic site as they were getting ready to launch. In addition, VIM offers group purchasing accounts for supplies and has an email exchange where free clinics share advice on how to deal with challenges they're facing.

Finding physician volunteers has been a challenge for both clinics. Nathani says many clinicians mistakenly believe they will need to bear the costs of obtaining liability insurance to serve at the clinic. (Physicians and nurses volunteering their medical services need only to register with the Minnesota Health Licensing Boards' Administrative Services Unit to receive free individual medical malpractice coverage.) But even with malpractice concerns alleviated, physicians can be reluctant to take on volunteer work because of the time commitment. "These are people who are being stretched in many different directions, so I understand it's a big ask," Kacey Justesen says, adding that she is one of four physicians who serve at the Mills Health Clinic.

The clinic refers patients to Portico Healthnet, a St. Paul-based nonprofit that can help them apply for Medical Assistance or enroll in MNSure. As a result of more patients becoming insured, the Justesens have been able to reduce the clinic's hours (until this summer, it was open two evenings a week). "We know that our patients will ultimately be better off if they have health insurance," Kacey Justesen says.

Sense of satisfaction

Nathani says physicians don't always realize how rewarding working at a free clinic can be. "It's more than anything money can buy because you are truly making a difference for people who are vulnerable and in great need. And when you do something for them, it becomes contagious. Our patients end up asking what they can do to lend a hand as well," he says. Hadi Medical Clinic recently began providing meals to those in need and plans are underway to provide eye care services. In the future, Nathani hopes to establish a relationship with the University of Minnesota so medical students and residents can do rotations at the clinic."We are always thinking about how we can further serve others and share resources."– JEANNE METTNER

In their backyards

How some Minnesota physicians go beyond the clinic to make their communities better.

BY HOWARD BELL

Busy as they are, many physicians still find time to get involved in charitable activities outside of work. It's especially the case for those living in smaller communities, where they're often civic leaders as well as caregivers. *Minnesota Medicine* spoke with a few about how they're making a difference—and making it work with their medical practices.

Raising the roof

Doing good works is part of the Benedictine way. So when representatives from the Lakes Area Habitat for Humanity in Brainerd asked Essentia Health–St. Joseph's Medical Center and Clinics in Brainerd, which was founded by the Benedictine Sisters, to build the area's 101st Habitat for Humanity home to honor Sister Vivian Arts' legacy, David Boran, MD, and Peter Henry, MD, were quick to volunteer. Sister Vivian worked as a nurse and administrator at St. Joseph's from 1972 to 2000 and co-founded the Lakes Area Habitat for Humanity 25 years ago.

David Boran, MD

Peter Henry, MD

"She's part of the reason I'm at Essentia," says Henry, an emergency physician at St. Joseph's and chief medical officer for Essentia's Central Region. "During my interview 17 years ago, she asked me how I felt about the Benedictine values of hospitality and caring for those in need. No one

Avoiding teenage temptations

Chaun Cox, MD, a family physician with Mayo Health System's North Ridge Clinic, knows that teens are strongly influenced by their peers when it comes to sex, drugs, drinking and bullying. That's why he and his wife, Kate, a pediatric/adolescent medical social worker for Mayo Health System, volunteer for Project for Teens, which trains high school students to teach middle schoolers how to resist these temptations. P4T, as it's called, is a Mankato School District program that's been around since the 1990s. The couple has been involved for five years. Kate serves as program director.


Chaun Cox, MD

This year, 80 Mankato high school students will be trained as mentors; they will work with 2,300 6th, 7th and 8th graders in Mankato and St. Peter during the younger students' health classes. Cox, the father of two boys, ages 7 and 10, helped create the content for the training program, which is partly based on research and partly on the experiences, insights and creativity of the high school kids themselves.

The teen mentors present skits, pose questions and dispel surprisingly widespread myths (that you can't get pregnant the first time, if you have sex in water or if the guy doesn't ejaculate). Middle schoolers learn that most high school kids are not sexually active, as well as how to say "no," change the subject or walk away when they're in a risky situation. "The message," Cox says, "is that you will be pressured to have sex and take drugs. You will be bullied and tempted to bully. But it's OK, even cool, to say 'no' to all of this."

Once or twice a year, Cox also speaks to parents about how to talk to their teens about preventing pregnancy and risky behaviors. "Sometimes parents ask the most personal and direct questions," he says. "Many are as unsure about how to navigate the teenage world as the kids are." Research shows parents do influence their children's decisions about sex and other risky behaviors, Cox says. Studies also show that teens want to get this type of information from their parents as well as their peers.

Cox says kids who are now in college tell him how helpful the program was and how it made a difference in the choices they made. He says parents also tell him how it helped them start the conversation with their teens.

Cox says he wants to give kids the self-confidence and tools they need to deal with peer pressure "It's good for the kids, good for parents and good for the community," he says, "and it's an example of how an ounce of prevention is worth a pound of cure."

ever asked me those questions before, and they helped me decide that Essentia was the right place for me."

Boran, a family physician at Crosslake Clinic and former chief medical officer, worked with Sister Vivian for almost 30 years. As co-chair of the planning committee for the 101st house, he personally helped raise $10,000 from former employees and physician colleagues to help pay for materials. He also spoke at the August blessing ceremony for the project.

Volunteers broke ground September 25, and Boran and Henry have been among those swinging hammers and hanging drywall. A single mom who works two jobs and has three young children is scheduled to move into the house in mid-November.

Both describe the experience of helping build the house as gratifying. "At the blessing ceremony, the family was emotional and grateful," Boran says. "Many from the community came in support, and six nuns made the trip from Duluth to celebrate the Benedictine philosophy in action and to honor Sister Vivian. It all made for a very moving experience." He says working on a Habitat project makes him a more empathetic physician. "It gives me a deeper understanding of the hardships some of my patients face."

Henry has been impressed by how willingly Essentia employees have donated time and money. "Various departments have volunteered as a team to help build the house," he says. "The whole process has built camaraderie within departments and strengthened connections between Essentia and the community." Sister Vivian would be pleased.

Doing a good turn

"Do a good turn daily" is Scouting's slogan. St. Cloud pediatrician Wendi Johnson, MD, has been doing a good turn for nine years, volunteering as leader for her 16-year-old daughter's Girl Scout troop. She also led her son's Cub Scout troop for seven years, saying she agreed to take on the "little bit crazy" job when she saw her son's enthusiasm after a local Boy Scout Centennial event. "I wanted to keep that excitement going," she says.


Wendi Johnson, MD

As leader for both troops, she ran weekly meetings, planned activities and trained new adult volunteers. She still does all of that for the Girl Scouts. Now that her son has crossed over from Cub Scouts to Boy Scouts, she's stepped down as troop leader but stays involved by chaperoning at summer camp and serving as a counselor for Scouts earning their emergency preparedness and first-aid merit badges. Johnson, who practices half-time, says she makes the time for these activities "because I like showing young people how they can shape the world they're in right now in a positive way, so that they'll continue to do the same as adults."

She says it's been especially gratifying to watch her Scouts blossom into mature, responsible young people who enjoy making their community a better place. When her Girl Scouts stood before the Sartell City Council asking permission to do their Silver Award project in one of the city's parks (planting trees, adding mulch beneath playground equipment and installing fitness stations along a trail), Johnson sat in the audience. "I knew they could do it by themselves."

Once a month, the Girl Scout troop cooks a meal for residents of the local women's shelter. At Christmas, they bring presents for their children. "I like watching the pleasure the girls get from giving and doing for others, from talking with the women, and everyone enjoying each other's company. I enjoy the girls' creativity and sense of fun," says Johnson, who was a Girl Scout herself through high school.

Through the years, she's become adept at the art of what she calls "pushing from behind," which she says requires getting close to the kids and working alongside them, rather than simply telling them what to do. "You can't nag. Kids get enough of that as it is, and that's where you get resistance."

Johnson says being a Scout leader helps her better understand and connect with her patients. "Young people let their guard down when you spend a lot of time with them," she says. "So you get insights into their motivations and interests, the choices they make, and the world they live in—a world that is way different from the one I grew up in."

Love thy neighbor

When Michael and Noelle Lee moved from Pennsylvania to Minneapolis three years ago for Michael's hand surgery fellowship, they moved into a 550-square-foot apartment, where many of their neighbors were Somali immigrants. "I was home alone with a baby," says Noelle Lee, a family physician, "and so were a lot of our neighbors, so we became friends."

The Lees learned from their neighbors how to cook Somali food and, in turn, taught their Somali neighbors how to cook American style. In other small-but-important ways, the couple helped these recent immigrants navigate a culture very different from their own.

Two years ago, they both accepted jobs at Affiliated Community Medical Centers in Willmar—she in urgent care and he as a hand surgeon. About 20 percent of Willmar's population is now Somali, and many live in apartments near the Lee's house. The couple knew that back in Somalia most women had vegetable gardens, but living in apartments they couldn't have one, nor did they know what would grow in Minnesota. So the Lees bought three vacant lots next to their home and started


Michael Lee, MD


Noelle Lee, MD

a community garden, where they and others from their church taught their Somali neighbors the basics of Midwestern gardening. Noelle Lee taught one mother how to grow and pick sweet corn. That mother, in turn, taught her daughters.

At work, the Lees saw there was much their Somali neighbors didn't understand about health care in the United States. "Coming from their background, it's a learning process for them to understand that a chronic condition requires regular testing and maybe taking medicine for the rest of your life," Noelle Lee says.

Last spring, Noelle Lee started giving presentations on health issues at an apartment building near her house, with help from a volunteer interpreter. During the talks, she explains the concept of over-the-counter medications; how to read a medicine label; what to do for upper respiratory infections, vomiting, diarrhea and diaper rash; temperature-taking; and when to go to urgent care or the emergency room versus when to self-treat. "The Somali moms are appreciative," she says, "and many have said they can't believe a doctor would spend so much time with them.

The Lees are members of a task force formed by Norris Anderson, MD, medical director of the Southern Prairie Community Care Organization, to come up with ways to improve the health and care of Somalis in Willmar. The couple also has been assisting a Somali man with creating a women's-only fitness center. They are helping him find funding to remodel an older building into a gym and recruiting women to staff the fitness center when it opens.

Noelle Lee is waiting to hear about a grant to buy Fitbit digital exercise bracelets that monitor the number of steps taken each day. "We'd like to start a virtual walking group for Somalis where once a month we'd compare how much we walked, exchange healthy recipes and talk about other health-related topics," she says, adding that the couple makes time for these activities because they're "a priority for us."

"We try to follow Jesus literally when He says to love our neighbors as we do ourselves," Noelle Lee says. "To do that, we have found that we first must get to know our neighbors." **MM**

Howard Bell is a medical writer and frequent contributor to *Minnesota Medicine*.

Finding the right volunteer opportunity

back isn't as easy as one might think.

BY KATE LEDGER

A few years ago, when cardiologist Maria Teresa Olivari, MD, was 62 and beginning to contemplate retirement, she started thinking about what she wanted to do with her time. She was certain she wanted to volunteer, but she wasn't sure how—or where. A native of Italy who has lived in the United States for 35 years, Olivari was eager to offer her skills locally in the Twin Cities. But she also had a long-standing curiosity about volunteering in a developing country, where she could use her medical expertise and stretch her horizons. Above all, she wanted to contribute to the well-being of others. "I've worked hard all my life, but I've also been lucky and had a lot of advantages. There are a lot of people who haven't had the same opportunity. I wanted to give back," she says.

For many physicians, the desire to volunteer is a familiar one. In fact, when the Minnesota Medical Association Foundation (MMAF) sent out an online questionnaire in 2013 asking physicians about their volunteering interests and habits, responses came back at the highest rate of any MMAF survey. "It was clearly a topic people are passionate about," says chief executive officer, Dennis Kelly.

But the survey also revealed some important gaps. Although an impressive 92 percent of respondents said they'd be interested in offering their time if they found the right opportunity, only 38 percent said they were currently doing volunteer work. Most surprising was the fact that a mere 26 percent felt confident in their ability to find a suitable volunteer position, suggesting the search is not always easy or straightforward. "It's not a one-size-fits-all kind of activity," Kelly says of volunteering.

Finding the right fit

Physicians often find themselves overwhelmed when searching for opportunities. "If you Google 'physician volunteer opportunities,' more than 1,000 listings will appear," Kelly says. "Some are travel opportunities, and some listings may not be legitimate. It becomes hard to sort through." What's more, finding the right volunteer job is particularly important because a negative experience can sour a person on the idea.

A number of physicians find positions on the American Medical Association, American College of Physicians, American Association of Family Physicians and other medical society websites. Others find opportunities through their church or another religious organization. Just last year, the MMAF launched the Physician Volunteerism Program, a service that connects physicians with clinics and organizations in need of their assistance (see "Making Connections," p. 18).

In addition to making sure the opportunity is a good fit, physicians may have other concerns, as Olivari did when she began searching for a local site: If she

volunteered a few hours a week in a Twin Cities clinic, would she have malpractice insurance coverage? She found some places offered coverage, but others didn't. "This was clearly an important issue, and the answer I got at each place wasn't always the same," she says.

Although the laws vary by state, Minnesota has a program in place to address physicians' insurance needs in order to encourage volunteering. Clinics can insure all their physician volunteers for $50 a year through Minnesota's Volunteer Health Care Provider Program. In order to qualify, physician-volunteers must sign papers agreeing not to receive compensation for care and attesting that their licenses are active and nonrestricted. In addition, Kelly says, retired physicians or subspecialists in private practice can purchase low-cost volunteer-centered insurance from MMIC.

Another issue is credentialing. Physicians who are already credentialed by health plans typically are approved to work in community clinics. For retired physicians whose licenses are current but whose credentials may have lapsed, many clinics have staff who can help them obtain the necessary credentials. "What we found," Kelly says, of the MMAF's research into these and other legal questions, "was the barriers to volunteering were more perceived than actual."

In addition to searching online, Olivari began asking around about possible volunteer gigs. As it turned out, a colleague in cardiology had been volunteering several nights a month at La Clinica, at West Side Community Health Services in St. Paul, and he was eager to share his shifts. La Clinica, a Federally Qualified Health Center whose patients pay on a sliding-fee scale, had a grant to provide malpractice insurance for its volunteers, so Olivari began spending one or two Wednesday evenings a month at the clinic.

making connections

When it became clear from a 2013 survey that physicians interested in volunteering faced a morass of Internet information and had a slew of questions, the Minnesota Medical Association Foundation (MMAF) stepped up to make things easier. In 2014, it launched the Physician Volunteerism Program to help doctors easily identify sites in the area that need them, providing job descriptions to help facilitate a good fit. On its website, the program's advisory panel also offers answers to frequently asked questions about volunteering, such as, What if I'm not covered by my regular malpractice insurance? (The answer: Ask the clinic. Most now are able to cover volunteers.) Does the noncompete clause in my employment contract prevent me from volunteering? (There are no specific laws in Minnesota regarding noncompetes, but use a common-sense approach and talk with your employer about your volunteering plans.)

A year after getting started, the program has an online listing of about a dozen participating clinics seeking physician volunteers at locations in the Twin Cities and in Greater Minnesota. More than 250 physicians have signed up to receive the program's emails, which provide updates about new volunteer jobs. Over the next two years, the foundation plans to assess the program's impact on volunteering and patient care.

Right now, program staff are talking with clinics about how to expand opportunities to use even those specialists, such as radiologists, whose skills don't easily lend themselves to underserved primary care clinics. "Ultimately, our goal will be to form a wide network of organizations in the community, whether community clinics, advisory boards or other organizations, that are eager to use the expertise of physician volunteers," says the foundation's chief executive officer, Dennis Kelly.

The following are volunteer opportunities available through the MMAF's Physician Volunteerism Program. To learn more about them go to www.mmafoundation.org/PVP

Hadi Medical Clinic
Brooklyn Center

Provides free consultations and follow-ups for the uninsured and underinsured

Specialties needed: Family medicine, internal medicine, endocrinology

HealthFinders Collaborative
Faribault, Dundas, Northfield

Provides primary medical and dental care, patient advocacy and wellness programs to people in Rice County who have limited health care alternatives

Specialties needed: Family medicine, mainly for adults

Mills Health Clinic
Minnetonka

A free clinic for people without health insurance or who cannot afford care

Specialties needed: Primary care, internal medicine, emergency medicine, urgent care

Neighborhood HealthSource
Minneapolis

A Federally Qualified Health Center providing care to low-income, uninsured and underinsured individuals at three north Minneapolis locations

Specialties needed: Family medicine, internal medicine, dermatology, endocrinology, neurology

Treating patients who are "largely immigrants, hard-working and very poor," she found herself addressing common conditions such as hypertension, diabetes, coronary disease, heart palpitations and valvular disease caused by untreated streptococcus, which turns up less frequently in the United States than elsewhere in the world. The staff helped her adjust to the clinic, teaching her to use the electronic health record and providing a translator, if needed. Still, she encountered occasional frustrations: Some evenings she found herself stood up by patients who couldn't get off work or get a ride to the clinic. (She learned to prepare for the lulls by bringing reading material.) "You learn to temper your expectations," she says, "both about what you can do, and how patients follow up, because of their social or economic limitations."

She also found that working without the help of high-tech diagnostics, having to interpret a heart murmur without an expensive echocardiogram, for example, put her back in touch with medicine's fundamentals. "It keeps you sharp," she says. "When you don't have all the tools that you usually use, it forces you to really use and pay attention to your basic clinical skills." (When patients need additional labs or tests, she refers them to Regions Hospital, which partners with La Clinica.)

Four years after she began at La Clinica, Olivari continues to see patients there every other Wednesday evening, even while working occasional shifts for pay at Abbott Northwestern Hospital in Minneapolis. "The patients are so limited in what they can afford. In many cases, they couldn't otherwise see a cardiologist," she says of her reason for giving her time.

Many roles to fill

For others, volunteering provides a way to address big-picture issues in medicine. Many organizations, including the MMA

NorthPoint Health and Wellness Center
Minneapolis

Multispecialty medical, dental and mental health center and human service agency located in north Minneapolis

Specialties needed: Family medicine, internal medicine, OB/GYN, pediatrics

Open Cities Health Center
St. Paul

A Federally Qualified Health Center providing care for members of the low-income community

Specialties needed: Family medicine, pediatrics, behavioral health, ophthalmology

Open Door Health Center
Marshall, Worthington

A Federally Qualified Health Center that offers medical, dental, and behavioral health services

Specialties needed: Family medicine, nephrology, urology, cardiology, gastroenterology, podiatry, pulmonology

People's Center Health Services
Minneapolis

A safety net health center offering the full continuum of care (from primary care to behavioral and oral health services) to patients regardless of their ability to pay

Specialties needed: Pediatrics, internal medicine, family medicine, behavioral health, orthopedics as well as physicians with significant experience with orthopedics, OB/GYN, ophthalmology, hepatology

Phillips Neighborhood Clinic
Minneapolis

Run by University of Minnesota medical students and their physician preceptors, the clinic offers comprehensive health services to patients with unmet needs

Specialties needed: Internal medicine, family medicine, emergency medicine, urgent care

St. Mary's Health Clinics
Seven clinic locations in Minneapolis, St. Paul, Shakopee, Spring Lake Park and Apple Valley

St. Mary's Health Clinics provide free medical care, outreach and education to low-income, uninsured families and individuals in the Twin Cities metropolitan area who are not eligible for government programs

Specialties needed: Primary care for children and adults

Southside Community Health Services
Minneapolis, Richfield

A Federally Qualified Health Center serving members of the low-income community

Specialties needed: Family medicine, cardiology, orthopedics, gastroenterology, neurology

United Family Medicine
St. Paul

An independent, nonprofit provider of primary health care, physician training and outreach that strives to meet the needs of people of all income levels including medically uninsured, underinsured and underserved residents of St. Paul

Specialties needed: General surgery, gastroenterology, cardiology

West Side Community Health Services
Two clinic locations in St. Paul (La Clinica and East Side)

Minnesota's largest Federally Qualified Health Center that provides care regardless of a patient's ability to pay

Specialties needed: Most specialties are needed, but especially orthopedics, nephrology, dermatology, psychiatry and cardiology

PHOTO COURTESY OF MARIA TERESA OLIVARI

Maria Teresa Olivari, MD, with some of the Cambodian residents she taught in Kampot last February.

and the MMAF use physician volunteers on boards and committees. "Their roles here are in governance, program and policy development, advocacy. Even though they don't see patients, their volunteer service is nevertheless essential for the conduct of our work on behalf of medicine in Minnesota," Kelly says.

Nearly 15 years ago, family physician Loie Lenarz, MD, got involved as a board member of St. Mary's Health Clinics. The Catholic nonprofit, which emerged when St. Mary's Hospital in Minneapolis closed, serves uninsured and underinsured patients at seven sites around the Twin Cities. The clinics depend on volunteer clinicians, receptionists, interpreters and drivers. "It's gratifying to see what we make possible with 250 to 300 volunteers. It helps me stay purposeful," she says.

Six years ago, Lenarz became volunteer medical director for the clinics. She works a 60 percent schedule at Fairview as medical director for clinician professional development and devotes approximately half a day each week to St. Mary's. There, she reviews complex cases and works with nursing supervisors to determine how best to meet patients' needs.

Lenarz says she finds it gratifying to be "serving patients who otherwise have no access to health care and who are so grateful for the care they get." She notes the overlap between her work at Fairview, where she helps employed physicians expand their interests, and volunteering: Both involve understanding what motivates and sustains. "It's about staying connected to our inner landscape, knowing why we say yes to what we do everyday," she says. "I need to understand why I volunteer, so that I'm doing the right volunteer work. I need to know what's meaningful to me, and I need it to be connected to relationships and purpose."

Over there

Natural disasters and catastrophic events are sometimes the impetus for physicians to begin volunteering. Several organizations including the World Health Organization and the National Disaster Medical System provide disaster-relief training and can help doctors find a role. (Experts say doctors who show up at a disaster on their own, without the infrastructure and guidance of an organization, can turn out to be more of a burden at the site of a crisis.) But some physicians keen to travel look for volunteer work in places of ongoing need. For Olivari, volunteering internationally represented a personal challenge: "I figured I'm getting older. If I don't do it now, I may never do it," she says.

She considered Doctors Without Borders, which focuses on war zones, refugee camps and natural disaster sites, but wasn't able to make the six-month minimum commitment (surgeons and anesthetists can sign on for shorter terms). Ultimately, she enrolled with Health Volunteers Overseas, which she learned about on the *New England Journal of Medicine* website and which provides education in developing countries. During a month-long visit to Cambodia, she taught clinical skills at a local hospital, including reading X-rays and ECGs. Olivari saw diseases such as leprosy, which she had never seen before. Her husband, a computer scientist whose schedule was flexible, helped the hospital develop its IT system.

Olivari's commitment to Cambodia has become an enduring one. She and her husband have gone back six times, spending a month there each winter. She pays for her airfare and all her expenses, keeping her receipts, which can be submitted for tax deductions. She finds the work deeply rewarding, as it aligns with her values: "I go by the saying of teaching someone to fish instead of giving them fish."

In fact, says University of Minnesota and North Memorial family physician Shailey Prasad, MD, education is one way to offer sustainable help to a community. Although many countries have need for, and even request physician volunteers, showing up short-term to do clinical work or a medical mission can actually turn out to be disruptive and even harmful. When he speaks to groups about the ethics of global health volunteering, he urges physicians to research the organization, its history and its approach to health care. Physicians who pop into a country for a brief visit may undermine the local doctors and nurses, which can be detrimental to their incomes and even the community's

long-term health. Some visiting physicians, even medical students, get asked to perform procedures that are beyond their training. "Physicians should ask themselves, 'What could the untoward effects be?'" He urges potential volunteers to "Ask what the organization has achieved, and see if it fits your ethos, too."

The counterargument Prasad most often hears, particularly from doctors who have spent time volunteering, is that the need in underserved countries is so great even small efforts are helpful. But clinical medicine is just one type of help, he says. A culturally sensitive effort to work on something such as destigmatizing AIDS or encouraging people to seek treatment and take preventive measures, can be as important as hands-on care. And, what's more, he notes, the results can be lasting.

University of Minnesota North Memorial family medicine chief resident Elizabeth Lownik, MD, points out that international health interventions need to be well thought out. Lownik, who has volunteered in Haiti several times since high school, has seen firsthand how good intentions can have unintended consequences. Following Haiti's 2010 earthquake, she arrived as a medical student five months after an orthopedic group from the United States left the area. "It was a wonderful example of an acute need that was met by a specific skill set," she says. But there was a hitch: Nearly 20 Haitian patients whom the group had treated for broken limbs were still wearing fiberglass casts because no one in the area had a proper saw to remove them. Lownik recalls how she and others used knives to whittle off the casts. She notes that this is one of the quandaries of international drop-in care: "It's your responsibility to think about what happens when you leave."

Both Prasad and Lownik note that the most effective international volunteers will interact closely with the existing medical community, a permanent organization in the area or even the government. For example, Lownik's group in Haiti worked with the government to establish official certification of midwives, an effort that took two-and-a-half years. Their work has resulted in 100 trained and certified midwives in the country. "Working with the government, things take longer, it's frustrating and there are lots of hoops," she says. "Sometimes people just want to act, but it's important not to lose sight of the bigger context, which is helping people have access to the appropriate care all the time."

Next year, Lownik will serve as a junior faculty member for an undergraduate premed course offered through the University in Mysore, India. She also will be involved with a group that focuses on ethical, community-based volunteering. Although she tells others to be careful and thoughtful about the international volunteering they do, she also encourages them to do it. After all, serving those in need can have a big impact on the volunteer. In her case, her experiences influenced her decision to go into medicine. Says Lownik: "I can say I'm the person I am today because of it." **MM**

Kate Ledger is a St. Paul writer.

good for you, too

Recent research suggests giving one's time can be good for the volunteer as well as for the community in need. In a study conducted two years ago by UnitedHealth Group and the Optum Institute, people who served in volunteer positions reported higher levels of physical and emotional well-being than those who did not. Volunteering also reduced stress and gave people a sense of purpose and connectedness to their communities.

Interestingly, volunteering actually may contribute to improved work-life balance, according to an article published this year in the *Journal of Occupational and Environmental Medicine*. And findings from a study published in *Health Psychology* in 2012 showed volunteering may result in reduced mortality, especially among those who do it regularly and often. (A critical point, however, is the reason people offer their services. The study found those who volunteered for the sake of others enjoyed reduced mortality, while those who volunteered for self-serving reasons had mortality rates similar to nonvolunteers.)

For physicians, one of the surprising side effects of volunteering can be relief from the feelings of burnout that have been on the rise in the profession. According to several medical-career websites, a change of pace from a typical workday—a change in the setting or the patient population—can refresh a physician's sense of purpose. "It might seem counterintuitive that volunteering would be a solution, but sometimes if you get the opportunity to lift your head out of the database, you can look at medicine in a different light," says Dennis Kelly, chief executive of the Minnesota Medical Association Foundation, which recently started a program to help connect interested physicians with volunteer opportunities, "Plus, there are so many ways to be of service, you don't have to repeat what you do at work."—K.L.

THE weight OF dust

A medical student discovers she needs to embrace, rather than avoid, her painful memories of Cameroon.

BY MISSY MCCOY

The scorching water sears my skin. I've made it home and am determined to purge myself of the last eight months. Raking my fingers across my body, I ache for Cameroon to loosen its hold, but the dust has infiltrated so deeply I can't tell where it stops and I begin. The more I scrub, the more the red filth clings to me. Heavy crimson droplets swirl toward the drain. My stomach twists as the memories surface, heaving with waves of nausea.

She was possibly my age. What was left of her face was beautiful. But instead of a mouth, fragments of jaw ripped through her skin, caked with blood. Her leg was mutilated, a twisted mass of skin and bone inviting infection. The flies delighted at the macabre feast; the perfume of impending death thickened. The stretcher pad was becoming an enormous sponge. The man who carried her in had disappeared.

She screamed as she gasped. Blood gurgled. She couldn't breathe like this for long. The doors of the storage closet groaned in protest when flung open. A cloud of dust billowed. The chaotic room overflowed with masses of tangled tubing, archaic machinery and cockroach corpses. An antique suction machine rattled to life, wheezing as it quickly surrendered to the years of dust that had besieged it. Her blood dripped to the floor like sand in a gruesome hourglass. Hands shaking, I reached for her thin wrists. She needed an IV and blood. Did we have either?

"Should we start fluids?" I stammered in French.

Blood dripped in reply.

I stood alone at the patient's side.

The emergency department nurse looked up from her phone. Clicking her tongue, she surveyed the patient, as if selecting meat at the Saturday market. She rifled through the pages of a thin book. She held her hand up in a gesture that was a haunting omen: No money, no treatment. It was a death sentence.

"But … can't we … ? " my voice trembled, confused. Tears precariously poised.

"If she doesn't pay, we'll continue without salary," she said, turning away. Before any assessment or lifesaving treatment could begin, before even the tiniest bandage or syringe could be used, payment was required in full. Another scream sliced the air. I stared numbly at the crimson droplets swirling toward the drain. Her gasping slowed and finally stopped. Her husband had beaten her to death. He had carried her in and never returned.

I could feel my emotions evaporating in defense against the despair and agony that permeated everything around me. How could I have been so naïve, I thought? Exchanging privilege for solidarity? My pale skin betrayed me. Entering into authentic dialogue? I would never speak Fulani. Openhearted accompaniment? I wanted to retreat into isolation. Idealistic platitudes published in distant ivory towers were easier read than done. My bloodshot eyes smarted from the clouds of dust. Unable to see the way forward, I switched to autopilot on my way home.

"How was your first day at the hospital?" My 10-year-old host sister Mariette beamed, until she saw my tearstained face.

"Fine," I lied, wiping my eyes.

"The dust makes your eyes water," she deduced, hugging me for good measure. I agreed, relieved to have an excuse.

I collapsed on the bed in silent exhaustion. Her head on my shoulder, she chattered in French about the impending dry season. It hadn't rained today and she warned that yesterday might have been the last rain for months. Soon the red dust would cover everything. It would be insidious, and we would struggle to remember the sound of rain, to recall anything but the death that accompanied the dry heat. "Sometimes when you are coated in dust you quit noticing its weight on your skin," she concluded.

The dry days strung together into one never-ending dry season. And for the next eight months, my self-efficacy withered and ultimately cracked like the hardened sands of the Sahel.

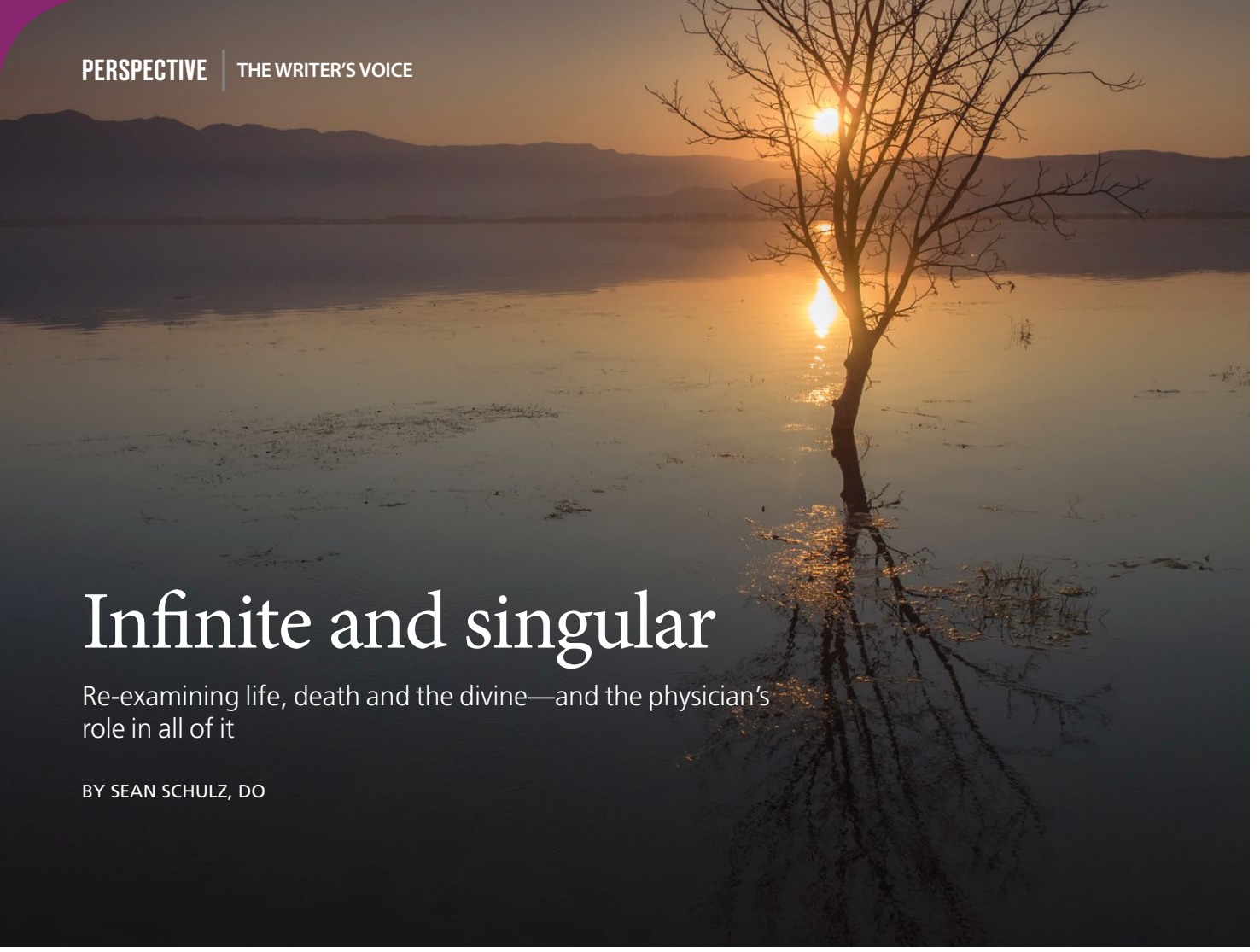
The thick sludge congealed, clogging the shower drain, triumphing over my last attempt to scrub away the heartache. Crumpling to the bathtub floor, I lay limp and defeated, sobbing into the rising flood of memories.

I painfully recall when the 13-year-old girl was told she was HIV-positive. I ache for the 60-year-old man with shattered bones, who was carried in on remnants of cardboard boxes. The young woman who was beaten to death is still securely under my fingernails. I can no longer tell where these individuals end and I begin. Tears boldly splatter and plop, colliding with the drops of water, colliding with me. Distant echoes of forgotten rain intensify.

Although in the face of unspeakable tragedy, it's easy to isolate our hearts from pain, we need to let memory accompany us, moving us toward humility. Although it's easier to assign blame, we need to wrestle with our conflicted consciences. Although it is safer to protect ourselves with privilege, we need to struggle to achieve authentic solidarity with those who are in need. True hope can only be found when we allow ourselves to collide with the cracked earth and witness the desiccation. To cultivate courage, we must intentionally hold both despair and reflection in delicate equilibrium to generate action.

With fingernails still holding her story, I rise and abruptly cease scrubbing. She has transformed me, and I need her to stay with me. If I am to begin to help transform the cracked system I witnessed, layered with dust and despair, I need Cameroon to stay with me. I need to keep feeling the weight of its dust on my skin. **MM**

Missy McCoy is a fourth-year medical student at the University of Minnesota. She says this story, which received honorable mention in *Minnesota Medicine's* 2015 writing contest, grew out of a year of reflection following an eight-month experience in Cameroon. "Since that time. I have been wrestling with creating meaning out of what I witnessed, particularly how to construct hope and meaning out of a difficult experience."



Infinite and singular

Re-examining life, death and the divine—and the physician's role in all of it

BY SEAN SCHULZ, DO

Almost a year ago, I tried to bring a 29-year-old woman back from cardiac arrest. It was 90 minutes of hell, during which I crawled somewhere deep inside my head so as to only allow the analytical and logical parts of my brain to carry out the algorithm of resuscitation. The humanistic portions hid, for fear of causing the all-knowing physician façade to crumble.

I'd lost all hope when we started CPR for the fifth time that morning. Her eyes stared off into space, their stark white already fading into a bluish-grey, pupils fixed, blood pooling in her mouth and spilling onto the bed. I'd picked a spot on the wall to stare at while I was feeling the sickening spring of her chest wall backing up into my hands each time I released the pressure.

Her soul had vacated. It was off in the universe somewhere, far from the hospital bed, swimming past perpetually burning stars and wandering in the echoless expansive nothingness. We tried to resuscitate her, perhaps more for ourselves than for her; but she was dead long before we stopped trying. We could hear the wailing of her family in the background, occasionally breaking through the calls for epinephrine and bicarbonate. After we pronounced her dead, we struggled to wipe her clean before her mother came in the room. The young woman lay lifeless, the breathing tube jutting out but hooked to nothing. Her mother shrieked the moans of someone facing the world-destroying loss of a child.

Afterward came the pronouncements that maybe in the end, it was better that she'd died. My colleagues argued that living could be worse than death. I had trouble picturing an existence worse than death and couldn't help but feel that we were creating an illusion in order to cope with the horror. I felt no comfort in her death. She was someone's baby, someone's friend. At some point, she'd made plans and dreamed, and hoped and laughed and cried. At some point, not long ago, she had a glimmer of hope that perhaps everything could be fixed. Thoughts of God came to me, but they offered no comfort. I felt nothing except fear and sadness combined with the sense of overwhelming failure.

I'd always believed that if a miracle had taken place—if the number of fixable factors became zero—then, definitively, it would be God's hand at play. But as I watched the mother weep over her dead child, I thought that perhaps God was in the intricacies, the ever-evolving atomic pathology. Perhaps God was complications.

Watching human bodies break down from poorly understood illnesses made me wonder if believing in God simply meant believing in chaos and finality. In medicine, there are two outcomes. One is infinite and leads to an ever-branching dendritic network of repercussions. The other is a singular answer: Death. As the complications multiply, the outcomes became singular—divine.

A few months ago, a 27-year-old leukemia patient died. On the molecular level, her body had become mutinous as it created greedy and invasive blood cells. They formed their own agenda, no longer able to coexist in the symbiosis of her being, and revolted, encroaching on the passive flesh until they'd staged a massive occupation and siphoned off all the vital resources.

I could only imagine the madness that surrounded the young woman when she was first given the prognosis. But she'd been saved. Her brother, magnanimous in his sacrifice, was able to donate his bone marrow. His cells grew in the formerly malignant bed of bone and gave her new life. Her cancer stayed in remission and she was able to live a normal life again.

Only a year later, her immune system was again set on destruction—perhaps distrusting and war-torn from the prior battles. It was fierce in its *coup d'état*. Graft-versus-host disease left her lungs incurable. She'd been on the ventilator four times in the two months before she died, rapidly decompensating—a downward spiral likely too fast for the patient or anyone around her to comprehend.

When I'd sat down with her mother, I was taken aback by her anger. Not at me specifically, but at us in general. Us, the medical professionals who play God from time to time, mostly when it is convenient, but who shy away when the probabilities for recovery reach zero. But I didn't attempt to shield myself from her anger; instead, I absorbed it. It was more than one person could hope to carry. When we turned off the vent and I watched that mother hold her daughter's lifeless hand, the finality of her death burned deep in my chest. I was left searching my mind for what more we could have done. All of her complexity, gone in an instant as a billion paths converged into one.

These deaths left me confused and distraught, and when I tried to make sense of the chaos of life, I wondered about God's "plan," or rather, the universe's lack of one. Maybe we are all an experiment with no guiding hypothesis, simply an explosion of life meant to collide repeatedly, with unpredictable reactions and outcomes. I'd always conceptualized God as a divine director, the master architect of a web we trundled along with unpredictable *deus ex machina* interventions. But the web image had faded, and I was now left with that of a labyrinth. God had laid the brick while we blindly chose left or right within a puzzle never meant to be solved, but only to occupy us. Some resigned themselves to the conclusion that they were perpetually lost; others were confident they'd found the one true path.

Not long ago, I was sitting on the bed of a patient after I'd told him he had cancer, again, for the third time. He cried. His wife hugged me.

"You just hate that word. The C word. But it doesn't mean death. It just means we have to gear up for another fight," she said.

I came back to the room a few hours later to find the patient in good spirits. He told me about bike rides he'd taken across the Midwest, football games with family, and we commented on the nice weather breaking through winter's freeze. I told him I was sorry about the diagnosis and then thought privately, What type of God would give this man a third cancer?

"I'll fight. There's nothing left to do," he said, smiling.

I was envious of his bravery. Perhaps he was confident in God's plan, perhaps he was comfortable with death—perhaps he was oblivious to his own impending mortality.

I thought of the labyrinth again. Each person wandering along, some confident in their turns, others looking up with fear and disappointment, afraid to put one foot in front of the other. I thought of God or whatever was out there, waiting at the end, regardless of our path.

I found comfort in that image and found hope in the man as he faced the great unknown. He didn't blame God and he wasn't asking to be saved. He was fighting and we were there to help.

We were in the trenches of the labyrinth with him helping to guide his way.

There is no divinity in the hospital wards—not for me, not the way I'd imagined. God exists in the miracle of life and the singularity of death, and in between we have only ourselves and each other. In my search for answers, I ended up back where I'd started.

I don't pray for miracles now, though they happen from time to time. I do my best to save who I can, while the others pass away. I kiss my wife every morning and every night. I hold my son when I get home from work. I stay out in the sun too long, until my skin is brown. I trudge through yellow and orange leaves blanketing the forest. I try and find peace in the maze. **MM**

Sean Schulz is a third-year resident in the University of Minnesota Smiley's family medicine residency program. He wrote this in honor of the patients he's lost during residency and to acknowledge the undeniable truth and randomness of mortality. His essay received honorable mention in *Minnesota Medicine's* 2015 writing contest.

MMA tackles the future of medicine at huge Annual Conference

BY DAN HAUSER PHOTOGRAPHY BY KATHRYN FORSS

More than 200 physicians, residents, medical students and health care vendors gathered in St. Louis Park in late September to discuss the future of medicine at the MMA's 2015 Annual Conference.

The conference included keynotes on the future of the health care marketplace and technology; educational sessions on resiliency, mobile apps, patient and team communications; policy forums on end-of-life issues and value-based payment; and receptions for the MMA Foundation, the MMA Policy Council and MEDPAC, the MMA's political action committee. The MEDPAC reception featured an appearance by Rep. Tony Albright (R-Prior Lake), the House author of the MMA's medication prior authorization legislation.

A Hippocrates Cafe event, led by MMA member and MPR commentator Jon Hallberg, MD, took place the evening before the start of the conference. Approximately 60 physicians, medical students and their guests were entertained by professional musicians and Guthrie Theater actors who read poems and essays from *Minnesota Medicine*.

MPR contributor and MMA member Jon Hallberg, MD, emceed Hippocrates Cafe, an artistic event featuring work from *Minnesota Medicine* read by Guthrie Theater actors.

Audience members at Hippocrates Cafe the evening before the Annual Conference.

Award winners

Board Chair Douglas Wood, MD, presents Patrick Zook, MD, with the Distinguished Service Award.

Outgoing President Donald Jacobs, MD, poses with President's Award winner Jane Willett, DO.

Jacobs congratulates President's Award recipient George Schoephoerster, MD.

Former President Patricia Lindholm, MD, presents Ashok Patel, MD, with the Community Service Award.

Jacobs poses with poster session winners Kristen Sessions (left) and Courtney Moors, both medical students.

Lindholm presents Elizabeth Fracica with the Medical Student Leadership Award.

At an open-issues forum, participants discussed topics ranging from adding intractable pain to the list of qualifying conditions for the state's medical cannabis program to revisiting the MMA's policy on physician-assisted suicide. Following a discussion, the group prioritized topics for the Policy Council to discuss.

"It was a fantastic event," said incoming President Dave Thorson, MD. "We had great mix of attendees—students, physicians, residents, retirees—and everyone was really engaged. There was great energy during both days."

Here are a few comments from attendees: "Great meeting. Felt significantly more engagement than past meetings." "The turnout of the registered students and physicians was very impressive! It was a great networking opportunity and the policy discussions were well-planned and engaging."

MMA Foundation awards

Five physicians and one medical student were honored with MMA Foundation awards during the President's Inaugural dinner on September 25.

Distinguished Service Award. This year's recipient is **Patrick Zook**, MD, a family physician in St. Cloud. Zook, who is president of Stearns Benton Medical Society, was recognized earlier this year as a CDC Childhood Immunization Champion for his work in the battle against pertussis in the St. Cloud area.

Passing the torch: Dave Thorson, MD, dons the President's medallion to signify the begining of his term.

President's Award. Three MMA members were honored with the President's Award, which recognizes a physician who has given much of his or her free time to help improve our association. The recipients included **Steven Meister**, MD, and **Jane Willett**, DO, two family physicians with Affiliated Community Medical Centers, for their work representing the Avera Marshall Regional Medical Center staff in its lawsuit against the hospital's administration; and **George Schoephoerster**, MD, a geriatrician in St. Cloud, for his long-time involvement with the MMA, its Board, its committees and, most recently, as a champion for legislation to improve the state's medication prior authorization processes.

Community Service Award. This award, which recognizes civic-minded individuals who demonstrate tremendous altruism in their personal life, was presented to **Ashok Patel**, MD, a pulmonologist with Mayo Clinic. He has been recognized numerous times for his volunteer work in the Rochester area. In 2014, the Zumbro Valley Medical Society recognized him for his service to the community, including his leadership with Bounce Day, a community-wide disaster-preparedness training event. Last December, the Rochester Mayor's office gave Patel its Medal of Honor for his diversity promotion efforts.

Medical Student Leadership Award. Third-year medical student **Elizabeth Fracica** received the Medical Student Leadership Award. Fracica has been active with the MMA, serving on its Policy Council as well as on the board of MEDPAC.

Educational program: *Reclaim Joy*

Educational program: *Motivational Interviewing*

SAVE THE DATE

2016 Annual Conference is September 23 and 24

It's not too early to mark your calendar for next year's Annual Conference. The 2016 event will be held September 23 and 24 at the Doubletree by Hilton in St. Louis Park. Expect more national speakers, educational opportunities, engaging vendors and plenty of networking with your peers.

Policy forum: *Open Issues*

Many students attended this year's Annual Conference in St. Louis Park.

Section meeting: *Medical students*

Officers announced

At the inaugural dinner, Thorson officially became the 149th president of the MMA. He outlined his vision for the coming year and emphasized his desire to address physician burnout during his tenure.

Other officers for 2016:

David Agerter, MD, a family physician with the Mayo Clinic Health System-Austin, president-elect.

Doug Wood, MD, a cardiologist with Mayo Clinic, MMA Board of Trustees chair.

Keith Stelter, MD, a family physician with Mayo Clinic Health System-Eastridge in Mankato, secretary-treasurer.

Donald Jacobs, MD, immediate past-president.

Robert Moravec, MD, a field surveyor for the Joint Commission, continues as the Speaker of the House. The House of Delegates will reconvene at next year's Annual Conference after being suspended for three years.

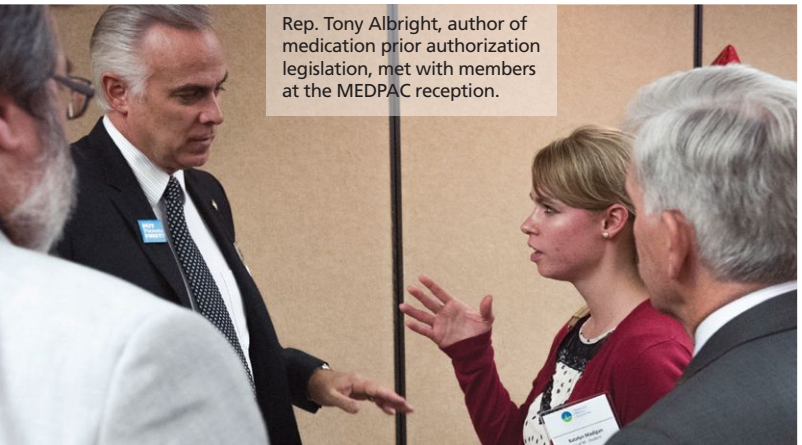
Poster session winners

Medical students **Courtney Moors**, of the University of Minnesota Medical School, and **Kristen Sessions**, of Mayo Medical School, received the most votes in this year's Annual Conference Poster Session. Nearly 20 students displayed their work on Friday afternoon and evening. **MM**

Physicians, residents and medical students took turns getting captured on film before the President's Inaugural dinner.

Nearly 50 vendors displayed their wares at the Annual Conference.


Medical student Alexander Feng shares a story with the closing session audience.


Rep. Tony Albright, author of medication prior authorization legislation, met with members at the MEDPAC reception.

News Briefs

Independent practice issues to be explored at forum

Nationally known practice redesign expert Bruce Bagley, MD, MAAFP, will discuss ways to improve patient care and reduce burnout at "Opportunities and Challenges for Independent Practice." The program, which will take place November 11 from 6 to 8 p.m. at the University of Minnesota, St. Paul campus, will feature topics from the AMA's Steps Forward program. All physicians and administrators are welcome. For more information, visit www.mnmed.org/IPevent.

Clinical preceptor group begins work

The MMA's Preceptor Initiative Advisory Group began developing tools and resources to improve training and support for clinical preceptors in late September. The group, which is made up of representatives from health systems across the state, was formed following the initial work of the MMA Primary Care Physician Workforce Expansion Advisory Task Force.

In order to examine Minnesota's clinical training sites more closely and assess how to ensure that the capacity meets the current need, MMA staff conducted interviews with health system leaders across the state. After assessing their comments, the MMA and the University of Minnesota Medical School have partnered on this new preceptor initiative.

Physicians encouraged to join an MMA committee

Minnesota physicians are encouraged to become active in the MMA by joining one of its standing committees. Several currently have openings including Public Health, Membership and Communications, Quality, and Finance and Audit. To be eligible to serve on an MMA committee, physicians must have an active MMA membership. In addition to openings for physicians, each committee has a designated slot for a medical student and a resident. Although members can join any time, terms last for two years and are based on the calendar year. You can serve a total of three consecutive terms. For more information, visit www.mnned.org/committee.

Community Measurement releases second TCOC report

In mid-September, MN Community Measurement posted its 2015 total cost of care (TCOC) measure results for medical groups in Minnesota and neighboring communities in North Dakota, Wisconsin and Iowa. The overall average TCOC per commercially insured patient per month was $449 in 2014, a $14 (3.2 percent) increase over the previous year. Results are available for 132 medical groups, representing 954 clinics.

The results are based on the 2014 health insurance claims of more than 1.5 million commercially insured patients enrolled in four Minnesota health plans: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica and PreferredOne.

TCOC measures risk-adjusted costs associated with treating commercially insured patients, including professional, facility inpatient and outpatient, pharmacy, lab, radiology, behavioral health and ancillary service fees. It uses the total cost paid by both patients and health insurance companies in its calculations.

Ramsey County joins growing list restricting e-cigs

The Ramsey County Board voted in September to approve a new ordinance that restricts the use of e-cigarettes in bars, restaurants, movie theaters, churches and other public places. The new ordinance mandates that e-cigarette use must take place at least 25 feet from all doors into public places and places of business.

MMA members Tom Kottke, MD, and Lisa Mattson, MD, have been strong supporters of these bans. Kottke testified during the public hearing for Ramsey County. The MMA has made preserving indoor air quality by restricting e-cigarette use a top legislative priority.

Thirty Minnesota counties and cities have added e-cigarettes to their clean indoor air policies.

MMA hosts "Preparing for Practice" event for residents, fellows

Residents and fellows gathered in person and online at the University of Minnesota Continuing Education and Conference Center in St. Paul in September for "Preparing for Practice, from Creating your CV to Signing your Contract." This was the first-of-its-kind comprehensive event sponsored primarily by the MMA and Metro Minnesota Council on Graduate Medical Education. Topics included credentialing, how to make your CV stand out, what to expect during the interview process, what's negotiable in physician contracts, and which practice type is right for you. Speakers included MMA members (Cindy Firkins Smith, MD, Lisa Mattson, MD, Dionne Hart, MD, and Maria Loerzel, MD) as well as four subject matter experts. The response was overwhelmingly positive and several attendees indicated it should become an annual event.

Opportunities and Challenges for **Independent Practice**

Join nationally known practice redesign expert Bruce Bagley, MD, MAAFP, to discuss independent practice issues at a one-evening program offered by the MMA. Bagley will present a new AMA program, "Steps Forward™," that helps physicians revitalize their practices, reduce burnout and improve patient care.

Program

- Overview of today's changing marketplace.
- Why you need to change the way you practice!
- How increasing practice efficiencies can decrease burnout.
- Overview of AMA's Steps Forward™ program.
- **Tackling practice issues** — participants can present current issues and discuss solutions with Dr. Bagley and audience members.

Bruce Bagley, MD, FAAFP, a senior advisor for Professional Satisfaction and Practice Sustainability, American Medical Association, is a nationally known leader in practice redesign.

Program details

Wednesday, Nov. 11

6-8 pm (hors d'oeuvres at 5:30)

University of Minnesota Continuing Education and Conference Center | 1890 Buford Ave, St. Paul

Can't attend in person? The program will be webcast to physicians around Minnesota.

All physicians and administrators are welcome.

MEMBERS: $25

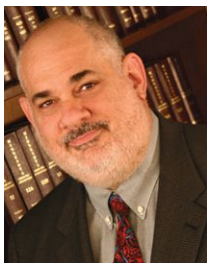
NONMEMBERS: $40

WEBCAST PARTICIPANTS: $20
(Groups of five or more: $100)

To register or for more information:

Go to www.mnmed.org/IPEvent
or call 612-362-3728.

Sponsored by: Minnesota Medical Association | AMA American Medical Association


Robert Meiches, MD


Brian Strub


Teresa Knoedler


Donald Jacobs, MD


Edwin Bogonko, MD


Kathleen Baumbach

MMA in Action

In early September, **Robert Meiches**, MD, MMA CEO, and **Brian Strub**, MMA manager of physician outreach, met with PrairieCare CEO Joel Oberstar, MD. They toured the new PrairieCare hospital in Brooklyn Park and discussed mental health's impact on all of health care in Minnesota.

Strub and **Teresa Knoedler**, JD, MMA policy counsel, discussed the state's new medical cannabis law at the Cambridge Medical Center in Cambridge.

Immediate Past President **Donald Jacobs,** MD, Board of Trustee **Edwin Bogonko**, MD, and **Kathleen Baumbach**, MMA manager of physician outreach, met with Suburban Emergency Associates in early October.

The MMA hosted the quarterly meeting for the Minnesota Association of Black Physicians at the Annual Conference in St. Louis Park.

The MMA Foundation hosted two Care Where It Counts events—one in the Twin Cities on October 15 and one in Rochester on October 22.

Eric Dick, MMA manager of state legislative affairs, has been appointed to the Task Force on No-Fault Insurance Issues as the MMA's representative. The task force was established by the 2015 Legislature to study issues related to no-fault auto insurance, including the independent medical exam process, treatment standards and fee schedules. The task force will report its findings to the Legislature. Dick is joined on the task force by representatives from the Academy of Emergency Physicians-Minnesota Chapter, the Medical Group Management Association of Minnesota, the Minnesota Hospital Association, other health care provider organizations, the legal community and insurance carriers.

CHANNEL YOUR PASSION

Join a committee

The MMA is seeking volunteers to serve on its policy committees.

As a committee member you

- influence the MMA's direction,
- acquire new leadership skills, and
- network with physicians who care about the same issues you do.

It is easy and only includes four evening meetings annually. If you can't make a meeting in person, you can also call in.

For specific committee assignments, go online to: **www.mnmed.org/committee**.

If you are interested in volunteering, send an email to mma@mnmed.org and indicate the specific committee. An MMA staff person will follow up with you.

Minnesota Medical Association

VIEWPOINT

Leading by example

Douglas Wood, MD
MMA Board Chair

Since I graduated from medical school in 1977 and completed my specialty training in cardiology in 1983, much about medicine has changed. I am reminded of this every day when my son, who just started medical school, calls with questions about physiology and immunology. As I reflect on what else has changed since I started my career, I realize the politicization of almost all aspects of life has had an impact on our profession. Add to that the way the Internet has made so much information available to the public, and we end up with real change in the way people understand their own health and infirmity.

But there is one thing that is constant about medicine: its stature as a profession. Despite our emphasis on professionalism, I believe we have somehow missed an important point regarding our work as physicians; that is, we must be leaders in our own communities. This need was eloquently expressed by William Mayo, MD, more than a century ago in his commencement address to Rush Medical College:

"American physicians should no longer evade their citizenship. Their obligation to the community which has enabled them to acquire their knowledge should be paid in public service."

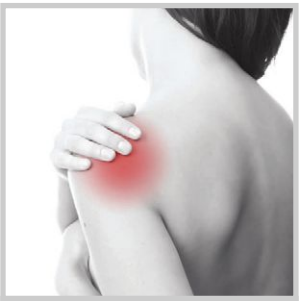
At that time, Mayo envisioned physicians' obligation as not only caring for individuals, but also caring for the public. We now speak of population health without much sense of the true meaning of the words.

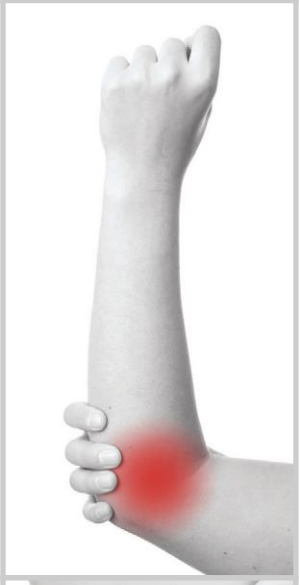
From my perspective, each of us must think about how we might be leaders in our communities. As busy as we are, we must find time to help our neighbors achieve and enjoy health by understanding and making the needed investments to address its social determinants, including better education, safer streets and economic stability. We can help people understand the true meaning of health, and that it does not simply mean health care. We can also help people understand that all of us can make health care more affordable by making better choices about our behaviors and use of resources.

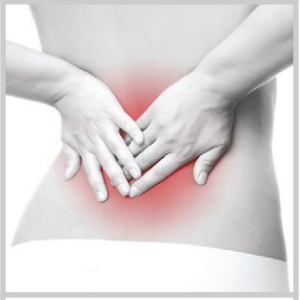
This kind of leadership requires us to collaborate with local government and public health leaders, social service agencies, schools, businesses, community and faith-based organizations, and philanthropic groups.

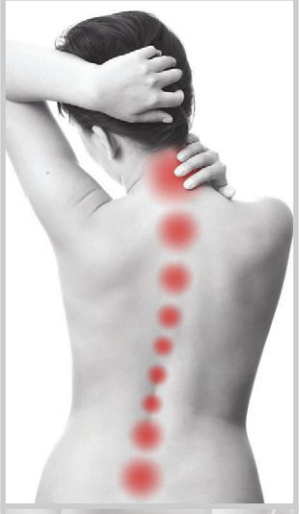
At a higher level, the MMA will soon launch a follow-up to its highly successful Healthy Minnesota campaign of 10 years ago, which built on our work to create a physician's plan for a healthy Minnesota. Watch for more on this important topic. We will be seeking volunteers to work on this effort. But first, we must think about what we can do at the local level. So, I ask you to consider what you will do to become a leader for health in your own community. This is the spirit of the MMA. **MM**

Physicians can help people understand that all of us can make health care more affordable by making better choices about our behaviors and use of resources.









Pain, Opioids and Addiction
LECTURE SERIES

The Minnesota Medical Association (MMA), the Steve Rummler Hope Foundation (SRHF), and the University of Minnesota Medical School began a collaboration to bring medical education on the topic of opioids to medical students, residents, and practicing doctors. The lectures are recorded live at the University of Minnesota Medical School and made available for CME on the MMA website, with underwriting by the SRHF. The hope of the series is to create a medical curriculum on pain, opioids, and addiction, as it should be in a medical school setting: balanced, practical, evidence-based information free of commercial bias.

NEW >> Spring 2015 Lectures

VIDEO 1: "Opioid Therapy for Chronic Pain" **Erin E. Krebs**, MD, MPH, Associate Professor of Medicine, University of Minnesota and Minneapolis VA

VIDEO 2: "Opioid Addiction in Pregnancy" **Amy Langenfeld**, MSc, APRN, CNM, PHN, SANE-A

VIDEO 3: "How to Choose an Opioid: Practical Pharmacology" **Charles Reznikoff**, MD, Division of Addiction Medicine, Hennepin County Medical Center, Assistant Professor of Medicine, University of Minnesota Medical School

VIDEO 4: "A Differential Diagnosis for 'Pain" **Charles Reznikoff**, MD, Division of Addiction Medicine, Hennepin County Medical Center, Assistant Professor of Medicine, University of Minnesota Medical School

VIDEO 5: "What is Buprenorphine?" **Charles Reznikoff**, MD, Division of Addiction Medicine, Hennepin County Medical Center, Assistant Professor of Medicine, University of Minnesota Medical School

Fall 2014 Lectures

VIDEO 1: "Opioid Addiction and Pain, A Quagmire for Healthcare Professionals"
Marvin D. Seppala, MD, Chief Medical Officer, Hazelden Betty Ford Foundation

VIDEO 2: "An Editorial on Pain" **Bret Haake**, MD, MBA, HealthPartners Medical Group, Regions Hospital

VIDEO 3: "Pain Psychology, Mental Status Exam, and Non-Opioid Options for High Risk Patients"
Charles Reznikoff, MD, Division of Addiction Medicine, Hennepin County Medical Center, Assistant Professor of Medicine, University of Minnesota Medical School. **Adeya Richmond**, PhD, LP, Senior Clinical Psychologist, Psychology Department, Hennepin County Medical Center. **Sebastian Ksionski**, MD, Pain Program/CMC Director, Hennepin County Medical Center

VIDEO 4: "Pain Management in the Emergency Department"

James R. Miner MD FACEP, Chief of Emergency Medicine, Hennepin County Medical Center, Professor of Emergency Medicine, University of Minnesota Medical School

All lectures are free of cost.

CME Available: This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint providership of the Minnesota Medical Association and The Steve Rummler Hope Foundation. The Minnesota Medical Association (MMA) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Minnesota Medical Association designates this web based activity for a maximum of

1 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

For more information: **mnmed.org/painseries**

Minnesota Medical Association

Steve Rummler® HOPE FOUNDATION
Providing *HOPE* for those with Chronic Pain and Addiction

Life after SGR

What's Next for Physician Practices?

BY JANET SILVERSMITH

In 2015, Congress repealed the Medicare Sustainable Growth Rate (SGR) formula and passed a new law that replaces it with two payment strategies: the Merit-Based Incentive Payment System (MIPS) and Alternative Payment Models (APMs). This article describes how these new payment strategies are expected to work.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which was signed into law on April 16, 2015, permanently repeals Medicare's Sustainable Growth Rate (SGR) formula, averting a 21.2% cut to Medicare fee-for-service physician payments that was scheduled to take place April 1, 2015. This action ended at least 12 years of annual showdowns between Congress and the physician community over the scheduled payment cuts, which were typically stopped at the last minute. But with the repeal of the SGR came a complex new strategy for physician payments. This article introduces highlights of the new Medicare physician payment policies as defined in MACRA.

Two Payment Mechanisms

The original intent of the SGR was to introduce economic constraints on Medicare spending for physician and other provider services paid for using the physician fee schedule. The SGR formula compared growth in actual Medicare spending on physician services with a spending target based on growth in the overall economy, a formula that was widely viewed as flawed. Although the SGR failed to accomplish Congress' intent to manage spending for physician services, its repeal ushers in both new and refined approaches for paying for physician services.

MACRA provides for annual updates to the Medicare fee schedule: 0.5% from 2015 through 2019, and 0.25% and 0.75% in 2026 and beyond. But MACRA is not a return to the fee-for-service payments of the past; rather, the law articulates greater expectations for measurable outcomes of physician performance. It also seeks to expand on new payment models, some of which were introduced in the Affordable Care Act, that shift more and more accountability to physicians for the cost and quality of care delivered to Medicare patients. MACRA advances these goals by effectively establishing two options for future Medicare physician payments: the Merit-Based Incentive Payment System (MIPS) and Alternative Payment Models (APMs).

MIPS

The Merit-Based Incentive Payment System can best be construed as a pay-for-performance bonus (or penalty) on top of fee-for-service payment rates. Although paying for quality reporting is not new for Medicare, paying for actual results is a big shift. MIPS, however, is designed to combine and build on existing Medicare reporting and incentive programs (meaningful use of electronic health records, the Physician Quality Reporting System

TABLE

Medicare bonus and penalty potential before and after MIPS

	2015	2016	2017	2018	2019	2020	2021	2022
Meaningful use penalty	-1%	-2%	-3%	-4%				
Physician Quality Reporting System penalty	-2%	-2%	-2%	-2%				
Value-based modifier (possible bonus)	1%	2%	4%	4%				
Value-based modifier (possible penalty)	-1%	-2%	-4%	-4%				
MIPS (possible bonus)					4%	5%	7%	9%
MIPS (possible penalty)					-4%	-5%	-7%	-9%
MIPS exceptional performance bonus					10%	10%	10%	10%

[PQRS] and the value-based modifier) beginning in 2019. Those individual programs will end in December 2018.

Performance by physicians and other eligible professionals will be assessed in four categories. Quality will comprise 30% of the score; resource use or efficiency, 30%; EHR meaningful use, 25%; and clinical practice improvement activities, 15% (Figure). Those scores will be combined for a composite score. (The Secretary of Health and Human Services may modify the weights assigned to each category.)

Initially, the measures in each category will be largely the same as those in the existing meaningful use, PQRS (quality), and value-based modifier (resource use/efficiency) programs. However, it is expected that other measures will be added and/or modified over time. Activities that will qualify under the clinical practice improvement category include telehealth and remote patient monitoring, population management, care coordination, and patient safety and practice assessment.[1] The law directs the Centers for Medicare and Medicaid Services to define the specific criteria and measures relevant to the clinical practice improvement activities.

To be eligible for MIPS bonus payments, physicians must have a composite score above an annual, predefined performance threshold determined by the Secretary of Health and Human Services. That threshold (the mean or median of scores) may be reassessed every three years. Generally, physicians with composite scores above the threshold will earn bonuses up to 4% in 2019, 5% in 2020, 7% in 2021, and 9% in 2022 and beyond. For those who score below the threshold, similar penalties will be applied (-4% in 2019, -5% in 2020, etc.).

Those with scores in the highest 25th percentile will be eligible for an "exceptional performance" bonus of 10%, up to $500 million per year (from 2019 to 2024). This provision ensures that the highest performers will be recognized, even if all physicians score above the defined threshold. A comparison of current bonus and penalty potential and that which will be available through MIPS is shown in the Table.

An analysis conducted by the American Medical Association identified several aspects of MIPS that appear to be improvements over the current quality incentive programs and that also may make it easier for physicians to earn bonus payments. Unlike the current PQRS and meaningful use programs, which are considered "all or nothing" in terms of physicians' ability to earn a bonus, MIPS will recognize physicians for partially meeting performance metrics. The addition of the clinical practice improvement activities category will acknowledge participation in quality improvement activities, not simply achieving targets. In addition, measures will be risk-adjusted for patients' health and socioeconomic status and other factors.[1]

Recognizing the challenges that MIPS poses for small practices (those with up to 15 eligible professionals), MACRA authorized technical assistance grants of $200 million per year between fiscal years 2016 and 2020 to help with collection and reporting of measures, quality improvement efforts and other activities. Practices in rural or health professional shortage areas or those with low composite scores will have priority when grants are awarded.

Alternative Payment Models

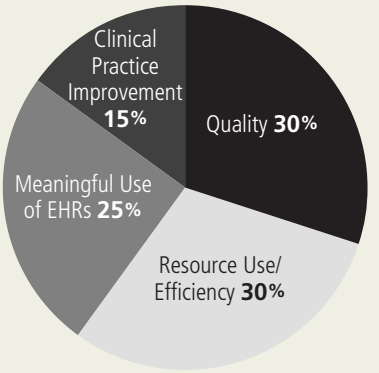
Separate from MIPS is the second payment option available to physician practices—Alternative Payment Models (APMs). The APMs option is intended for practices that are looking for significant alternatives to Medicare fee-for-service. Congress intends to encourage broad participation in this option and established a 5% annual bonus from 2019 to 2024 for physicians and other professionals who take part in it. Sixty percent of Medicare spending on physician services in 2019 is expected to be for services provided through an APM, with that percentage increasing thereafter.[2]

The law defines two primary criteria for eligible alternative payment models. First, the APM must be:

- a model developed by the Center for Medicare and Medicaid Innovation (such as episode-based payments or a patient-centered medical home)
- a Medicare shared-savings program accountable care organization (ACO)
- a health care quality demonstration or
- a demonstration project required by federal law.[3]

FIGURE

MIPS performance categories



In addition, physician practices must be using certified electronic health records, receive payments based on quality measures comparable to those outlined in the MIPS quality category, and bear "more than nominal" financial risk.[1] Under the law, qualified patient-centered medical homes would not be required to assume financial risk.

Second, at least 25% of Medicare Part B payments must be earned through the APM during 2019 and 2020. That threshold increases to 50% in 2021 and 2022 and to 75% in 2023 and beyond. An APM also may qualify if a practice earns 25% of its Medicare Part B revenue and 50% of all other revenue through it in 2021 and 2022, and if it earns 25% of its Medicare Part B revenue and 75% of all other revenue through it in 2023 and beyond.[4]

The 5% annual APM incentive payments, awarded between 2019 and 2024, are in addition to any shared savings or other revenue that may be earned through the APM. The bonus will be paid as a lump sum each year and will be equal to 5% of the Medicare payments a physician receives in that year.

It is important to note that the MIPS and APM programs are mutually exclusive. Physicians in an eligible APM would have to comply with the APM-specific quality and cost measures. Those participating in MIPS must meet its defined measures and goals.

A technical advisory committee will consider proposals for new payment models. The Secretary of Health and Human Services must publish rules defining the criteria the panel will use by November 1, 2016. MACRA also allows for developing and testing models that focus specifically on services provided by nonprimary care physicians; can be used by small practices (fewer than 15 physicians/other providers); and provide for assumption of risk by small practices as well as statewide payment models.

Conclusion

Physician practices will need to assess which payment option—MIPS or an APM—is best for them. This will be difficult, as many of the details, including measure specifications and alternative payment model designs, remain undefined or are subject to future regulatory determinations. In addition, questions remain about the viability of the options outlined in MACRA. For instance, how well will the MIPS measures assess the actual performance of a physician's practice? Will the APMs succeed in reducing Medicare spending growth? Will the new fee schedule updates keep pace with practice inflation? Although the annual showdowns over SGR are a thing of the past, Congress will no doubt revisit Medicare physician payment methods again in the future. **MM**

Janet Silversmith is director of health policy and member services for the Minnesota Medical Association.

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Vaccination Rates among Adolescents in Minnesota as Compared with the United States

Not "Above Average"

BY ROBERT M. JACOBSON, MD, BRIANNA ROGACKI, MPH, DAVID M. THOMPSON, PHD, JAMES R. ROBERTS, MD, MPH, BENYAMIN MARGOLIS, PHD, MPH, AND PAUL M. DARDEN, MD

Because adolescents make relatively few visits to clinics for preventive care, their vaccination rates suffer. We examined rates among Minnesota youths to see how they compared with those among teens throughout the United States. We used National Immunization Survey-Teen (NIS-Teen) data to estimate vaccination rates for 13- to 17-year-olds in Minnesota from 2008 through 2013 and compared them to national rates for MCV4, Tdap and HPV vaccines. We also examined rates of provider recommendation for each of the three vaccines and rates of parental intention to vaccinate against HPV. We found rates for all three vaccinations increased between 2008 and 2013, but they continue to be low for both MCV4 (69%) and HPV (38% of females and 9% of males completed the three-dose series in 2013). Fortunately, the percentage of Minnesota clinicians recommending those vaccines is increasing (the percentage recommending HPV vaccination for females increased from 55% in 2008 to 74% in 2013; however, only 44% recommended it for males in 2013). The percentage of parents in Minnesota reporting intent to vaccinate their female children against HPV rose from 52% in 2008 to 58% in 2013; the percentage intending to vaccinate their male children rose from 16% in 2010 to 47% in 2013. Clinicians and public health officials must address how we can improve HPV vaccination rates among adolescents.

In 2005, the Advisory Committee on Immunization Practices (ACIP) recommended adding the tetravalent meningococcal conjugate vaccine (MCV4) to the Td vaccine for routine administration for 11- to 12-year-olds.[1] The next year, the ACIP published the first recommendation for Tdap to replace Td for children 11 to 12 years of age.[2] In 2007, it published its first official recommendations for routine use of human papillomavirus (HPV) vaccine.[3]

From 2007 to 2011, the ACIP recommended that females (but not males) routinely receive the three-dose series of HPV vaccine between 11 and 12 years of age.[3] On May 28, 2010, following the 2009 FDA licensure of the Gardasil (4vHPV) vaccine for males, the ACIP published guidelines permitting but not recommending routine 4vHPV vaccination for males.[4] On December 23, 2011, the organization recommended that males routinely receive the 4vHPV vaccine series at 11 to 12 years of age.[5]

Rates of immunization in adolescents are problematic, in part because they make relatively few clinic visits for regular preventive care. Nordin et al. studied claims data from a large health plan in Minnesota with about 700,000 members (representing 15% of the state's population).[6] Although the health plan offered preventive care visits without a deductible or copay for teens

11 to 17 years of age, approximately 30% of its teen members had no preventive care visits and another 40% only had one visit over a four- to five-year period.

As our primary objective, we examined the NIS-Teen data from the Centers for Disease Control and Prevention (CDC) to determine how Minnesota compared with the United States in its up-to-date MCV4, Tdap and HPV vaccine rates from 2008 through 2013. We also compared rates of provider recommendations for each of the three vaccines as well as parental intention to vaccinate their children against HPV.

TABLE 1

Demographic distribution of 13- to 17-year-olds from the NIS-Teen surveys, 2008 and 2013

	MINNESOTA		UNITED STATES	
	2008	2013	2008	2013
Unweighted Sample*	338	369	17,835	18,264
Female (%†)	49.4	45.3	48.3	47.7
Poor (%)	5.3	8.1	12.0	16.9
Hispanic (%)	3.3	4.9	11.3	15.0
White (%)	88.2	83.2	70.8	66.1
Black (%)	3.9	2.2	10.8	9.0
Other (%)	4.7	9.8	7.0	9.9

* The unweighted sample is the only unweighted estimate in this table. All other population estimates are weighted.
† Percentages are population estimates, calculated from weighted analyses.

Methods

Although the CDC has conducted the annual National Immunization Survey (NIS) for children 19 to 35 months of age since 1994, it only started conducting a parallel survey for teens 13 to 17 years of age in 2006.[7] Each year, the CDC's National Centers for Immunization and Respiratory Diseases and for Health Statistics jointly conduct the NIS-Teen survey—a stratified, random-digit-dialing telephone survey of U.S. households with teens 13 to 17 years of age.

The survey is executed in two phases.[7] The first consists of an interview with an adult in the home (usually the parent), who is identified as most knowledgeable about the teen's immunization history about the vaccines the teen has received. That adult also is asked if a clinician has ever recommended each of the vaccines the ACIP recommends for the teen. If the teen has not completed the three-dose HPV vaccine series, the adult is asked whether they intend for the teen to receive the vaccination in the next 12 months. Parents or guardians of female teens were asked about intent in the 2008 and 2009 NIS-Teen surveys; parents or guardians of both male and female teens were asked about intent in the 2010 through 2013 surveys.

In the second phase, immunization providers identified through the household interviews receive mailed surveys to verify a teen's immunization history. The individual contributions from those surveyed are weighted to 1) account for the lack of participation by households that do not respond or do not have telephones and 2) represent the total number of teens in the population.[7] Our study reports results only from survey data in which providers verified teens' immunization histories.

We obtained the public-use NIS-Teen files from 2008 through 2013.[8] For our study, we defined the vaccination rates in terms of the up-to-date status at the time of the survey by applying the ACIP recommendations for the years studied.[9-13] We defined being up-to-date on MCV4 as having received at least a single dose; on Tdap as having received at least a single dose at 10 years of age or older; and for the HPV vaccine as having received three or more doses. Adopting the NIS-Teen definition for "poor," we calculated the percentage of respondents from households with incomes below 100% of the federal poverty level. For all statistical significance testing, we used an alpha value of 0.05. We provide details of our methods for analysis elsewhere.[14]

We used SAS PROC SURVEYMEANS (SAS Institute, Cary, North Carolina) to account for the complex survey design and produce appropriately weighted estimates (and 95% confidence intervals) of the percentages of teens in Minnesota and the United States who are up-to-date in each year studied. When a corresponding pair of confidence intervals fully overlaps for Minnesota and the United States, we cannot say the percentages differ between the two populations. To compare Minnesota and the United States more formally on the percentage of participants with a given outcome, we calculated and tested z statistics using weighted-point estimates and standard errors.

We used SAS PROC SURVEYLOGISTIC to generate, for both Minnesota and the United States, estimates of odds ratios that describe the six-year trends in vaccination rates for a given vaccine, for the percentage of parents who recall a provider recommending that vaccine, and for the percentage of parents who intend to vaccinate their teens for HPV. These ratios compare the proportional odds of vaccination (or of physician recommendation or of intent to vaccinate) in a given year compared with the odds of that outcome in the prior year across all of the years studied.

Results

The NIS-Teen surveys sampled approximately 19,000 U.S. teens with verified provider data for each of the years 2008 through 2013; approximately 330 teens from Minnesota were included each year. Table 1 shows how NIS-Teen respondents in Minnesota compared with those in the United States by household poverty status and race/ethnicity for each of the six years. Table 2 shows how the vaccination rates varied by vaccine in 2008 and 2013.

The proportion of teens receiving the MCV4 vaccine increased from 2008 to 2013 both in Minnesota and in the United

States. During those years, the ACIP recommended all adolescents receive one dose of the MCV4 vaccine at 11 to 12 years of age. In 2011, the ACIP published recommendations to add a booster dose at age 16.[15] In 2008, 39% of teens in Minnesota received a single dose of the MCV4 vaccine; that percentage increased to 69% in 2013. During those same years, the U.S. rate increased from 42% to 79%. We do not report the rates of booster doses. Our results showed the rates for MCV4 vaccination for Minnesota are not statistically significant from the rates for the United States but are consistent with sampling variability.

The rates of teens in Minnesota receiving the Tdap vaccine reflected the rates among teens in the United States (Table 2). In 2008, 41% of teens 13 to 17 years of age in Minnesota had received a single dose of the Tdap vaccine; that percentage increased to 91% in 2013. In the United States, the rate increased from 41% to 86%. Our results showed the rates for Tdap vaccination for Minnesota are not statistically significant from the rates for the United States as a whole but are consistent with sampling variability.

Similarly, the rates for the HPV vaccination in Minnesota mirrored those in the United States but lagged behind those for MCV4 and Tdap. In 2008, 34% of females 13 to 17 years of age in Minnesota had received at least one dose of the HPV vaccine; this percentage increased to 59% in 2013. The U.S. rate increased from 37% to 57% in those years. As for completing the three-dose series, 15% of female teens in Minnesota had completed it in 2008 and 38% in 2013. In the United States, the rate increased from 18% to 38%. The Figure illustrates how the rates for three-dose HPV series completion in Minnesota are not statistically significant from the rates for the United States but are consistent with sampling variability.

The vaccination rates for males lagged those for females. Although the ACIP published its first recommendations for females in 2007,[3] it only began routinely recommending three doses of the HPV vaccine for males 11 to 12 years of age in 2011.[5] In 2008, 0.4% of males 13 to 17 years of age in Minnesota had received at least one dose of the HPV vaccine; this increased to 22% in 2013. In the United States, the rate increased from 0.3 to 35%. In Minnesota, 0% of males had completed the three-dose series in 2008; 9% percent had completed it in 2013. In the United States, the rate increased from 0.3% to 14%.

The rates of reported clinician recommendations for vaccinations in Minnesota resembled those in the United States for each of the three vaccines. Table 3 shows that the percentage of respondents in Minnesota reporting a clinician recommending the MCV4 vaccine mirrored those in the United States. In 2008, 31% of respondents in Minnesota reported that a clinician had recommended the MCV4 vaccine; the rate increased to 36% in 2013. In the United States, the rates increased from 31% to 36%. Tdap generated higher rates. In 2008, 52% of respondents in Minnesota reported a clinician recommending the Tdap vaccine; the rate increased to 65% in 2013. In the United States, the rate increased from 48% to 57%. Reports of clinicians recommending HPV for females were also higher. In 2008, 55% of Minnesota respondents reported clinicians recommending the HPV vaccine, increasing to 74% in 2013. The U.S. rates increased from 49% to 70% in those years. The rates for those who reported clinicians recommending the HPV vaccine for males

TABLE 2

Vaccination rates of 13- to 17-year-olds from the NIS-Teen Surveys, 2008 – 2013

Percentages are population estimates calculated from weighted analyses. Brackets contain 95% confidence intervals.

	MINNESOTA			UNITED STATES		
	2008 (%)	2013 (%)	6-Year Trend (OR*)	2008 (%)	2013 (%)	6-Year Trend (OR*)
1 MCV4	39.1 [33.0, 45.2]	69.0† [62.9,75.1]	1.31** [1.22, 1.40]	42.3 [40.9, 43.8]	78.8† [77.8,79.9]	1.39** [1.37, 1.41]
1 Tdap	40.7 [34.6, 46.8]	91.4† [87.7,93.2]	1.78** [1.62, 1.95]	40.8 [39.3, 42.2]	86.0† [85.1,87.0]	1.61** [1.58, 1.63]
1 HPV (females)	33.6 [25.8, 41.3]	59.3 [49.9,68.6]	1.23** [1.12, 1.34]	37.2 [35.1, 39.3]	57.3 [55.4,59.2]	1.17** [1.15, 1.19]
≥3 HPV (females)	14.7 [9.4, 20.0]	37.6 [28.5,46.6]	1.19** [1.09, 1.31]	17.9 [16.3, 19.5]	37.6 [35.7,39.6]	1.18** [1.16, 1.21]
1 HPV (males)	0.4 [0,1.1]	22.0† [15.2,28.7]	2.64** [2.01, 3.47]	0.3 [0,0.8]	34.6† [32.7,36.5]	2.83** [2.67, 3.00]
≥3 HPV (males)	0	8.6 [4.1, 13.2]	2.29** [1.39, 3.77]	0.3 [0,0.7]	13.9 [12.4,15.3]	3.09** [2.64, 3.62]

* The odds ratios describe the six-year trend; these ratios compare the odds in a given year with the prior year across all the years studied.
** P <0.05
† The percentage of participants with this outcome differed in this year between Minnesota and the U.S. based on a z statistic calculated using weighted point estimates and standard errors with a P value of 0.05.

lagged, however. The rates were only measured beginning in 2010 and increased from 3.9% in Minnesota and 5.5% in the United States to 44% in both Minnesota and the United States in 2013.

Respondents whose teens had not completed the three-dose HPV series were asked if they intended to vaccinate their teens in the next year. We analyzed responses separately for females and males (Table 4). In Minnesota, 52% reported intent to vaccinate their females in 2008. This rate fell to a low of 42% in 2010 and then increased to 58% in 2013. In the United States, the intent to vaccinate fell from 57% to 48% between 2008 and 2010 and then increased to 56% in 2013. The percentages of those intending to vaccinate males were much lower overall for both Minnesota and the United States. In 2010, 16% of respondents in Minnesota reported intent to vaccinate male teens, but this increased to 47% in 2013. The U.S. rate saw a similar increase from 30% in 2010 to 52% in 2013.

Discussion

Over the six years studied, the rate for Minnesota teens receiving each of the three vaccines were consistent with the rates in the United States; the rates of reports of clinicians recommending the vaccines also were consistent. Rates for MCV4 vaccination lag behind those for Tdap both in Minnesota and the United States; however, the HPV vaccination rates are most concerning. Although all three vaccines debuted at approximately the same time, the rates of teens being vaccinated against HPV lag greatly behind the rates for those receiving both Tdap and MCV.

Our study is limited by the nature of collecting NIS-Teen data through telephone surveys, although NIS-Teen employs sampling weights designed to adjust for households without telephones. The survey is further limited by respondents' incomplete recall with regard to clinician recommendations. Problems with respondents' recalling vaccinations teens received were addressed through confirmation of vaccination by the identified providers. Because NIS-Teen's complex sampling frame included a relatively small sample in Minnesota, many comparisons of vaccination rates did not meet statisti-

TABLE 3

Reports for clinician recommendations from the NIS-Teen surveys, 2008 – 2013

Percentages are population estimates calculated from weighted analyses. Brackets contain 95% confidence intervals.

	MINNESOTA			UNITED STATES		
	2008 (%)	2013 (%)	6-Year Trend (OR*)	2008 (%)	2013 (%)	6-Year Trend (OR*)
MCV4	30.9 [24.7, 37.0]	36.4 [29.9, 42.9]	1.07 [1.00, 1.15]	31.2 [29.8, 32.6]	36.2 [34.8, 37.6]	1.05** [1.04, 1.07]
Tdap	51.9 [45.3, 58.5]	64.7 [58.1, 71.4]	1.12** [1.05, 1.20]	48.2 [46.7, 49.8]	57.1 [55.7, 58.5]	1.06** [1.05, 1.08]
HPV (females)	54.7 [45.6, 63.7]	74.3 [65.4, 83.1]	1.15** [1.04, 1.26]	49.2 [47.0, 51.3]	69.5 [67.5, 71.4]	1.17** [1.15, 1.19]
HPV (males)	-	44.1 [35.0, 53.1]	1.77** [1.61, 1.95]	-	43.8 [42.0, 45.6	1.63** [1.61, 1.66]

* The odds ratios describe the six-year trend; these ratios compare the odds in a given year with the prior year across all the years studied.
** P <0.05
† The percentage of participants with this outcome differed in this year between Minnesota and the U.S. based on a z statistic calculated using weighted point estimates and standard errors using a P value of 0.05.

TABLE 4

Intention to vaccinate against HPV by gender from the NIS-Teen surveys, 2008 – 2013

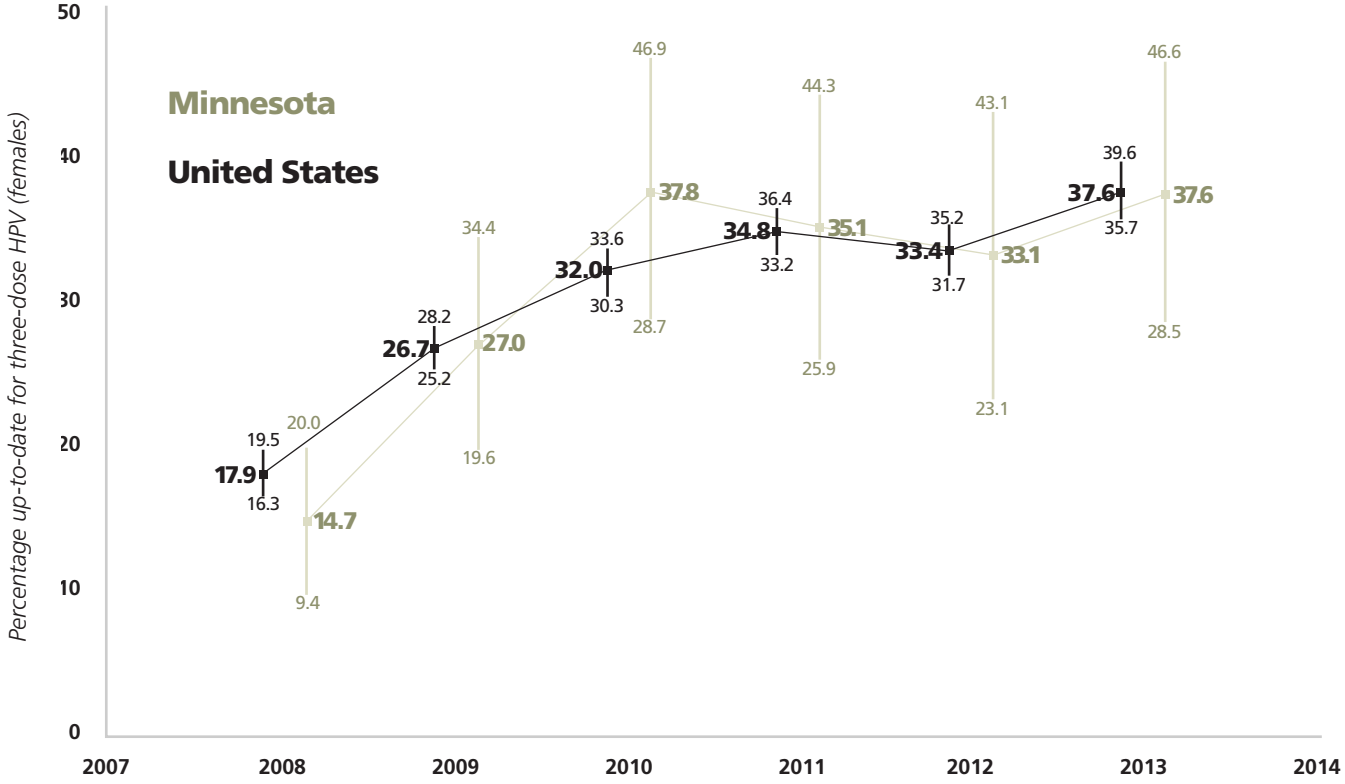
Percentages are population estimates calculated from weighted analyses. Brackets contain 95% confidence intervals.

	MINNESOTA			UNITED STATES		
	2008	2013	Multi-Year Trend (OR*)	2008	2013	Multi-Year Trend (OR*)
HPV (females)	52.1 [42.2,62.0]	58.0 [46.0,70.0]	1.07 [0.96, 1.19]	56.9 [54.6,59.2]	55.7 [53.3,58.1]	1.00 [0.98, 1.02]
HPV (males)	No data	47.1 [37.9,56.2]	1.70** [1.40, 2.06]	No data	51.6 [49.7,53.6]	1.35** [1.31, 1.40]

* The odds ratios describe the six-year trend; these ratios compare the odds in a given year with the prior year across all the years studied.
** P <0.05
† The percentage of participants with this outcome differed in this year between Minnesota and the U.S. based on a z statistic calculated using weighted point estimates and standard errors using a P value of 0.05.

FIGURE

Comparison of Minnesota and the United States for up-to-date rates of three-dose HPV series in females, 2008 – 2013



cal significance. Still, the rates measured in this survey compared favorably with our Minnesota Immunization Information Connection measures of teen vaccine status.[16] Those measures, however, lack information about clinician recommendations and intent to vaccinate. The comparisons that are significant should be viewed in the context of the many different comparisons in the project. The many comparisons mean that the overall probability of a Type 1 error is higher than 0.05.

Although studies demonstrate school requirements for vaccination clearly improve uptake of vaccines, Minnesota's requirements did not include Tdap, MCV4 or HPV vaccines between 2008 and 2013. Revisions to Minnesota law that took effect September 1, 2014, now require vaccination with Tdap and MCV4 but not HPV.

Nearly a dozen studies have documented the importance of clinician recommendation in improving vaccination rates.[17-28] The data we present here show that in Minnesota and the United States, only about half of households perceive that their adolescents' clinician is recommending all three vaccines. The information regarding the intent to vaccinate against HPV as well as the up-to-date rates themselves are concerning. This universally needed vaccine is remarkably effective and addresses cancers that are growing in frequency. We are nowhere near our goals either as a state or a country, and substantial numbers of U.S. households (judging from surveys done between 2008 and 2013) apparently do not intend to pursue HPV vaccination for their adolescents.

Clinicians need to adopt population health management tools such as reminder-recalls,[29-31] offer vaccination in alternative settings such as schools[32-34] and continue to work in the office setting to increase vaccination rates. They also need to make their recommendations clear. Rosenthal et al. reported that those individuals who perceive clinician recommendations for HPV vaccination as strong were more likely to have received the vaccination.[35] Opel et al. found that presumptive language appeared to work better than participatory language, even among parents who express hesitance with the vaccine recommendation.[36] Previously, in this journal, we encouraged using the C.A.S.E. approach developed by Allison Singer to address both vaccine-hesitant parents and vaccine-hesitant teens.[37,38]

Conclusion

Clinicians need to learn how to make every teen visit count—assessing the adolescent's vaccine status, engaging them in the conversation, making strong or presumptive recommendations, addressing hesitancy and vaccinating those who are not up-to-date. Such an approach is critical given how infrequently teens present for office visits, much less preventive care visits.[6] Minnesota's vaccination rates for its teens are similar to those in the United States, but they are nowhere near where they should be. **MM**

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Paul Darden serves on an advisory board for Merck, Inc., and Robert Jacobson serves as a member of a safety review committee for Phase IV safety studies conducted by Merck & Co. regarding human papillomavirus vaccines and is a member of a data monitoring committee for a series of Phase III pneumococcal vaccine trials also conducted by Merck & Co.

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Improving Confidence in Competencies for International Medical Trips Using a Curriculum with Simulation

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Many incoming medical and undergraduate students seek out international medical mission trips to supplement their education and training. However, few have the necessary skills to perform simple clinical tasks such as taking vital signs or conducting an initial patient interview. We conducted a small pilot study to assess the impact of simulation exercises on teaching incoming first-year medical students and undergraduate students basic clinical skills and teamwork. Our study population consisted of nine incoming medical students and 11 undergraduate students who participated in a training session involving simulated tasks prior to taking a medical mission trip to Nicaragua. Participants completed a survey before and after the simulation and at the end of the trip. All 20 indicated the simulation was effective in teaching clinical and team-building skills. In addition, the simulation exercise improved participants' confidence in their ability to perform certain clinical tasks and work as a team prior to the mission trip. We concluded that simulation is effective for incoming medical and undergraduate students and can be used prior to global health trips to increase their confidence in performing tasks required for a successful experience.

Students often enter medical school eager to serve patients but lacking the necessary skills to perform simple clinical tasks such as taking vital signs or conducting an initial patient interview. Their lack of skills can have an impact on global health service trips, where, under supervision, potentially naïve students will be asked to perform basic tasks such as taking pulse measurements, listening to heart and lung sounds, and doing preliminary medical history interviews.

Learning clinical skills is a critical part of medical school training and often can be a stressful trial-and-error process. Simulated clinical exercises have been shown to increase medical students' confidence in doing clinical procedures.[1] Previous studies have shown that confidence with clinical tasks and surgical skills is critical in that it has a major impact on patient safety.[2-5] Moreover, two systematic reviews of physician training demonstrated that taking part in simulated exercises improves their clinical skills.[3,6] In undergraduate medical education, the use of simulation has often been evaluated in the third and fourth years,[7-11] but there is new focus on including simulation earlier in the curriculum, even with incoming medical students.[12] Yet, no one has explored its use with students planning an international medical trip. We conducted a pilot study to assess students' confidence in their ability to perform clinical skills and work as a team in preparation for an international medical mission after participating in a simulation exercise.

Methodology

This pilot study was deemed exempt by the Institutional Review Board at Mayo Clinic, Rochester. Nine incoming medical students and 11 college undergraduate students completed a three-hour training session that included a simulation exercise prior to leaving for a medical mission trip to Nicaragua in 2013. Half of them had a previous global health experience.

Six physicians participated in the medical mission: two from Mayo Clinic and four from the host country.

Training Session, Simulation and Mission Trip

The three-hour training session was divided into three parts: a hands-on didactic portion, detailing the clinical skills neces-

sary for the trip; a simulation exercise; and a debriefing session. The 20 students were divided into four groups of five participants each. In the didactic portion, they learned in small groups how to measure blood pressure, record heart rate, perform a basic history-taking interview, and perform a heart and lung examination. The simulation exercise was a clinical experience involving a Spanish-speaking patient and an interpreter. It was divided into three sections that focused on recording vitals, taking a medical history in English, and taking a medical history on a Spanish-speaking patient with a Spanish interpreter present.

The medical trip to a small town near Esteli, Nicaragua, was organized through Global Brigades (www.globalbrigades.org). Each student-doctor team had an interpreter who was either a student with several years of Spanish-speaking experience or a local Nicaraguan with significant English-speaking ability. More than 1,000 patients were seen and treated over four days.

The Study

All 20 participants completed a questionnaire before and after taking part in the training, and after the mission trip (Table 1). They were asked to rate their level of confidence based on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) with certain tasks such as taking blood pressure, recording heart rate, taking a history, performing a heart and lung examination, speaking Spanish, working with a medical team, delegating tasks, leading a group and handling stressful situations. After the training and medical mission trip, the participants were asked whether the simulation helped them learn how to take vital signs and perform other clinical tasks and work as a team. They also were asked whether the simulation should be used to prepare students for future medical trips.

A Wilcoxon signed rank test was completed with paired data and was used for two main comparisons. The first compared survey results before and after the training. The second compared results before the training and after the trip. A P value of $< .05$ was considered statistically significant. Each participant's confidence was assessed with a Likert scale. The mean was calculated for each survey. Analyses were performed using Statistical Analysis Software version 9.2 (SAS Institute, Inc., Cary, North Carolina).

Results

Clinical Skills

As detailed in Table 2, there was a statistically significant improvement after the training session in the students' confidence with measuring blood pressure (mean = 0.6, $P = 0.04$), heart rate (mean = 1.0, $P = 0.005$), interviewing (mean = 1.0, $P = 0.0002$), and heart and lung examination (mean = 1.6, $P = <0.0001$). Their confidence with speaking Spanish marginally increased after taking part in the simulation portion of the training (mean = 0.5, $P = 0.03$).

Teamwork

Confidence in performing team-based activities before the simulation and after the medical trip showed significant improvement (Table 3). Following the trip, there also was a statistically significant increase in the students' confidence in their ability to handle stressful situations (mean = 0.4, $P = 0.04$). In addition, the participants also demonstrated increased confidence in delegating tasks (mean = 0.75, $P = 0.0001$) and being a leader (mean = 0.50, $P = 0.008$) both after the simulation and after the medical trip.

Participants' Opinions of Simulated Experience

As shown in Table 4, the students felt the simulation improved their ability to record vitals (4) and work with a team (4.5) during the medical trip, and they agreed that this simulation should be included when preparing students for future medical mission trips.

TABLE 1

The questionnaire

Participants were asked to rate the following statements using a 1 to 5 scale (1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree)

1. I am confident in taking a patient's blood pressure.
2. I am confident in taking a patient's heart rate/pulse.
3. I am confident in taking a patient's chief complaint/medical history.
4. I am confident in using a stethoscope to listen to heart and lung sounds.
5. I feel confident communicating in Spanish.
6. I feel confident delegating tasks to others in a medical team
7. I am confident assuming leadership roles in a medical team.
8. I am confident following another's assignments or delegations.
9. I am confident that I work well under stress/pressure.

After the trip, these statements were added to the previous nine:

10. The simulation experience completed before the trip was an effective tool at teaching basic skills.
11. The simulation experience completed before the trip was an effective team building activity.
12. I would encourage a simulation experience for next year's mission trip.

Discussion

The purpose of this study was to assess students' confidence in their ability to perform clinical tasks following training that included a simulation exercise. It was designed to prepare them for an international medical mission trip. Participants reported increased confidence in their ability to perform a physical examination and in their interviewing skills follow-

TABLE 2

Participants' self-assessed confidence to perform clinical skills and communicate in Spanish (mean)

SKILL	PRE-SIM	POST-SIM	POST-TRIP	P-VALUE PRE-SIM VS. POST SIM*	P-VALUE PRE-SIM VS. POST TRIP*
Blood pressure	3.8	4.4	4.6	0.04	0.002
Heart rate	3.8	4.8	4.7	0.005	0.004
History-taking	3.4	4.4	4.5	0.0002	0.001
Heart and lung exam	2.8	4.4	4.1	<.0001	0.0008
Speaking Spanish	2.3	2.8	3.0	0.03	0.003

Note: Scored on a 5-point Likert scale (1 is lowest, 5 is highest)
*paired Wilcoxon signed rank test

TABLE 3

Participants' self-assessed confidence to perform team-based activities (mean)

Activity	Pre-Sim	Post-Sim	Post-Trip	P-value Pre-sim vs. Post-Sim*	P-value Pre-Sim vs. Post-Trip*
Being a leader	3.4	3.9	4.4	0.008	0.006
Delegating tasks	3.2	4	4.6	0.0001	<0.0001
Working in a team	3.6	4.2	4.7	0.05	0.0001
Handling pressure	3.9	4.1	4.3	0.45	0.04

Note: Scored on a 5-point Likert scale (1 is lowest, 5 is highest)
*paired Wilcoxon signed rank test

TABLE 4

Participants' opinion of training session after simulation and after trip (mean)

Questions	Post Sim	Post Trip
Effective at teaching basic skills	4.3	4.3
Effective team-building activity	4.5	4.3
Encourage a simulation experience for next year	4.6	4.6

Note: Scored on a 5-point Likert scale (1 is lowest, 5 is highest).

ing the simulation. Previous studies with nursing students showed large improvements in confidence after completing simulation exercises,[13] but none of these were conducted in the context of a medical trip. Moreover, most of these studies evaluated medical students in their third and fourth years of training.[7, 9-11] We also found that participants reported similar levels of confidence after the simulation and after the medical mission trip, suggesting a sustained confidence boost from the simulation exercise. A previous study of nursing students saw a significant improvement in their ability to mechanically ventilate patients after simulation training and an increase in their confidence with mechanical ventilation that lasted up to six months. Our study, unfortunately, did not measure the students' confidence after the medical mission trip, but it is encouraging to see a sustained effect after the simulation experience. Overall, our study is the first to show that incoming medical and undergraduate students have a significant increase in confidence regarding their physical examination and interviewing skills following a simulation exercise specifically designed for an international medical mission trip.

Many undergraduate and medical students seek out international medical mission trips to supplement their education and training. Some may participate, in part, to improve their foreign language skills. Following our simulation exercise, there was a marginal, yet statistically significant, increase in participants' confidence in their ability to speak Spanish, and an incremental increase in their confidence in speaking Spanish after the mission trip. Despite these minor increases, their mean level of confidence went from "less confident" to "neutral" by the end of the trip. Previous work has demonstrated large increases in medical students' Spanish fluency after a four- to six-week rotation in a Spanish-speaking country that also included medical Spanish course work.[15] In our study, the results suggest that a short simulation experience and 10 days in a foreign country are not enough to produce large gains in confidence with speaking Spanish. Therefore, students solely wanting to improve their foreign language skills should be cautioned from participating in short trips and should look for a longer immersion experience.

Effective teamwork is important in all aspects of health care, and other studies have shown improvements in delegating tasks and leading a team following simulation exercises.[16, 17] Our study explored participants' confidence with working on a medical team, delegating tasks, being a leader and handling stressful situations. As with previous studies,[16, 17] ours

showed improvement in confidence in delegating tasks and being a leader after the simulation and after the mission trip. However, our simulation exercise did not affect participants' confidence in their ability to handle pressure or work as part of a medical team, as seen in previous studies.[18] Nevertheless, the medical mission trip to Nicaragua provided many challenges, including having to contend with limited resources and a large patient volume, which we did not replicate in our simulation exercise and which effectively gave participants the opportunity to work together in stressful situations and handle demanding schedules. This substantial experience might explain why there was increased confidence in handling pressure and delegating tasks following the medical trip.

Finally, several studies that evaluated students' experience with simulations found this type of training helpful.[19-22] Our findings were no different. The participants found the simulation exercise helpful for learning physical examination skills, patient interviewing skills and to work in a team. They highly recommended it be used to prepare participants for future medical mission trips. The simulation exercise has since been used prior to medical mission trips in 2014 and 2015.

Our study had several limitations. It was small, nonrandomized and involved only one institution. Therefore, the findings may not be able to be generalized. The scaled score of confidence with an activity is a subjective outcome. Future studies may benefit from measuring quantitative outcomes, such as accuracy of tasks performed. Finally, our study followed participants only until the end of the trip. We would suggest follow-up over the academic year with regards to the students' confidence in their physical examination, history-taking and interpreting skills.

Conclusion

Simulation has become an integral part of health care training. It has the capability to prepare a wide range of learners for many experiences. Although real-life experience may be more beneficial for team building, simulations are an effective means of initiating hands-on training and building confidence in specific skill sets. Our study shows that simulation is effective for teaching the necessary skills for an international medical trip, and that students believe such experiences should be included in their medical education. **MM**

Brandon Birckhead, Trey Mullikin, Adeel Zubair and Dema Alniemi are students at Mayo Medical School. Walter Franz III and John Bachman are with the department of family medicine at Mayo Clinic in Rochester.

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2015 American Academy of Pediatrics–Minnesota Poster Competition Winners

Every year, the Minnesota Chapter of the American Academy of Pediatrics invites medical students and residents to take part in a scientific poster competition by submitting posters for consideration at the chapter's annual meeting. This year, both of Minnesota's pediatric training programs (the University of Minnesota and Mayo Clinic) were well-represented with submissions in the clinical vignette, research/quality improvement and medical student categories.

Posters were judged by practicing pediatricians, pediatricians from the state's academic medical centers, and the students' and residents' peers. "Poster Rounds" were conducted for the peer-judging process. Criteria used by the judges included clinical relevance and originality, as well as written and visual presentation. A "People's Choice" winner also was selected. Special thanks to Andrew Olson, MD, from the University of Minnesota for coordinating the competition.

Winners presented their posters at the American Academy of Pediatrics annual meeting last month in Washington, D.C. Congratulations to all on their excellent work.

MEDICAL STUDENT CLINICAL VIGNETTE WINNER

Ondansetron Promotes Expression of Sudden Cardiac Arrest in a Child with Long QT Syndrome

BY JARROD TEMBREULL AND PARVIN DOROSTKAR, MD, UNIVERSITY OF MINNESOTA

Ondansetron use for control of gastrointestinal symptoms in the pediatric population has drastically increased during the last decade.[1] Prolongation of the QT interval is a well-known side effect of ondansetron therapy. Expression of Torsades de Pointes in association with ondansetron-induced prolongation of the QTc has not been reported previously in a pediatric patient with clinical long QT syndrome.

Case: An 8-year-old boy with a history of neonatal intermittent complete atrioventricular block underwent neonatal dual chamber epicardial pacemaker implantation for a clinical diagnosis of long QT syndrome. Eight years later, he presented to the hospital after cardiac arrest with pulseless electrical alternans while being treated with ondansetron for gastroenteritis-associated vomiting. Prior to the arrest in April 2014, his most recent ECG showed a QTc of 520 msec and abnormal T waves throughout the precordial leads while being atrially paced.

Emergency Medical Services arrived within five minutes of the witnessed cardiac arrest. The patient was resuscitated with continued CPR, intubation and multiple rounds of resuscitative medications and fluids. He was then admitted to the ICU for further resuscitation with a Glasgow Coma Scale score of 3. A 12-lead ECG revealed ventricular pacing and capture at 90 beats per minute. Despite maximal resuscitative efforts, the patient was pronounced dead one day later due to anoxic brain injury.

Discussion: To the best of our knowledge, this is the first case report of a cardiac arrest in and death of a child with long QT syndrome in association with ondansetron therapy. We recommend that clinicians maintain a high level of suspicion and respect for QTc-prolonging medications such as ondansetron, given the associated risk of Torsades de Pointes and sudden death. MM

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MEDICAL STUDENT RESEARCH/QUALITY IMPROVEMENT CO-WINNERS

Student-Initiated, Specialty-Specific Selective as a Tool for Preclinical Medical Student Career Exploration

BY M. EARTH HASASSRI, KIRI SUNDE, CROIX FOSSUM AND AMIE JONES, MD, MAYO MEDICAL SCHOOL

Medical students have advocated for opportunities to explore various specialties earlier in their medical education. However, few studies have reported the best approach to introducing medical students to different fields during their preclinical years. In an effort to offer early exposure to pediatrics and to equip students with basic clinical skills that will enhance their clinical clerkship experience, we developed a preclinical specialty-specific selective in pediatrics.

Methods: For five consecutive years, Mayo Medical School's Pediatric Interest Group student leadership team has created a peer-designed, student-led, weeklong group elective ("selective") experience that includes clinical skills workshops, faculty and resident mentoring sessions, and clinical shadowing based on findings from a student needs assessment. Students were surveyed to determine whether the selective changed their level of interest in pediatrics. Students were asked to rate each component of the selective using a 10-point Likert scale. Analyses were conducted to evaluate the impact of this experience on student interest in pediatrics.

Results: Each year, more than 25% of first- and second-year medical students participate in the selective. A total of 121 medical students participated in the selective between 2010 and 2014. During the last session, there was a 74% survey response rate among the 27 participants. Their self-reported interest in pediatrics increased significantly after the selective (mean difference: 1.35, $P< 0.0014$). Experiences in which medical students had a chance to interact with faculty or patients received more positive ratings than the lecture-based components of the selective (mean difference: 1.14, $P< 0.0001$). The majority of students who completed the selective agreed that this experience heightened their interest in and expanded their knowledge of pediatrics.

Conclusion: Our preclinical pediatrics selective serves as an effective model for providing early exposure to a specific specialty. Participants were shown to be more engaged with this than with more passive learning methods. Future selectives should be designed with opportunities for interaction. Students found the group selective beneficial and recommend continuing to offer it in the future. **MM**

Length of Stay of Pediatric Head Injuries in a General Emergency Department: To Scan or Not to Scan?

BY HAI NGUYEN-TRAN, JEFF LOUIE, MD, AND THUY NGUYEN-TRAN, UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

Decreasing length of stay in the emergency department (ED) has been shown to increase patient satisfaction. Prior to recent knowledge of radiation exposure and risk of malignancy, ED staff commonly performed head CT (HCT) scans on children with head injuries versus observing them prior to discharge. Clinical observation of neurological status has been considered an alternative to HCT. Although studies have compared the efficacy of HCT with that of clinical observation, only a few compare the length of stay of those receiving either modality.

Objective: The purpose of our study was to determine the length of stay for pediatric patients who presented with a head injury. We hypothesized that children undergoing HCT would have a shorter length of stay compared with those who did not receive a HCT. We also applied the PECARN head injury guidelines to classify children into high-, intermediate- and low-risk groups.

Methods: This retrospective study included 666 patients between birth and 18 years of age who were evaluated at a community ED between January 2012 and June 2014. From the electronic medical record, we determined the patient's length of stay in the ED (time of triage to time of discharge), pertinent time intervals, HCT results, disposition and clinically important traumatic brain injury (CiTBI) status.

Results: Of the 666 patients, 237 received a HCT and 429 did not. The mean length of stay for patients who had a HCT was 156.16 minutes, compared with 88.36 minutes for patients who did not have a HCT. For all patients discharged to home, none returned to the ED with a CiTBI nor were there any deaths.

Discussion: Our data demonstrate that children who do not undergo HCT have a shorter length of stay by almost 70 minutes. Several factors played a role in increasing the length of stay for the HCT group: time to order a HCT, time to HCT completion, time to radiology read and time to discharge. Our data also demonstrate that children managed without HCT in the intermediate and low-risk groups did not return to the ED for CiTBI.

Limitations: As a retrospective study, we could not ascertain selection bias. In addition, children may have been lost to follow-up.

Reflections: Children who did not undergo HCT had a length of stay that was 1.77 times shorter compared with those who did have a HCT. Increased length of stay for patients receiving HCT may further justify decreasing the use of HCT. Finally, children observed or discharged home after HCT did not return to the ED nor were they later found to have a CiTBI. Therefore, observation may be a safe and time-effective alternative to HCT for children with certain head injuries. **MM**

PEOPLE'S CHOICE WINNER

Compliance of Advertisements for Children in Leading Parenting Magazines with American Academy of Pediatrics Recommendations over Five Years

BY JENNIFER BERGER, MD, KAREN SHEEHAN, MD, AND MICHAEL B. PITT, MD, UNIVERSITY OF MINNESOTA

Frequent exposure to health-related messages in advertisements can have an impact on an individual's decisions. The American Academy of Pediatrics (AAP) issues consensus statements on many concerns facing children. Several of those speak against products or actions often advertised in the media (ie, infant walkers, unsafe sleep practices).

Purpose: The purpose of our study was to determine the frequency of advertisements for children's products that violate AAP recommendations in the top two parenting magazines (based on circulation) and compare them over five years.

Methods: All advertisements from the two parenting magazines in 2009 and 2014 were reviewed. Ads for products intended for use by children were included. Any ad with images or products that went against an AAP recommendation (from the AAP's Policy Statements, Clinical Practice Guidelines, Where We Stand Statements and its textbook, *Injury Prevention and Control for Children and Youth*) was deemed a violation and categorized according to the statement it violated. Total violations and types of violations for each year were compared using Fischer's exact tests.

Results: We reviewed 3,218 advertisements (1,845 in 2009; 1,373 in 2014), of which 2,047 (63.6%) were for products for children. Of those, 337 (16.5%) contained one or more violations of AAP recommendations. Categories of recommendation violations ranked by percentage of violations from most to least were as follows: non-FDA-approved medical treatments, age-defined choking hazards, vitamins/supplements (excluding vitamin D), cold medicine, infant formula, nutrition (based on juice volume per serving), oral care, screen time, sleep safety, fall risk, unsafe toys and water safety. There was no significant difference in the total percentage of violations between 2009 and 2014 (215 [17.7%] vs. 122 [14.6%]; $P = 0.069$). However, several violation categories showed significant ($P < 0.05$) decreases over the five years, including nutrition, oral care, screen time and sleep safety.

Conclusion: Nearly one in six advertisements for children's products in the top two parenting magazines contains images or products that violate AAP recommendations. Despite a difference in the percentage of several violation types, there was no significant change in the total number of violations over the five years studied. The significant decrease in violations in the categories of nutrition and oral care are likely because of liberalization of AAP recommendations regarding juice intake and fluoride toothpaste use. However, the significant decrease in the safe sleep violation and screen time categories may reflect improved awareness of the importance of these topics as a result of recent advocacy campaigns. **MM**

RESIDENT RESEARCH/QUALITY IMPROVEMENT WINNER

WeCare: Engaging Pediatric Trainees in Patient Safety and Event Reporting

BY ABBY MONTAGUE, MD, SAMEER GUPTA, MD, ABRAHAM JACOB, MD, CATHERINE BENDEL, MD, MELISSA ENGEL, MD, IFE OJO, MD, AND EMILY BORMAN-SHOAP, MD, UNIVERSITY OF MINNESOTA

Knowledge regarding the frequency and nature of medical errors is necessary to improve patient safety within a hospital. The University of Minnesota Masonic Children's Hospital (UMMCH) uses "iCare," an anonymous reporting system to document and respond to errors. Graduate medical trainees are the primary physicians interacting with patients at our institution but they rarely use the iCare event reporting system.

Objectives: We aimed to increase the monthly incidence of iCare event reports by pediatric trainees at UMMCH by 100% from baseline after seven months of WeCare intervention. Our secondary aims regarding trainee experience and education were threefold: 1) increase the percentage of agree (% agree) scores for safety climate on the UMMCH Safety Attitudes Questionnaire (SAQ) in seven months; 2) increase our baseline culture of safety program rating to above the national average of 4.5 for the fellow and resident ACGME surveys from 2014 to 2015; and 3) increase the mean score for trainee knowledge about patient safety topics by a measure of 1 on the post-intervention survey.

Methods: The SAQ was administered to all trainees to assess the baseline safety climate prior to the intervention. In September 2014, we included iCare in our hospital orientations. In October 2014, we began the WeCare educational intervention. This involved distributing a monthly electronic flyer on core patient safety concepts followed by a discussion applying those concepts to error reporting and management. At the conclusion of the intervention, the SAQ would be re-administered and the annual ACGME survey completed.

Results: Baseline data included six event reports by trainees during a six-month period and a mean SAQ score below previously published benchmark goals. During the first five months of our intervention period, 37 events were reported by our trainees.

Discussion: We observed a statistically significant increase ($P = 0.0232$) in trainee event reporting within five months of WeCare implementation. More information is needed to determine if the increase in reporting is the result of our intervention. We will assess the impact of the WeCare project at the end of the study period and revise the curriculum for the upcoming academic year. MM

RESIDENT CLINICAL VIGNETTE WINNER

Vitamin K Refusal: Another Dangerous Trend

BY HEATHER PHILLIPS, MD, UNIVERSITY OF MINNESOTA

A 4-week-old girl presented from clinic with bradycardia and seizure. She was the product of an uncomplicated pregnancy and delivery. Her parents had declined immunization and vitamin K. Over the three to four days prior to presentation, she had been lethargic, with poor feeding and frequent emesis. At a midwife visit for routine care, she was obtunded, bradycardic and seizing, and was transferred to our ED. Her initial exam was significant for tense, bulging fontanelle and hypertonic extremities. She was hyponatremic and coagulopathic. A head CT demonstrated a large left-sided intracranial hemorrhage (ICH) with midline shift and uncal herniation. She underwent emergent hemicraniotomy, evacuation of the ICH and a large subgaleal hematoma, and a left temporal lobectomy. She required large amounts of blood products and pressors, but she eventually stabilized and was ultimately discharged home pending planned cranioplasty. Further evaluation confirmed that ICH was caused by vitamin K deficiency. At discharge, the girl's parents were still considering whether they would immunize her.

Discussion: Vitamin K deficiency bleeding (VKDB) is divided into early (first 24 hours of life), classical (days 2 to 7 of life) and late (2 to 12 weeks of life) forms. Early VKDB is seen primarily in infants whose mothers were taking drugs that inhibit vitamin K; classical and late forms are caused by inadequate vitamin K intake and are seen almost exclusively in infants who are breastfed and whose parents refused vitamin K at birth (breast milk does not contain adequate amounts of vitamin K). Late VKDB is the rarest and most severe form; ICH occurs in

50% of cases, with a 20% mortality rate. The AAP recommends that all infants receive a single dose (0.5 mg to1 mg) of intramuscular vitamin K at birth, which has been shown to prevent all forms of VKDB and has virtually eliminated the late form of this disorder. Oral vitamin K provides some benefit but not as much as parenteral. Recently, there has been a rise in reports of parents declining this intervention, which seems to parallel the rise in reports of parents declining immunization. Parents offer many reasons for refusal, including concern about causing pain, desire to only provide "natural" interventions, belief that it is unnecessary and belief that vitamin K is associated with increased incidence of childhood leukemia (which has been found to be false). Unfortunately, increased refusal rates have been followed by increasing rates of VKDB, especially the late form.

Conclusion: VKDB is almost entirely preventable with a single, virtually risk-free intervention at birth. Pediatricians need to be aware of the dangers of vitamin K refusal and the reasons parents give for this decision. Additionally, vitamin K refusal is associated with later vaccine refusal and may provide an early opportunity to discuss the benefits of other childhood preventive services. **MM**

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Kari Lenz, Physician Recruitment
karib@acmc.com, 320-231-6366
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There are days when I need a day

BY HOLLY BELGUM

There are days when I need a day.

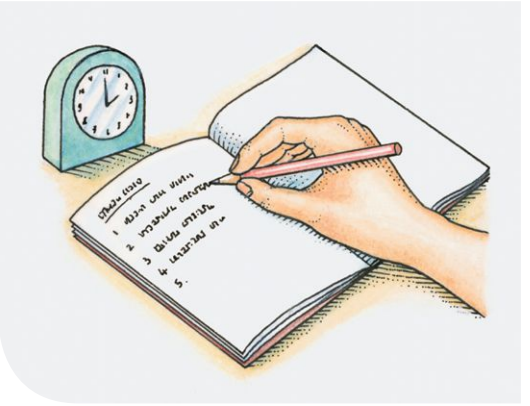
A day to close the books and the laptop and ignore the incessant notifications from classmates posting study resources and must-read articles—and did anyone get that detail from slide 32?

A day to forget about the impending test, the ticking hours, the list of antibiotics yet to memorize and the brain regions to review. A day to stay up late and write. Yes, write. Do medical students do that? Is it allowed, beyond the concise medical histories, lists of chief concerns, assessments? Can medical students really have other talents, other skills grown dusty with disuse, other lives they could have chosen?

A day to dig into the feelings you let slip beneath a surface littered with the day-to-day—the to-do lists, the lab reports. Those feelings that need more than a 15-turned-to-90-minute Facebook, Netflix, Reddit or other vegging site of choice mental break. The ones that need a turning of the earth, a walk, a glass of wine and time to sort. The relationship that ended. The family matters. The attitude adjustment, for whatever just feels off. They need a day.

And more than that, a day to wake up in the Boundary Waters with only the water and buzz of mosquitoes at dawn beyond the tent walls. A day for a walk through woody silence, bare soles slipping through the grasses, a gentle toss of unbrushed hair, a light and flowing summer dress donned again. A day that's not your one day free so you better fill it with those friends you never see, the grocery store, the bank, the errands. Don't forget to relax.

So maybe not just a day. Maybe a long guilt-free weekend, a month, a sweet last summer? But shouldn't you be researching? Shadowing? Building a clinic somewhere?



Another life, then? The other lives you might have lived, the lives you plan to weave into this large and lovely one you chose that only now, you realize, takes up your time and energy so easily. When will the time come to write the book and keep up with those novels and biographies and sing jazz and send cards to your Granddad and sleep enough and do your hair and find that one person who'll put up with your long hours and studying on Friday nights and fall in love and bike across southern France and satisfy those parts of you that could have lived another life, with philosophy and theology, and all the other -ologies you could have chosen for a field?

But you chose medicine, and when you place that stethoscope around your neck and don the white coat that needs washing, those dreams and that day-wishing disintegrate.

A knock on the door and I'm no longer my focus, it's not a day for me I'm dreaming of. It's for him, cradling his arm. It's for her, head upon the chair. A day for him, without the pain of an 8-out-of-10 intensity all-day, all-night headache. (How that must feel, I can't imagine.) A day knowing it's not a stroke, like your husband had. (I'm so sorry to hear he passed. How are you doing?) A day free from the cancer that's come back. (I don't know how to tell you this.) Give them a day, I don't need mine. Give them a month. A summer. A year. Another life.

I go back home to bring out the books, to write the reports, so that I may learn and learn and learn. I'm so lucky to be here learning, learning how to help.

So I give my days to you. My days, my months, my summers, the other lives I might have lived. Yes, I'll take some for myself. I'll sing a song at the talent show and find the time to fall in love. I'll stay up late one night and write; neuroscience will wait. I'll visit my Granddad and see my friends, if not as often as they'd like.

But many, many days I'll give to you, in hopes that I might help you live out yours. As you choose to live them, like I, so gratefully, have been able to live mine. **MM**

Holly Belgum is a third-year medical student at the University of Minnesota. She wrote this story, which received honorable mention in *Minnesota Medicine's* 2015 writing contest, after a long day of lectures and studying. "When I began writing, I was feeling the drain of long hours and memorizing scientific facts day after day. I missed the balance I'd come to love during my liberal arts education. As I continued to write, my thoughts wandered from each day's tasks to those I was here to serve. It was a bit of a personal revelation, and one that I kept with me through my first two years of medical school. Now in my third year, those reminders of my purpose–the patients–are with me every day, and I feel only more grateful to be here."

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