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ON THE COVER: Assistant Professor of Indigenous Health Dr. Grace Karikari (right) with her colleagues in Ghana.

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University of North Dakota School of Medicine & Health Sciences

FEATURE STORIES

DEPARTMENTS

UND School of Medicine & Health Sciences
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WITH GRATITUDE

Outgoing Dean Dr. Joshua Wynne shares his final column for *North Dakota Medicine*.

Recently, I relocated my office in our UND School of Medicine and Health Sciences (SMHS) building in Grand Forks from the dean's suite to a faculty office on the first floor. As you probably know, I turned over my administrative duties as Vice President for Health Affairs and Dean of *your* School of Medicine and Health Sciences to Dean Marjorie Jenkins, and I returned to the faculty ranks, on Dec. 1.

I've met with Dean Jenkins several times since she was named, and I think that she is ideally suited for the job. She has a lot of experience in leadership roles and had been a medical school dean for five years before becoming a candidate here. I'm confident that she will continue to build on the amazing foundation that the faculty, staff, and students of the UND SMHS – with the help of the state legislature and our generous donors, friends, and supporters – have built up to this point. I am quite sure that it will be onward and upward as far as the trajectory of the School, and I'm honored and gratified to have been part of that trajectory so far. I can hardly wait to see what happens in the next chapter!

While I will be available to assist Dean Jenkins as she might request, I plan to have plenty to keep me busy as a faculty member. I've added a few new gigs to my faculty responsibilities, and I hope to write a few manuscripts that so far exist only in my brain!

As I reflect on the many accomplishments that have occurred at the School over the time I've had the honor of being dean, I am confident that we have more than complied with the purpose statement for the School that is stated in the Century Code (the codified laws of the state of North Dakota). It expects the SMHS to focus on education and healthcare workforce development for the state, to engage in meaningful discovery efforts (research) that enrich the lives of North Dakotans, and perhaps most of all – to serve the people of the state with efforts that improve the quality of their lives.

I believe that together we have done this – and more! Just look at some of our accomplishments over the past decade and a half or so:

- A significant improvement in the retention rate of SMHS medical program graduates for clinical practice in the state; additionally, we now find that nearly half of North Dakota's health sciences licensees workforce (physical and occupational therapists, physician assistants, lab scientists, athletic trainers, etc.) have graduated from the SMHS.
- Expansion of class sizes, along with the addition of new departments and programs, including emergency medicine, radiology, Indigenous health, population health, public health, and more.
- A more than doubling of the number of residency slots (post-MD required training), with the addition of multiple new programs, including hematology/oncology, forensic pathology, geriatrics, neurology, orthopedic surgery, hospital medicine, pediatrics, and soon – cardiology.
- All programs are fully accredited.

Dr. Joshua Wynne (center) with the SMHS Administration & Finance team at a reception in his honor at the Gorecki Alumni Center in Oct. 2024.

- A major growth in philanthropic donations that has allowed us to significantly increase scholarship support for students, thus reducing their educational debt load.
- A major expansion of our research enterprise, with a more than doubling of external funding (that typically comes from the federal government, especially through the National Institutes of Health) over the past decade.
- A substantial improvement in the physical plant, both in Grand Forks and at the regional campuses:
  - Fargo – New regional campus office space that is in much closer proximity to Essentia and Sanford Hospitals, as well as the Internal Medicine Residency Program.
  - Minot – New space for the regional campus office.
  - Bismarck – New building for the Center for Family Medicine and regional campus office.
  - Grand Forks – Brand new clinical space for the Sports Medicine program; new signage on the north side and in front of the Grand Forks building.

And speaking of our main building in Grand Forks, it is now eight years young, and in most ways still feels like it is brand new. It was completed on time and on budget and continues to be an amazing facility to support the efforts of our faculty, staff, and students.

Perhaps most important of all, there is a palpable sense that our stakeholders, including hospital CEOs, practitioners throughout the state and beyond, donors, legislators, and others, now view the SMHS as a major asset for the state and are highly appreciative of our efforts to support and further grow the healthcare workforce for North Dakota. One really couldn't ask for much more!

With gratitude,

Joshua Wynne, MD, MBA, MPH
Vice President for Health Affairs, UND
Dean, School of Medicine & Health Sciences

‘COMMITTED TO RURAL HEALTH AND IMPROVING HEALTHCARE ACCESS’

Dr. Marjorie Jenkins is named vice president for Health Affairs and dean of UND’s School of Medicine & Health Sciences

Dr. Marjorie Jenkins, professor of Internal Medicine and former dean of the University of South Carolina School of Medicine Greenville (USCSOMG), has been named vice president for Health Affairs and dean of the School of Medicine & Health Sciences at the University of North Dakota.

At UND, in the dual role of vice president and dean, Jenkins will serve both as chief fiduciary officer for the University’s Division of Health Affairs and chief academic officer for the School of Medicine & Health Sciences (SMHS). She will lead biennial budget recommendations and fundraising plans while also providing operational leadership for the School’s academic and research programs.

“I am delighted to welcome Dr. Marjorie Jenkins to our UND community,” UND President Andrew Armacost said. “She will be taking on a pivotal role at a momentous

“I am truly honored to have been selected as your next VP and dean, and I am excited to embark on this journey with you.”

DR. MARJORIE JENKINS

time in our University's history. I have been so impressed with Dr. Jenkins' commitment to serving others, and I know she will be an incredible vice president, dean, and colleague."

Jenkins, who officially began as vice president and dean on Dec. 1 and will arrive on campus on Jan. 6, 2025, said that she is honored to have been selected and is excited to embark on the next chapter in her academic career.

"I am deeply committed to rural health and improving healthcare access, especially for underserved communities," Jenkins said. "Growing up in Appalachia, my family and I had very limited access to medical care. My grandfather, a pastor and coal miner, became the go-to health expert for my widowed mother and her eight children."

This personal experience, coupled with two decades in academic medicine at universities in Texas and South Carolina — "states that both face significant rural health challenges," said Jenkins — fueled her passion for making a difference.

"In my conversations on campus, it's clear that the UND community shares a strong sense of pride, passion, and dedication to serving North Dakotans," she added. "I am truly honored to have been selected as your next VP and dean, and I am excited to embark on this journey with you."

Jenkins has held executive leadership positions across academia and the federal government. In addition to her service as dean, Jenkins served as associate provost for the University of South Carolina and chief academic officer for Prisma Health-Upstate, a 1,600-bed, nonprofit healthcare system.

During her time as dean, USCSOMG received its first eight-year Liaison Committee on Medical Education accreditation and the first of several grants from the National Institutes of Health. Jenkins also helped launch the school's first three-year Primary Care Accelerated Track program to provide family medicine providers to rural South Carolina.

"Building on Dr. Joshua Wynne's legacy, I look to continue UND's solid foundation and impressive momentum in innovative education, multidisciplinary research, and training healthcare professionals in North Dakota," Jenkins continued. "As I've learned more about the state's rich history and its people, I'm confident we will continue to grow our programs and make a significant impact both locally and nationally."

Prior to her roles in South Carolina, Jenkins spent her academic career at Texas Tech University Health Sciences Center, where she was the founding executive director and chief scientific officer for the Laura W. Bush Institute for Women's Health Research. She also held the titles of the J. Avery Rush Endowed Chair for Excellence in Women's Health Research, associate dean for Women Faculty, and tenured professor of Internal Medicine. A distinguished academic administrator, Jenkins also is an award-winning expert in women's health and sex- and gender-based medicine.

At Texas Tech, Jenkins steered the Laura W. Bush Institute to global recognition and statewide growth across five campuses and schools of health professions.

From 2015 to 2019, while at Texas Tech, Jenkins also served as director of Medical Initiatives and Research Programs for the U.S. Food and Drug Administration's Office of Women's Health.

Throughout her career, Jenkins has worked with academic philanthropy teams to raise $30 million to support research endowments, student scholarships, and medical education. She has delivered more than 150 presentations to worldwide audiences, co-authored numerous scientific works, and served as an expert advisor to several National Institutes of Health, Health Resources and Services Administration, and NASA efforts.

Armacost indicated that as Jenkins begins at SMHS, she will be immediately active in preparations for the upcoming session of the North Dakota Legislature. He also thanked outgoing dean Dr. Joshua Wynne for his leadership and help with the transition since announcing the end of his tenure as dean.

"Dr. Jenkins is a proven leader as dean of a community-based medical school who brings with her extensive research and entrepreneurial experience," Armacost said. "She employs a collaborative leadership style intersecting all health-related disciplines across campus — a style that will serve UND, our health partners, and our state very well."

Jenkins earned her bachelor's degree in chemical engineering at Tennessee Technological University, her M.D. at East Tennessee State University, and her master's degree in education for health professionals at Johns Hopkins University.

"A quote from George Bernard Shaw has always guided my life and career: 'I am of the opinion that my life belongs to the community, and as long as I live, it is my privilege to do for it whatever I can,'" Jenkins said. "The future is bright, and I am grateful to being a part of it. Steve and I look forward to getting to know the UND community and citizens of North Dakota. Thank you for welcoming us into your community."

By Connor Murphy

THE REAL 'SOUTH PACIFIC'

"The longest running humanitarian telemedicine program in the world."

This is how UND School of Medicine & Health Sciences Class of 1961 Bachelor of Science in Medicine grad Dr. Don Person described the Pacific Islands Health Care Project (PIHCP) he founded with the U.S. Army at Tripler Army Medical Center (TAMC) in Honolulu, Hawaii, in the late-1980s.

"We cared for at least 10,000 patients and contributed to the training of hundreds of medical students, residents, fellows, and staff physicians at TAMC," smiled Person from his home in San Antonio, Texas. "Dozens of Indigenous medical officers from Micronesia and American Samoa and expatriate physicians from the Philippines, nurses, PAs, and other health care providers have benefited from the program."

After thirty years and tens of thousands of patient encounters, the PIHCP closed its doors in 2023, another victim, said Person, of the SARS-CoV-2 pandemic.

Re-upping

The story of how this program both came to be and paved the way for today's telehealth technologies is both amazing and almost unknown, said Person.

That's why the Fargo, N.D., native, now in his ninth decade, wants to make sure the PIHCP story is finally told.

After receiving his M.D. from the University of Minnesota and serving a rotating internship at the Hennepin County Hospital, Person entered active military duty in July 1964 as part of the so-called "Doctors Draft." Assigned as Chief of Preventive Medicine, Aviation Medicine, and Professional Standards in the U.S. Army Southern Command in Panama Canal Zone, Person led medical civic action teams serving Indigenous peoples in Honduras, Panama, Columbia, Bolivia, Paraguay, and Brazil.

Following active duty, he completed a fellowship in microbiology/virology at Mayo Clinic. He accepted a position at Baylor College of Medicine and was appointed assistant professor in the Departments of Internal Medicine and Virology & Epidemiology. Following pediatrics training, he joined Baylor's peds team, where he practiced through the 1980s.

Then, almost by chance, an opportunity arose for Person to return to active duty, he said. In November 1987, Person joined the staff at TAMC in Honolulu, serving as chief of pediatrics, chief of clinical investigation, senior scientist, and, eventually, medical director PIHCP.

Dr. Don Person (right) with wife Blanche.

"With our previous time in Panama and nearly 20 years of active reserve, my military record was continuous," he said. "We stayed in Honolulu for the next 21 years, and at retirement I had accumulated more than 49 years of creditable service!"

The real South Pacific

Person stayed active because, as he quickly learned, there was a tremendous unmet need for medical care among the inhabitants of the remotest of Pacific Islands, which until the late 1980s had been under the aegis of the United States Government.

It was here that the PIHCP was born.

After all, the situation in the region at the time was more desperate than either the stage or film versions of *South Pacific* suggested.

Following the end of the World War II, the Pacific Islands, formerly controlled by the Empire of Japan and consisting of some 500,000 people living on hundreds of islands and atolls, were divided up among the Allies for rebuilding and strategic defense. In addition to reestablishing control over its own territories in the region (Guam, American Samoa, Northern Marianas), the U.S. was "responsible" for several other islands in Micronesia, including the Marshall Islands, Palau, and the Federated States of Micronesia. (These former U.S. Trust Territories are now known as the U.S. Associated/Affiliated Pacific Islands.)

Unfortunately, postwar development proceeded slowly in the Islands. Many residents were without electricity, running water, transportation, or basic infrastructure – and remained so for years after the war. Even more, some of the islands had been used as nuclear test sites from the 1940s-60s. The Johnston Atoll, for example, was used for nuclear and biological weapons testing and as a dump site for chemical weapons. The Bikini, Enewetak, Rongelap, Utirik atolls in the Marshall Islands remain uninhabitable due to radiation contamination.

When many of the islands, whose economies were based on subsistence fishing and farming, were released from American jurisdiction in 1986, they soon found themselves struggling to meet their peoples' health needs. Conditions like meningitis, rheumatic fever/rheumatic heart disease, tuberculosis, and leprosy were afflicting – and sometimes killing – many Pacific Islanders.

By federal law, medical care at a federal hospital can only be provided on a reimbursable basis, said Person. But even if a Pacific Islander managed to get to TAMC as "Secretary of the Army designees," it was highly unlikely that they could pay for the care they might receive, or for transportation to and from Honolulu.

Given that Tripler's medical residents needed robust training, though, Person and his colleagues, including Tripler's Commander, Major General Girard "Jerry" Seitter, M.D., began to devise a cost-sharing plan that could address both problems – the Army's need for resident training and the islands' need for care – at once.

"So, we decided that if we could talk to the folks in Congress, then Washington might somehow help us try to figure this out," Person continued. "We approached Hawaii's Senator Daniel Inouye, who was very much interested in not only Hawaii, but the entire Pacific."

According to Person, who knew a thing or two about rural landscapes, Inouye (who died in 2012 and was studying medicine at the University of Hawaii when Pearl Harbor was attacked) loved the idea of using U.S. Army medical residents to provide care for these "rural" patients living on far-flung islands in the Pacific. He proposed funding through Congress to the tune of $500,000 for the first year to transport patients to and from their home islands to Tripler in Hawaii.

> **“It was amazing – we began to admit patients and transport them from the Pacific to Tripler, treat them, and return them home restored to health.”**
>
> **DR. DON PERSON**

Federal monies came through, smiled Person, and the first island patients were admitted to Tripler in early 1990: “It was amazing – we began to admit patients and transport them from the Pacific to Tripler, treat them, and return them home restored to health.”

Honolulu calling

But after operating for a few years under the patient transport model and caring for some 2,500 patients, the cost of the program was getting to be too much. Given the speed with which telecommunications were developing in those years, the PIHCP team began to experiment with other ways of providing care at a distance.

Enter telemedicine, a broad term describing the diagnosis/treatment/triage of patients by a distant consultant using some form of telecommunication. Still in its infancy at the time, none of the many experiments in “virtual” healthcare had really taken off by the late 1980s.

Person and his team hoped to change that. So they partnered with Tripler’s Project AKAMAI (“Akamai” being Hawaiian for “clever”), a Sen. Inouye-sponsored Department of Defense medical research and development program designed to apply and assess the value of telemedicine technologies in the Pacific region for humanitarian purposes. Multiple projects were sponsored by AKAMAI, said Person, including teleradiology, hyperspectral diagnostic imaging (cancer screening), Theater Telemedicine prototype development, the Alaskan Native Health Services, and the Pacific Island Health Care Project.

Of the handful of AKAMAI projects developed, the PIHCP was the only one to survive.

“We tried everything in those early days—fax, long distance telephone, even diplomatic pouch—to connect island patients and health providers,” said Person.

At one point they even tried using a new AT&T-made device called the “PICASSO” phone, which allowed users to “transmit broadcast-quality pictures over ordinary phone lines” as one ad for the device from the early 1990s put it.

“It was very effective, but out in the Pacific long-distance telephone calls and faxes cost eight to 10 dollars per minute!” Person recalled, still astounded. “Those jurisdictions couldn’t support that sort of thing. And you had to have someone available at both ends to make sure the technology was working. So, we kept experimenting with various approaches, trying to find out what would work best.”

As Person explained, what worked best to diagnose, treat, and facilitate patients at a distance evolved with the technology. Digital photography, email, dial-up internet, and other asynchronous technologies all came along slowly to help the team build capacity for “store-and-forward” file systems (which acquire, store, and transmit medical data electronically to a consultant for later review and assessment offline) and care for more people more quickly.

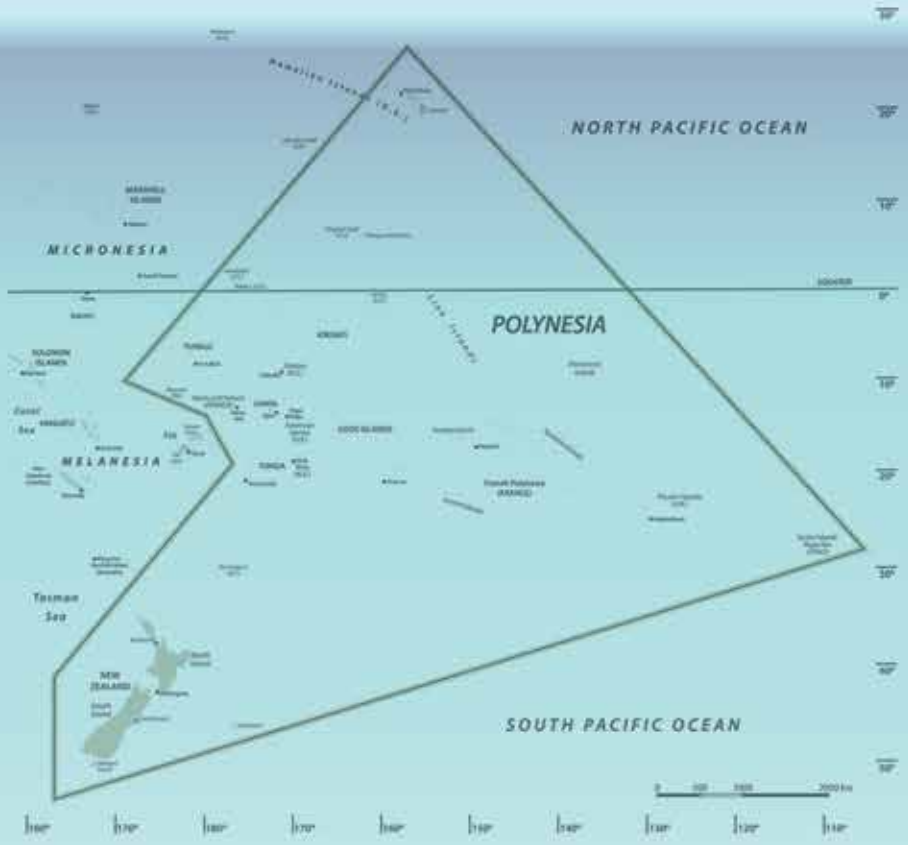
But even as virtual care improved, the obstacles were monumental for teams connected to the U.S. military.

Store-and-forward technology “was restricted because in the 1990s nobody at military hospitals was allowed access to the internet for a variety of security concerns,” said Person. “Plus, out in the Pacific, by the time we got the internet and were able to use it, we had only dial-up technology. I had referrals from the western Pacific that took all night just to

load up for maybe one-page worth of written text and one or two photos. It would take hours and hours, at considerable expense."

The challenge was to develop a telemedicine methodology that would be simple and workable in the austere, remote geography, said Person. And it had to be done in a way that was acceptable to the Army and the physicians at Tripler.

Making all of this even more difficult was the fact that the islands in question often didn't have the necessary supplies to treat patients in the way TAMC physicians recommended. Person recalls, for example, x-ray machines without film or developer chemicals, sterile gloves that were reused, laundered rags used in operating rooms, and few or no medications.



Palliative care

But the program evolved such that by 2014, when Person published a paper on the PIHCP in Frontiers of Public Health, 9,000 Pacific Islanders had been cared for either remotely or at TAMC. A large part of this success was due not only to the dedication of Person and his colleagues, but the local, Indigenous medical officers who were being trained to care for their compatriots.

Combining local providers with the tools of telehealth has been the key, Person suggested, noting that until the COVID-19 pandemic arrived on the scene he had been running PIHCP continuously since 1997. Despite retiring in 2008 and moving back to Texas, Person has continued to work with the program directly, having been named PIHCP Director Emeritus by the Surgeon General of the U.S. Army in 2009.

Sadly, said Person, the program is over.

"It was highly successful, but many of the islands have had to drop out because they don't have the resources to provide food, housing, transportation, translation services for their patients in Hawaii," he said, noting how changes in medical practice from inpatient to outpatient care, the challenges of the global political economy, and growing concerns over cybersecurity have markedly affected the program. "These impoverished countries of subsistence fishers and farmers have lost their fishing rights, having sold them to Korea, Japan, and China. Some of the outer islands still don't have electricity or running water. So, they are in desperate straits."

That, said Person, is why he remained so committed to the program.

Indeed, Person suggested, it's likely difficult for the 21st Century reader to appreciate how revolutionary and innovative the program truly was at the time.

"These islands have unique and incredible history," he concluded, stressing that being forced to work with few resources can lead to innovations. "Their stories are amazing and little known."

Sen. Inouye agreed, entering into the Congressional Record a tribute to Person on July 9, 2008.

"I would like to recognize a great American and true military hero who has honorably served our country for 49 years," noted Inouye. "His performance reflects exceptionally on himself, the U.S. Army, the Department of Defense, and the United States of America. I extend my deepest appreciation to Colonel Person on behalf of a grateful Nation for his more than 49 years of dedicated military service."

Not bad for a Fargo boy.

By Brian James Schill

AOTA President Alyson Stover (left) and UND Department of Occupational Therapy Chair Sarah Nielsen in Casper, Wyo., for the UND OT Casper program's 30 Year anniversary in 2023.

THE COMMUNITY'S PRIMARY CARE

AOTA President Alyson Stover visits UND and envisions how OT can be primary care for the entire community

In September 2024, Alyson Stover, president of the American Occupational Therapy Association (AOTA), sat down with Sarah Nielsen, Chair of UND's Department of Occupational Therapy, and Kara Welke, founder and owner of Home Therapy Solutions, LLC, and Next Level Occupational Therapy, LLC, in the UND School of Medicine & Health Sciences Occupational Therapy (OT) laboratory classroom to discuss OT education and practice with North Dakota Medicine*. What follows is a condensed version of the trio's conversation.*

Welcome to Grand Forks, Alyson. This is your first visit here?

Alyson Stover (AS): Yes. We just landed in Fargo and zoomed up here just a few hours ago.

I know you've visited UND's OT program in Casper, Wyoming, but what are your first impressions of our UND facilities? When you hear the words UND and OT, what comes to mind?

AS: I come into it with a little bit of bias, just because of last year and being with you all in Casper. When I hear UND and OT, one of the students I met in your Casper program comes to mind: she was an exceptional professional who knows how to be bold with empathy and humanness and that you want to have a relationship with. And that is OT. Occupational therapy is being bold and empathetic with humanness. When I hear UND, I think of her.

Our Casper College program was one of the world's first distance OT programs and helped us grow our reputation nationally. What, in your mind is UND's broader reputation?

AS: In one southwestern state, for example, there is one OT program in the entire state, and you have OT clinicians who go to that school, graduate from that school, and live in that state, but still choose to work in different states. Meaning, there's something that is missing in the community – there's a gap between wanting to stay and work and serve in an area where you were trained. But what I see is UND really doing an excellent job of [retention]. I hear the cries – there are schools and faculty all over that call in red alerts to AOTA. You don't hear that from UND. Your excellence brings us back to North Dakota. It's a state that is recognized as getting it right.

So, we're chatting in this OT laboratory classroom – which has a functional living space embedded in the classroom. I take for granted that this is how it is everywhere in OT education, but is that true?

AS: What's really interesting about UND is that students have a living space integrated into their learning space. I could be teaching up here about doing laundry and I could literally have four students go back and trial something. And to me, that is really powerful. I heard a woman once say that the reason nobody gets the OT elevator pitch right is because OT isn't defined by words – it's an experience. So learning how to do OT sometimes can't be done through words. It has to be an experience, and it has to be in that moment. I've never seen this kind of openness and ability to fluctuate and move. You can truly be mid-lecture and get up and try something, and that fluidity – that's how you really learn OT.

Sarah Nielsen (SN): Yeah, we can actually get people wet for the client transfers in our lab's bathtub.

AS: And I will say that washers and dryers are not common. So, even this space, yes, I could envision that there are houses in North Dakota that you walk in, and the room looks just like that. And every everywhere else I've been has a little bit of that flavor – that you're in a learning environment, not a home.

SN: One thing Alyson mentioned during her talk to our students is the need for OT practitioners "to think in the gray." So a lot of times we think about healthcare providers being in small niches, and so she was advising students of the importance of thinking in the gray. She spoke about practitioner shortages – whether it's OT, PT, or speech – and the need for students to collaborate and work together. Hopefully that happens at all schools, but the two values that we bring out most at UND are thinking in the gray and being collaborative, and also preparing people to be rural. We are preparing them for the reality that there may not be a speech language pathologist or a PT in a certain setting – you might be the one that needs to do a lot of this work so the client can engage and participate.

AS: And I will say that not everybody is doing the interdisciplinary collaboration in a way that I think leads to meaningful integrative healthcare. There are some great activities that people do – don't get me wrong – but they're not preparing most students for what it's really like. What is it really like when it's you and the nurse and the nurse says, 'Look, I live this far away, so I'm only going out once a week. This person has this many visits. You live closer. I want you to take four of those, but by the way, change these colostomy bags while you're there too.' I do see integrative health and primary care becoming more prominent as we start to move into new healthcare models. But I also see that the generalist is going to become incredibly valuable because of that. So, we need to know how to do a little bit of everything, and that's where OT has always shined. We've always been this jack of all trades – and I would say master of them too – where if there's the gap, you can put us in. UND is a great place to do that. This is also one of the only schools that I've seen where you're in a building with med students.

Kara Welke (KW): I was on an interdisciplinary health panel that you had here on Friday, and with our practice we do exactly what you say. We don't have enough PTs to meet the need for PT referrals in the area. Many PT referrals can be addressed by OT. So, we are always playing the gray day-in and day-out. And in our rural setting, with the lack of providers and the big need for people getting services, we play the gray a lot. Hopefully UND continues that push for an interdisciplinary approach, because it's huge. We have to learn to work together and collaborate in order for us to grow. And having the med students as part of that is key, because they need to learn to embrace what we can bring to the table.

Alyson Stover (center, standing) with Kara Welke (back row, right) and UND Department of Occupational Therapy students in Sept. 2024.

To that point, what changes have you noticed in OT as a practice, or the way it's been embedded in healthcare, in the years you've been practicing?

AS: Even 20 years ago we were still fighting for people to even know who we were. And really what you saw was OT was practiced in an acute care medical model that filtered us out because it made sense in the acute care medical model, and so the only referrals you got were referrals that the physician understood that "this person isn't in the hospital, but has hospital-like needs." It was really fighting for the idea that, actually, this individual will likely not even have to be [readmitted] to the hospital if you get them OT first. And I do think that we are seeing a little bit more of that. I will say that there were some beautiful programs that existed in the 70s and 80s, and they had incredible outcomes. But it was faster and cheaper for the insurance company to cover a medicine visit than OT in the home, and so you started to see us doing what we worked for, up to the 70s and 80s. Then insurance wanted to start cutting, so then you saw us splinter apart. Again, we need to be in a space where I think the distinct value of OT is that we do practice in the gray – I can look a bit like a PT here, and you can watch me over there and I look like a social worker. We're still fighting the barrier of: do physicians know when it's good to call us on the team? That overarching physician knowledge is not always there. CMS [the U.S. Center for Medicare and Medicaid Services] is the same way. We're not a quantitative outcome measurement profession. We are a qualitative. They don't understand how to measure us. But in 2016 a study came out that said when you invested more in occupational therapy during the acute care phase of a hospital admission for congestive heart failure and a few other diagnoses, readmissions go down. We were the only profession that reduced hospital readmission. In the medical model, you must "get well to do," and we say "you must do to get well."

SN: On the education side, I would say that when I was educated, there was a lot less evidence that informed OT practice. But we're more evidence-based now and the field has progressed in that way. I do think it comes back to the fact that we are a profession that invests our time in doing, and that hasn't always been valued – fixing has been valued. And I think Alyson said it best. Doing was our core then, 100 years ago, and it still is today. We still see the environment, we see the person, we see what they want to do, and we're going to make it happen. That's the same as always. Only the "how" and the knowledge we have has changed.

KW: At Home Therapy Solutions, we're in the home in their natural environment where we can work with the clients and their caregivers and families. For many of our clients, we're with the families and the clients for life. You didn't see that happen before, and some people still don't understand or believe in that model. But there are so many clients we work with who, if we weren't part of their life, they would have passed away years ago, or they'd be in the nursing home or

assisted living. Doing what we're doing in the home and working with the client and the caregivers, we're helping them all navigate the complex healthcare system that no one else is doing. We're in the home, and we see everything that's going on. We see the 500 medication packets that they've never taken. We hear the frustration where they don't understand what the doctor told them or that they didn't know they had a prescription because they have a cognitive deficit, and no one told the caregiver. That's where I feel OT needs to be, and we need to be in the home and community. But we also need to get doctors and other professionals to realize that it's okay to refer to other providers outside of their healthcare system or network, because we are only going to help them be better at what they do, because we can be their eyes and ears, since they can't do it all.

SN: "Doing" goes beyond helping clients go to the bathroom and get dressed. That isn't usually what brings people meaning and value, and I think community-based care is what allows for that. And it has a quality of life and it extends life for that reason.

KW: I'm taking Alyson tomorrow to visit a client on a farm. This client was in rehab and did not want to go to the nursing home or to a long term care facility. The family found us and we were able to see the client at his home on the farm. We were able to use his daily activities and surroundings to get him back up in that combine, in the tractor, doing the things he did. And I can still firmly guarantee that he's a totally different man than he would have been if he was put in a long term care facility.

AS: In the end, that's what saves money, right? But you have to spend on OT first, and then you save in the long run from the outcomes we produce.

Do you have a vision for the profession, as the president of the AOTA, for the next 5 or 10 years? What do you want to see OT become?

AS: When you hear the term "PCP" you think primary care provider. And I want you to think OT. When you want somebody to stay well, you make sure they're participating with their primary care physician: get their annual physicals and ask health questions. I want it to be OT. And I want it to be *not* go to your PCP, I want us to come to see you. For the profession, my hope is that we're bold and that we're loud because we are natural collaborators. We don't pat ourselves on the back. We very much say we walk alongside our patients and their successes are theirs. Team successes are the team's and we very much limit the story that shares what we contributed to the team. My hope is that we become bold and loud and crazy-confident in the work that we do.

KW: One hundred percent agree with everything Alyson said.

AS: OT could be the physician to your "system problem." OT could be the primary care provider to what's wrong with the Fair Housing

Left-to-right: Sarah Nielsen, Alyson Stover, and Kara Welke outside the UND School of Medicine & Health Sciences.

Act. It could be what's wrong within the culture of your organization. It could be how to make your community experience just better for health and wellness. When an OT builds a community garden, they don't just build a community garden. They look at who's in the neighborhood and think about "We should build it this way, because this person doesn't have the endurance to walk as far, so it should be closer to their house. But this individual – he'll walk farther, but he has really poor use of his hands, so let's make sure we have these kind of plants and tools there." The reason people use what we build is because we build it so that they can use it. We not only know how to do the intervention, but we know how to make it accessible to everybody. I want to be the primary care for a community – for the grocery store, for large organizations that want change, and for my daughter and your grandma.

SN: The reason we're gray and the reason we're collaborators is we were formed by a social worker, a psychiatrist, an architect, and a nurse. So I think that's critical to understand, because it's why we're trained the way we are. And obviously our founders saw a need for somebody to understand the whole – not just this this slice or that slice. This group of people said, "We should form this profession that really reflects doing, participating." They saw it from all of those lenses. And those people coming together, saw a need for something that was more than just their individual way of thinking.

KW: That's why the power of us being primary care providers would be so immense to our communities. Because when you go into a physician, it's usually about one issue and the physicians don't always have time to explore deeply enough to determine what is probably leading to that issue. When we get into the home and work with the client and caregivers, the social worker comes out of us, the healthcare worker comes out of us, the architect and nurse come out of us. We can take the time to figure out what's going on and help in many different ways rather than just prescribe medication or a set of exercises. There's so much more involved.

Interview conducted and edited by Brian James Schill

"I visited with leaders of multiple universities in Ghana, introducing UND as a School and then as a Department and making connections for future collaborations," said Grace Karikari (second from right).

INDIGENOUS HEALTH GOES GLOBAL

UND's Department of Indigenous Health prepares to bring students abroad via two international opportunities

Given Europe's history of colonialism, it was usually easy two centuries ago to determine colonizer from colonized: in Africa, Eurasia, and the Americas, the colonizing party of the 19th century was typically the one with lighter skin.

But this wasn't necessarily always the case, says Dr. Grace Karikari.

Fresh off a visit to her home nation of Ghana, the assistant professor in UND School of Medicine & Health Sciences (SMHS) Department of Indigenous Heath is reminding her students that "colonialism" looked very different two or three centuries ago and hinged on where one happened to live.

"When we say 'Indigenous,' we are referring to the natives of the land. So that's why Indigenous Americans are those people who were originally from this land, relative to Europeans," she explains. "But it's different in Ghana, which had one of the main ports for the transatlantic slave trade."

As Karikari put it, indigenous Africans living in Ghana more than two hundred years ago came into the possession and control of other Africans through gifting or wars of conquest between tribes. As the slave trade developed in West Africa, many of these people from other African regions were forcibly brought to Ghana to be exported to other continents.

Global Indigenous Health: Ghana

The exploiting of Africans by other Africans in a land that perhaps neither group called "home" hundreds of years ago contributed to what is today still a very complex discussion about what it means to be "Indigenous" in both Africa and the United States – and the health outcomes for these populations.

Such complexities are exactly why Karikari is developing a Ghana-based study abroad elective for Indigenous Health doctoral students at UND.

Laying the groundwork for such a course – Global Indigenous Health Perspectives – was the primary purpose of her recent trip to Ghana, Karikari explains from her office in the SMHS.

But there's more to the course than helping UND students better understand history.

"Global indigenous health is the focus, but we are also thinking about the concept 'indigenous' outside of the United States," she adds. "And we will start with having students conduct research abroad, thinking about Indigenous Ghana versus Indigenous America, the social determinants of health, and resiliency models."

Broadly speaking, the idea is getting students to think about how improving health and well-being for people in the U.S. differs from improving health in Ghana – and helping students understand how the histories of each place affect well-being today.

Such a program, says Karikari, will allow UND build up its cache of institutional partners – both in the U.S. and abroad.

"I visited with leaders of multiple universities in Ghana, introducing UND as a School and then as a Department and making connections for future collaborations," she continues, explaining how her own recent trip was made in conjunction with the Indiana University School of Social Work and will allow UND students to partner with the Kwame Nkrumah University of Science and Technology (named for Ghana's first president).

"Although Indiana established a Ghana program through the lens of social work, this experience will help UND students better understand the complex determinants of health and the impact of health disparities and inequities on all populations."

Global Indigenous Health: New Zealand

Karikari's forthcoming course is actually the second Global Indigenous Health Perspectives course her department has developed.

"We're doing an immersion – staying on their ancestral grounds in different communities," explains Julie Smith-Yliniemi of the Māori people in New Zealand. "The idea is to explore healing practices, mental wellness and recovery, and cultural perspectives within healthcare – things that are working in different Indigenous communities around the world."

Grace Karikari (left) and her colleagues at Ghana's Centre for Plant Medicine Research.

Also an assistant professor in the Department of Indigenous Health, Smith-Yliniemi is bringing a group of UND students to New Zealand to study the health and healthcare of that country's Indigenous people, the Māori, who will host UND's travel cohort in March 2025.

Having spent years working on suicide prevention with her own community, the White Earth band of Ojibwe in Minnesota, Smith-Yliniemi met Māori community members and researchers while presenting around the world on incorporating Indigenous healing practices into evidence-based trauma therapy models.

"One of the things I remember about New Zealand was walking into a local convenience store where I just thought, 'Oh my gosh – this looks and feels like so many convenience stores I have visited in reservation communities in the United States,'" Smith-Yliniemi recalls, adding that when she walked into a Māori community center and saw Elders cooking traditional foods and creating medicines from local plants that she felt "home." "It was essentially a food desert there too, and these Elders were working to heal the impacts of colonization in their communities through the use of their ancestral knowledge and traditional medicines."

Such an experience allowed the UND faculty member to see how the effects of government food systems on a formerly colonized population thousands of miles from the American Midwest actually mirrored the effects on Indigenous people closer to home.

"Such programs create obesity because people often aren't getting the nutrients they need," she says.

Inspired by her own cultural immersion experience in New Zealand, Smith-Yliniemi started developing a study abroad course to the island nation over a year ago. Developing the course with UND's Study Abroad Office, which manages short- and long-term travel courses that function similar to on-campus UND courses in terms of tuition and fees, Smith-Yliniemi built the course around UND's Spring Break week.

Reconnecting with her Māori friends recently at the World Indigenous Suicide Prevention conference at Niagara Falls, the researcher finalized details with her colleagues abroad for a course focused on Indigenous health in New Zealand.

This, adds Professor and Chair of the Department of Indigenous Health and UND's Associate Vice President for Health Research, David Wilson, is what the Global Indigenous Health Perspectives series will allow students to understand in a direct way.

"Our department sees these international opportunities to collaborate as tremendously enriching educational experiences that could result in shared Indigenous knowledge that may help improve the health conditions in Tribal communities in the United States and beyond," Wilson says. "Much like the social determinants of health paradigm, it is the combined effects of multiple factors that contribute to an individual's health status. And it will take shared knowledge from communities around the world for humans to reestablish equilibrium with ourselves and our environment."

UND's own embassy

This is exactly the sort of teaching and learning that UND had in mind when it developed its UND LEADS strategic plan, Karikari notes, two goals of which are discovery and equity, or cultivating an environment "that embraces diverse populations, ideas, and perspectives."

"The course addresses equity, of course," says Karikari, referencing the strategic plan, which focuses on leadership, equity, affinity, discovery, and service, "but my primary goal was to use this pedagogical training and mentoring opportunity to explore the potential for collaborative scholarship across institutions and continents."

Hoping to travel with up to 10 students at a time – possibly from programs across the college – Karikari says that she wants to give students of all backgrounds more opportunities to study abroad.

Julie Smith-Yliniemi (left) explores the beauty of New Zealand with a young Māori guide.

"That is why we are going into the realm of research abroad," she notes. "We're looking beyond public health and beyond Indigenous health. We hope the health sciences will be drawn to this as well."

This is why it's best to think of the Global Indigenous Health Perspectives course as something of a UND-based consulate or embassy program.

"The best way I can explain this is as if it were an international office," she smiles, referencing students' potential to work with, for example, Ghana's Department of Herbal Medicine. "You can easily access the people of Ghana through an institution and students can also assess the country. It's like building a relationship directly with a country. There are a few programs like this around the world, but this is the first in Africa."

Health issues notwithstanding, Smith-Yliniemi added that many students could benefit from a first-person experience of the positive attributes of foreign cultures, which are often left out of world health reports and news stories.

"We want to also show students the beauty of these cultures and how they love one another – how they make use of the earth in natural ways," she concludes. "They truly honor guests. When we were there recently, the whole community came and welcomed us in a ceremonial way and showed us around. It was incredible."

By Brian James Schill

30 YEARS OF CHANGING THE LIVES OF NATIVE ELDERS

The National Resource Center on Native American Aging celebrates 30 years and shows no signs of slowing down

NRCNAA staff ca. 2007, with Russ McDonald at right and Alan Allery second-from-right.

How can data help put food on the tables of Native Elders? This was one of many questions that officials at the National Resource Center on Native American Aging (NRCNAA) asked 30 years ago when their organization was created: how can they find a way to gather data on Elders in Indigenous communities to meet Elders' needs?

Dr. Collette Adamsen is the director of NRCNAA at the Center for Rural Health (CRH) within the School of Medicine & Health Sciences (SMHS) at the University of North Dakota (UND). She is also an associate director of CRH, and a research assistant professor at SMHS.

"The goal over the past 30 years, with everything the NRCNAA has done," said Adamsen, "has really been to improve the overall health for our Native Elders and connect them with more services to allow them to live healthier and happier lives."

Adamsen started as a NRCNAA project coordinator and rose through the program to become director in 2017.

"When we do the needs assessment surveys, we are working with the communities in a partnership," she added. "They are essentially becoming the researchers – they collect the data and they administer the survey to their tribal Elders. This is a true partnership in research and data collection."

Humble beginnings

According to the Administration for Community Living (ACL), the federal funder of NRCNAA, "In 1978, the Older Americans Act was amended to include Title VI, which established programs for the provision of nutrition and supportive services for Native Americans (American Indians, Alaska Natives, and Native Hawaiians)."

Adamsen explained that there was not specific funding for Elders in tribal communities until Title VI was added. The barriers for

tribes to receive needed funding was hard to overcome. NRCNAA was instrumental in helping tribes meet the requirements to receive the funding for the Elders through a needs assessment survey.

"NRCNAA started a small survey meant to be, at most, regional for tribes," Adamsen shared. "But ACL asked if the program could offer the survey nationally so needs of Native Elders could be identified across the nation, for Title VI programs. There wasn't data on Native Elders back then and they didn't know what to expect."

Dr. Leander "Russ" McDonald, current president of United Tribes Technical College, came to UND as a McNair Postbaccalaureate Scholar. Dr. Richard Ludtke, the research director at NRCNAA, introduced McDonald to the world of research. McDonald spent much of his time at the Chester Fritz Library, identifying surveys that would have questions regarding Native Elders.

"I would find surveys, meet with Dr. Ludtke on a weekly or bi-weekly basis over that summer, and we would determine what questions were a best fit for the population we were serving," said McDonald, who directed the NRCNAA from 2007-09. "That fall, we did a pilot test on the Spirit Lake Reservation, where I grew up, at an Elder's gathering. We refined the survey based on that response and then offered the survey to Elder programs who were required to conduct a needs assessment to fulfill their grant requirements for Title VI funding. We were coming along fine and thought we were doing well with 27 sites. Then the ACL's Administration on Aging (AoA) endorsed us, and things really took off."

With the AoA/ACL endorsement, the "Identifying Our Needs: A Survey of Elders" needs assessment survey was born.

Necessity of data

McDonald remembers the importance of the early surveys. "The tribes were able to document disparities because of the survey, then we provided training on how to develop action plans based on those disparities," he said. "I was new to the research world, but this is when I realized the importance of data for guiding decision-making and funding sources to address the identified needs."

Currently the NRCNAA works with over 200 Title VI programs, representing over 250 Indigenous communities, which includes 21,095 tribal Elder responses from the most recent Cycle 8 survey.

"There was a real need to gather accurate data," said Adamsen, "for populations that didn't have any data previously collected. People who help drive policy and allocations of funding want numbers – evidence there is a need for change – and without that data, it's out-of-sight and out-of-mind."

Dr. Russ McDonald (left) and Dr. Richard Ludtke

The predecessors of the resource center were way ahead of their time in working with tribal communities, doing respectful research, and utilizing that data and research to benefit the communities. One important factor has been building trust with the tribes. The data collected belongs to the tribes, and tribe-specific data is not shared with others. Their sovereignty is respected.

Best data in the nation

While the tribes own the data specific to their communities, national datasets have been created to allow comparisons between each tribes' disparities.

According to McDonald, the data the needs assessment survey collects is the "best data in the nation. There is no other dataset that has all the information that is offered through this ongoing study. We have provided policy recommendations to the White House Conference on Aging, the Senate Committee on Indian Affairs, and other national conferences and regional trainings, based on this data."

Adamsen feels the reputation of the NRCNAA is what has sustained the program for 30 years, and has brought additional opportunities to UND.

"Because of the reputation of NRCNAA," she said, "a lot of these areas have expanded. The NRCNAA has such a good standing, not only with our tribal communities, but with other stakeholders, including our funders and other partners who work with Native communities. People have wanted to work with us on other areas that have branched off of the work we have become known for."

Resource Center on Native Aging and Disability

Enter the Resource Center on Native Aging and Disability (RCNAD), a newly-funded resource center for Indigenous communities, helping to build long-term services and community supports for Elders and those living with disabilities.

Collette Adamsen

"It is like a larger version of the Native Aging in Place Project (NAPP)," explained Adamsen. "It is so important for our Elders, and persons with disabilities in our communities, to be able to stay within their tribe, in their homes, because a lot of time our communities don't have these resources. We often don't have nursing homes or long-term care facilities, so the Elders are often transported to facilities far from their communities. It becomes difficult for their families or friends to travel that distance to visit with them."

This newly-funded program, through ACL, began about five years ago. The National Indian Council on Aging had been awarded the first grant, and in 2023 it was awarded to UND for a five-year cycle. RCNAD is being built from the ground up, from the new name, to a new website and new goals.

Similar to NAPP, RCNAD will assist with providing services for Elders to age in place at home and offer sustainability through Medicaid home and community-based services waivers with third party billing. This will help tribes across the country maintain the services and the people that provide them in the community for the Elders. The Native Elder Caregiver Curriculum (NECC) provides training to those caring for the Elders.

From its origin as a small data shop, the program has grown tremendously, not only in staff, but also in services and funding. The Native Urban Elder Needs Assessment, NAPP, NECC, and RCNAD all provide varied assistance to Indigenous communities, but never lose track of their shared purpose: identifying Native Elder health and social issues and assisting in community-based solutions to improve the quality of life and delivery of support services.

"The two Resource Centers are working side by side," explained Adamsen. "Some of the data NRCNAA collects is helping to guide us through our work with RCNAD to look at some of those needs and those areas for the Elders around long-term services and support home- and community-based services. So it helps us build a model that will help support those communities."

It is all connected, and it all began 30 years ago with the creation of NRCNAA, Adamsen said: "A lot of the previous directors have shared they felt good about being a part of a program that literally helped put meals on the tables of our Elders throughout the nation."

By Jena Pierce

'20s

Mackenzie Holland, PA-C

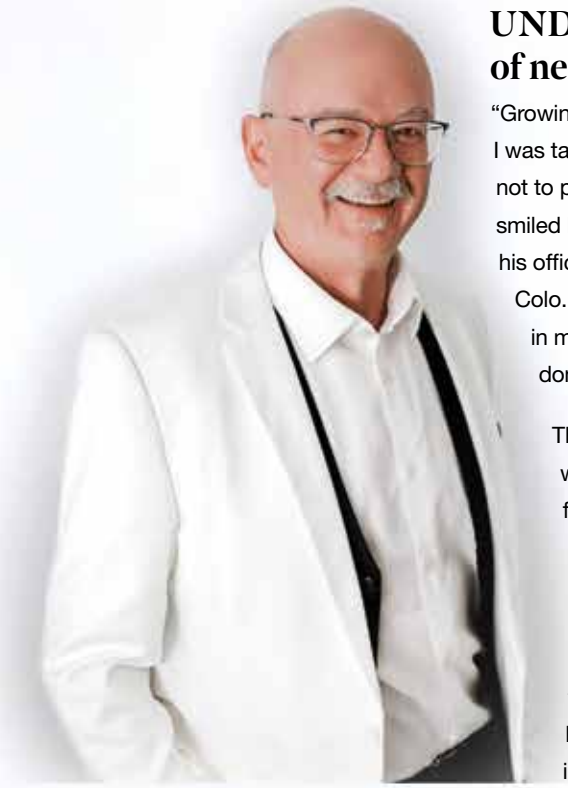
Mackenzie Holland, MPAS '24, has joined Essentia Health-Duluth Clinic, serving as a certified physician assistant specializing in urology. "I chose to join Essentia to practice medicine here because I had the chance to work with wonderful teams during my training while I was in school," said Holland. "The providers here are intelligent, personable, and provide excellent care to their patients." Holland received her education from the University of North Dakota. She is certified by the National Commission on Certification of Physician Assistants. "I specialized in urology for a variety of reasons," said Holland. "Initially, what drew me to this specialty was the amazing team. They are reliable coworkers who are always willing to teach. I also really enjoy urology because it is such a rewarding specialty in terms of being able to help improve your patients' quality of life."

Andrew Obritsch, MD '21, is now at Essentia Health-Mid Dakota Bismarck Gateway Clinic in Bismarck, N.D., as part of the family medicine team. Dr. Obritsch completed a residency in family medicine at MercyOne North Iowa Medical Center in Mason City, Iowa. He is certified by the American Board of Family Medicine.

'90s

Mary Jo Flint, MD '91, is now located at the Community Health Center of Southeast Kansas in Fort Scott, Kan., where she practices pediatrics. Flint earned her undergraduate degree from the University of North Dakota and taught kindergarten and Head Start classes before enrolling in medical school at UND. She completed her residency at Children's Mercy in Kansas City and is board-certified in pediatrics through the American Board of Pediatrics and is Fellow of the American Academy of Pediatrics. For the past three years, she worked in Tennessee in rural medicine. What attracted her to Fort Scott was the mission of the Community Health Center of Southeast Kansas, Dr. Flint said.

PRESCRIPTION FOR POSITIVITY



UND grad Harris Jensen shares his advice for breaking the cycle of negative thinking

"Growing up in North Dakota, I was taught not to be selfish, not to promote yourself," smiled Harris Jensen from his office in Fort Collins, Colo. "It was just ingrained in me: Midwesterners don't do that."

This "raising" is why it was such a challenge for the 1992 graduate of the UND School of Medicine & Health Sciences (SMHS) M.D. program both to talk about the book he published in 2022 and to reach out to his alma mater about his recent history, he said.

"I have some friends who are in marketing and they told me to put posts about my work on social media and talk about the book," he laughed. "But that feels like I'm being selfish!"

But it's not selfish, Jensen's non-Midwestern friends reassured him: if your book might help people experiencing depression, loneliness, or addiction, they will want to know about it.

"[My friends] helped me though that," he said.

Promoting self-promotion

And good thing too. Because a world that feels increasingly negative needs more positivity, said the psychiatrist.

This increase in negativity is the reason why Jensen wrote and published his first book, *Prescription for Positivity: Life skills to live your best life*, in 2022.

Filled with suggestions and tips on how those suffering from anxiety, depression, and a lack of self-esteem can help themselves turn their lives around, *Prescription* shows readers how they might break the cycle of negative thinking and embrace a "healthy positivity," Jensen said.

"We live in a country that's truly been polarized along all sorts of lines," he said, noting the rise in mental illnesses of all subtypes in the U.S. over the past two decades. "There's a war going on in our minds between the side of us that wants us to do well and believe good things are going to happen, and our pessimism that the future is doomed."

But there's no reason why pessimism is destined to win that war, Jensen said.

Building on his own clinical emphasis on cognitive behavioral therapy (CBT), Jensen explains that as challenging as our environment gets – from economic hurdles to political conflicts that can divide communities – we can work to control our attitude and our reaction to the world around us.

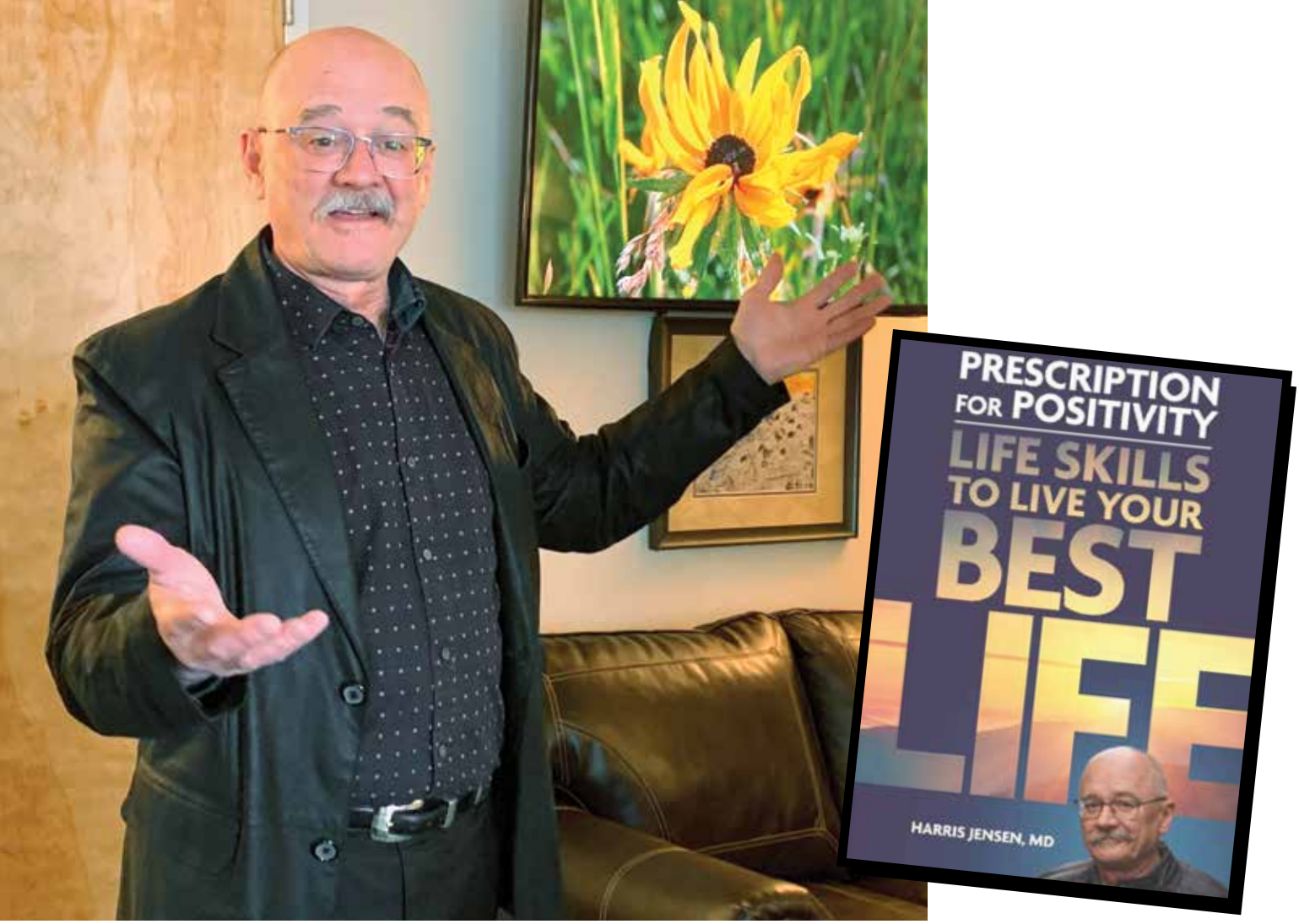
"There is a rise in depression and a rise in suicide," he admitted. "Anxiety is off the chart. People thought it was because of COVID, but even after COVID it persisted. But if we help people develop the skills to manage these things, we can control them. These are game-changing skills."

Even more, we can change our habits to better control our lives in ways that help us avoid the chronic pessimism that contributes to some mental health disorders, Jensen said.

"Flow charts and to-do lists and meditation and exercise: all of these things can help us stay focused and organized, which helps us stay positive," he said. "It's a way to open doors with people."

'I was crying and I couldn't stop'

The North Dakota-born, Jensen said that he too struggled with mental health, particularly right out of college.



Dr. Harris Jensen in his Fort Collins, Colo., office (photo courtesy of Natalie Upton Photography)

After earning a degree in journalism in the 1980s, Jensen said that he took a position as a newspaper reporter in Southern California. Government beat. But something wasn't right, he said.

"I was crying and I couldn't stop, and I was in bumper-to-bumper traffic on Interstate 5, one of the busiest highways in Southern California," he confessed on the first page of *Prescription*. "I'd become a reporter to help people, but really I could do very little to help others. I just wrote stories about people's problems…. I was stuck."

So Jensen quit his journalism job and went back to school – specifically medical school at UND. After graduating with his M.D. in 1992, Jensen completed a psychiatry residency in Minnesota and ended up in Fort Collins, Colo., where he practices to this day.

"In my freshman year, we took lectures on psychiatry, and I just thought it was fascinating," Jensen continued. His professor "talked about the biopsychosocial model – how the brain doesn't just react to biological things, but reacts to psychological events – and that just fired up my intellectual curiosity. He talked about how the combination of counseling and medication got much better results than just prescribing medicine alone or CBT alone."

Attitude determines altitude

So that's how Jensen has approached his practice for the past 25 years: counseling plus medication (when necessary).

"Once we have the attitude discussion, that really helps patients," he said. "Not always, but the attitude question often helps people tap into the natural optimism they used to have."

Once patients understand this, they tend to open up about how they can reimagine their lives and the agency to affect their direction of their lives. Jensen's book is just another way of having that conversation with people, he said, a way of helping those suffering from chronic anxiety, depression, or low self-esteem understand that they can turn their lives around, and how they might envision doing so.

"Where can a person start if they feel overwhelmed by adversities?" he concluded *Prescription*. "I suggest keep it simple. Just try to make a little progress every day."

By Brian James Schill

WORKING SMARTER RATHER THAN HARDER

Dr. Sandeep Singhal in UND's Department of Pathology develops a Google Cloud-based data integration tool for teaching and research

Why reinvent the wheel?

This was Sandeep Singhal's question as he went about developing an online module that would help biomedical researchers sequence and analyze their increasingly huge data sets.

An associate professor in the University of North Dakota (UND) Department of Pathology, Singhal is the principal investigator (PI) on a multi-institutional National Institutes of Health (NIH) award designed to help students, researchers, and clinicians leverage artificial intelligence (AI) and cloud computing to benefit students and researchers.

And so-far, so-good, said Singhal.

Explaining how he and his team "developed a cloud-based system which can be used for teaching and research purposes for people working on what we call 'multi-omics' data," Singhal noted that by utilizing the power of cloud computing technology, his online tool provides students and researchers with easy access to robust computational resources, eliminating the need for expensive hardware.

"For students, the platform offers an interactive and scalable learning environment, enabling hands-on experience with real-world multi-omics data and computational techniques," Singhal said. "Researchers benefit from the ability to efficiently process and analyze large datasets, collaborate in real-time, and perform complex analyses without the limitations of local infrastructure. The flexibility and scalability of Google Cloud empowers both groups to focus on discovery and innovation, enhancing their educational and research outcomes."

Playing in the sandbox

Designed primarily for researchers in what the NIH calls Institutional Development Awards (IDeA) states making use of its IDeA Networks of Biomedical Research Excellence (INBRE) program, the so-called "sandbox" modules are publicly accessible sets of interactive GitHub repositories and videos that enable researchers to "play" with big data in a hands-on, self-guided way.

Leveraging the scalability and computational power of Google Cloud, the platform allows users to seamlessly integrate diverse omics datasets, including genomics, transcriptomics, proteomics, and metabolomics. The tool facilitates the exploration of large datasets, running complex analyses without requiring local infrastructure.

Key features include interactive data visualization, advanced statistical analysis, and secure data storage.

This tool is designed to enhance both classroom learning and cutting-edge research, providing an accessible and efficient environment for bioinformaticians, researchers, and students to engage with multi-omics data. The goal of this lowering-of-barriers to big omics data research is an increase in the likelihood

of more and better treatments for more health conditions.

Or, as Singhal and his co-authors put it in a recent research paper, "with the help of improved computational resources and data mining, researchers are able to integrate data from different multi-omics regimes to identify new prognostic, diagnostic, or predictive biomarkers, uncover novel therapeutic targets, and develop more personalized treatment protocols for patients."

This cloud-based system offers flexibility, allowing users to process large datasets in real-time, run complex models, and store data securely. Additionally, it enables collaboration across geographical boundaries, with seamless sharing and access to computational resources, driving innovation in both research and education.

The platform includes a variety of educational modules tailored to support students at all skill levels, enabling a smooth transition from beginner to expert. For beginners, the platform offers guided tutorials, foundational knowledge in multi-omics data analysis, and simple workflows designed to introduce core concepts. Intermediate students can engage with more complex datasets and analysis techniques, gradually increasing their proficiency. Advanced learners benefit from hands-on experience with cutting-edge tools and large-scale data integration, simulating real-world research environments.

Getting started

Here's how researchers interested in exploring UND's platform would begin: A researcher is working on "omics" somewhere in North Dakota who doesn't have access to advanced computing

systems in-house can contact Dr. Singhal with a request. The researcher would then describe the data sets and project in question to Singhal, who will evaluate the project and forward the request to the NIH.

The project will then be evaluated based on its impact, innovation, technical feasibility, and ability to meet the outlined objectives. Key evaluation criteria include the quality of the integration of multi-omics data, scalability of the solution on cloud infrastructure, ease of use for students and researchers, and its effectiveness in supporting educational and research goals. Additionally, the project's contribution to advancing computational skills and scientific discovery will be assessed.

If the NIH approves the project, Singhal will help the researcher get her data uploaded to the cloud and sequenced/analyzed "without any financial burden," using UND's sandbox module, which is hosted by software development platform GitHub.

"Historically, to analyze proteomic or epigenomic data you'd need a bioinformatician who can do all this work, a powerful computer to process all the raw samples, and administrative support," Singhal continued. "But by using this Google platform where everything is established, any institution can go on these websites and pay Google to sequence their samples. They don't need an expert on staff or buy-in from administration. They don't need high computational power. They only have to upload their data and use our code, which is already built-in–with all the instructions there."

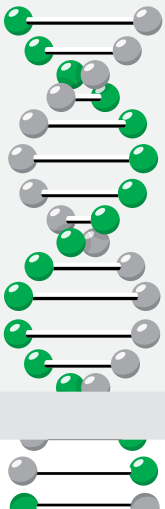
Data analysis notwithstanding, Singhal said that the sandbox will be helpful in teaching students the nuances of research using big data on the cloud.

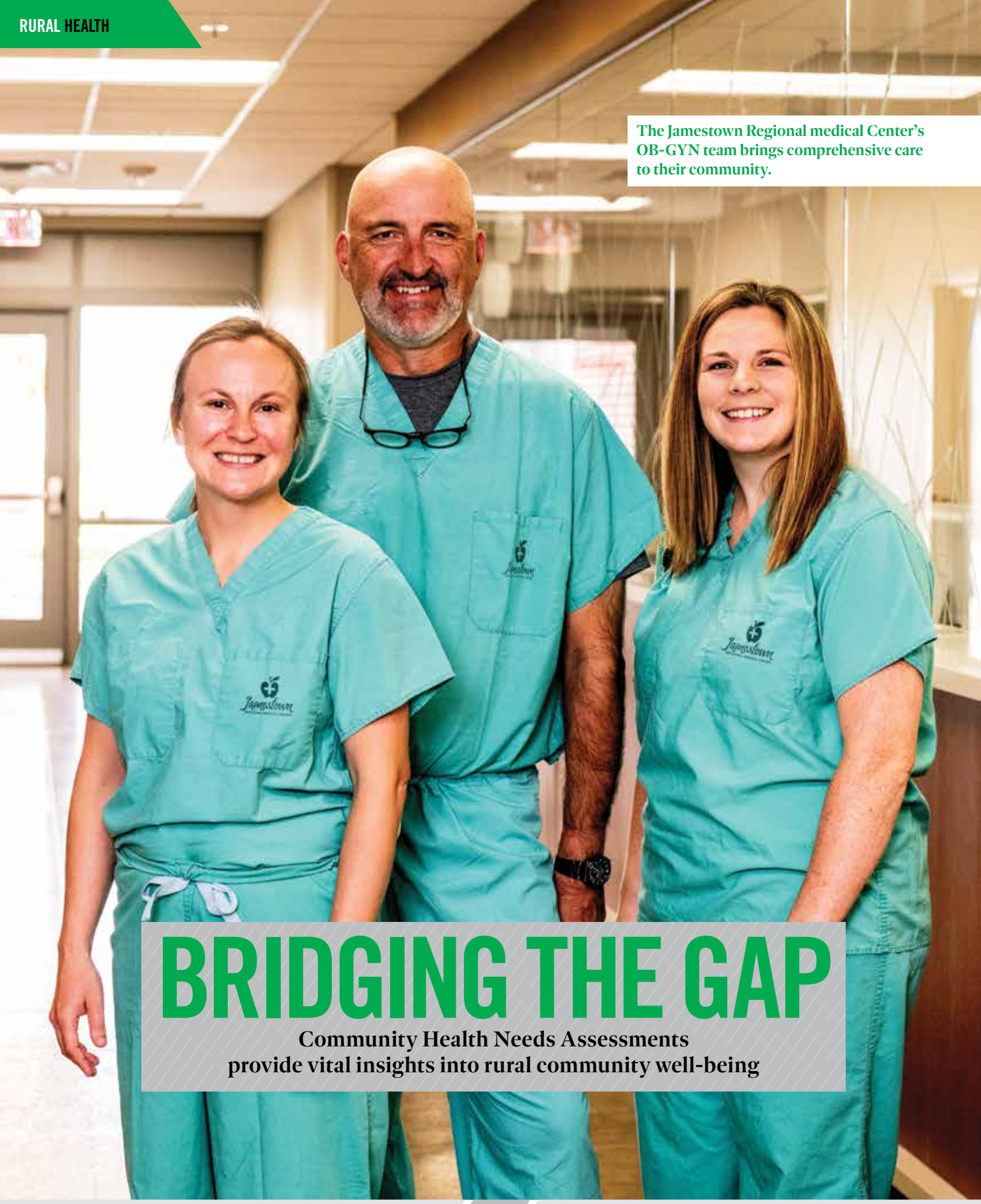
Imagine a community college that doesn't have the resources or an expert in bioinformatics, Singhal continued. UND's sandbox allows its researchers to organize an online workshop to train other researchers across North Dakota at little-to-zero cost to the community college.

"For example, if a group of students and researchers wants to learn Google modules, UND can provide basic training. We'll teach them how they can use cloud computing themselves," Singhal said. "And the best part is that, from the basic learning to the advanced, everything is there. You just need an Internet connection – no high-powered computer, no expertise in bioinformatics. Google is the computer and we serve as the experts."

By Brian James Schill

For more information on how to start your own big data bioinformatics project, contact the SMHS Department of Pathology at 701.777.2561.





The Jamestown Regional medical Center's OB-GYN team brings comprehensive care to their community.

BRIDGING THE GAP

Community Health Needs Assessments provide vital insights into rural community well-being

Team members from CCCHC Behavioral Health promote the IMPACT Program.

It has been said that if you've seen one rural community, you've seen one rural community. Although rural areas are often grouped together, there is immense diversity among what rural looks like around the U.S. Some rural communities might be highly agricultural, while others may be defined by mining, logging, fishing, or a multitude of other industries.

With such diversity attributed to rural areas, it is critical for local healthcare facilities to have a thorough understanding of their community and service area. Community Health Needs Assessments (CHNAs) were designed for just that.

As the term suggests, a CHNA is a systematic process involving the community to identify and analyze community health needs. This process provides a way for communities to prioritize health needs and to plan and act upon unmet needs. Back in 2010, the Affordable Care Act mandated that Critical Access Hospitals (CAHs) must conduct a CHNA once every three years. Likewise, public health units must conduct a CHNA once every five years to gain or maintain accreditation.

An 11-step process

Although CHNAs are a required aspect of a CAH's operational duties, the organization conducting the assessment gains much more from the process besides a checked box. A CHNA consists of an 11-step process, one that takes nearly 18 months from start to finish – a substantial undertaking. The core component of the CHNA is a community survey, customized for each individual community, to elicit responses on the strengths of the area and where improvement can be made.

Throughout this timeline, the CAH – often in partnership with a local public health unit and other healthcare facilities – will facilitate planning sessions, community meetings, and key informant interviews, and launch a promotional campaign for the CHNA.

The Center for Rural Health (CRH), located within the University of North Dakota School of Medicine & Health Sciences, offers North Dakota CAHs assistance in completing their CHNA as part of their services. CRH is on-call as a helping hand: visiting each community to coordinate meetings, presenting data once the survey has been completed, and assisting in identifying the top needs of the community.

Holly Long, project coordinator with CRH, works closely with communities during the CHNA process. She travels across North Dakota to be present for the two community meetings; once to introduce the community to the needs assessment process and to conduct key informant interviews, and a second time after the survey has been completed to present the results.

"There are things you find out in a CHNA that you might not have expected," she said. "The nice thing about completing a CHNA is getting the results on what the current needs of your community are. The important part comes after – what happens because of the report."

Implementing action

After the CHNA report is compiled, the CAH has five months and fifteen days to complete an implementation plan to address the top community needs identified by the assessment. For instance, Coal Country Community Health Center (CCCHC) and Sakakawea Medical Center, located in Beulah and Hazen, respectively, have been working with CRH and their local public health units and long-term care facilities to complete their several CHNAs for over a decade.

"Our collaborative CHNAs and corresponding implementation plans have resulted in significant improvements in both the delivery of healthcare services, but also in addressing workforce challenges to meet the needs of our communities," shared Chastity Dolbec, director of patient care and innovation at CCCHC.

Although CHNAs are conducted by healthcare facilities, the most pressing community needs aren't always directly related to healthcare services. One of the top needs identified in a previous CHNA for CCCHC was access to daycare resources for essential workers. As a result of this finding, eight businesses in Mercer County collaborated to create Energy Capital Cooperative Child Care,

an enterprise operated out of a vacated church in Hazen. Since its opening in 2017, daycare services have not been listed as a community need in subsequent Coal Country reports.

CCCHC has also implemented a variety of programs regarding concerns about depression and anxiety in youth and adults in the region. Increased access to behavioral health services, such as universal screening, have been implemented at local healthcare organizations. The school districts also became involved in the effort, with the Beulah, Hazen, Center, and Killdeer school districts implementing the IMPACT (Integrating Mental Health, Physical Health, And Continuity of Care Together) Program to provide on-site behavioral health services.

"It is vital for our rural healthcare organizations to receive input and feedback from our area residents, in combination with county and state level healthcare data, to better target and individualize our approach in meeting those identified needs," said Dolbec. "Specific information about our communities provides our organizations the opportunity to tailor community health improvement plans that will address and produce improved healthcare outcomes."

Ever-evolving needs

Jamestown Regional Medical Center (JRMC) has also worked with CRH to complete their CHNAs. Access to specialty care was identified as a need in the area, and JRMC responded in kind. The hospital has recruited a range of specialists to bring essential services, including orthopedics, obstetrics and gynecology, advanced wound care with hyperbaric oxygen therapy, and podiatry directly into the community. JRMC also partnered with Sanford Health to offer comprehensive cancer care locally.

CCCHC and Sakakawea Medical Center staff highlight their services at a local parade.

"This approach not only alleviates the need for extensive travel—reducing both time and cost burdens for patients—but also enhances the quality and continuity of care by allowing patients to receive specialized treatments in a familiar, community-centered environment," said Trisha Jungles, vice president and chief nursing officer at JRMC. "By providing these services close to home, JRMC is supporting better health outcomes and making high-quality care more accessible to all."

JRMC has also addressed other fronts, establishing key partnerships with local providers to expand mental health services and introducing wellness programs, health education workshops, and fitness initiatives to promote physical activity.

"These initiatives have been well-received by the community, and we have seen positive outcomes in patient satisfaction, access to care, and overall health engagement," Jungles said happily. "Our efforts have not only addressed immediate needs, but also strengthened our infrastructure to support the evolving health requirements of our community."

Empowering community

With CHNAs being so impactful to rural communities, Long is very proud of the work that she does. "The information we are working with is extremely valuable to these communities," she said. "We try to make the CHNA process as easy and streamlined as possible for the organizations we work with."

"The CHNA process is collaborative and comprehensive," stated Jungles. "Working with CRH provides us with expertise in rural health research and analysis, ensuring that our CHNAs are thorough and tailored to our region. CRH also helps facilitate engagement with community members and stakeholders, which is essential for gathering authentic and representative input."

Dolbec agreed, explaining how CHNAs are vital for rural communities in "identifying health disparities and unique health challenges, including access to needed services in the rural communities we collectively serve."

"Our local healthcare organizations are very grateful for the assistance and resources provided by CRH over the past decade in identifying unique healthcare needs and challenges of our rural communities," She smiled.

The collaborative nature of CHNAs, in addition to being a distinguishing characteristic, is perhaps one of the most critical features to the process's success.

"CHNAs are not only a tool for identifying needs, but also a way to engage and empower our community," said Jungles. "They offer residents a voice in shaping local healthcare priorities and foster a sense of shared responsibility for community health."

By Jessica Rosencrans

UND School of Medicine & Health Sciences epigenetics team awarded $5.3 million from NIH for third phase of its ongoing project

The UND School of Medicine & Health Sciences (SMHS) epigenetics team has been awarded a third and final Centers of Biomedical Research Excellence (CoBRE) grant from the National Institutes of Health (NIH). The award, known by the NIH as a P30 award, consists of $5.3 million and will be used to help the School's epigenetics program not only continue to understand a variety of health conditions affecting North Dakotans, but become more self-sufficient.

A combination of the Greek term epi, meaning "above," and genetics, epigenetics is the study of the cellular mechanisms that regulate gene expression and the activation and deactivation of specific genes in living organisms. Improved understanding of how the human body can turn genes on and off during growth, aging, and in response to the environment has important implications for the diagnosis and treatment of many diseases, including cancer, diabetes, and neurodegenerative disorders such as Parkinson's disease.

"The beauty of epigenetics is that it doesn't matter what your research focus is," explained Dr. Archana Dhasarathy, associate professor in the UND SMHS Department of Biomedical Sciences and program coordinator of the CoBRE's Phase 3. "Whether it's Alzheimer's disease or cancer, epigenetic mechanisms are fundamental and in many cases, universally applicable to all cell types and diseases."

This is why UND took the bold step of working to make the Red River Valley into a hub of epigenetics and epigenomics (study of the complete set of epigenetic modifications on the genetic material of a cell) back in 2013, when it was first awarded a grant from NIH's National Institute of General Medical Sciences.

Understanding the versatility and value of focusing on epigenetics, Dhasarathy's colleague and Principal Investigator of the CoBRE, Dr. Roxanne Vaughan, led the School as it applied for and received its original $10.5 million grant from the NIH to build an epigenetics program at UND. Having spent the past ten years building a viable program for the study of multiple conditions at the genetic level, Vaughan said that this third and final CoBRE grant allows her epigenetics team to focus on expanding its many efforts.

The Genomics Core provides users with state-of-the-art tools and technologies to investigate changes in epigenetic profiles across diverse cell types and diseases. While these advanced technologies enable groundbreaking research, genomics projects often face a significant challenge: the need for expertise in bioinformatics (the use of complex software and computer programming to organize and analyze the vast amounts of biological data generated).

This is where Dr. Damien Parrello comes in. As manager of the SMHS Genomics Core, established during the CoBRE Phase 1 in 2013, Parrello is responsible for helping researchers across the region produce and analyze "big data" of all sorts. He has done so by developing a solution not only for UND, but the broader research community: an online platform called GenomEX.

"This entire platform is designed to empower biologists – any researcher – to manipulate big data the way they want to," Parrello said from his office at UND. "Right now, most researchers rely on cores like ours, or collaborations, to analyze their data. However, it can take weeks or months for them to get answers to their questions based on their data. This is due to the numerous back-and-forth exchanges needed to articulate what the researcher wants and what the bioinformatician needs or can do."

With GenomEX, researchers can do such analysis themselves in days.

Recognizing that many researchers lack robust coding skills, Parrello built a user-friendly platform – which can be used either on local UND servers or on the cloud – that simplifies big data analysis without sacrificing depth of analysis.

"From data upload to analysis, including the ability to input specific keywords for searching through vast datasets, GenomEX makes bioinformatics very flexible and easy to use," he said. "Researchers just need to put their raw data in the correct folder, and then, with a few clicks, GenomEX will do the work. We can adapt it, too, so that people who need to manipulate their big data in a very specific way can do so without having to learn an entire programming language."

Think of it this way: UND developed a simplified input-output platform that enables researchers from anywhere to input potentially millions of lines of data – to get it online themselves with a few clicks – and then generate outputs from the data with only a few more clicks. All without needing to learn a new computing language.

All of this, said Vaughan, will help the research group continue to grow.

"The epigenetics group has grown to 25 faculty members who utilize epigenetics approaches to address mechanisms in human health," she said, noting how in 2013 the epigenetics team at UND consisted of only four or five core faculty. "The development of the Genomics Core today serves the needs of researchers not only at UND but across the state and region."

Such partners, Vaughan said, include researchers at United Tribes Technical College in Bismarck, N.D., Minot State University, Altru Health System, North Dakota State University, and Sanford Health – plus teams operating out of Japan and the University of Manitoba in Canada.

UND's Deeded Body Program hosts interment service for donors

An interment ceremony honoring the memory of donors to the UND School of Medicine & Health Sciences Deeded Body Program took place on Friday, Sept. 20, at the University of North Dakota plot at Memorial Park Cemetery in Grand Forks.

"The interment service allows our students, staff, and faculty to honor those who have selflessly donated their bodies to advance the education of medical and health science students," said Deeded Body Program manager John Opland. "It is also a way for us to thank the families of the donors for sharing their loved ones with us. The Deeded Body Program takes the greatest care in ensuring that our donors are treated with the utmost respect and dignity, which includes laying to rest those who have chosen to be buried in the school's plot."

The SMHS conducts the interment ceremony once every three years to inter the cremated remains of donors who have chosen to be interred in the UND plot. Family members of donors being interred have been invited, as have the School's faculty, staff, and students, who often look forward to the opportunity to show their respect and appreciation for the donors who contributed to their learning and scholarship.

"This service is a way to give thanks to both the donors and their families, and a way to express honor for the gift we have been given through their donation," added Mandy Meyer, associate professor in the Departments of Occupational Therapy and Biomedical Sciences and director of the Deeded Body Program at the SMHS. "The education these individuals have given is invaluable to our future healthcare providers. They truly teach students about the form of the human body and in many ways are students' first patients."

Kenneth Ruit, senior associate dean for education, medical accreditation, and faculty affairs at the SMHS, provided opening remarks. Along with musical performances, medical students provided remarks about the value and significance of the Deeded Body Program.

UND clergy participating in the service included Sarah Raymond of Christus Rex Lutheran Campus Center and Chris Markman of St. Thomas Aquinas Newman Center.

UND Department of Medical Laboratory Science announces 2024-25 student scholarships

The Department of Medical Laboratory Science (MLS) at the UND School of Medicine & Health Sciences, which recently celebrated its 75th anniversary, has awarded scholarships to several MLS students for this academic year.

Scholarship winners for the 2024–25 academic year include:

Marcia and Gary Anderson MLS Scholarship Award
Eleanor Miller, Bismarck, N.D.
Megan Dauksavage, East Grand Forks, Minn.
Avery Otremba, Lakeville, Minn.
Brooke Staigle, Grand Forks, N.D.
Abigail Meier, Bismarck, N.D.

Janice and Clifford d'Autremont Scholarship Award
Paige Bakke, Oakes, N.D.

Dr. Cyril J. Dillenburg Memorial Medical Scholarship
Lauren Steien, Grand Forks, N.D.

Jean Holland Saumur Award
Abbigail (Mikah) Larson, Long Prairie, Minn.

Janice Schuh-Horysh MLS Scholarship Award
Maisy Lindseth, Grand Forks, N.D.
Cassidy Anderson, Grand Forks, N.D.

Eileen Simonson Nelson Scholarship Award
Torrey Westereng, Grand Forks, N.D.

Mary Noble Award
Megan Dauksavage, East Grand Forks, Minn.
Taylor Davis, Dunseith, N.D.
Sadie Haben, Prior Lake, Minn.
Hannah Hermann, Grand Forks, N.D.
Maya Orvis, Crosslake, Minn.
Paige Priewe, Amenia, N.D.

Eleanor Ratcliffe Award
Sadie Haben, Prior Lake, Minn.
Lauren Steien, Grand Forks, N.D.

The Ralph and Hazel Rohde Award
Taylor Davis, Dunseith, N.D.

Mary Stanghelle Coleman MLS Scholarship Award
Hannah Hermann, Grand Forks, N.D.

Linnea J. Veeder MLS Scholarship
Kylee Falk, Hankinson, N.D.
Leia Lauer, Bismarck, N.D

North Dakota Brain Injury Network receives Justice and Mental Health Collaboration program grant

The North Dakota Brain Injury Network (NDBIN) HAS received a $550,000 grant from the U.S. Department of Justice to address mental health in state correctional facilities. The Justice and Mental Health Collaboration Program is a three-year grant that will run from Oct. 2024 through Sept. 2027.

NDBIN is housed at the Center for Rural Health at the University of North Dakota School of Medicine & Health Sciences.

Some studies have shown that up to 87% of individuals in the criminal justice system report having received a brain injury at some point in their life. Those individuals require increased levels of health and psychological services compared to those without a brain injury. Lower rates of completed treatment, more disciplinary incidents, higher rates of recidivism, and higher levels of substance use prior to incarceration all put additional strain on the correctional facilities and don't adequately rehabilitate the individual.

"The overall goal of this project is to further develop and implement brain injury screening, support, and referral protocol for justice-involved individuals with the goal of reducing recidivism," said Carly Endres, senior project coordinator of NDBIN.

The North Dakota Department of Corrections (DOCR) is in the planning stages of implementing brain injury screening at the state penitentiary in Bismarck and NDBIN is working closely with the agency on the screening processes. Additional steps will be taken to work with the individuals who have sustained brain injuries to help them understand their symptoms and learn how to manage those symptoms and make healthier choices.

NDBIN has been working with the National Association of State Head Injury Administrators (NASHIA). Through one of the NASHIA training programs, NDBIN has taken part in intensive technical assistance to help states build capacity of correctional organizations to provide the screenings, offer support to improve outcomes, and to identify community resources to help ensure successful reentry into the community.

"We are excited to work with DOCR," said Endres, "to help the correctional officers and incarcerated individuals understand more about how brain injury can affect a person's behavior and how those behaviors can be managed in a positive way."

IN MEMORIAM

Barbara Satrom, BS OT '70, age 76, passed away comfortably on Sept. 6, 2024, while surrounded by her family at home on her beloved Spectacle Lake near Cambridge, Minn. She had courageously battled cancer for the last few years of her life. Barbara, lovingly known as Barb to all, was born on March 21, 1948, in Grand Forks, N.D., to Vernon "Bud" and Dorothy (Fritz) Stowe. She had one sibling, her sister Judy, who died in 2013. Barb graduated from Grand Forks Central High School in 1966 and then graduated from the UND School of Medicine & Health Sciences in 1970. She became a registered occupational therapist after fulfilling her affiliation requirements at the University of Minnesota and the Veterans Administration Hospital in Minneapolis. While attending UND, Barb was a proud member of the Gamma Phi Beta Sorority. She was preceded in death by her parents Bud and Dorothy Stowe, and by her sister Judy of Colorado. Barb is survived by her loving husband, Tom Satrom; daughter, Mary (Ed) Clark (Lucas, Kyle, and Josh Clark); daughter, Susan (Jason) Kaspar (Kyler and Kenly Kasper); daughter, Jane Satrom; and by many other family and friends.

Sue Hieb Stewart, BS OT '84, passed away peacefully on Oct. 1, 2024, surrounded by her family. Sue is preceded in death by her parents Betty and Marvin Hieb. She is survived by her husband Ronald; children Spencer (25) and Mason (23); sister Cindy Hieb-Thompson; niece Carrie (Joe); and great-nephew Payton. She was born on July 16, 1960, in Sioux Falls, S.D., to Betty and Marvin Hieb. She attended Washington High School, and then went on to South Dakota State and the University of North Dakota where she earned her Bachelor of Science degree, specializing in pediatric occupational therapy. Sue married Ronald Stewart on Sept. 13, 1997, and soon had two beautiful children, Spencer and Mason, who were the loves of her life. Sue was also blessed with many great friends she met along the way. From Sioux Falls to Minnesota – college friends, work friends, her children's daycare friends, neighbor friends, and family friends—Sue will be missed.

X-RAISE

North Dakota radiologists raise funds for a scholarship endowment designed to help grow their ranks

The calmness in Dr. Erica Martin-Macintosh's voice betrayed the fact of the matter: following a years-long trend, less than one percent of senior medical students matching into an American residency program in 2024 matched into either diagnostic or interventional radiology programs.

"There's a national shortage of all physicians, but radiology is especially short," said the two-time UND alumna. "The number of grads going into radiology is not enough to meet demand. We can all attest to that, and we feel that on the daily."

A diagnostic radiologist at Sanford Health in Fargo, N.D., Martin-Macintosh was referring to herself and her fellow radiologists Drs. Allison Clapp, Martha Kearns, and Michael Lucin. The quartet had gathered on a video call to chat with *North Dakota Medicine* about the new scholarship endowment – the North Dakota Chapter of the American College of Radiology Scholarship Endowment – the four helped establish with the UND Alumni Association & Foundation this year.

"Students who end up at UND are more likely to be from North Dakota and the region," added Lucin. "So, just like Dr. Martin-Macintosh said, encouraging them with a scholarship might help bring them back here after residency. We're just hoping to facilitate those relationships."

As Lucin suggested, part of the challenge in North Dakota is that any UND medical student interested in radiology needs to go out-of-state for a radiology residency after graduating. And because the majority of physicians end up practicing close to or within the communities where they complete their residency, states without a radiology residency are automatically at a recruitment and retention disadvantage.

To address this disadvantage, said Lucin, North Dakota's chapter of the American College of Radiology (ACR) has focused its energy of late on exposing more medical students to radiology earlier and "making sure that students feel supported and encouraging them to go into radiology."

Kearns agreed, explaining how the local ACR group has worked to engineer a two-birds-one-stone scenario wherein practicing radiologists might be energized to devote time and energy to their local professional organization at the same time as the organization helps attract and keep future talent.

"Our members said that this was important to them, so we really looked at each other and said, 'We've got to find a way to make this happen,'" Kearns said. "We knew that this was possible, and certainly a lot of the radiologists in North Dakota did train at UND. We were hoping that we would gain some excitement both for the School and for the ACR for staying here, and maybe encourage other radiologists to give back."

The result of these efforts was a scholarship endowment, which came online earlier this year, designed to finance one or more scholarships to students who have "matched into a radiology residency." Furthermore, the endowment's documentation notes that "Preference will be given to a member of the North Dakota Chapter of the American College of Radiology."

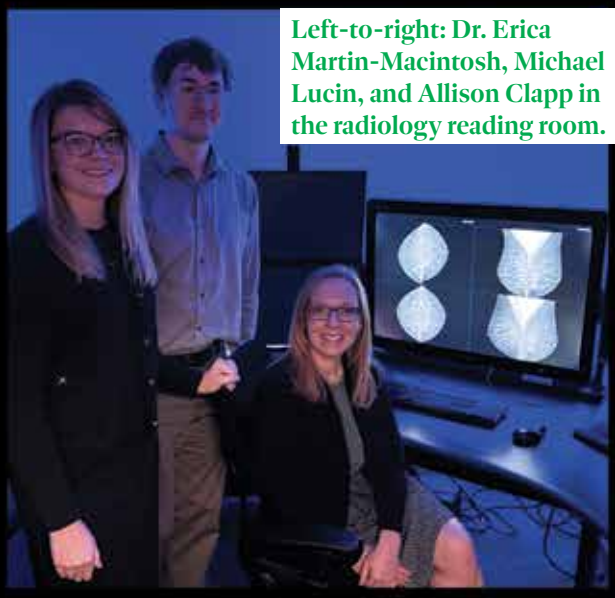
Taking advantage of the State of North Dakota's challenge grant funding match, the ACR amassed a $50,000 gift to UND that became $75,000 almost overnight. Distributions from the fund to graduating medical students will begin in 2026.

All four radiologists on the call serve in leadership positions for the North Dakota ACR. Kearns serves as president while Clapp is the group's treasurer, Lucin is the young professional alternate councilor, and Martin-Macintosh is councilor.

The organization's mission, according to its website nodakrad.org, includes not only "advancing the science of radiology" and "improving radiologic services to patients and the medical community" but encouraging "improved and continuing education for radiologists."

The endowment helps accomplish each of these goals not only within the practice of diagnostic and interventional radiology in North Dakota, but for physicians specializing in nuclear medicine, radiation oncology, and medical physics, said Martin-Macintosh.

"Gifts to the fund don't come back to ACR – they go to the students of North Dakota interested in our profession," she said. "We're optimistic because this can only help patient care in the future. We could certainly use more well-trained individuals in our field, especially if they're products of North Dakota."



Left-to-right: Dr. Erica Martin-Macintosh, Michael Lucin, and Allison Clapp in the radiology reading room.

Smiling as her colleague made her pitch, Kearns shifted in her seat.

"I live in Fargo and I selfishly admit that I would like to have quality care when I go to the hospital," she laughed. "That's what we're hoping to do with this fund. North Dakota deserves top-notch physician led care. It's tougher to attract and retain physicians in states without training programs in specialties like radiology. It's our hope that the scholarship program will encourage physicians that pursue radiology in other states to return and practice here."

"Our members really want to give back to the community, and a way to do that is through UND's medical school and getting students the help they need to have a successful career – and hopefully an interest in radiology," added Clapp.

With support and a little bit of luck, she mused, "maybe they'll come back to North Dakota."

To give to the Radiology Endowment, contact the UND Alumni Association & Foundation at 701.777.2611 or visit pd.undalumni.org/acr-scholarship.

ADOPT-A-PHYSICIAN ASSISTANT TODAY!

The fifth annual Department of Physician Assistant Studies Adopt-a-PA campaign is underway!

Each winter, donors to our PA program provide white coats to our PA students who are entering the clinical phase of their education. White coats will be formally presented to students during a ceremony in January 2025.

As one of our recent PA grads put it in a message to the School, "Receiving a white coat from those who believe in us and our future in medicine was very humbling and gratifying. My white coat symbolizes many things, including the sensitivity, compassion, and empathy that I want to offer my patients. This coat also symbolizes our commitment to patients, colleagues, families, and communities, and a commitment to ourselves as healthcare professionals."

To participate, gifts of $100 per student can be:

1. Mailed to the UND Alumni Association & Foundation, 3501 University Ave., Stop 8157, Grand Forks, ND, 58202. Please include "PA White Coat" in the check's memo line.
2. Submitted online at pd.UNDalumni.org/adopt-physician-assistant

We encourage donors to write letters to the students to be included in their coat pockets. Our goal is to provide a lasting, supportive connection between students and donors. Letters to students can be included with mailed gifts or emailed to kristen.peterson@UND.edu.

Any gifts received after Jan. 1, 2025, are greatly appreciated and will be included in the 2026 Adopt-a-PA-Student Program.

Thanks in advance!

Jeff Dodson
Director of Development
UND Alumni Association & Foundation
701.777.5512
jeffd@UNDfoundation.org

Brian Schill, '00, '05
Director
Office of Alumni & Community Relations
701.777.6048
brian.schill@UND.edu

PARTING SHOTS

Did you attend an event related to the UND SMHS? Share it with your colleagues. UND SMHS alumni, faculty, staff, students, friends, and family are welcome to send a high resolution photo to kristen.peterson@UND.edu for possible inclusion in the next *North Dakota Medicine*.

Members of the Emergency Medicine Interest Group train for mountain biking accidents at Detroit Mountain near Detroit Lakes, Minn.

Norwegian national and UND occupational therapy alum Mona Dahl visited her alma mater in Sept. 2024, reconnecting with her former OT faculty Jan Stube (left) and Sonia Zimmerman (right).

Members of the School's B.S. Med Class of '64 were back in Grand Forks for UND Homecoming this fall!

Participants of the SMHS first-annual Interprofessional Healthcare Day at the School's Simulation Center in Sept. 2024.

Guest speaker Dr. Cynthia Pearson (center) was at UND to give a presentation on Research Ethics Training for Health in Indigenous Communities (rETHICS) in Sept. 2024.

SMHS students participated in a UND Alumni Association & Foundation thank you card event for donors in Oct. 2024.

Participants of the School's 15th annual Joggin' with Josh 5/10K walk/run cross the finish line in Sept. 2024.

Grand Forks Public School District kiddos learned about health and safety at the School's annual Teddy Bear Clinic in Oct. 2024.

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Feb. 14
APTA-CSM
Held in conjunction with University of Jamestown
Houston, Texas

April 3-5
AOTA
Philadelphia, Penn.

May 8
NDAPA
Fargo, N.D.

Sept. 2025
Indians Into Medicine (INMED)
Seattle, Wash.

Watch for registration details for each of these events at:
med.und.edu/events