COVID-19 has been a difficult, stressful, and potentially isolating time. SGIM’s members continue to be called upon to keep the medical system going while under tremendous personal and professional pressure. SGIM members have also had to evolve to better balance our personal and professional lives. This article shares our experiences of doubt and the challenges we face navigating our worlds outside of the hospital, knowing that these challenges are universal. We hope our reflections will help others reflect on their own experiences and not feel as isolated. Each SGIM Forum associate editor responds to this question: Give an example of uncertainty as it pertains to protecting yourself and your family from COVID-19, possibly one that raises conflict with others, and how do you deal with it?

Block: The pandemic has changed how I approach life cycle events, and other people. This summer, I received an invitation to a family wedding, rescheduled from a year earlier. Normally, I’d be elated to celebrate with family from near and far. This time, as the COVID-19 Delta variant spread, the date loomed with something like dread. My mom, who was flying in for the event, expected me to go. There were about 250 guests and all were “required” to be vaccinated. Being lucky enough to be fully vaccinated, I breathed a little easier. Looking across the dinner table at my three elementary school kids, too young to be vaccinated, I became concerned again: How could I forgive myself if I got them sick? I certainly trusted the organizers to make a reasonable effort to make sure everyone was vaccinated, but would they exclude a key cousin or bridesmaid if they weren’t? Would people feeling mildly ill stay home after making the effort to come? My husband bowed out, saying he’d stay home to watch the kids. I put on my best double-masked party face, and went. It was great having the chance to get dressed up, dance, and sing with the family and the couple who had waited so long to tie the knot. But as I looked around the huge room, I saw I was one of a handful who wore my mask throughout the event. I tried my best and mostly succeeded in prioritizing fun over fear. I tried not to judge others, even those who had recently lost loved ones to COVID-19, for their decisions. I drove home hoping that everyone would stay healthy, and nobody would judge me for having worn my mask.
O
ne year ago, I quoted a philosopher, Heraclites: “The only constant is change.” As 2021 ends, sometimes it feels as if not enough has changed, or not quickly enough: COVID-19 cases are surging (again) despite the availability of vaccines for one year; the wide-reaching threats of disinformation persist; and some public health and systems of care are again being tested to their limits. There is one thing that I hope changes as we think forward towards 2022: more humankindness.

A few years ago, I sat in an airplane seat after overnighting in a hotel room. Cramped and sleep deprived, I am on an early rebooked flight and not permitted to take out my check-in luggage (including toiletries and change of clothes). The airplane was delayed already by one hour for the short flight. When the seatbelt sign clicked off, I headed to the lavatory. On exiting, I asked a flight attendant for coffee. While airplane coffee is not exactly an elixir of life, it was the one thing that I needed at that moment, obviously. I obviously had no reasons.”

Their response: “Sorry, we can’t serve coffee for safety policies. Not five minutes later, they found me at my seat, the one thing that I needed at that moment, apparently for more than only its caffeine. Their response: “Sorry, we can’t serve coffee for safety reasons.”

The flight attendant must have sensed a bit of my learned helplessness at the reply as I returned to my seat, which felt as sunken as I was feeling. I obviously had no alternatives: I could not brew or purchase coffee and a corporate policy would not permit the flight attendant to help. Or maybe, they recognized that some compassion should take precedence over risk-averse corporate policies. Not five minutes later, they found me at my seat with a paper cup of that horrifyingly bitter, hot, dark liquid. Receiving that cup with two hands, I mumbled a meek “Thank you” as tears welled up.

I imagine the countless examples of unseen kindnesses that we give, receive, or observe between people everywhere: such acts humanize in systems with an unintended (or even intended) consequence of dehumanizing. Everyone without exception has such a capacity for humankindness, treating each individual with kindness, respect, and empathy.

I’ll have some humankindness with my coffee any day, please.
The past 21 months have been filled with many decisions in response to the COVID-19 pandemic. Some decisions have been large, others have been small, but all of them have weighed on us. Decisions such as whether to wear a mask, what type to wear, whether to supply our own mask or depend on our employers to provide one for us. These multifaceted decisions also invaded our personal lives. Decisions as whether to go for a walk or to the grocery store, to get the vaccine or ensure that parents/loved ones, and now children, receive one. Our decisions continue—deciding whether it is safe for children to go to school, eat at a restaurant, or attend a face-to-face activity.

More recently, as the Council began planning for the 2022 fiscal year, we had to make a substantial decision—whether to hold SGIM 22 in-person or virtually. Eric Bass, Kay Ovington, and I presented various options for the Council to consider as they deliberated on this decision. As we went through this process, it reminded me of the book *The Art of Decision Making: How We Move from Indecision to Smart Choices* in which author Joseph Bikart proposed six phases of decision making: Creativity, Options, Selection, Action, Resolve, and Completion.

The Council and the Annual Program Committee, chaired by Matt Tuck and co-chaired by Nicole Redmon, developed a range of creative objectives for our annual meeting. The Finance Committee, our Treasurer Hollis Day, and SGIM staff contemplated several options as well as the possible outcomes of having an in-person meeting or whether to convert to a virtual or hybrid-meeting model (e.g., both in-person and synchronous virtual components). We worked to re-frame all possible outcomes for each option to ensure both risks and benefits were fully articulated to actualize all problems as they truly were and not idealize any option.

In the Selection phase of decision-making, Bikart continued on page 13...
The National Institutes of Health (NIH) recently invited me to represent SGIM at a listening session about President Biden’s plans for establishing the Advanced Research Projects Agency for Health (ARPA-H). ARPA-H will be structured as a new entity within the NIH with a radically different culture and organization intended to accelerate transformational breakthroughs in the prevention, detection, and treatment of diseases. This listening session focused on how ARPA-H could help to improve minority health by addressing disparities in health and health care. This column summarizes how I answered questions that were posed to the invited speakers. For additional information about the ARPA-H listening sessions, see the summary released by the White House Office of Science and Technology Policy. I want to give special thanks to SGIM member Dr. Lisa Cooper, SGIM’s Health Policy Committee Chair, Dr. Elizabeth Jacobs, and SGIM’s President, Dr. Monica Lypson, for offering great advice on what to emphasize.

Which scientific opportunities could be catalyzed by a different approach to funding?
The innovative approach to funding ARPA-H projects should help to catalyze implementation of research into practice with a focus on engaging communities at highest risk. It should increase investment in the science of community engagement and organizational behavior with the goal of determining the most effective ways to foster adoption and use of breakthroughs in our complex health system. ARPA-H also should create new opportunities to incorporate social and behavioral research with the goal of addressing the complex ways in which human behavior and social factors influence adoption and use of breakthroughs. Furthermore, ARPA-H should catalyze transdisciplinary approaches across basic, translational, and social sciences to address multiple chronic conditions with shared risk factors at the individual and community level, as well as inter-sectoral approaches with regulatory relief to address social determinants of health that can impede adoption and use of breakthroughs.

What systemic gaps in the research and development enterprise are impeding progress?
One of the most important gaps relates to how policy makers influence the translation of evidence into practice and the adoption of breakthroughs. This gap calls for more attention to studying the role of policy makers in translating innovations into practice.

What are the challenges in advancing research through to commercialization, implementation, and dissemination?
To translate research advances into practice, three major challenges must be addressed. First, it will take time and appropriate incentives to effectively engage stakeholders across multiple groups within each area of innovation. Second, attention must be given to how implementation of innovation is hampered by regulatory bureaucracy at multiple levels. Third, it will be necessary to identify and address barriers beyond the reach of NIH, such as liability issues.

What partnership or collaboration strategies should be incorporated into the ARPA-H design?
ARPA-H should build upon the success and lessons learned from the Community Engagement Alliance Against COVID-19 Disparities (CEAL) which incorporated community-based participatory research methods and collaboration with the National Heart, Lung, and Blood Institute and the National Institute on Minority Health and Health Disparities (NIMHHD). ARPA-H leadership should also consider lessons learned from the Centers for Population Health and Health Disparities (established by NIH in 2005), and the Centers of Excellence on Minority Health and Health Disparities (established by NIMHHD in 2000) which could have benefitted from greater investment in the infrastructure needed to sustain such networks.
If the COVID-19 pandemic has taught us anything, it is that nothing about the disease or its implications on our lives has been predictable. That said, one thing is certain—we are looking forward to having an in-person meeting at the Walt Disney World Swan and Dolphin in Orlando, Florida from April 6-9, 2022. We are confident that we are planning for the safest experience possible that will include the requirement that attendees must be vaccinated. Most of us will have already received our booster shot and SGIM staff is working with a vendor to produce an app that shows proof of vaccination at the resort. The resort and its employees are also taking extra precautions such as to include staff wearing protective equipment, compulsory mask wearing when indoors, extra cleaning and disinfection, and enhanced food service safety with individually wrapped food options. In August 2021, Disney World reached a deal with unions to require vaccination for unionized employees by October 22, 2021.

Even with these assurances, we know that not all will be able to travel due to institutional or agency restrictions and some will not feel comfortable traveling. The Annual Meeting Program Committee has not forgotten about this group of individuals—there will be course offerings available on the Learning Management System for those unable to attend.

This year’s meeting theme is “Dimensions of a Generalist Career: Discovery, Equity and Impact.” Discovery is the foundation of medical education and research and is essential for improving the lives of our patients. To foster discovery and inclusive excellence, it will be necessary to enhance infrastructure and support to attract and retain physicians to the field of general internal medicine. Our workforce must also stand for health equity. We must strive for better health for all our patients. To do so, we must pursue social justice for vulnerable and marginalized populations by building a workforce that prioritizes development of a diverse workforce that reflects our increasingly diverse patient population. We must also include individuals and communities underrepresented in research, engage policy makers in dismantling structural inequities, and educate the next generation of physicians in an effort to eliminate inequities in health. Finally, as we imagine the generalist workforce of the future, we must have impact as a Society on stemming the crisis that the United States faces in the projected shortage of general internists. We must work with stakeholders in state and federal government and other non-governmental entities to attract and retain medical graduates to generalist careers to ensure access to high-quality health care for all Americans.

The Annual Meeting Program Committee has been busy lining up a robust meeting. We have confirmed our plenary speakers who will speak on each topic of the meeting theme. Dr. Carlos Del Rio, professor of medicine at Emory University School of Medicine and Executive Associate Dean for Emory at Grady, will lead off discussing his approach to discovery efforts as the co-director of the Emory Center for AIDS Research and emerging infections. Speaking about her leadership in bringing health equity and social justice to the historically underserved area of Los Angeles County’s service planning area 6 (SPA6), Dr. Deborah Prothrow-Stith will share her role in helping to build and cultivate the Charles R. Drew University of Medicine and Science, where she is dean and professor of medicine. We are pleased to announce that she has been selected by SGIM’s President, Dr. Monica Lypson, to be this year’s honorary Malcolm L. Peterson Lecturer. Dr. Ashish Jha, Dean of the School of Public Health and professor of health services, policy, and practice at Brown University, has had tremendous impact on health policy research and practice and is recognized as an expert on pandemic preparedness. He will describe his impact on public health, policy, and advocacy on the final day of our meeting.

We are excited to share that the annual meeting will also have content that has been valued by our members for years as well as a few new offerings. There are stimulating and informative symposia lined up spanning topics like...
Every morning, I say goodbye to my parents as they leave for work, knowing that they are putting their own lives at risk to care for their patients. Every evening, I wait until they have showered, changed, and disinfected their belongings before setting foot in the same room as them, ready to hear about the new challenges they faced that day, the new stories they heard. As the pandemic raged, the world stopped. But their worlds did not. They adapted to every changing circumstance so that they could continue providing care to the patients that needed them—whether that meant self-isolating from the family during their hospital weeks or taking late-night phone calls from patients and team members. Their commitment, determination, and sacrifices have always inspired me, but even more so in these past few months. The term *healthcare hero* applies to them, without a doubt.

Since the start of the pandemic, there has been an outpouring of appreciation for people like my parents. All around us, in the news and on social media, people are lauding physicians, nurses, and other healthcare workers for their sacrifices on the front lines of the pandemic. Even I have been receiving messages from friends and family members sending me their best wishes and warning me to be careful as I care for COVID-19 patients. Many say they are proud of me for everything I am doing to help, and they thank me for my sacrifice.

However, whenever I felt like things were hard for me, I didn't need to look far to realize how much harder they were for others—for COVID-19 patients and their families, those who lost loved ones to the disease, and those healthcare providers being asked to put their lives at risk just to do their jobs. Thinking of these people made me feel helpless because helping these people was the reason that I wanted to become a doctor. During this unprecedented time when there was a rallying call for everyone to step up and do their part to fight this pandemic, I could not. I wanted to devote all my energy and attention toward the pandemic and those affected by it, but as my test date drew nearer every day, I had to force myself to turn attention away from the news cycle and the wise words of Dr. Fauci, and instead focus instead on the task at hand: studying for Step 1.

Feelings of helplessness grew to feelings of frustration as I lamented the exam's focus on basic sciences. Was this really relevant? Did the doctors fighting COVID-19 really need to know about transcription factors and the lac operon? Weren't there more important and useful things I should be learning? I couldn't wait until I could finally start learning real, practical skills, and apply them in a way that mattered.

Late one evening, I sat hunched over my desk reviewing my notes when I came across a familiar-sounding term: acute respiratory distress syndrome. Where had I heard this before? It occurred to me suddenly—ARDS is a known complication of COVID-19. I had heard Dr. Fauci talking about ARDS on the news just that day. I returned to my notes: ARDS destroys both type 1 and type 2 pneumocytes, impairing healing of lung tissue. This was why Dr. Fauci was saying patients with COVID-19 have long-term lung damage. I realized with a start that this information was relevant. The material I was learning laid the foundation upon which my clinical acumen and skills would be built.

Though the connections may not always be obvious, they were there. In my microbiology review, I read about different types of disinfectants and the pathogenic...
In early March 2020, I never could have anticipated how the COVID-19 pandemic would shape our area of practice of perioperative medicine. Yes, I anticipated that patients may cancel their surgeries. Yes, I anticipated that some of our clinic staff, along with our surgeon and anesthesiologist colleagues, would be deployed to inpatient COVID-19 units. I did not anticipate the innumerable ways that COVID-19 affected the practice of perioperative medicine.

The last nearly two years have been a whirlwind of clinical updates, research, and policy change. This article shares clinical pearls and lessons learned as much of preoperative care and risk assessment and optimization is delivered in the primary care setting.

Calculating Clinical Risk and Preoperative Assessments

COVID-19 versus perioperative medicine began with concerns about the risk of exposure in the operating room and PPE shortages. By late March 2020, we were screening all surgical patients for COVID-19 two days before surgery and cancelling cases for patients who tested positive. By May 2020, we started to frame the next clinical question: how and when do we know if a COVID-19 survivor is medically ready for surgery?

Initially, only a few small case series from China and Iran were available, demonstrating that patients with acute COVID-19 perioperatively appeared to have dramatically higher rates of mortality. Our periop team merged these observations with analyses of what we were learning then about COVID-19: especially is its most severe forms, it is a multiorgan system illness with the potential for significant end-organ damage (including pulmonary and cardiac) with an intense pro-inflammatory, pro-thrombotic cytokine response. Similarly, surgery is a pro-inflammatory, pro-thrombotic, cytokine-induced state. Other medical events such as acute myocardial infarctions, decompensated heart failure, or stroke need recovery time before surgery. Might recent COVID-19 similarly be a risk factor for postoperative complications?

By June 2020, larger multicenter studies showed perioperative complications and mortality were substantially higher than the population average when COVID-19 was diagnosed close to a surgery. Older, sicker patients having major and/or emergency surgeries had the highest risk—but even younger, healthier patients or those having minor elective surgeries had dramatically increased surgical mortality. In March 2021, a large international prospective study showed that perioperative risk persists after COVID-19, even asymptomatic infection, for at least 7 weeks.

We still do not have clear data on how to modify the perioperative risk of COVID-19 survivors. Other than time, we do not yet know when COVID-19 survivors are medically ready to proceed with acceptable risk. I anticipate that this will be a “hot topic” within the perioperative and surgical literature for years to come, and our research group is analyzing the results of the post-COVID-19 preoperative assessment protocol that we implemented in summer 2020.

The Term Elective Surgery Leaves a Lot to Be Desired

I hate the term elective surgery more than ever. In March 2020, “elective surgeries” were cancelled. During various surges across the United States and the world, “elective surgeries” were cancelled. For the last several months, my own state and institution faced hundreds of cancelled “elective surgeries.”

The term is too vague: the opposite of “emergency” surgery is not “elective surgery.” “Elective” generally implies scheduled in advance. However, many time-sensitive
The ongoing COVID-19 pandemic has strained health systems globally. As of October 2021, there have been more than 45 million cases and 700,000 deaths in the United States.\(^1\) Northwell Health in New York serves Queens County and Long Island, which account for 30.4% of New York state’s more than 2.5 million confirmed cases.\(^2\)

The initial surge of COVID-19 cases in the adult inpatient units in March-May 2020 strained the supply of medical resources (e.g., ventilators, personal protective equipment [PPE]) and medical personnel. In response to the desperate need for medical personnel to care for adult COVID-19 patients, many health systems mobilized healthcare workers from the adult ambulatory setting and multiple other departments, including pediatrics. At Northwell Health, a large healthcare organization in New York, more than 100 pediatric attending physicians, residents, fellows, and advanced care practitioners were deployed to adult inpatient wards and intensive care units (ICUs).

This article describes our experience in identifying generalizable themes in the deployment process. In response, we rapidly created a multifaceted structure to identify and address needs among deployed pediatric staff. These measures included virtual meetings (2-4 times per week), HIPAA-secure group messaging for resources and real-time peer support, and structured recorded debriefings. This was facilitated by 2 dual-trained internal medicine-pediatrics primary care physicians and a pediatric intensivist who had also been deployed. Most of the clinicians were deployed for 2 to 4 weeks. We conducted one-on-one and group debriefings following their return from deployment. Themes were identified and agreed upon by consensus by the 3 co-authors as facilitators. This study was reviewed by the Northwell IRB and considered exempt.

**Identifying Deployment Needs**

The evolving needs of pediatric clinicians were identified as each cohort was deployed. These needs varied with each stage of deployment (i.e., prior to, during, and after deployment).

**Preparing for (Prior to) Deployment**

The role of leadership was essential to the deployment process. Clinicians wanted to understand why they were chosen for deployment, how they would be informed, and the duration of deployment. Transparency in this process from clinical and administrative leadership can help ensure a smooth deployment.

The organizational concerns of clinicians included clarifying their roles in the care team and understanding expectations. Additionally, faculty were concerned about liability, specifically in caring for patients outside of their specialty. The need for orientation around logistics (i.e., deployment timeline, geographic set up of inpatient units, patient assignments, etc.) was clear. This orientation was often facilitated by a non-clinical administrator, but providers preferred a clinician-led orientation.

As clinicians prepared for deployment, they identified gaps in their medical knowledge of COVID-19 management and inpatient adult medicine topics. They found it helpful to review changing COVID-19 guidelines, acute respiratory distress syndrome, and ventilator management (for those deployed to the ICUs). This was done through 60-90-minute recorded video meetings and they reportedly informally that it increased their preparedness.

Lastly, emotional support was invaluable. Clinicians felt anxious about medical incompetence, lack of supervision (especially trainees), and the risk of contracting COVID-19 or exposing family members. Many clinicians isolated from their families in their homes or in hospital-sponsored hotel rooms. All had a “decontamination” process once they arrived home from the hospital. Sharing these practices reduced anxiety and empowered clinicians to manage their own infection control procedures.

**During Deployment**

New concerns arose during active deployment. Leadership engagement—from the clinicians’ home department and their deployed department—was crucial. Leaders tried to stay aware of what was happening “on the ground” through scheduled conference calls and informal phone/text communication with clinicians. Those

*continued on page 9*
who felt unsupported cited lack of leadership involvement and feeling isolated as major contributors.

From an organizational standpoint, the team structure was key. Mixed discipline teams that included clinicians trained in adult medicine or critical care (in the ICUs) paired with pediatric staff helped orient our pediatric clinicians and provided ongoing support around logistics and clinical knowledge.

Deployed clinicians had to confront “learning on the fly” as the prominence of non-COVID-19 related topics increased. However, this did not compare to the challenge of addressing death and dying, compounded by unfamiliarity with end-of-life procedures. Many pediatricians provided more end-of-life care during deployment than they had in their entire careers, discovering they did not know how to pronounce death or complete death certificates. Learning evidence-based techniques to navigate end-of-life conversations with patients and families became a priority. These discussions were particularly difficult given the absence of visitors thereby forcing clinicians to have these conversations through telephone calls and video conferencing, with voices and visual cues obscured by PPE.

Significant emotional support was needed to cope with death and dying. Many clinicians felt helpless and worried (“Did I kill him?”) when patients died under their care. In addition, the public’s view of healthcare workers as heroes juxtaposed against the immense death clinicians were seeing led many to feel their service were not very “heroic.” Additionally, many felt that their family members outside of health care or their non-deployed colleagues could not understand their experiences. Creating a community of support both formally and informally to aid those who are deployed can help this process.

After Deployment

From a leadership standpoint, many received gratitude and moral support from their adult medicine colleagues. They felt appreciated from their home departments as well, often receiving “homecomings.” The question of compensation (both financially or through paid time off) was also raised. We feel that supporting deployed providers in this way is important as a display of institutional support, whenever possible.

The organizational aspects of transitioning from deployment back to normal duties focused on the need for a break before returning to their “day jobs.” This was not always possible with residents and fellows. We urge leaders to give time off to deployed clinicians before resuming their usual responsibilities. Many providers felt 5-7 days off was sufficient and creating a coverage system that enables this relies on leadership.

Deployed clinicians gained knowledge that could be shared with their home department, specifically around end-of-life and palliative care. The need for emotional support was greatest during the post-deployment period. It was only after deployment that clinicians felt they could process their experience emotionally and psychologically. In our program, we reached out to deployed staff 1-2 weeks after their return, informally screening for depression and anxiety, and sharing institutional resources to support their well-being. Health system supports included confidential free counseling services for employees as well as mindfulness and support groups led by colleagues in psychiatry.

Lessons Learned

In our experience, if the process of deployment is handled with care, many would be willing to be deployed again, if needed. As the COVID-19 pandemic continues, we share our lessons learned and recommendations for supporting the workforce during deployment:

- The biggest challenge was dealing with death and dying.
- Many had feelings of helplessness, anxiety, and guilt.
- Do not underestimate the importance of a well-organized deployment process in reducing anxiety and increasing preparedness of deployed clinicians.
- A buddy system that pairs adult inpatient clinicians with deployed clinicians is crucial.
- The period after deployment is a critical time to provide emotional and psychological support.

We believe that these principles can be broadly applied to all deployed clinicians, including internal medicine-trained providers who may not normally practice in the hospitalist medicine or adult critical care setting. It is our hope that by sharing these experiences and themes, we can all be better prepared for the next time that medical personnel must be mobilized.

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THE COVID-19 PANDEMIC AND GRADUATE MEDICAL EDUCATION SILVER LININGS

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Introduction

The COVID-19 pandemic devastated communities across the globe, leaving socioeconomic and health disparities in its wake. The pre-vaccine era was defined by hardships. Despite this, we continued to care for the ill, advocate for the vulnerable, and promote science, all while demonstrating remarkable creativity.

Recognition is important, not just for morale but also for defining and building a shared vision of our post-pandemic identity. The silver linings of this challenging era offer insight into what might be an optimal future. This article highlights the positive changes within graduate medical education (GME) inspired by COVID-19 perturbations.

The pandemic stimulated GME to innovate at an unprecedented speed and scale. For example, GME adapted to the growing knowledge about the virus and therapeutic modalities, the fluctuating availability of supplies, as well as the evolving guidelines regarding physical distancing and accommodating high-risk groups. Further, GME programs nationwide adjusted their educational modalities, recruitment platforms, and clinical care structures.

Effect on Medical Education

The COVID-19 pandemic profoundly impacted medical education, especially GME. In response, the Accreditation Council for Graduate Medical Education (ACGME) swiftly cancelled all accreditation site visits, accreditation meetings, and Clinical Learning Environment Review (CLER) visits. The Council also named certain key “inviolate” requirements they expected all programs to uphold:

1. Adequate resources and training
2. Adequate supervision
3. No change in work hour requirements, and
4. Fellows functioning in their core specialty for up to 20% of their annual education time.

While the clinical mission of programs nationwide braced for the worst, the educational mission persisted. Overnight, non-clinical teaching became virtual. All educational sessions converted to virtual platforms. The constructivist learning theory emphasized the experience of the learner and led us to engage learners in real time through the computer screen. We became creative with screen sharing, using whiteboards, polling, annotation, breakout rooms, non-verbal feedback, and chat functions. Perhaps, most useful was the ability to record teaching sessions.

Nationally, the increased use of social media for educational purposes, with the increased use of twitter threads and tweetorials, was another significant innovation. The expansion of the #MedTwitter community innovated medical education. Podcasts were effective, on-demand learning tools; they also promoted cross-institution collaborations and dissemination of education globally.

Virtual platforms solved geographic dilemmas both within and between institutions. By necessity, educators discovered the ease at employing virtual platforms, and this will likely promote continued inter-institutional invitations to teach.

Effects on GME Recruitment

By ACGME mandate, the 2020-21 residency and fellowship recruitment seasons were the first ever to be completely virtual to curtail COVID-19’s spread. However, the 2021 National Resident Matching Program (NRMP) results suggest some secondary positive effects. On average, pandemic-era applicants added more programs to their rank lists such that 2020 saw the largest single-year jump in this statistic. NRMP data showed programs expanded their lists thereby causing average ranks per available position to rise from 12.95 in the three years prior up to 15.35 in the 2021 online cycle. In other words,
everyone broadened their searches. This was likely due to lowering the financial barriers that accompanied the ACGME mandate. Virtual interviews benefited cost-constrained applicants and possibly promoted greater equity in application patterns along socioeconomic gradients. Obviating the travel requirement for interviews also supported the psychosocial well-being of applicants and reduced the opportunity costs of interviews. Since travel was unnecessary, applicants could be more present in their family, educational, and work lives.

Programs toiled to optimize the outcomes of the ACGME mandate. Many institutions offered video interview coaching and/or provided staged interview areas. To attract prospective applicants, programs developed creative programs, such as “virtual away rotations” that allowed learners to virtually participate in rounds and social events. Many programs revised their websites and social media to include more details, photos, and video testimonials of current residents and faculty. These updates allowed applicants to glean details about programs’ core values from afar.

We are optimistic many of these changes will be incorporated for mitigating inequities in GME recruitment going forward and promote a diverse and equitable workforce.

**Effect on Clinical Experiences**

Clinical experiences were also significantly affected. The healthcare system was charged with workflow redesign and contingency planning. Within this chaos, GME programs needed to safeguard the physical and mental health of trainees while upholding the pillars of patient care and clinical teaching.

Early in the pandemic, medical students were often abruptly pulled from clinical rotations, while resident rotations were adjusted to meet the evolving clinical needs. Other clinical concerns included national shortages of personal protective equipment (PPE) and, from a teaching standpoint, the potential lack of diversity in case load as hospital beds filled up with patients with COVID-19.\(^5\)

In the hospital setting, physical distancing guidelines led to innovative bedside rounding: tele-rounding. At some institutions, this took the form of virtual rounding via tablets or other electronic devices. Virtual platforms also facilitated interdisciplinary rounds, easily convening doctors, pharmacists, social workers, and case managers simultaneously. Compared to bulky computer stations, tablets could be more readily visible to all team members and thus potentially enhance teaching about radiographic or EKG findings.

In addition to tele-rounding, there was an urgent need for telehealth competency. This was driven both to limit the infectivity of COVID-19 and to conserve PPE. In the inpatient setting, many consultants provided recommendations via synchronous and asynchronous modalities. As data is being collected to determine its impact, the electronic consultations in many cases improved workflow for inpatient teams. Ambulatory telemedicine provided vulnerable patient populations continued access to care. Ambulatory electronic consults rose steadily during the pandemic and will likely persist. Trainees of the pandemic era will be adept at telemedicine from the start of their careers.

**Conclusion**

The COVID-19 pandemic profoundly impacted our approach to recruitment, clinical care, and education in GME. While the COVID-19 era can be characterized negatively, we would be remiss to ignore the innovations and accomplishments outlined here. Many will likely persist. Virtual recruitment allowed residency programs to review and interview a more diverse applicant pool that helped level the playing field among all applicants. Additionally, the clinical and educational innovations during the COVID-19 pandemic improved patient care and training our learners. While we would not have chosen this crisis, it was not wasted. Medical educators innovated and raised the bar on maintaining educational excellence, and we are better educators for it.

**References**


FROM THE SOCIETY: PART I (continued from page 4)

What other suggestions should be considered?
The NIH should listen to the voices of communities when setting priorities for ARPA-H and should promote diversity and inclusion in selecting ARPA-H program managers and project leaders. The NIH should also weave equity considerations throughout the mission of ARPA-H and should explore ways to ensure that breakthroughs do not worsen disparities in health and health care.

References

BREADTH (continued from page 6)

structures they targeted. Alcohol is an effective disinfectant against enveloped viruses. I recalled that coronavirus was an enveloped virus. So, this is why health experts were recommending using alcohol-based disinfectants. There were direct real-world applications of the material written in my textbooks, that I’d scrawled in my notes, that showed up in my practice questions. This material was relevant.

I wasn’t helpless. I could help, albeit in a different way than my parents were helping: by learning all that I could, about physiology, pathophysiology, health systems, social determinants of health, and even basic science. During this unique phase of my training, devoted almost entirely to knowledge acquisition, I would focus on acquiring knowledge to the very best of my ability, so that when it’s my turn to apply that knowledge, I will be ready.

The steps that remain in my training are not distractions from the things that matter. Instead, they are the very building blocks that will enable me to contribute meaningfully one day to healthcare crises like COVID-19. So as helpless as I feel right now, I also feel motivated to keep warming up on the sidelines of this fight, until I’m on the frontlines.

“Healthcare hero” is a label that does not apply to me, yet. Heroes are not a product of their circumstance—they are a product of their effort and actions, regardless of circumstance. Regardless of my level of training, I have renewed motivation to approach the challenges I face with the same commitment and determination that I admire in my parents and other heroes, until I can become one myself.
PRESIDENT’S COLUMN (continued from page 3)

recommends using a familiar pros and cons approach. As the Council weighed the pros and cons of an in-person SGIM 22 meeting, we learned as much as possible about the status of the virus and public health measures in Orlando, Florida. We explored the hotel’s policies regarding vaccination, masking, and food consumption. These virus mitigation measures were kept front and center off all discussions to ensure safety. The Council also thoughtfully considered the advantages of an in-person meeting, its potential for networking, career development and community building, while also weighing the need to ensure participant safety. In weighing the pros and cons, the Council considered the fiscal demands of all three options. The hybrid meeting option extended beyond our fiscal abilities and the completely virtual option would also result in a financial loss. We would be unable to fulfill our hotel contracts that do not allow for COVID-related adjustments at this time.

As the Council moved to the fourth stage of decision-making—Action—we recognized our potential to create a fully vaccinated community and voted to require all SGIM 22 participants to be vaccinated prior to arrival. After this vote happened, we voted for an in-person format for SGIM 22 in April 2022. This decision was made considering the possibility of changes in virus epidemiology and the uncertainty of business travel or the ability to garner travel funds from employers.

As we navigated the complexity of our situation, we worked to maximize the value of our membership and meeting content. Thus, we decided to move towards an in-person meeting in April 2022. We will also work to curate asynchronous annual meeting content to place into our learning management system to be used after the event. This decision was made with the best information available at the time. Our decision for an in-person meeting was to maximize the value of participation. This stems from our belief that “Our programs, events, and networking opportunities accelerate professional advancement.” It is with the Resolve (decision-making stage five) that the Council also agreed to hold its Council retreat this month in-person at the meeting location. While in Orlando, the Council will further assess the safety precautions put into place by both the host hotel and Disney. Given the virus’ uncertain trajectory, the Council with continue to monitor its decision and will act as needed to ensure the safety of our membership. We will spend the next 4 months working towards the final stage of Completion, carefully tracking any changes to our environment that would cause us to alter course. The decision-making process regarding SGIM 22 will not conclude until mid-April 2022.

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I hope to see everyone in Orlando, fully vaccinated and masked.

References

FROM THE SOCIETY: PART II (continued from page 5)

AHRQ’s primary care research center, advancing underrepresented minority students, residents, and faculty in generalist careers, and providing equitable care through telehealth. We will hear about updates in education, research, and clinical care. There will be Distinguished Professors of Geriatrics, Women and Medicine, Hospital Medicine, and Health Equity. New to this meeting, there will also be a pre-course on point-of-care ultrasound, a multimedia interactive performance about current challenges to physician mental health, and a Diversity, Equity, and Inclusion (DEI) track. And, as always, there will be opportunities for networking and mentorship with colleagues and friends, both old and new.

Despite all the uncertainty these days, one thing is sure: the 2022 annual meeting will impact your career as a general internist. Thanks to the efforts of the those on the Program Committee and all of you that have submitted content, we can assure an inspirational and cutting-edge experience. We look forward to seeing you in-person in sunny Orlando, Florida!
mask the entire event. As I got home and on with the last few days of summer, I shed my mask and these extra layers of baggage we all carry around, trying to carry on through the pandemic.

Ali: The effects of the pandemic in the United States have made visiting our loved ones very difficult. But visiting family abroad across the other side of the world was extremely challenging. I thought it would just be limited to wearing a mask while aboard the airplane and at the airport. It turned out to be much more brutal than that. My brother back home called to tell me that mom was not doing well in Islamabad, Pakistan.

My wife and I decided to visit her, since at age 85 anything could happen. We arranged for a flight and got our mandatory 72 hours pre-flight COVID-19 test done. Thank God it was negative after taking care of COVID-19 patients the week before. Our connecting flight to the JFK International Airport in New York was rolling down the runway when the captain announced that we would need to go back to the gate due to technical issues with the plane. Both of us are thinking the same thing: we are going to lose our international flight. After two hours at the gate, they announced that the flight was cancelled.

We returned home, disheartened, and started looking for other flight routes. We found a flight from Boston with the same carrier after a lot of phone time. Then, we realized that our pre-flight COVID-19 test would expire for the new flight, so we went to urgent care, got our new test, waited 24 hours for the test result, and then drove six hours straight to Boston. Finally, we were able to catch that flight and, after 24 hours of masking, arrived in Islamabad. We also had one more COVID-19 test before meeting Mom. We had a great time with her for about eight days and were so happy that my mother came back to her baseline before we left Pakistan about a week later. Looking back now, I feel that this was one of the most important decisions that I ever made in my life because that was the last time that I saw my mother alive.

O’Glasser: The summer camp daily check-in questions were the same as they had been for eight weeks: “Have you travelled by commercial train/plane/bus/boat? Has anyone in your household? Have you been exposed to anyone with COVID-19?” Once again, the answers were “no, no, and no.” For some reason that morning, I quipped to the camp counselor, “we’re boring,” and then I immediately retracted it.

For nearly two years, we have led a very cautious existence with our two elementary school-aged children (at the time of this writing, still too young to receive the COVID-19 vaccine). My husband and I aimed to do everything we could to keep them safe. Lockdown in the beginning. Minimal contact outside the household—and always with masks and outdoors. No family trips. As a generally risk-averse family, any broadening of our activity levels was done cautiously and carefully—returning to in-person school, my husband starting a new job for which he could no longer telecommute, eating outdoors at restaurants, and going into stores.

But it struck me that morning that life wasn’t boring. We weren’t boring. As a family, we had discovered so many ways to keep ourselves—and our communities—safe by exploring new hobbies and where we lived. Weekly hikes. Frequent bike rides. Cooking new recipes. A bigger summer vegetable garden. More board games. Saturday night family movie nights. Our kids have learned the value of family bonds, social awareness, and collective good. Cautious, yes. Conscientious, yes. Boring? No.

Burger: For my family, how to engage in social activities in a post-vaccine (optional) world has become a huge challenge. Prior to the arrival of COVID-19 vaccines, it seemed simpler: stay home and isolate. Go out always with masks on. Keep socialization to a minimum and always outdoors in a mask or not at all. But “FOMO” (fear of missing out) is real. The posted pictures of people in shared bubbles or pods captured our attention. As front-line providers, it was hard to assure others of limited risk while we cared for those with COVID-19 in the hospital or coming to the office to be diagnosed. Now, with the vaccine roll-out, we try to re-enter our lives cautiously, but still moving forward. This leads to more tough discussions with others. Have you been vaccinated? If you are outdoors with your child under 12 (our youngest is 8), do the kids mask when playing? Do you approach friends outside if they aren’t masked? How do you handle family or long-time friends with a different view? There are no simple answers.

Personally, my family’s approach has been to be open and honest about our level of risk tolerance. Most conversations have not been confrontational, but they can be triggering to some and the effects on our relationships of any lasting resentment remain unknown. Then there are areas in our lives where we can’t ask those questions, such as how we behave in public spaces. As people return to work, there is less open space on public transportation. People sit closer to one another than they did at the height of the pandemic and there isn’t always room to socially distance. I don’t think there is an answer yet about how to navigate these public spaces. COVID-19 will continue to impact our social relationships, whether with the people we know, or the stranger next to us on the train. As more people are vaccinated, all these questions linger in my mind. I have no good answers and like everyone else I find it hard to know what to do.
surgeries fall into that category, especially malignancy-related surgeries. “Elective” does not mean “optional.” Very few surgeries are truly optional—I think of purely cosmetic surgeries falling into that category. But so many “elective” surgeries are indicated to have significant improvements on health and quality of life. Using the term “elective surgeries” to talk about the burden of cancelled surgeries undermines the impact of this ongoing pandemic on patients’ care.¹ I think of the patient waiting a year for a knee replacement and is now very deconditioned, the patient waiting another eight months for bariatric surgery, or the patient waiting four months for gender-affirming mastectomy—their physical and mental health may have all suffered while waiting for an “elective” surgery.

Moral Injury Manifests in Many Ways
We hear about moral injury in the inpatient and ICU setting, especially when predominantly unvaccinated patients were filling hospitals during the late summer COVID-19 surge. We continued to advocate for masks, distancing, and vaccines against mounting backlash towards clinicians.

Moral injury also occurs in the outpatient setting:

1. from observing patients traverse barriers to care, including surgical and perioperative care
2. when we see patients present with late-stage malignancies due to delayed diagnosis
3. when we face another wave of surgical cancellations to help hospitals handle the capacity of COVID-19 patients.

Surgeons are not upset and experiencing moral injury because they are losing revenue—they are burnt out because their patients cannot get the care they need. We experience emotional exhaustion when we sit in the preop or surgery clinic exam room with patient after patient worried their surgery would get cancelled, or fear not being able to have inpatient visitors. Cancelled surgeries do not make the work of perioperative medicine any easier.

Acknowledging Colleagues for Dynamic Flexes
Stereotypes abound in medicine. However, the flexibility, creativity, and humility of dramatic pivots abound during the last 22 months—and I am privileged to be able to witness and amplify it from my vantage point in perioperative medicine.

I have seen colleagues from across perioperative specialties embrace roles on COVID-related committees, and I have seen this brought to patients at the bedside. Anesthesiologists have turned post-anesthesia care units into ICUs and become experts on COVID-19 lab testing. Surgical colleagues have embraced the onus of vaccine advocacy and education. I know perioperative colleagues whose respect for the foundational work of primary care has grown infinitely during this pandemic. We are all in this together to fight this pandemic, medicine and non-medicine specialties included.

We Will Be Embracing Uncertainty for Years to Come
As we approach 2022 and the two-year mark of the pandemic, unknowns persist. Remaining questions for perioperative medicine include the following:

- What is the perioperative risk for patients with Long COVID? How do we know if/when they are optimized for surgery?
- If a patient has a breakthrough case of COVID-19 after being vaccinated, do they have the same perioperative risk of non-vaccinated patients?
- How long does the perioperative risk from COVID persist? Months? Years? Will a history of COVID-19 always need to be on the preoperative history/risk assessment just as a past MI or past stroke?

Twenty-two months ago, I had no way of predicting that this would be the landscape of my clinical practice. The stressors to work-life integration have been innumerable, and the challenges persist. However, contributing via my unique niche and with the multidisciplinary teamwork I am accustomed to have been life-lines during an unprecedented time.

References