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IGNITE

TRAVERSING TERRAINS TO TRANSFORM **GLOBAL HEALTH**

The changing health care landscape, as difficult as it may seem, is nothing compared to the terrains encountered by many in low-resourced countries around the world.

While both provide challenges for the provider and the patient, we have found solutions to the former — by adding leadership and business training as a third discipline to medicine's basic and clinical sciences. For the latter, we have to learn from the people experiencing these challenges, in their own environments. And while traditional medical education is important to realizing that aim, it isn't always enough to meet current and future challenges.

Over the last few years, NEOMED has added a number of programs that enhance the education of future physicians and other health professionals. Among them is a program in global health.

Why do we care about global health?

Global health experiences give our students the opportunity to work with patients from different cultures, learn about different health systems and problem solve in low-resourced health care environments.

These are not medical missions or charity trips. We hope our students return from working with local partners in countries like Nepal, India or Kenya as systems thinkers who start to understand the context of health and disease, and the cultural, social and economic systems that impact the science of medicine.

Several articles in this issue take you across health-related terrains around the world and provide insight on the complexities experienced by the people who must maneuver them. The stories are shared through the lens of faculty, students and alumni.

See how frugal innovation can solve or mitigate global health issues.

Learn more about the state of maternal and infant mortality, and global approaches to improving the health of mothers and their children.

Explore best practice interventions for health professionals with post-traumatic stress disorder.

Discover the importance of trust and cultural competency in emergency disaster response, as well as in everyday care for refugee populations.

We care about global health because it not only allows us to help others around the world, it gives us a better understanding of different cultures including members of our local communities who often hail from under-resourced countries.

Understanding global health leads to better health, everywhere.

Sincerely,

John T. Langell
President

IGNITE

VOL 24.1 SUMMER 2023

Northeast Ohio Medical University is a public medical university with a mission to harness diversity, innovation and collaboration to create transformative leaders and improve health through education, discovery and service. The University embraces diversity, equity and inclusion and fosters a working and learning environment that celebrates differences and prepares students for patient-centered, team- and population-based care.

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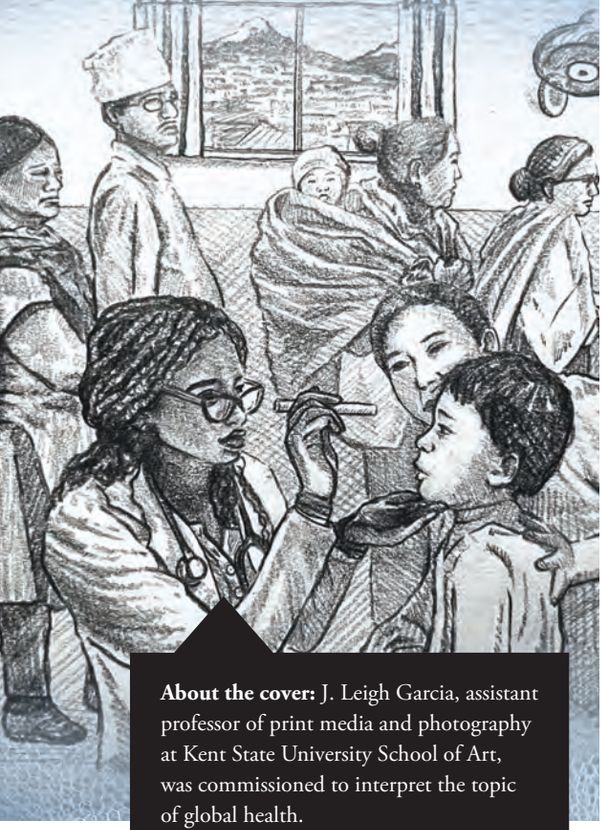
Editor: Jeanne M. Hoban
Contributing Editors: Roderick L. Ingram Sr., Jared F. Slanina, Julia Colecchi
Publication Design: Scott J. Rutan
Illustrations: Cover: J. Leigh Garcia, assistant professor, Kent State University School of Art; page 10: Dave Szalay, illustrator in residence, Reinberger Children's Library Center, Kent State University
Photography: Andrea Hallgren, Chris Smanto, Larry Spencer and staff

As a health sciences university, we constantly seek ways to improve the health, economy and quality of life in Northeast Ohio. The paper used for this magazine has earned a Forest Stewardship Council (FSC) and a Sustainable Forestry Initiative (SFI) certification. Strict guidelines have been followed so that forests are renewed, natural resources are preserved and wildlife is protected. *Ignite* was printed by Printing Concepts in Stow, Ohio, using soy inks.



About the cover: J. Leigh Garcia, assistant professor of print media and photography at Kent State University School of Art, was commissioned to interpret the topic of global health.

DEPARTMENTS

For extended and web-only content, and to explore past issues, visit ***neomed.edu/ignite***

Ignite's Fall and Spring 2022 issues received four awards in the Press Club of Cleveland's statewide contest, including Best in Ohio: Illustrations and writing awards to Jeanne M. Hoban and Sebastían Díaz, Ph.D.

FEATURES

Students from NEOMED worked with physicians from Nepal to test a low-cost baby warmer, which earned the People's Choice Award in the 2022 NEOvations Bench to Bedside competition.

SCALING **SOLUTIONS**

FRUGAL INNOVATION OFFERS LOW-COST, HIGH-IMPACT SOLUTIONS

BY JEANNE M. HOBAN

According to a 2022 study published by the U.S. Department of Health and Human Services, the mean capitalized cost of developing a therapeutic complex medical device from proof of concept through post-approval stages is $522 million.

For a developing country like Nepal, that's more than half of the country's entire health care budget.

Enter, frugal innovation.

Frugal innovation provides solutions to medical challenges that are low cost and high impact. As defined by UNICEF, "frugal innovation is born out of necessity and a lack of resources, built by local people with the materials they have available."

Berhard Fassl, M.D., director of the Center for Global Health Innovation at Northeast Ohio Medical University, has been working with colleagues in Nepal and other developing countries to address health delivery challenges in low-resourced areas.

"If you think about innovation along a pathway, it usually starts with a problem and an idea surrounding a problem. Then you have a conceptual design and then you go through prototyping, you go through prototype testing, you go through modifications of the prototype, and then in the end, once you have a prototype that you think is good enough, you put it through clinical testing," Dr. Fassl noted. "If you look at that traditional biomedical innovation path, that's going to cost you millions and millions of dollars. This is like amazingly expensive.

"Frugal innovation is different because you design the prototype or an intervention that can be rapidly integrated into an existing health care system. You integrate it into an existing system with the hypothesis that at the end you're going to be better off. So it's tested in a real-world system," he added.

Projects still need to be vetted and adhere to institutional review board protocols and government regulations. But because frugal innovations are being introduced into existing systems, overhead costs are greatly reduced.

"You need to have a strong scientific foundation. But the other thing you need to have is strong local support," Dr. Fassl said. "So frugal innovation, especially in global health settings, is not an idea that we impose on our partner countries."

Because the innovation is developed in partnership with a local system, design concepts are naturally adapted to local needs. An issue or problem has already been identified and the design concepts are created to provide a solution.

"Too often I work with people who have this great idea and even have developed a

Photo: **Chris Smanto**

prototype or a solution, and they're in desperate need of a problem," Dr. Fassl said.

FRAMEWORK FOR INNOVATION

While an innovation may address an immediate need, to make it sustainable and potentially marketable, the innovation needs a framework governed by a quality management system.

"What we do with innovators who have an idea and who have started to work on that idea, we bring them into that structure," Dr. Fassl said. "So they partly go back [to complete gaps in the process], but then mostly go forward within that existing design pathway. That makes it possible for them to have a product at the end that was developed according to international innovation guidelines that are accepted."

According to USAID's Center for Accelerating Innovation and Impact, a streamlined framework starts with identification of needs and design, then begins research and development, followed by a plan for introduction, and finally introduction and scale. That framework is explained in the report *IDEA TO IMPACT: A Guide to Introduction and Scale of Global Health Innovations*.

"Accelerating scale-up by even one year can have a significant impact on lives saved," the USAID report noted.

Similarly UNICEF suggests a four-stage, cyclical innovation process that includes ideation, proof of concept, scale up and product life cycle.

Dr. Fassl provided an example from former medicine students at the University of Utah, where he served as director of the Center for Medical Innovation. The students were on an international rotation in a developing country and encountered numerous cases of women coming in with late-stage cervical cancer. After some investigation, they discovered that the reason cancer was not being treated earlier was the lack of resources — specifically liquid nitrogen used in cryotherapy.

"The way we screen for cervical cancer in low-resourced countries isn't really working. And when we screen, it's difficult to do early intervention just because cryotherapy that is being used to ablate suspicious lesions on the cervix is hard to come by," explained Dr. Fassl. "That's what inspired them to think of a different solution."

Their solution? Heat.

"You can cauterize with cold, but you can also cauterize with heat, right?" Dr. Fassl asked rhetorically.

Ultimately, the group developed and tested a heat probe to treat suspicious cervical lesions before they turn into cancer. The device was tested and proved in Zambia and is now sold in 55 countries, mostly low-resourced countries, many of which have added thermal coagulation to treatment guidelines for cervical lesions.

Another example came from Nepal. A group of local physicians had the idea of developing a low-cost infant warmer for premature infants, but they were not sure how to make their idea a reality.

"They really wanted to design an infant warmer that has performance characteristics that match ours, but they didn't know how to do that," Dr. Fassl said.

The Nepalese physicians partnered with a group of NEOMED students participating in the University's NEOvations Bench to Bedside program.

"So our contribution was to set up validation testing procedures that would allow them to compare their product to a very expensive Western product. They made incremental improvements as they did testing and changed things as needed," Dr. Fassl said. "They ended up with an infant warmer that is equivalent in performance to a $35,000 model that is sold here at a production cost of $500 and a retail cost of $1,500 in Nepal."

> "I'm almost disappointed when I have students who are successful the first go around because they missed a lot of learning opportunity."
> **– BERNHARD FASSL, M.D.**

LEARNING TO SOLVE GLOBAL HEALTH CHALLENGES

Can you teach someone to be innovative?

"There are things you can learn, but you can't teach," Dr. Fassl said. "A lot of global health needs to be learned but can't be taught. There's no textbook that will teach you about global health so you'll be an expert. The only teachers that you have that are real teachers are the people who you serve. And if you don't go there, you really can't learn. It's the same for innovation. You can read a textbook, but it doesn't make you a good innovator. You just know the rules. The only way you can learn innovation is by doing it."

Just doing it sometimes results in failure, but Dr. Fassl says that is OK. In fact, he believes that failure is a better teacher than early success.

"I'm almost disappointed when I have students who are successful the first go around because they missed a lot of learning opportunity," he explained. "I wouldn't even call it failure. You realize that your idea, your thought process, has to evolve to match the needs. Our understanding of the matter evolves over time and so does the solution. You need to give yourself a chance to have your understanding of the matter evolve."

THE DEADLY NATURE OF **PREGNANCY** AND **CHILDBIRTH**

BY JEANNE M. HOBAN

As a recent medical school graduate in the mid-1990s, Bernhard Fassl, M.D., spent a year and a half working at a hospital in rural Nepal.

One day, he received a call that would inspire his future as a physician.

"There's a patient coming in who's carrying his wife after she'd given birth at home. He had carried his wife in one of those huge baskets that people in Nepal use to collect hay for the goats. He put his wife in it and ran down with her from the mountains for 36 hours because she had not been able to stop bleeding after delivery," Dr. Fassl recounted. "When he arrived, he was covered in blood; it was running down his back. It was all so awful. His wife was more unconscious than conscious, and she had a hemoglobin of two. Normal is 15. She had a piece of retained placenta in her uterus, so the uterus couldn't contract. She kept losing blood. She didn't make it. The baby didn't make it either."

That call led to a calling of sorts for Dr. Fassl.

"This was so completely preventable. That really inspired me to say, this needs to be right. People need to be able to give birth in a safe environment," he said.

That experience led him to focus on pediatrics and maternal health in the context of global health. As former director of the Center for Medical Innovation at the University of Utah and now director of the Center for Global Health Innovation at Northeast Ohio Medical Univer-

sity, Dr. Fassl has facilitated similar opportunities and experiences for students of medicine.

UNNECESSARY COMPLICATIONS

According to a report from UNICEF, 287,000 women die from pregnancy-related complications every year. The organization estimates that 5 million children died before their fifth birthday in 2021. The World Health Organization (WHO) estimates that there are approximately 6,700 newborn deaths every day across the globe.

WHO has identified improvement of maternal health as one of its key priorities through 2030. Most complications that develop during pregnancy and childbirth are preventable or treatable. According to WHO, nearly 75% of maternal deaths around the world are the result of one or more of the following: severe bleeding; infections; high blood pressure during pregnancy; complications from delivery; and unsafe abortion. For infants, preterm birth; intrapartum-related complications, such as birth asphyxia; infections; and birth defects account for most deaths in the first month of life.

"Pregnancy and childbirth are life-threatening things," Dr. Fassl noted.

BETTER CARE, BETTER OUTCOMES

While the statistics are abysmal, they represent a significant improvement over conditions in 1990, when there were 65 infant deaths per 1,000 live births and an estimated 532,000 maternal deaths, according to WHO.

Those numbers may be understated, since tracking of live births varied significantly by country. Until the last decade in some developing nations, a birth was not registered until the child reached age one.

"Any baby that died between birth and the first year of life wouldn't even make it into a government registry. That was a custom because so many babies died. The thought was, why go through the process of paperwork when there's such a high chance the baby isn't going to make it?" Dr. Fassl explained.

Still, the improvements over time illustrate the effectiveness of targeted interventions and increasing access to prenatal and neonatal care.

"If services are available to facilitate the process of pregnancy and childbirth, you can really decrease those numbers significantly," Dr. Fassl said.

He noted that most pregnancies and deliveries progress normally and anyone assisting with the birth would basically serve in a monitoring capacity.

"You just make sure that nothing bad happens. Basically, the mother and baby are under watch by a skilled health care provider who recognizes emergencies, treats them and you avoid trouble," he said.

For the second group — those who experience complications during childbirth — Dr. Fassl stressed the need for an obstetrician or someone else who is specially trained to be present at the birth.

"You should give people access to at least basic support services for maternal care. By basic, I really mean basic. You don't need a doctor, right? You just need a trained health care provider who knows how to monitor and to intervene early enough to prevent the most common causes [of mortality], such as bleeding," he said. "That's why we check the patient's blood pressure, how the baby's descent is progressing, how the cervix changes over time. We monitor those things, and then we can prevent a bad outcome from happening. So in the first step, you want to make sure that all patients who are pregnant and about to give birth have access to these basic services."

Once the baby is born, WHO recommends that all newborns receive thermal protection, such as skin-to-skin contact; hygienic umbilical cord and skin care; early and exclusive breastfeeding; assessment for signs of serious health problems or need of additional care, such as low birth weight; and preventive treatments, such as immunizations and vitamin supplements.

With many mothers in low-resourced areas delivering their babies at home, there are sometimes both structural and cultural barriers to providing even those basic levels of care.

"The problem is that these basic services are not necessarily just a medical problem. Everybody can learn in a textbook about how to conduct a normal delivery and prevent complications. But in order to do it, you need an environment that lets you do your job," Dr. Fassl explained. "That environment includes infrastructure. It's things the staff needs, the skills, the equipment needs, a logistical supply chain. And then you need the community to access

Photo: **Larry Spencer**

to services, right? You've got to have a clear plan of how you're going to overcome cultural barriers. And lastly, you need even just a rudimentary data system that lets you track your outcomes."

UNDERSTANDING COMMUNITY

The issues with maternal and infant mortality are not unique to faraway places.

The Centers for Disease Control and Prevention reports that in the United States there were 5.4 infant deaths per 1,000 lives births in 2020. While that's an improvement over 1990 when there were 9.2 infant deaths per 1,000 live births, the U.S. ranks 34th among developed nations. In Ohio, the picture is even more stark with 6.7 infant deaths per 1,000 live births.

"The U.S. is not a homogeneous nation. If you look at pregnancy, delivery, infant and maternal health outcomes, you will find very different results if you go to the affluent white population that lives in urban America versus Native Americans or impoverished communities of any race and in rural America," Dr. Fassl said. "So the first step is really to understand your community. Every community is driven by beliefs and values. And unless you understand the values and beliefs that are inherent to a community that experiences problems, you can't even get started."

Even in the U.S. some mothers prefer to give birth at home.

"They don't want to go to interact with the health care system because they think that people do bad things to the mom and the baby, and you should just give birth at home with the traditional birth attendants. So that's a personal value system that gets interjected here," he noted.

In communities affected by poverty, illegal drug activity and violent crime, good care-seeking behavior is often not a priority.

"If you're just trying to survive yourself, you're not going to go and get a prenatal ultrasound," he said. "So environmental factors are huge."

And then there are cultural factors.

"America is comprised of so many ethnicities who come with their own cultural belief systems. The way you talk to a person from Nepal about accessing prenatal care is different from how you talk to someone from another culture. You've got to understand how to send the message to them. If you tell the woman 'you're pregnant and we need to do an ultrasound every trimester and you need to come here every month because we need to measure your belly and your glucose and so on,' she will only come if the husband was also in the room and agreed to it," he noted. "There's a lot of deferment of decision making to a specific person who is culturally regarded to be in charge."

Finally, health systems are not always designed to ensure the best outcomes for maternal and infant health.

"Every system delivers the very outcome that it was designed for," Dr. Fassl contends. "So if we see high rates of maternal and child mortality, it is because the system is designed to deliver that result. Before you change the system, you've got to understand the system so we don't just start doing random things or wasting money. Without a basic understanding of systems theory, you really can't make meaningful changes."

BRINGING IT ALL TOGETHER

Global health experiences allow students of medicine and physicians to see the system level more clearly.

"I think we in medicine are very good in dividing up our health care system, our education system and our patients into compartments," Dr. Fassl noted. "So we have the obstetricians and we have the pediatricians. And we treat them [the pregnant woman and fetus] as if they were two different organisms. But the reason why maternal and child health exists is because Mom and baby are a unit. If Mom doesn't do well, the baby does poorly. If the baby does poorly, Mom does poorly. So they are interdependent, and that's a huge risk for both."

Global health brings it all together.

"You don't see the forest if your view is blocked by all these trees and we in the U.S. are in a middle of the forest. We don't always see the big picture," Dr. Fassl said. "With global health you remove yourself from the U.S., and you get put in a completely different environment where you're not as enmeshed. So you start to see and understand things that not only apply to a setting in Nepal or India or Africa, but when you come back home."

RAW AND **REAL** EXPERIENCE

Second-year College of Medicine students Lauren Genco and Clare Rigney spent three weeks in 2022 at a small town in Gujarat, India, as founding members of NEOMED's Global Health Interest Group and part of NEOMED's Global Health Innovation program. The pair worked on a project evaluating adherence to India's LaQysha guidelines for newborn and maternal care and care for infants with low birth weight, defined as less than 2,500 grams (about 5 pounds). The LaQysha guidelines are based off guidelines from the World Health Organization.

Their quality-improvement study examined de-identified hospital data going back to 2014. They evaluated presence of skilled health providers at delivery and identified trends in anemia and antenatal care visits by villages the hospital serves.

"We were seeing if certain vitals were taken and things like that," Genco said. "Who was attending the delivery? Was there resuscitation equipment available? Was it checked? We were evaluating the progression of and compliance with those optimization protocols over the years."

Those protocols help create a positive postnatal experience, which the WHO says is vital to the short- and long-term health and well-being of mothers and their children.

Both Genco and Rigney have an interest in women's health issues and participated in the global health experience to increase their knowledge in the field.

NEOMED's Global Health Innovation program provides students with immersive experiences, working with local partners, like Shakti Krupa Charitable Trust and Kiran Patel Medical College and Research Institute in India, to focus on community and patient needs.

During their stay, Genco and Rigney were able to shadow social workers engaged in postnatal follow-up visits.

"On a given day, we would go visit the low-birth-weight babies," Rigney said. "They [the social workers] would measure the mass of the baby and ask the mom questions like, How has the baby been feeding? Are you getting the baby to appointments? Do you need help getting the baby to appointments? Do you need help getting baby food? Because the hospital has a lot of free resources." With their questions, the social workers assess the mother's need for those resources.

"Maternal mortality was really high as well as infant mortality," Genco noted, adding that the Indian government had developed a public health program to combat the issues.

An important part of that public health program is the ASHA workers who Genco and Rigney encountered during their shadowing experiences. ASHA — Accredited Social Health Activists — help connect marginalized communities to the health care system.

"Each village has an ASHA worker — a woman who would help take care of the pregnant moms and help run the antenatal care clinics," Rigney said. "It's like being paid to be a grandma. Grandma will come over and be like, oh, how's your kid doing? Did you take your meds?"

While the immersive experience in a low-resourced area presented many positive learning opportunities, there were some uncomfortable moments.

"There's obviously an influence of the culture on health care and so [program director Bernhard Fassl, M.D.] told us to be prepared and be open. That some things were different. Like serious sexism, things like that," Genco shared. "So that was something we knew we were going to see. And when we were actually seeing it, I don't want to say it was surprising, but it was definitely something to process."

One experience in particular stuck with her.

"We saw one extremely low-birth-weight infant, a girl, in the fieldwork," Genco recounted. "She was going to die in a few days if she didn't get to the hospital. The family didn't want to bring her, and then it came out that it was the father's father who didn't want to bring her to the hospital. So the social workers and the ASHA worker spent two hours there that night convincing them to come. They finally did."

"Just seeing things like this, with the high mortality rates, there's a mentality that is very different from the mentality in the U.S. It's hard and sad, but you can't do anything. It's not your place to do anything, but it's a weird thing to experience."

Find more student global health stories at ***neomed.edu/ignite****.*

THE GLOBAL WAR **ON TRAUMA**

BY RODERICK L. INGRAM SR.

People in countries around the world experience challenges to their health due to their nation's unique geographic, historic, social and environmental circumstances. Traumatic events — natural disasters, massive violence, war — also have a negative impact on the well-being of many, particularly those concentrated in one place, as they are either displaced or left to grieve and deal with the uncertainties of what's next. As constant reminders, the rough terrains and carnage have immediate and lasting effects on people, communities and entire nations.

For the health professionals within such areas, everything is compounded as they are simultaneously vital resources for community recovery and victims of the same trauma. And everyone is compromised. The collective trauma of the survivors makes it difficult for providers to care for all of the injured. For mental health providers in particular, who need to screen large populations for the possible diagnosis of post-traumatic stress disorder, the trauma seems never-ending. They treat the physically injured, friends and families of those who have lost loved ones, witnesses of the tragic events and others. And at some point, the mental health providers must find time to take care of themselves.

> "The benefit of rapid interventions following disasters — specifically combat — was discovered during World War I, forgotten, and then learned again during World War II and the Korean Conflict. This was the age of 'shell shock,' 'combat neuroses,' 'combat stress' and 'battle fatigue.'"
>
> **– RANDON WELTON, M.D.**

CARING FOR SOLDIERS, CIVILIANS AND SELF

Having traveled around the world to communities experiencing such devastation, the dilemma of providing care while coping with large scale trauma is very familiar to Randon Welton, M.D., The Margaret Clark Morgan Chair of Psychiatry at Northeast Ohio Medical University.

Dr. Welton previously served for 24 years as a member of the United States Air Force where he reached the position of psychiatry consultant to the Air Force Surgeon General and was selected for the Department of Defense/Department of Veteran Affairs work groups to create clinical practice guidelines for PTSD and bipolar disorder.

"I was part of, and for a while led, the mental health section of the Defense Institute for Medical Operations. This is a tri-service virtual organization which provides training to military medical departments across the world," said Dr. Welton. "In 2004 I was part of a weeklong mission to Kiev where we trained about 40 Ukrainian military medical officers on the management of combat stress and post-traumatic stress disorder. At the time the Ukrainian military medical model was highly influenced by Soviet doctrine. They had trouble generalizing the symptoms of PTSD to non-military populations. They talked about a post-Vietnam syndrome and a post-Afghanistan syndrome but did not agree, for example, that these same symptoms would be seen in a woman who had been raped. They did not use *Diagnostic and Statistical Manual of Mental Disorders* (DSM) — the handbook used by health care professionals in the United States and much of the world as the authoritative guide to the diagnosis of mental disorders — or the International Classification of Diseases (ICD) — a standardization of methods of recording and tracking instances of diagnosed disease all over the world — and did not have access to the wide variety of medications which were readily available in the West."

And many, explained Dr. Welton, had personal experiences that ranged from serving with the Soviet military in Afghanistan to helping with the response to the Chernobyl nuclear power plant accident.

After Kiev, Dr. Welton led weeklong missions to Poland, Columbia and Estonia where he discussed the mental health response to disasters, combat stress and PTSD.

Developing workshops for mental health providers to learn to take care of themselves when they too are experiencing violence and trauma, Dr. Welton disseminated best practices to mental health providers in locations from South America to Europe.

PREPARING, ASSESSING, RESPONDING

Shortly after Russia's invasion of Ukraine, Feb. 24, 2022, the Preparation, Assessment, Response (PAR) Foundation had connected with the Ukraine Psychological Association and the Angelia Adventist Healthcare system in Ukraine. PAR was informed that there was a need for experts on the management of extreme stress.

So, it should have come as no surprise to Dr. Welton when a colleague reached out to him on behalf of PAR, which was seeking mental health panelists.

Dr. Welton obliged.

"I became a regular participant in two-hour-long question-and-answer sessions with members of the Ukrainian Psychological Association. I was there at the request of PAR, a volunteer organization devoted to helping communities respond to the mental health consequences of disaster and mass trauma," said Dr. Welton.

Illustration: **Dave Szalay**


Randon Welton, M.D.

In addition to Dr. Welton, the panel included a psychologist, a chaplain and a peer-support individual — each of whom were members of the PAR Foundation with extensive experience in disaster response, especially Critical Incident Stress Management approaches.

Between 30 and 75 Ukrainian psychologists from throughout the country participated in each of the five sessions that PAR has held in 2023. Some would take the calls in their basements because of the bombings. Others would have calls dropped due to time limits and power outages. One of the psychologists provided translation services.

"We communicated one paragraph at a time which gave her the opportunity to translate what was said," Dr. Welton noted. He added that they have since found funding for instantaneous translation, which will allow them to speak more freely in the future.

SHARING BEST PRACTICES

The sessions were recorded and made available — along with articles and handouts — to all members of the association. Dr. Welton, who leads NEOMED's Department of Psychiatry and disseminates a variety of mental health treatment best practices through its Coordinating Centers of Excellence, provided several solutions to pivotal questions he received during the Ukrainian Psychological Association sponsored sessions.

How do you screen large populations rapidly for the possible diagnosis of PTSD?

Dr. Welton recommended use of the Primary Care PTSD Screen and the PTSD Checklist, developed by the National Center for PTSD and available on the website of the U.S. Department of Veterans Affairs.

How do you help communities deal with the collective trauma of ongoing warfare?

The most widely accepted guide to managing the initial impact of collective trauma is the Psychological First Aid (PFA) manual, which is an evidence-informed modular approach to help children, adolescents, adults and families in the immediate aftermath of disaster and terrorism. In it, the goals of eight PFA core actions by mental health providers are listed:

- Contact and engagement.
- Safety and comfort .
- Stabilization (if needed).
- Information gathering on current needs and concerns.
- Practical assistance.
- Connection with social supports.
- Information on coping.
- Linkage with collaborative services.

How do mental health providers take care of themselves when they too are experiencing violence and trauma?

Use the basic approach found in Stress Inoculation Training, which involves several steps:

- Identify the sources of stress.
- Recognize internal and physical manifestations of stress.
- Discuss usual ways of coping with stress symptoms.
- Come up with new strategies to address stress.
- Learn and practice new problem-solving strategies and coping skills.
- Learn to keep track of stress levels after applying these new strategies.
- Continue practicing techniques that work.

When might it be best for a provider to stop caring for patients because the provider is suffering?

Providers are often driven by an intense desire to help others and an overwhelming sense of duty, but if they are being adversely impacted by stress they may be unable to truly help others.

- This is similar to aircraft passengers being told to put on their own masks before helping others. If someone is incapacitated, they can't help someone else and will further bog down the system.
- In addition to self-monitoring, providers should have a trusted and respected colleague who is monitoring their performance and behavior. That colleague should be given authority and permission to say "you need to take a break."

How can providers build up their resilience during the stress of war?

- Practice the Stress Inoculation Training techniques described previously.
- Maintain social connections with friends, family and faith communities.

Photoe: **Larry Spencer**

- Remind themselves of the reason behind their actions. Look for meaning and significance in the work they are doing and the sacrifices they are making.

How can providers best help survivors in the immediate aftermath of combat trauma?

- Ensure that they are in as safe of a place as possible.
- Focus on connecting with a variety of medical and social supports.
- Educate about the normal emotional, physical, spiritual, social and behavioral responses to stress.
- Help them to find a space where they can examine and discuss their responses to stress.
- Offer reasonable reassurance and hope.
- Screen for those with more serious problems and connect them with providers.

But questions linger more than ever after the start of the Russian-Ukraine war. Millions have been displaced in Ukraine. And thousands have lost their lives.

At the Jan. 13, 2023 United Nations Security Council briefing, Rosemary DiCarlo, Under-Secretary-General for Political and Peacebuilding Affairs, talked about the horrific impact of the Russian Federation's invasion, particularly on the displaced. She told the delegates that the war is leaving invisible scars and that nearly a quarter of Ukraine's population is reportedly at risk of developing a mental health condition.

And even when wars end, they leave behind battlegrounds of mass trauma that loom large, especially when left untreated.

Find more additional information on guides and approaches to treating PTSD online at **neomed.edu/ignite**.

A BRIEF HISTORY **ON WAR AND PTSD**

Randy Welton, a psychiatrist and 24-year veteran of the U.S. Air Force, answered the question: With changes in the way that wars are fought now, and advancements in mental health research and technology, have we changed the way we treat PTSD globally?

"The benefit of rapid interventions following disasters — specifically combat — was discovered during World War I, forgotten, and then learned again during World War II and the Korean Conflict. This was the age of 'shell shock,' 'combat neuroses,' 'combat stress' and 'battle fatigue.'

During the first World War, the U.S. military learned from the British and French the importance of the PIE approach (Proximity — treat them where they are, Immediacy — treatment them quickly, Expectancy — expect that they will get better) to handling combat stress. The Israelis also used this approach extensively in the '60s and '70s. Later, PIE was expanded to BICEPS — brevity, immediacy, centrality, expectancy, proximity, simplicity — with the addition of "brevity" (treat for 2-3 days), "centrality" (see them in a military setting surrounded by other soldiers to keep them feeling like a soldier) and "simplicity" (food, water, rest and relaxation is all that most will need).

Following the Vietnam War, clinicians in the U.S. began to recognize the long-term effect of stress on the mental and physical functioning of former soldiers. It was noted that very similar symptoms were seen in civilians who had experienced life-threatening traumatic events (e.g., industrial disasters, sexual assaults). By the early 1980s, American psychiatrists had codified this into the diagnosis of post-traumatic stress disorder. The World Health Organization soon included it in their International Classification of Disease (ICD) as well.

Because of our experiences in Vietnam, Kuwait, Iraq and Afghanistan, the United States military has been the testing ground for much of what is known in the management of PTSD — a direct result of lessons learned by military providers during conflicts or VA providers in the aftermath of the conflict.

THE **RISING TRUST** THAT LIFTS NAVY MEDICAL SHIPS

BY RODERICK L. INGRAM SR.

Personable. Precise. Prescriptive.

Those are the words that come to mind when talking global health with C. Forrest Faison III, M.D., FAAP, a retired vice admiral who served as the 38th surgeon general of the U.S. Navy.

Dr. Faison, in his current role as provost and senior vice president for academic affairs at Northeast Ohio Medical University, provided a definitive response when asked about why he stresses the importance of global health to current and future health professionals.

He said, "We know the world is more connected now than ever before. We live in a global economy. And we can be anywhere in the world today well within the incubation period of a lethal, infectious disease. We are closer together. We are more connected interdependently and globally than we have ever been. And yet, when you look at the world today, we are much more challenged than perhaps any time in the past."

To illustrate, Dr. Faison noted that most of the goods that come to the U.S. are from Asia, where 70% of the world's national disasters also occur. The severity of those disasters is getting worse because of climate change.

"Because of climate change, resultant crop failures and water shortages, we are seeing mass migrations of people to the coast," Dr. Faison noted. "What you're seeing is the rise of coastal mega cities, cities that were never intended to be called upon to manage the size of the populations that they're now managing."

The American way of life and access to goods and services depend heavily on global stability and global peace. Natural disasters or displaced populations can be just as disruptive as global conflict and such cities have become breeding grounds for infectious diseases, which can spread very quickly. There's also concern over clean, fresh water.

Global health offers a solution.

"Global health brings value in that it allows us to build relationships and partnerships with colleagues and compatriots in distant lands," Dr. Faison said. "With working relationships in which we share information, many benefits accrue.

YOU CANNOT SURGE TRUST

"There's a saying in the military that you cannot surge trust," Dr. Faison said. "And so, engaging in global health discussions before a crisis not only allows us to respond to critical incidents but it also enables us to build trustful working relationships with our colleagues around the world. When crisis comes, not if but 'when,' those relationships are already in place, you know.

Photo: **U.S. Navy photo by Mass Communication Specialist 1st Class Gary Johnson/released**

"Take pandemics and epidemics. We've had them since antiquity. The first pandemic was actually described in ancient Greece. They all behave the same way: spreading by the trade routes. Today, it's the airline routes that enable quicker spread. That's exactly what we saw with COVID. Now, because of the speed of spread, you need global relationships in place to come together as a community to be able to deal with these pandemics."

Citizens, communities, countries and climates can all benefit from global health.

Businesses, universities and philanthropic organizations engage in global health activities. Many go to distant countries and help with infectious diseases, environmental issues and population health. But, they don't always bring those lessons learned and experiences back to the United States, where many of the same issues exist, especially in urban and underserved populations.

"For example, Cleveland," Dr. Faison said. "Despite having many of the world's top health systems and all of those resources available to us, the actual health of Cleveland residents is below the national average on every measure of health, from neonatal mortality and pediatric diseases to chronic disease and longevity.

"And it's for many of the same reasons, like environmental issues where one in six kids has measurable lead in their blood from paint chips. It's the availability of clean air and clean water. It's the lack of trust in medical providers, things like that. So, we need to make sure we bring the things we learn back and apply them to communities in the United States that could benefit from them."

ART AND CULTURE

"Medicine is an art around which we wrap science," Dr. Faison noted. "We rely on science to help inform our decisions and our understanding of diseases, increasing our ability to develop cures and treatments. But at the heart of it, it is an art of compassion and caring because there is much we don't cure and much we can't treat. And the art is very culturally based."

When we engage with colleagues globally, he added, we learn from each other and help advance health around the world.

Dr. Faison has been involved in global health for most of his career, leading response efforts to major disasters such as the 2010 earthquake in Haiti, estimated to cause as many as 300,000 deaths, and the nuclear accident at the Fukushima Daiichi Nuclear Power Plant in Japan, which was caused by the Tōhoku earthquake and tsunami in 2011.

He has also led military responses to viruses: Zika, Ebola and COVID-19.

"The U.S. Navy did virtually all the testing for the Ebola virus in Western Africa, and it has labs all over the world. We [the Navy], in partnership with the host nation, put a lab in Western Africa to start the groundwork for an Ebola vaccine as well as a vaccine for Zika because that's where the Zika virus first started. In the Zika River Valley [forest], many are infected. But they don't get the birth defects that accompany those contracting the virus in other countries."

In the Zika forest, most simply get mild, flu-like symptoms. Dr. Faison says that is the sort of immunologic tolerance that occurs over decades – the Zika virus was first discovered in 1947 – and from which we can learn and develop vaccines.

Take malaria for example. It kills more people globally than every other infec-

"We need to make sure we bring the things we learn back and apply them to communities in the United States that could benefit from them."

– C. FORREST FAISON III, M.D., FAAP

Photo: **Larry Spencer**

tious disease. The World Health Organization reports that in 2021 there was an estimated 247 million malaria cases and 600,000 deaths.

"We don't think about it because we don't get malaria here in Ohio, but many around the world die from it," noted Dr. Faison. "So, at a lab in Northern Thailand, the U.S. Navy just started clinical trials on a vaccine for malaria. If we can develop a vaccine for that [malaria], think about the lessons we can learn from distributing that vaccine that we could apply to other infectious disease states. But more importantly, think about the global impact that could have if we reduce or even eliminate all those preventable deaths."

As surgeon general, Dr. Faison was also keen to support the Navy's efforts to ensure the United States' freedom of navigation.

He said that our dependence on goods and services — most of which are from overseas (and by ship) — combined with the fact that 98% of our international telecommunications occurs by undersea cables, means that the preservation of the things that we've come to expect and need as Americans is very heavily dependent on what happens at sea, the domain of the Navy.

Peace and prosperity.

Dr. Faison added, "That's why 40% of the Navy is deployed at sea every day — to protect the security of those shipping lanes and undersea cables and to ensure the free flow of goods and services not only to United States, but globally, because we are part of a global economy which depends on global peace.

"Natural disasters and humanitarian crises can be just as disruptive to security, commerce and preservation of global peace as war. So, a great deal of my time was spent looking at that, because when a crisis occurs there are very few organizations that are able to get out the door quickly with enough medical support and force to be able to provide humanitarian assistance and disaster relief quickly. The Navy is one of those organizations."

When the Haiti earthquake happened, every hospital in the country was destroyed. As surgeon general, Dr. Faison knew the U.S. Navy had to respond quickly as Haiti is actually closer to Miami (approximately 700 miles) than Miami is to Baltimore, where the Navy's hospital ship was located (approximately 1,100 miles). And diseases like cholera spread fast.

So, Dr. Faison put the call out to staff and provision the hospital ship before it departed. The ship, which normally stops in Miami for five days to staff and provision, instead went directly to Haiti and was able to start saving lives much sooner.

And when a disease outbreak does come to the United States from elsewhere, the Navy puts its global experiences to work.

Such was the case when the Zika virus hit the Southern U.S. in July 2016. The Naval Infectious Diseases Diagnostic Laboratory (NIDDL), which supports Depart-

LEARNING THE IMPORTANCE OF **HUMILITY**

Growing up in Toledo, Ohio, and Riyadh, Saudi Arabia, third-year medicine student Mohammad Butt was used to international travel.

"I grew up overseas. So I'm comfortable in an environment where things are a little bit more uncomfortable," he said. That comfort level, a spirit of adventure and a strong desire to help build better health systems led him to pursue a graduate certificate in global health from NEOMED's College of Graduate Studies. As part of those studies, he spent several weeks in Nepal.

"I wanted to get more experience working in health care in under-resourced areas, not necessarily underserved, but under-resourced," he explained. "In some areas you can't get MRI machines. There are areas where you can't get C.T. scans. And we have to rely a little bit more on clinical acumen.

"I'm an adventurous person to begin with and I see my career being in places potentially doing a bit of relief work but also helping develop health systems. As I've learned through the Nepal trip, it's not about just doing relief work, which can create dependent relationships. Say a Westerner goes to Nepal and gives health care for free, and the local guy, who's been there for 20 years, he charges money for it. Patients are going to go to the Western guy and the local guy is going to go out of business. And the Western guy goes away. And now they have no health care."

While in Nepal, Butt and his fellow students worked on a research project measuring COVID symptoms and outcomes at high altitudes.

"We found pretty interesting results that no one at high altitudes needed oxygen and no fatalities occurred," he said. "That is in line with other studies that exist in places like Ecuador."

He also learned the importance of trust and respecting the local community and customs.

"Less economically developed countries are not constantly in crisis. Most of the time, they can manage themselves quite well," he noted, adding some words of advice for medical students considering global health travel. "Don't be arrogant. Ask people questions and assume they know more than you. And assume that they are doing the things that they do for a reason. Also go in as a student. Not as a charity worker or an advisor. You're not there to tell them how to do things."

> Natural disasters and humanitarian crises can be just as disruptive to security, commerce and preservation of global peace as war."
>
> **– C. FORREST FAISON III, M.D., FAAP**

ment of Defense (DoD) military treatment facilities in the detection and identification of high-risk and emerging infectious diseases, including Zika, developed a test for the Zika virus. With its portable labs in tow, the Navy performed most of the testing in the Southern United States until the CDC was able to take over.

Emphasizing the importance of a speedy response, Dr. Faison added, "We surge laboratories all around the world as soon as crises happen. If you're going to preserve peace and stability in a very connected world, and as our economy, way of life and security are dependent on peace and stability, you've got to be able to surge quickly and address these crises when they come up."

BUILDING TRUST

Help may not be welcomed if the recipients do not trust the providers.

"I think, foundationally to build trust, you have to understand culture," said Dr. Faison. "I saw it as surgeon general. I see it at universities and all these philanthropic organizations. They go in and try and do what they call 'global health,' because it made them feel good. And they would go in and say, 'Hey, we're here to help you. You know, we know what's best for you, and we're going to tell you what you need.'

"What they didn't realize was that unless you are truly culturally sensitive, you ought not be the one telling these people what they need. Listen to them and they will tell you what they need. More importantly, they will tell you how they need it."

He noted that when "saviors" bring too much help, it can destabilize an area when people begin to wonder why their own government is not helping at the same level. There also may be devastating issues when the helpers leave.

Globally it's not chronic disease that kills most people, Dr. Faison said. Instead, it's the lack of clean water; it's education on how to take care of infants; it's nutritional issues. Partnering with others to address such needs is key.

He stated that in the military, when they surged and responded to a natural disaster, they always made sure to take philanthropic organizations with them.

"We couldn't stay because of our global commitments elsewhere. They [philanthropic organizations] were going to stay and help rebuild that country. Just like in Haiti where we provided the immediate response when all the hospitals were flattened. But we couldn't stay to rebuild the country — the philanthropic organizations did," he noted. "Having those partnerships enabled us to partner with industry to learn how to make clean water; identify alternatives for drought-stricken areas for better crop management to feed people; and improve nutrition, the environment and living conditions to enhance maternal care and reduce infant mortality.

"Many of those things are outside the medical sphere. So, before you go in, it's important that your values are aligned with other organizations to make sure they share the same beliefs — building trust and solid working relationships, and respecting cultures.

THE GROUNDWORK FOR THE FUTURE

People want to do right by their children. People want to be able to pass on to their children a world that was better than the world that was left to them.

"And that's why there's such a focus on taking care of the children," said Dr. Faison. Take Afghanistan as an example. "One of the most important people on the medical team during Operation Enduring Freedom (OEF) was the pediatrician because we saw more children than we saw service members in many of our locations in that country. And to the extent that you can do that, you build trust and you build relationships. From those, you build security and ultimately a future for that country."

Dr. Faison recalls the time when a four-star general who was in charge of all the active military forces in Afghanistan called him and said he just wanted him to know that he and his team had done more to build trust and partner with the Afghan people than anything that they had done since they'd been there.

He added, "That's the power of medicine. That's the power of coming together as a community of health care professionals to take care of the patient."

Photos provided by **C. Forrest Faison III, M.D., FAAP**

REMEMBERING AN **INNOVATOR** AND **FRIEND**

BY JEANNE M. HOBAN

A well-respected educator. An inspiring mentor. An outstanding cardiologist. A loving husband, father and grandfather. A beloved friend.

J. Ronald Mikolich, M.D., (pictured above) was all those things. He was also a faculty member at Northeast Ohio Medical University from 1980 and served as cardiology section chair until his death in 2022.

While he maintained a successful practice in Youngstown, Ohio, for more than 40 years, it was Dr. Mikolich's commitment to teaching that impacted hundreds of NEOMED students.

"He was a consummate teacher," said Chester "Chet" Amedia, M.D. "He always had students in line to be on his rotation. He had an organized program for them and after a month, they were able to say they'd had a real cardiology experience."

It was that commitment to education that inspired a group of fellow physicians, including Dr. Amedia, to memorialize their friend. They established the J. Ronald Mikolich, M.D., Memorial Cardiology Endowed Fund at the NEOMED Foundation. The fund will allow course instructors in cardiology to provide additional opportunities for innovative instruction and creative activities to enhance the educational experience of second-year medicine students.

OLD MAN'S LUNCH

It started over pizza and some beers.

Dr. Amedia, Nicola "Nick" Nicoloff, M.D., and Augustine "Gus" Biscardi, D.O., had known each other and Dr. Mikolich for decades either through practice or medical school — Drs. Amedia, Nicoloff and Mikolich were all at The Ohio State University within a couple years of each other.

"About a month prior to learning about Ron's illness, I had contacted Nick and Gus and suggested that we get an 'old man's lunch' together once in a while just to catch up," Dr. Amedia shared. "We did it once. And then we were going to invite Ron to join us [when he returned from a Florida trip]. Then everything fell apart."

Dr. Mikolich was diagnosed with pancreatic cancer, which took his life within a month of his diagnosis.

"It's such a tragedy," said Dr. Nicoloff. "He's 11 months younger than me. He died when he was 72. And I can't say that he wasn't in his prime."

"We were all — I want to use the word 'devastated' but it's probably not strong enough," Dr. Amedia said.

While they mourned the loss of their friend, the group did get together again, determined to find a way to memorialize him.

Photo: **Chris Smanto**

"After meeting once or maybe twice, we decided that we should do something, not just because he was a friend, but because of the fact that he'd done so much," said Dr. Amedia. "He was committed to teaching and research; and he was a very successful practitioner."

The trio reached out to Elisabeth Young, M.D., former dean of the College of Medicine and close friend of the Mikoliches, for guidance. She put them in touch with the University's Advancement Office.

"We had made up a list of people that we wanted to approach and we had talked to a few of them. That encouraged us to do what we were going to do," Dr. Amedia said. "We thought we'd probably put together $25,000 or maybe $30,000. Nick was very, very optimistic: 'We'll get $50,000 or so!'"

They were all wrong. At time of publication, the group had raised more than $92,000 from 53 donors. Drs. Amedia, Biscardi and Nicoloff did the heavy lifting — making personal calls to encourage members of the community close to Dr. Mikolich to make a financial commitment. And they did.

With their fundraising efforts paying bigger dividends than expected, the group began discussing exactly how the endowment could impact students and honor their friend's memory. They decided the best way to proceed was to establish an endowment through the NEOMED Foundation specifically to enhance cardiology education.

"We wanted it to stay within the College of Medicine, and we wanted it to stay in cardiology," Dr. Amedia said. "But we realized that the chairs come and go and their interests vary. Their enthusiasm would probably vary. So we came up with the idea that it would be used in the second year, specifically in the early cardiology training experience to purchase equipment, experiences, updated materials and that sort of thing, as opposed to a scholarship."

ACCIDENTALLY 'DISCOVERING' ANGIOPLASTY

In the spirit of innovation, discovery and teaching, Dr. Mikolich's legacy endures at NEOMED.

"He was always an innovator," Dr. Nicoloff said. "He was always one who would want to do research. He was not only a clinician, but an academician as well."

After graduating from medical school at OSU, the two did internships together at Riverside Methodist Hospital in Columbus, Ohio, in the mid-1970s.

"We both did research together at Riverside. We actually had a prototype of coronary angioplasty but didn't realize it," Dr. Nicoloff said. "We devised a way to create a reversible coronary occlusion in a closed chest dog, which had not been done yet. Ron presented that as a poster presentation at a cardiology conference. And he was right next to Andreas Gruentzig, who was presenting a poster regarding human angioplasty, and they became friends."

Ronald Mikolich, M.D. (standing, right), was a senior cardiology fellow at Emory University in the early 1980s. Longtime friend Nicola Nicoloff is also pictured (standing, left).

Later when the pair were doing fellowships at Emory University, Dr. Mikolich was invited to Switzerland to learn coronary angioplasty from Dr. Gruentzig, who developed the procedure.

"And so he learned angioplasty," Dr. Nicoloff said. "Ron was a very forward thinker. He saw the future in many things."

While the procedure is common now, it was new at the time. Dr. Mikolich was among the first physicians in Ohio to introduce angioplasty when he began practicing cardiology in Youngstown in 1980.

"He was really an innovator then and he continued to be an innovator," Dr. Nicoloff said, noting that Dr. Mikolich was an early adopter of coronary CAT scanning and cardiac MRIs. He was learning all he could about nuclear magnetic resonance when he passed away.

He encouraged that spirit of innovation in his students.

"Because of his interest in research, he always had several research projects going on at all times and he would involve the students in those [projects] to the point that they eventually were able to publish or present their results at cardiology meetings," Dr. Amedia said. "He was very generous. He'd make them first author, so that they had a more robust CV for post-graduate training applications. I know in one case he took a student to London [for an international cardiology meeting] and that student got to present there. I mean, that's pretty good experience for a medical student."

"Ron was dedicated to his students, dedicated to education at NEOMED, was an innovator as far as being able to think ahead and see the value of different things, and was not afraid to act on it. He had a lot of courage. He was fearless as far as trying new things," Dr. Nicoloff said.

Sibley Strader, M.D. (left), and nurse Annika Detweiler (right) with a patient at the ICHC.

CARING FOR **REFUGEES**

BY JEANNE M. HOBAN

The patient is a loving husband who arrived in the United States as a refugee from Afghanistan with his wife and four children. Unexpectedly, the couple is now awaiting the birth of a fifth child. Weighing their social needs with their beliefs, they decide to carry through the pregnancy. With their growing family size, the only affordable housing option they can find to accommodate them is infested with lead. Now the children have rising serum lead levels. The man manages to find second-shift manual work. He has to get his two older children to school, learn English, learn a new job, take his four children to their doctor and other appointments, apply for food stamps and WIC, learn to drive, get his driver's license and find a way to buy a car, get baby supplies, and clean up lead in his house while finding a new home. His wife only has time for two prenatal appointments because she has to watch the two younger children who are not yet in school. She ends up delivering the new baby by herself, alone, while her husband is at work. Now he has to figure out how to take care of his wife and five children, move to a new home, apply for the baby's birth certificate and benefits while still working 40+ hours a week… in a country that is still unfamiliar and not always welcoming.

Health care and self-care are the last things on his mind.

This is not the plot of an Upton Sinclair novel where everything that can go wrong is piled onto one family to make a point about social injustice.

It is a case study shared by Sibley Strader, M.D., a bilingual staff physician at the International Community Health Center (ICHC) of Asian Services In Action (ASIA) in Akron, Ohio, and 2018 graduate of Northeast Ohio Medical University.

"My refugee patients face an insurmountable challenge with access to health care," Dr. Strader said. "Like many underserved communities, they face obstacles including difficulty obtaining medicine, lack of transportation, confusion with the U.S. health care system, and prioritizing of basic needs over medical concerns. Adding to that, they have systemic barriers including the limited availability of specialists, limited expertise in refugee care, limited use of interpreters, anti-immigrant sentiment and limited refugee health insurance coverage [Refugee Medical Assistance coverage is limited to 8 months]. Adhering to appointments and medications is insuperable."

ICHC is a Federally Qualified Health Center that delivers comprehensive, cul-

turally and linguistically centered health care to community members, many of whom are refugees and immigrants with limited English proficiency and limited knowledge of health and social service systems in the U.S. While attending to their medical and mental health needs, the health center also connects patients with community services provided by ASIA and other organizations to ensure that their social service needs are also met.

The clinic provides refugee health screening for all of Summit County. The refugees – the majority of whom are ethnic Nepalese from Bhutan, as well as others from Afghanistan, Burma, Congo and recently Ukraine — are often referred to the clinic through the International Institute of Akron, the local resettlement agency.

The United Nations defines a refugee as someone who, "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country."

"They may flee from armed conflicts, crises, violence, human rights violation such as torture; some may no longer feel safe and may have been targeted just because of who they are, what they do or what they believe," Dr. Strader noted.

STEP BY STEP

Often, the first person that new patients see when they arrive at ICHC is Hamayon Yaqobi, the senior operations manager and refugee health screening coordinator. Yaqobi worked for the U.S. military as a culture and language advisor in Afghanistan, before immigrating to the United States on a special immigration visa.

He helps new patients through the intake process and, in the case of refugees and other recent immigrants, makes sure their international medical records are in order and that any infectious diseases can be treated right away. "We facilitate appointments, transportation, follow-up appointments and referrals," he said. He follows up step by step to ensure that patients understand the process and have the support they need.

> "Cultural humility teaches me to honor my patients' stories around their needs and cultural desires and integrate their narrative with my medical knowledge."
> **– SIBLEY STRADER, M.D.**

Even with assistance, accessing care and services can be difficult due to language barriers and cultural differences.

"Basic health knowledge should not be implied," noted ICHC nurse Annika Detweiler. "Many of our patients may not even know what 911 is and what happens if they call. Simple, uncomplicated explanations of health information is vital."

Yaqobi helps fill those gaps in knowledge, leading sessions to help refugees and other new immigrants learn the basics. "How to make an appointment, how to call 911. If something goes wrong, what do they do? How can they get ahold of people [from the clinic] after 5 o'clock or in an emergency? We show them how to pick up their medication," he explained.

Translation services help make sure that information is imparted in patients' native languages. Yaqobi himself is fluent in English, Pashtu, Dari and Farsi, and is picking up Nepalese from working at the clinic. Many ASIA staff are trained in the Breaking Barriers in Healthcare medical interpretation training course to become qualified medical interpreters.

"Improper interpretation causes disparity and language access is essential," Dr. Strader noted. "Over 90% of our staff are bilingual or multilingual. They are apt in working with interpreters and are diligent to make sure that interpreters are repeating only what the patients say, without adding, subtracting, summarizing or changing anything."

Medical assistant Mon Gurung, a Nepalese refugee from Bhutan, came to the U.S. in 2012 and joined the ICHC staff in 2021. His own experiences in a refugee camp in Nepal helps him help others navigate the system. For instance, he explained that in camp clinics, payment is generally expected up front, before health services are provided. "You had to pay before getting care from the health care personnel or the doctor. And some people who came from that background or that place, they think here [at ICHC] they might have to pay, that it is costly or will become a burden in future."

CULTURAL HUMILITY

One of the challenges of working with refugees and any immigrant group is understanding cultural differences. Another is making sure that understanding does not lead to stereotyping. After all, just because some or even most members of a particular ethnic group or religion hold certain beliefs, that does not mean that all members of that ethnic group or religion share those beliefs.

"Traditionally, health care teams have been taught the assumption of cultural competence — that it is achievable by taking a class, seminar or in-service. There have been stereotypes and generalizations

Photo: **Andrea Hallgren**

Hamayon Yaqobi (standing) provides education on navigating the health care system.

in which health care teams believe if one person from a specific group thinks a certain way, then all others will as well," noted Dr. Strader. "However, there is no way to predict beliefs and behavior except from learning from the patients and their families. Cultural humility teaches me to honor my patients' stories around their needs and cultural desires and integrate their narrative with my medical knowledge, which enables me to form the individualized plans that will optimize my patients' health outcomes."

One way to ensure cultural understanding and encourage the view of individuals as individuals and not solely as group members, is to ensure that staff are representative of the community being served.

"I think that one of the important responsibilities in terms of how we staff our services is that we make sure we are hiring people with an in-depth knowledge of the community that we serve," said Elaine Tso, CEO of ASIA. "And oftentimes that means that we are hiring from the communities that we serve. So there is language accessibility and cultural understanding. In addition to that, we count on those who are from the communities to provide further education to those of us who are not from those communities."

Tso noted trust is a vital component in developing that relationship.

"If the community that we're serving does not know us or trust us, they aren't necessarily going to share those insights. Or they will tell you something that they think you want to hear so that you'll go away," she said. "That is why I promote something that I call relentless outreach. We cannot just drop in and drop out. That is not outreach. Outreach has to be relentless. And that means that we are everywhere. It means that we are at community events, at mainstream events, that we host events and that we give community members a feeling of security to be honest with us about whatever their needs are, whatever their challenges are, and that they allow us to help them."

AN OUNCE OF PREVENTION

Sometimes the differences in caring for refugee populations are not cultural or social. Sometimes they are medical.

"From a medical perspective, I generally anticipate a higher risk of tropical and infectious diseases [among refugee populations] such as tuberculosis, hepatitis A and B, HIV, malaria, parasitic infections and sexually transmitted infections; dental decay; trauma and torture; PTSD, mood disorders and somatization; micronutrient deficiencies, chronic pulmonary disease (fume inhalation) and missing immunizations," Dr. Strader noted.

The list of maladies could be overwhelming, but Dr. Strader makes sure to remember that each patient is an individual, not a compilation of ailments.

"It is more important to me to focus on my patients' strength and resilience. Refugees are often defined by their displacements. Care providers think of their deficits—low English proficiencies, psychosocial needs, physical and mental health risks—and lose sight of their unique strengths and cultural assets," she said. "They have overcome unimaginable adversity. They can speak another language. They have strong ties to their family, communities and tradition. By appreciating what they have, what they know and what

Dr. Strader (center) with staff at ICHC.

is important to them, I am able to build a strong physician and patient relationship with my patients."

When filling its appointment schedule, the clinic takes into consideration the need for extra time for consultation. Sometimes, that extra time is spent explaining the difference between primary care and specialty care, a distinction that does not exist in some cultures.

Tso noted, "The notion of preventive medicine is a new notion for the international community. So what we face sometimes is what the clinical people call 'noncompliance.' Things like missed appointments, nonadherence to medication. Because sometimes community members, when they feel okay, if they don't have a headache from their high blood pressure, then they think that they don't need to take their medication. It's a two-way gap in the sense that on the one hand, the refugees don't understand preventive medicine. And the physicians, they need to do a better job of explaining this notion."

TESTIMONIES OF STRENGTH

"My refugee patients are the testimonies of hope, love, strength and unwavering determination," said Dr. Strader. "Their prosecutors may have the power to evict them from their homeland and take away their citizenship and properties, but it cannot take away their pride, knowledge, culture and history. Whatever time, energy and resources they have, they use it to support their family and community. They seldom lament their loss and their past. They adapt and thrive, bringing vibrancy and economy to the area.

"I am honored and truly grateful to get to know them, celebrate their experiences and cultural assets, and support their well-being and their endeavor to create a new life in our region," she said.

> "Their prosecutors may have the power to evict them from their homeland and take away their citizenship and properties, but it cannot take away their pride, knowledge, culture and history."
> **– SIBLEY STRADER, M.D.**

WILLIAM CARLOS WILLIAMS **POETRY COMPETITION**

The 41st annual William Carlos Williams poetry competition drew submissions from nearly 300 students of allopathic and osteopathic medicine in the U.S. and Canada.

Three winners, selected by judges from the Wick Poetry Center at Kent State University, were recognized during an awards ceremony held in March 2023 at the Health Humanities Consortium Conference, co-sponsored by Case Western Reserve University School of Medicine and Cleveland Clinic Lerner College of Medicine.

In addition to a monetary award, the top three prize-winning poems will be considered for publication in the *Journal of Medical Humanities*.

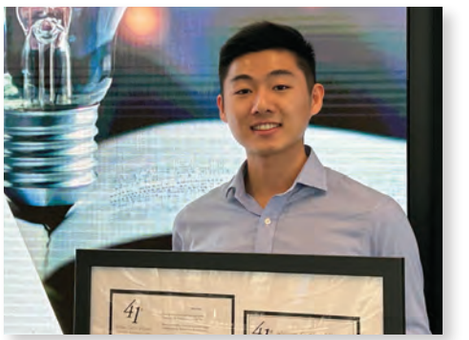
First place was awarded to Brian Zhao, a third-year medical student at Brown University and previous William Carlos Williams Honorable Mention (2020 and 2021). His poem, "Resection," is a stunning meditation on the mysteries and paradox and, ultimately, hope revealed through medical practice.

Bessie Liu, a second-year medical student at Johns Hopkins University, was awarded second place for her poem "After The Surgery," a reflection on the strangeness of being back out in the world after receiving an unexpected diagnosis.

Third place was awarded to Sarah Phillips, a third-year student at Eastern Virginia Medical School, for the poem "Grief Grows Here," a tribute to those who are hurting and healing from gun violence.

Submissions for the 2024 competition will open in fall 2023.

Find more winning poems at **neomed.edu/ignite**.



Resection

I had spoken to her a few hours ago, knew
what street she lived on, the names of her

three grandchildren. Now she was a blue-edged
window of scalp, flattened into an anonymous,

convenient dimension. When the skull is broached,
the bone shard falling away to let through its first

photon, there comes a sense of increase, of static
along ion channels, of the ineffable crossing thresholds.

Our fingers spider over dura mater, collating the
topography of this mother's life. And then this too

is broken apart, a path opening before us, cortex
unfolding soft and wetly. Everything that brushes by

is a wonder, each pale patch of vein and tissue a well
of its own, a world circulating back upon itself—

every inimitable thought and way of knowing accounted for.
Just below, the tumor is unsuspecting, that distorted embodiment

of a life's germinal hunger. Deeper than any memory,
that hunger. I remember now the quest we are here for:

to kill and to cure. The Bovie hisses, electric extinguishing
electric. A sad, necessary combustion, each wisp the ghost

of a neuron and all its implications. Through this grey curtain, I peer,
trying and failing to perform that final translation, something

breaking down in the sequence of nucleus to myelin, memory
to peptide, depolarization to diction, solid becoming smoke

so quickly. All I can do is fill the air with the insubstantial.
Like hope—that she returns to Ash Avenue, gets fed a

gummy worm by her littlest one, regains a full head of hair.
When she awakens, I pray nobody will know what she's lost.

HEALTH CARE
TRANSFORMATION IDEATOR

Northeast Ohio Medical University and UH Ventures co-hosted the first annual Healthcare Transformation Ideator event at Bounce Innovation Hub in Akron on June 1-2, 2023. The exclusive two-day competition challenged over 60 participants with developing innovative tech-enabled ideas to improve maternal and infant mortality. A four-member team "Bounce Buddies," comprised of NEOMED and UH employees, earned first place, winning $5,000 to support the development of their idea — an integrative app called Auntie Mia that would allow for real-time help and services for pregnant individuals at the click of a button.

Photos: Chris Smanto

MESSAGE **IN A BOX**

BY RODERICK L. INGRAM SR.

A simple device born out of necessity helped keep health professionals safe during intubation.

"Were people going to use them or not? I don't know. We never really were able to follow up on that. But it was something else that we could potentially do to help one person. It was worth the effort," Eric Espinal, M.D., said of the device, developed during the COVID-19 pandemic.

Sounding at times more like a community advocate for those in need than a highly accomplished physician, you get the impression that the work matters more than the outcomes.

Two quick calls. Two and a half hours. Two-point-five weeks. A team of five. We made 100.

But with his attention to detail, the outcomes are destined to be successful — even with such ad-hoc solutions during times of crisis.

You can tell Eric Espinal is a numbers guy.

And when he talks operating room, he also emphasizes the importance of the team's collective work.

"We literally have a dozen [numbers again] people in there doing very complex tasks," Dr. Espinal said.

But numbers and teamwork are just a part of what makes him so successful. It all begins with community.

FOR AND FROM OHIO

"I grew up in Hartville, Ohio, so not too far away. I went to Lake High School and have been a local guy just about all of my career," Dr. Espinal said. The 1992 graduate of Northeast Ohio Medical University added, "While I did go away to University of Pittsburgh for my thoracic surgery [fellowship], I did my rotations and residencies at Akron City Hospital (now Summa Health)."

He has been at Summa for about 24 years and currently serves as vice president of surgical affairs, chair of the Department of Surgery and chief of cardiothoracic surgery. He was one of the first to do robotic heart and lung surgery within Summa Health. But he doesn't find conversations about his accomplishments easy to discuss.

He insists, "It really is about the incredible team that helps me. Even though we're in a very high-tech world where I do heart surgery on a regular basis and we put in left ventricular assist devices, artificial hearts, etc., it really is not the high-tech aspect that matters. It's the high-touch component that backs all of this technology, which is absolutely critical to success."

The more seamless the surgical team relationship is, the better the surgeon performs, the better the outcomes. Dr. Espinal believes his or any leader's job is really about encouraging and inspiring the team that has been assembled to do the very best work that they can.

Dr. Espinal said he's always wanted to be a surgeon. He decided to be a heart surgeon in sixth grade science class. "We had to draw a complex picture," he explained. "You could choose the eye and trace the path of light through the eye, to the retina, to the brain. Or, you could go with the heart and show blood flow through the heart, the right ventricle, out to the lungs and back. I spent hours on it, and when it was all done, I thought it was kind of a masterpiece."

It seems he made the right choice.

"I just love the ability to meet a patient with a problem, to be able to offer a life-changing solution. And then for them to be able to come back and do better," Dr. Espinal said.

And in times when the patient's condition is more advanced and surgery cannot help?

"I don't really meet any patient [in his specialty] that has a minor problem. [It matters] that I am able to answer their questions; to allay a lot of their fears, which oftentimes is of the unknown; to give them some semblance of calm so they will understand the situation on their own terms; and to gain their trust that I have a team who's going to do our very best. It is very, very gratifying to be able to bring that," he said.

MUSCLE MEMORY

One should hope and expect a cardiothoracic surgeon to be confident in their work. But one should also know that that's the least of what happens with seven years of training — especially when that training follows four years of class, lab and field work to obtain a Doctor of Medicine degree.

There's also muscle memory.

"You feel comfortable because you've done this many times before," Dr. Espinal said. "All the years of college, medical school, residencies, then fellowship, let you know that you belong here. You're well-trained to do the job. But being a surgeon to the best of your ability also requires you to be a whole person."

That means having different interests, focusing on family and just living a life apart from the role of surgeon.

"You have to do a lot of things that make you a person. Because if you're just going in there as just a surgeon with only one area of expertise or one point of view, it's going to be harder to relate to your team. It's going to be harder to relate to your patients," he said. "And you're not going to be as happy. A happy surgeon does great work. And with all the

stresses and strains, I think it's very, very important. So, I've always been very focused on making sure, despite all of the demands, to stay very close to my family."

Dr. Espinal and his wife, Sue Espinal, M.D., an OB-GYN at Summa Health, have three adult children — one is a resident physician and the other two attend medical school.

The Espinals met when they were both in residency. Recalled Dr. Eric Espinal, "We had a chance encounter just as we were starting our residency. I thought she was probably too pretty and too fancy for me, so I didn't even talk to her until later when we did a rotation on the critical care service together.

"We worked together for a month and got to know each other."

After that rotation was over, they went out on one date and have been together ever since.

In many ways, NEOMED played a role in Dr. Espinal's chance encounter with his then future wife. Akron City Hospital — where the couple met — was part of the University's clinical network.

"What I really, really liked about NEOMED is its collaboration with the affiliated hospitals," he said. "Having these community hospitals, even though they had an academic flavor to them, was very attractive to me because I knew I wanted to work as someone who's doing surgery every day."

Even though he knew as early as grade school that he wanted to be a heart surgeon, it wasn't until he met Zouhair Yassine, M.D., the founding faculty member of the Department of Anatomy at NEOMED, that Dr. Espinal began to understand what success as surgeon could look like.

"He was very much a gentleman. And that kind of inspired me. When times were getting tough, you knew Dr. Yassine would get you through it," he said.

DOCTOR DO GOOD

Dr. Yassine's conviction that doctors had to be part of the social fabric of their community is evident in Dr. Espinal's work.

During the early days of COVID-19, no one really knew what was going on. And resources like masks were limited. So, Dr. Espinal and his team accrued the discarded wrap from sterilized surgical trays because of its ultra-filtration capability and began making masks of it.

"So that was the first thing we did. We made masks with sewing machines at my house and at volunteer departments here in the hospital," noted Dr. Espinal.

"Then, I saw an article in the *New England Journal of Medicine* from a physician in Taiwan who designed a clear plastic box to place over a patient's head and protect health care workers during intubation. So, I thought, let's mitigate potential contamination during intubation as we're really exposing others to the airways of folks who have COVID," he recalled.

Dr. Espinal found a few companies that were able to make the clear "intubation excavation" boxes. With his kids, he began distributing them (about 50) around Northeast Ohio and Pittsburgh.

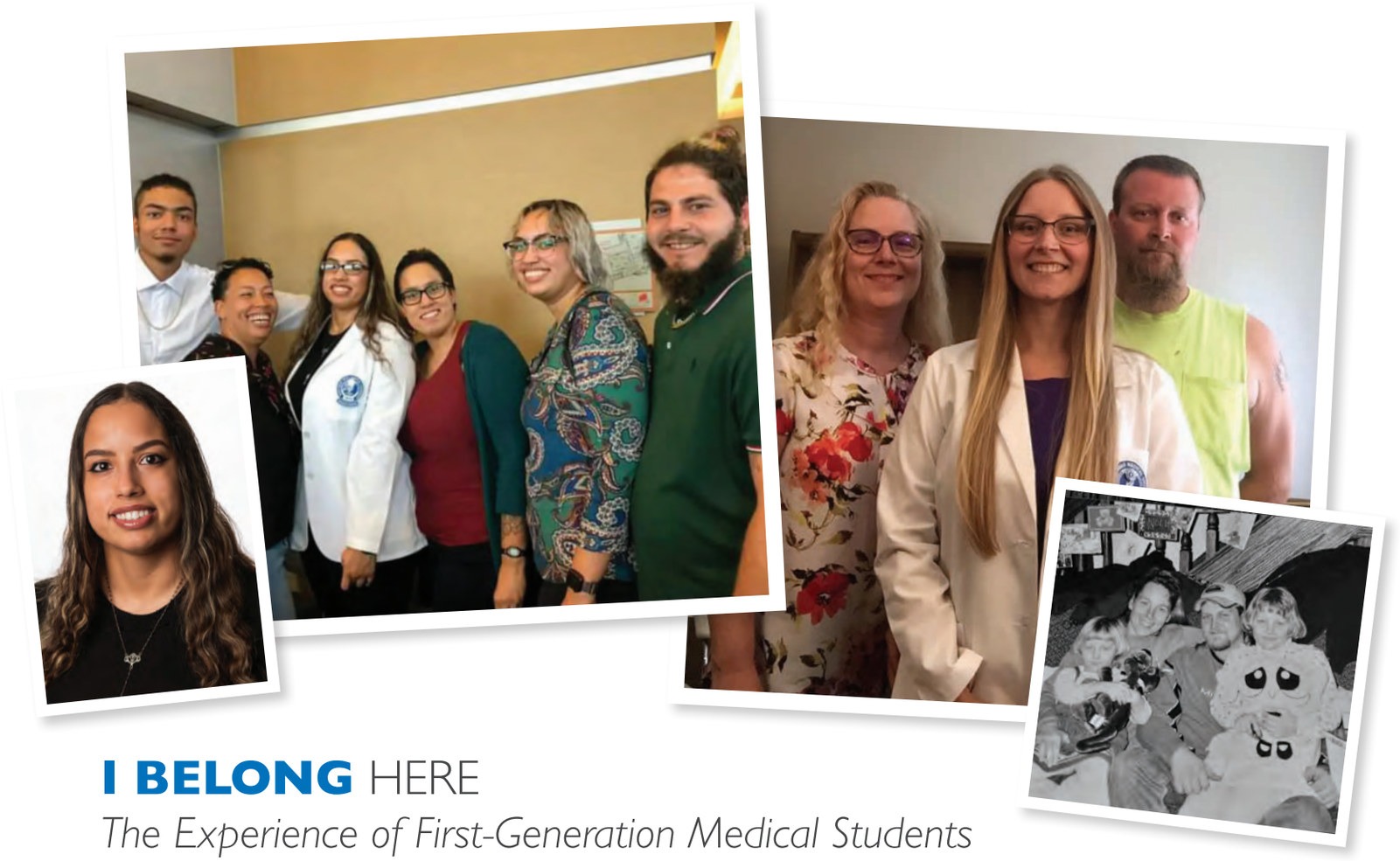
The cost for the boxes was covered by the businesses, Dr. Espinal, his friends and colleagues.

"It was hard to deliver them because everybody was on lockdown and you couldn't go into a hospital. So, we literally just dropped them off at just about all the hospitals in Northeast Ohio, which then redistributed them," Dr. Espinal said.

At times it was chaotic. "Driving around in an SUV with big boxes in the back. Family members, businesses and other volunteers working together to help in every way possible. It was just something we could do quickly as members of the Northeast Ohio community," he said. "It hadn't been done before, and there was no proof, there was no science. There was just a single anecdotal article from the *New England Journal of Medicine*. And then we had another 50 made. We called the governor's [of Ohio] office and said a lot of hospitals need them across the state. We loaded them on a U-Haul truck, then my daughter and I drove them down to the Ohio National Guard Armory in Columbus and assembled them in this giant warehouse from which they were distributed all over."

With boxes delivered to different places, pandemic-imposed barriers to communication and lack of consistent feedback, Dr. Espinal, the numbers guy, doesn't have hard data on use of the device, but is sure the effort was worth it.

His message is simple: Do something to help someone.



I BELONG HERE

The Experience of First-Generation Medical Students

BY JULIA COLECCHI

Many students who choose careers as physicians are following in the footsteps of their parents or other family members who also became doctors. But first-generation students, those who are the striving to become the transformational leaders in their families, are increasing in number and creating success for themselves. Students who are the first in their families to attend medical school bring unique strengths to their schools yet face distinct challenges, including financial hurdles, lack of guidance and cultural barriers.

Leslie Gonzalez, a second-year student in the Northeast Ohio Medical University College of Medicine, often hears narratives about medical students that run contrary to her personal history. The assumption is that she and her classmates are wealthy and their parents are highly educated. But as a first-generation college student, her story looks different.

Gonzalez's parents encouraged a strong work ethic in her childhood in Hollywood, Florida, and her environment inspired her to pursue a career in health care. Both of her parents worked hard — her dad as a truck driver and her mom as a bank teller — but neither of them attended college.

"My parents' background and the area I was raised in inspired me to want to attend medical school. My high school experience wasn't particularly great — there were many mental health and substance abuse issues with my friends and schoolmates," she said. Seeing those issues inspired her to want to become a doctor to make a real impact on the world.

Her mom is overjoyed at her daughter's achievements and her choice to attend NEOMED. "I am so proud of my daughter for making the sacrifice of living out of state on her own, far from home, to go to medical school. It's a dream come true to see her put herself as a priority and go for what she wants," she said.

As Gonzalez navigates the difficult path to be the first doctor in her family, including full-time jobs, long commutes and educational setbacks, she is eager to encourage others that they can achieve their goals. She realized that many of her NEOMED classmates were having similar experiences, and created the First-Generation Medical Professional student organization to elevate advocacy for first-generation students.

CREATING A LEGACY

The Association of American Medical Colleges (AAMC) estimates that 12.4% of 2021-2022 matriculants to M.D.-

granting medical schools were first-generation college students. First-generation students and their advocates want to change the narrative of their status, from one of deprivation to one of empowerment, by acknowledging all that they can contribute to the medical field.

Brittany Ring is one of those trying to create change. She serves as the secretary and social media manager of the student organization that continues to grow, welcoming students from NEOMED's three colleges. The group provides a community for first-generation professional students and helps them receive guidance from first-generation residents, physicians and pharmacists through mentorship, shadowing and research opportunities, speaker events and community engagement.

The group provides welcome support for Ring, as she navigates through her second-year of medical school. "I grew up watching my mother and father overcome many generational obstacles. My parents had my sister and I at a very young age, so things did not come easy," Ring said. Her father did not graduate from high school and worked in the trades to provide for their family. Her parents instilled in her how important hard work and perseverance are to accomplish any dream to which she aspires.

When the Kent State University graduate was applying to medical school, she experienced a new set of challenges, from navigating the complex world of financial aid to learning proper writing techniques for applications. She overcame those challenges and was accepted into NEOMED.

"We had complete gratification when we heard Brittany was accepted into medical school," her parents said. "We hope she continues to be true to herself and others by serving through medicine."

Despite the challenges, first-generation medical students, like Ring, are a crucial and valuable part of the community at NEOMED. These students bring diverse perspectives and experiences that enrich the fields of medicine, pharmacy and other health professions.

MENTORING WITH A PURPOSE

For students who are finding their own way in medical school, mentors who themselves are first-generation provide guidance and the assurance that they belong in their field. "Unless you've gone through it, you can't relate to it," Ring said. "Sometimes you feel really alone as a student, but mentors help to encourage and support me to remind me. I belong here."

Despite their small numbers, first-generation medical students are increasingly visible as medical schools become more attuned to underrepresented student populations. A major focus of advocacy and communication for the group is that being a first-generation student should not imply disadvantaged status. The AAMC states that first-gen students possess qualities that reaffirm their ability to succeed at practicing medicine. First-generation students share qualities, like persistence and resilience, that helped them get into medical school. They also tend to possess a greater empathy for patients from vulnerable communities.

Through a collaboration with Cleveland Clinic Akron General, the students in NEOMED's First-Generation Medical Professional group attend virtual events throughout the summer and have the opportunity to pair up with a resident mentor before they start rotations in their third year.

"I understand the obstacles that others are going through and felt that there was a need on campus to provide resources and aid connections to hospitals," Gonzalez said. "I'm excited for the group to continue to grow and provide programming to support first-gen students at NEOMED."

> "As Gonzalez navigates the difficult path to be the first doctor in her family, including full-time jobs, long commutes and educational setbacks, she is eager to encourage others that they can achieve their goals.

JUST LIKE **MOM USED TO MAKE**

BY JEANNE M. HOBAN

Rodney Reckner, executive chef in Conference Services for Northeast Ohio Medical University, learned to cook by cooking.

He honed his culinary skills in the kitchens of fine-dining restaurants where he was trained by various chefs.

But he learned the basics from his mom.

When *Ignite* asked Reckner to share a recipe that was meaningful to him, he chose to share one based on his mother's chili recipe.

"When I was growing up, my mom was a single mom, and so meals had to be easy to produce for me and her and my brother," he said. "We did a lot of crockpot meals. This is one crockpot chili that we would have, especially when it got colder, because you could just dump everything in the crock pot, turn it on, Mom goes to work, kids go to school, come home, and the house smells like chili and you're good to go.

"It's a nice hearty meal and you can either pair it with cornbread or tortilla chips or whatever to make it stretch out. She was trying to feed the whole family on a budget, you know, and a little bit goes a long way."

THE ART OF COOKING

Food is art you can eat.

That's the lesson Reckner learned while working at his first fine-dining restaurant, Magnolia's Beachside in Cocoa Beach, Florida, under Chef Jason Clark. He also worked at a yacht club on Put-in-Bay, Ohio, and a ski lodge in Vail, Colorado.

"Funnily enough, I went to school for film and video production at Florida Metropolitan University. But I cooked all through school," Reckner recalled. "When I graduated, I got an internship at a news station in Orlando, and it was terrible. It turns out I hated the industry, so I just went back to cooking."

With 7-year-old twin boys and a 13-year-old son, the Reckner family spends a lot evenings and weekends driving to and from practice and games for various sports and other activities.

"We do track and soccer presently and karate. And then in the wintertime, the oldest plays basketball," Reckner said.

To keep up and make sure the family is eating well, Reckner prepares two or three meals in advance that are then refrigerated or frozen.

"It's really helpful to just be able to throw it in the microwave and go, you know?" he said.

A FOUNDATION FOR FLAVOR

Reckner didn't have his chili recipe written down.

"It is a little bit of this. A little bit of that," he said. The base is just a foundation for creativity and personal taste. Sometimes, he throws in beans. Sometimes, the chili includes ground beef or another meat. He always takes it easy on the heat.

"I like to make my chili not spicy, so that people can adjust to their own taste," he said. "With spices and other strong flavors, some people love it. For some people, the littlest bit turns them off, so I always like to serve chili with hot sauce on the side," he said.

BASIC CHILI RECIPE

INGREDIENTS

1 tablespoon olive oil
1 medium yellow onion, diced
1 pound 90% lean ground beef
2 ½ tablespoons chili powder
2 tablespoons ground cumin
2 tablespoons granulated sugar
2 tablespoons tomato paste
1 tablespoon garlic powder
1 ½ teaspoons salt
½ teaspoon ground black pepper
¼ teaspoon ground cayenne pepper (optional)
1 ½ cups beef broth
1 (15 oz.) can petite diced tomatoes
1 (16 oz.) can red kidney beans, drained and rinsed
1 (8 oz.) can tomato sauce

COOKING INSTRUCTIONS

1. Add the olive oil to a large soup pot and place it over medium-high heat for 2 minutes. Add the onion. Cook for 5 minutes, stirring occasionally.
2. Add the ground beef to the pot. Break it apart with a wooden spoon. Cook for 6-7 minutes, until the beef is browned, stirring occasionally.
3. Add the chili powder, cumin, sugar, tomato paste, garlic powder, salt, pepper and optional cayenne. Stir until well combined.
4. Add the broth, diced tomatoes (with their juice), drained beans and tomato sauce. Stir well.
5. Bring the liquid to a low boil. Then, reduce the heat (low to medium-low) to gently simmer the chili, uncovered, for 20-25 minutes, stirring occasionally.
6. Remove the pot from the heat. Let the chili rest for 5-10 minutes before serving.

1983

John A. Bastulli, M.D., FASA, was awarded the 2022 John H. Budd, M.D. Distinguished Membership Award — the highest honor awarded by the Academy of Medicine of Cleveland and Northern Ohio (AMCNO). This is the third time Dr. Bastulli has been the recipient of the Budd Award. Dr. Bastulli is president and managing partner of Cleveland Anesthesia Group and practices at a number of surgery centers.

1985

An-Yu Chen, M.D., was re-elected to the Board of Directors for the Lexington Clinic in Lexington, Kentucky.

1989

Timothy C. Lyons, M.D., MHCM, FASA, accepted a position as president of Corewell/ Beaumont Hospital in Grosse Pointe, Michigan.

1997

Sandra Hong, M.D., started a new position as department chair, Allergy and Immunology at the Cleveland Clinic. “I am extremely honored to support this incredible team of allergists and immunologists, APPs, nurses and our health care teams who strive to make a positive difference in our patients' lives every single day,” she shared.

2000

Lisa M. Schroeder, M.D., was promoted to program director of the Summa Barberton Family Practice Residency Program.

2011

Alejandro Adorno, Pharm.D., welcomed son Ignacio Immanuel Adorno, who was born on Feb. 4, 2023.

2012

Christina Marie Dascenzo, Pharm.D., served as chair for the 2022 Heart of the Tri-County Heart Ball of the American Heart Association. She was also elected to the American Heart Association Ohio Board of Directors

2020

Rachel Johnson Pharm.D., started a new position as clinical pharmacist in the Outpatient Pharmacy at University Hospitals.

2022

Joular Shokrgozar, Pharm.D., started a new position as PRN pharmacist at Summa Health.

Cameron Warner, Pharm.D., started a new position as clinical pharmacy specialist at Aultman Alliance Community Hospital.

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