The fall and early winter of 2020 continue to remind us that we are living very differently than we did just a year ago. I missed Halloween this year since I have now retired from my clinical practice and thus did not dress up in a costume for my patients, and because of the pandemic and not wanting hundreds of kids (that’s how many we normally get) to come to my door for candy in a non-socially distanced, and probably unmasked way—I didn’t give out candy. Both brought sadness to me. I did, however, recently have the chance to be with our youngest granddaughter (almost 5 years old) and her parents for the first time in 9 months and it was great.

As this article goes to press, the outcome of the 2020 presidential contest faces great scrutiny, and a number of other election results may be subject to recounts. It appears that both the United States Congress and the Minnesota State Legislature will feature divided partisan control. Unfortunately, this will make passing some key MNAAP priorities, such as a repeal of the personal belief vaccine exemption, unlikely to succeed. However, MNAAP will continue to work with all interested parties, both in and outside of the legislature, to do what is best for children and adolescents.

There are three issues and their impact on pediatrics that are standing out to me (separate from the election): low rates of routine vaccinations, potential for a COVID-19 vaccination and when it would be available for our pediatric patients, and the declining birth rate. The ongoing low rates of routine vaccinations being given is very concerning for the health of all our patients and even if we don’t have another measles outbreak in the near future, we have already been seeing higher incidence of pertussis for years and lower vaccination rates can only make this worse.

The second issue is when will there be a COVID-19 vaccine and when it will be available for administration to our pediatric patients.

(continued on next page)
With the November elections having recently passed, it’s once again safe to turn on one’s television without being assaulted by negative and ugly political advertisements. As of this writing, the results of the presidential election indicate that President-elect Biden is set to take office in January 2021, though President Trump has yet to concede and the results may yet end up in litigation. Here in Minnesota, the picture is much clearer. Senate Republicans surprised many by retaining their majority, albeit with a narrow one-vote margin. The House will remain in DFL hands, though with a smaller margin of just three votes (and at least one contest headed to a likely recount).

The 2021 session promises to be a challenging one on many fronts. Perhaps most notably, the state will be facing an enormous deficit of $2.4 billion in this biennium, and an even greater $4.7 billion deficit in the next biennium. This is a stark change from earlier this year when budget analysts projected a surplus approaching $1.5 billion. The dramatic change came about in large part because of the COVID-19 pandemic and its enormous impact on the economy and, with it, reduced revenue coming into the state’s coffers. While Minnesota is fortunate to have a robust reserve account to mitigate some of the deficit, the budget hole will be difficult to fill. In many past legislative sessions, legislators often turn first to health and human service spending for budget cuts, and securing spending on new programs will be extraordinarily difficult. And unlike the federal government, the state is obligated under law to balance its biennial budget. Without question, the budget deficit will dominate the legislative session.

Minnesota will once again be the only state in the nation to have a legislature with split partisan control. Divided control will mean that neither party will be able to achieve its priorities, and compromise will be necessary to complete the session. Past MNAAP priorities such as strengthening the state’s vaccine requirement and enacting common-sense firearm safety measures will face exceedingly long odds in the Minnesota State Senate.

MNAAP faces multiple threats and opportunities during the 2021 legislative session. Stay tuned to the MNAAP website, chapter emails, and this newsletter for additional news and action items in the coming weeks and months.
Advisory Council Focuses on Minnesota’s Children Amidst Turbulent Year

Andrea Singh, MD, FAAP

In fall 2019, I was appointed to the Minnesota Children’s Cabinet Advisory Council by Gov. Tim Walz after a very formal application and review process. As the only medical doctor on the 15-person council, I was excited to be given the opportunity to partner with leaders across sectors in children’s well-being across Minnesota. I soon learned that the council also included youth representation and that we would be working in tandem with the 15 community and government leaders who comprise the State Advisory Council on Education and Care. Who knew that in just four short months of the group convening, we would be faced with the worst public health crisis the world has encountered in the last century? As members of the MNAC, it may be helpful to learn a little more about what this group does and how state government is using this council to engage feedback from representatives on the ground that work with children every day.

Let’s set some context. What is the Minnesota Children’s Cabinet and its purpose? The goal of the re-launch of the Children’s Cabinet by Gov. Walz has been summed up by state officials as “making Minnesota the best state for children to grow up” by focusing on: 1) a child-centered government, and our hearts collectively broke. Our Advisory Council shifted some focus to share with our political leaders how children are affected by experiencing social injustice and racism. In August, we worked on school re-opening and I assisted in the creation of the Minnesota Department of Health’s School Exclusion Guidelines we are all now using in clinic.

As we move forward, our hope as a council is to balance our ongoing pandemic work with efforts related to the original areas of focus for the group as outlined above. It is simultaneously exhausting and energizing work. The needs of children and families must be front and center in government decision-making to have a truly healthy populous, of this there is no doubt and I feel privileged to be part of this work – sharing our stories with those who will listen.

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who may have special needs, as well as myriad other effects that we all are aware of as practicing clinicians - including homelessness and food insecurity.

In May, we all witnessed George Floyd’s murder just a few blocks from where I attended elementary school, and our hearts collectively broke. Our Advisory Council shifted some focus to share with our political leaders how children are affected by experiencing social injustice and racism. In August, we worked on school re-opening and I assisted in the creation of the Minnesota Department of Health’s School Exclusion Guidelines we are all now using in clinic.

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The Minnesota Children’s Cabinet Advisory Council was created to bring together leaders from the public, private, and nonprofit sectors to coordinate efforts to improve the well-being of Minnesota’s children. The council is made up of representatives from various state agencies, as well as members appointed by the governor. The council focuses on areas such as health, education, and economic security, among others.

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COVID-19 has upended almost every aspect of our lives, and youth sports are no different. In March 2020, many sports organizations were shut down due to the pandemic, and the Minnesota State High School League (MSHSL) canceled its winter state tournaments with two days remaining in the girls’ basketball tournament. Throughout the summer and fall, sports leagues at every level strategized how to navigate safer sports participation during this pandemic. As more people are exposed to and infected with SARS-CoV-2, physicians need to consider how athletes can safely return to sports once they have recovered.

As we learn more about the potential sequelae of COVID-19, particularly the risk of post-viral myocarditis, various national organizations are working together to come up with guidelines and cardiopulmonary considerations for returning athletes to sports during the pandemic based on the best evidence currently available. The National Federation of State High School Associations (NFHS) and the American Medical Society for Sports Medicine (AMSSM) formed a task force and published a guidance statement, and the American Academy of Pediatrics (AAP) updates recommendations on their COVID-19 specific website. The MSHSL recently established their own “Post COVID-19 Graduated Return to Sport Protocol” based on these guidelines which can be found on their website. When a student-athlete has been diagnosed with, or tests positive for COVID-19, a medical evaluation is recommended prior to returning to physical activity. General pediatricians will likely see this Minnesota-specific form during clinic visits this winter.

The MSHSL Medical form prompts providers to ask specific questions about the patient’s diagnosis, treatment history, and current symptoms including a more detailed cardiopulmonary symptom history. COVID-19 induced myocarditis may predispose patients to arrhythmia and sudden cardiac arrest with activities. Given this concern post infection, certain criteria should be met before an athlete returns to sports. Athletes should be at least 14 days symptom free without medications and able to tolerate activities of daily living without cough, shortness of breath or fatigue. They should not have any cardiac symptoms including chest pain or tightness, unexplained syncope, dyspnea or fatigue with exertion, palpitations with activity, or a new heart murmur on exam. For athletes with a positive response to a cardiac screening question or a history of moderate to severe symptoms including hospitalization, additional cardiology evaluation is recommended which could include cardiology consultation, ECG, echocardiogram or other investigations. The AAP specifically recommends that those patients with severe illness, including organ failure, intubation or multisystem inflammatory syndrome (MIS-C), be treated like they have myocarditis and restricted from exercises for 3-6 months.

When an athlete is ready to return to sports, the protocol outlines a graduated return progression based on international recommendations. An activity progression is important to provide an athlete with a gradual increase in cardiac load. If cardiac symptoms develop during the progression, additional medical evaluation is needed. The protocol recommends a 7-day return to sport protocol starting with stage 1 of light activity, like walking, and progressing through more complex training at a minimum of 1 week. If symptoms develop with advances in activity, the athlete should return to the previous asymptomatic level for 24-48 hours before attempting the next level of activity.

(Continued on page 11)
Member Spotlight:

Tim Zager, MD, FAAP

I understand you recently retired from practicing medicine, but you are still finding ways to stay connected to advocacy for children. Can you tell me about some of your recent activities?

I have managed to find some paths to stay connected to advocacy for children by serving on the board for First Witness Child Advocacy Center in Duluth. I also partnered as a pediatric resource with MN Head Start as they re-started their programming across the country. It was evolving rapidly and best practices for re-opening required novel design and periodic review.

You serve on the board of First Witness Child Advocacy Center. How long have you been involved with the center?

Since my wife and I are doing the online schooling for our 7-year-old grandson during this pandemic interval, it is that all who work in healthcare through this crisis are drawn together into a bond of caring and service to each other. As the pandemic has been an unpredictable year. If you could look into a crystal ball for the future, what would you hope to see?

2020 was such an eventful year that it made any type of planning impossible. My hope for the future after the pandemic year of 2020 is that all who work in healthcare through this crisis are drawn together into a bond of caring and service to each other and the people who seek care. As the pandemic deepens, the heroic service of all healthcare workers may be able to inspire the next generation to heed the call to choose a career in the health fields.

If you could share one lesson from your years in practice, what would it be?

One lesson to share from years of practice: learn and record in each patient's chart the names of everyone in the family, where they live, and some vital themes around their family life. Review this info briefly before every encounter. Nothing emphasizes that you truly care for the family than being able to greet each child in the room by name and ask a pertinent question updating family life. It's not just good patient relations; it turns a crowded schedule of 'encounters' into a rich series of 'engagements.' I found this to be the best means to avoid the dreaded 'burnout' that can come with the inevitable busyness of outpatient medicine. Going the extra mile for kids that feel like family does not seem to consume as much effort as it might if the day were just a list of tasks.

What are your interests or hobbies?

My interests are local history of the Twin Ports (especially railroading and Great Lakes shipping), serving on the board of the Lake Superior Railroad Museum. Active outdoor pursuits are a special interest including kayaking Lake Superior, canoeing, bicycling, snowshoeing, and cross-country skiing. My fly rod and other fishing tackle receives occasional use. Four growing grandchildren from 2-7 years of age receive increasing shares of my time, especially since my wife and I are doing the online schooling for our 7-year-old grandson during this pandemic interval.

What’s the funniest thing a patient has ever said to you?

The funniest thing a (young) patient ever said to me was: “My Daddy works as a (insert job here), what kind of work do you do?”

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MNAAP Honors Annual Awards Winners

Each year, the Minnesota Chapter of the American Academy of Pediatrics honors two members for their dedication to the health and wellbeing of Minnesota’s children and adolescents with the Child Advocacy Award and the Distinguished Service Award. During the chapter’s annual meeting held virtually as part of the Twin Cities Pediatrics Update in September, chapter President Sheldon Berkowitz, MD, FAAP, announced that Marjorie Hogan, MD, FAAP, received the Distinguished Service Award and Tom Scott, MD, FAAP, received the Child Advocacy Award. We applaud both of these members for their commitment to advocacy and advancement on behalf of Minnesota’s youngest residents.

2020 Distinguished Service Award

The Distinguished Service Award is presented to a pediatrician recognized for dedicating his or her life to improving care for children in Minnesota. This year’s recipient is Dr. Marjorie Hogan, pediatrician and adolescent medicine physician at Hennepin Healthcare. Dr. Hogan has dedicated her life to serving historically marginalized populations. Many know Dr. Hogan for her warmth and compassion with families, as well as her mentorship and generosity with her counsel and teaching. One of her colleagues recently said, “Margie is the embodiment of kindness. She has an unbelievably positive outlook on the world even though she worked for years as a child maltreatment specialist. She was a soft place to land for many children who needed to tell their story to someone. We all strive to be a ‘Dr. Hogan’ with our patients.”

2020 Child Advocacy Award

The Child Advocacy Award is presented to a person or organization from the community who goes above and beyond his or her everyday routine to advocate for children. This year’s recipient is Dr. Tom Scott, former co-chair of the MNAAP Poverty & Disparities work group and former co-chair of the Early Childhood Caucus. Dr. Scott has been actively involved in a variety of issues over the years, from bullying and LGBTQ issues, to early brain development. One colleague stated, “Tom’s work as a child advocate is really more of a calling. A calling he has consistently answered, while also teaching so many others how to answer their call.” Another colleague said, “He never lets any work feel small or unnecessary and celebrates the journey along the way.”

New Non-Fusion Treatments for Severe Scoliosis: Anterior Vertebral Body Tethering

Dr. A. Noelle Larson and Dr. Todd Milbrandt are orthopedic surgeons, practicing at Mayo Clinic in Rochester, Minnesota.

Scoliosis is the most common spinal deformity in children. Larger curves greater than 40 to 50 degrees can progress throughout life, resulting in pain, functional limitations and sometimes pulmonary compromise. Moderate curves in growing children can be successfully treated with rigid plastic bracing (TLSO), but many of today’s teenagers struggle with brace wear. Until recently, the only treatment for adolescents with large curves (over 40 degrees) was fusion surgery (Fig 1a). Although this procedure provides powerful correction of the scoliosis and has a 40-year track record in orthopedics, it involves placement of metal rods through a large open incision and permanently reduces spinal range of motion.

Anterior vertebral body tethering (AVBT) is a novel approach in which a flexible cord is placed into the anterior aspect of the spine through 2 centimeter incisions (Figure 1b). This acts as an internal brace, resulting in about 50 percent correction of the scoliosis and ongoing correction as the child completes growth (Figure 1c). Mayo Clinic began its non-fusion scoliosis program 5 years ago because we heard from our patients that the traditional approach of fusion was not acceptable to them. Our focus then became how to correct the scoliosis but leave a mobile spine. In August 2019, AVBT was approved by the U.S. Food and Drug Administration (FDA) under a Humanitarian Device Exemption, and Mayo was the first in the U.S. to use the new device. Mayo Clinic has been selected to enroll patients in the post-approval surveillance registry, with patient outcomes prospectively reported to the FDA. Growing children with thoracic and/or lumbar curves between 40 – 65 degrees are eligible for AVBT, which provides a more rapid recovery, less invasive approach, and improved spinal motion compared to fusion surgery. Overall, we have performed this surgery in over 70 patients with the team approach at Mayo Clinic.

Although long-term outcomes are forthcoming, 2-year results show that these non-fusion procedures allow preservation of normal spine motion in teenagers with scoliosis. Children and families should be provided with multiple options to treat scoliosis and be empowered to select the treatment pathway, either fusion or non-fusion, which best matches their interests and values.

Also in 2019, the FDA approved a posterior-based dynamic distraction device as a humanitarian use device for the treatment of scoliosis in both growing and mature children with moderate to severe scoliosis. This device (the ApiFix MID-C) is placed through a similar approach through the posterior spine as fusion, but only three screws and a single rod are used. Up to 40 percent of normal spine motion is preserved. Given our success with AVBT, our team was eager to have a device to treat older patients who wished to avoid fusion. Mayo Clinic again was the first in the U.S. to implant the ApiFix MID-C device, which provides a non-fusion option for patients with flexible curves.

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Expert Spine Care from Simple to Complex

Gillette Children’s Specialty Healthcare is internationally recognized for treating pediatric spine conditions. From innovative treatments and procedures to pioneering research—Gillette has the expertise to help your patients.

**Spine Services at Gillette Include:**
- Vertebral Body Tethering (VBT) Surgery
- MAGEC Rod Surgery
- Vertical Expandable Prosthetic Titanium Rib (VEPTR) Surgery
- Spine Fusion Surgery
- EOS Low Dose Imaging
- Schroth Method-based Scoliosis Specific Exercise
- Mehta Casting
- Nighttime Bracing
- TLSO Bracing

At Gillette’s Children’s Specialty Healthcare, we specialize in caring for children with musculoskeletal malalignments that may be a cause of pain or that could affect their well-being, function and health. Examples include scoliosis, femoral antversion, tibial torsion, genu varum (bowlegs), genu valgum (knock knees), limb length discrepancy and more. It is unlikely that a parent’s first concern will be about the volume of imaging and subsequent radiation exposure to their child. However, as physicians, we understand the implications of repeat exposure and aim to be as proactive as possible.

Consider a patient with scoliosis that requires imaging every 4-6 months for 1-3 years and a patient with a lower extremity condition that requires imaging every 6 months for 2-6 years. Although necessary for adequate treatment, these large numbers of X-rays subject pediatric patients to a higher-than-normal exposure to ionizing radiation. Although rare, high radiation exposure from medical imaging can cause an increased risk of future radiation-induced tumors.

Gillette is proud to offer two low-dose EOS imaging systems to help keep patients safe when they need repeat imaging to monitor skeletal growth and alignment. At our Maple Grove Clinic, the first-generation EOS system administers low dose, full body, stereo-radiographic (X-ray) images that are available within seconds. A child being imaged with EOS receives a radiation dose that is 50 to 85 percent less than a standard spine X-ray—a benefit that compounds as patients receive additional imaging.

In July 2020, Gillette was the first pediatric hospital in the world and the first U.S. hospital to install the next generation EOS system, EOSedge at our St. Paul location. The new system’s Flex Dose™ technology adjusts the radiation to the patient’s morphology and the Micro Dose setting further reduces radiation exposure, bringing the dose received for a spine exam to only a week’s worth of natural radiation.

EOSedge gives us access to high quality images and 3D reconstructions we use to diagnose, plan and treat orthopedic conditions as well as monitor disease progression over the long term. As pediatric spine surgeons at Gillette, we are lucky to have such an innovative technology to help our patients achieve the best outcomes with the lowest radiation risk.
Minnesota Chapter

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN

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St. Paul, MN 55105
www.mnaap.org

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- Bi-weekly legislative updates during the legislative session -
- Quarterly newsletters from the chapter -

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