



2021 COMMUNITY REPORT VITAL SIGNS

Educate. Discover. Serve.



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North Dakota Department of Health

ACCOMPLISHMENTS #UNDPROUD

ESTIMATED
REVENUE
2019–2021

\$205,075,117

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SCHOOL OF
MEDICINE & HEALTH
SCIENCES ALUMNI

11,629

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SPONSORED
PROJECT
AWARDS

\$38,476,968

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If you would like further details about the information in this Community Report or the programs, departments, or research at the School, please contact Brian Schill, director, Office of Alumni & Community Relations, UND School of Medicine & Health Sciences, 701.777.4305, brian.schill@UND.edu.

Vital Signs 2021 represents the good-faith effort of the UND School of Medicine & Health Sciences to provide current and accurate information about the School. Numerous sources were used in gathering the information found in this community report. We welcome corrections, which we will incorporate in subsequent issues of *Vital Signs*.

On the cover: First-year medical student Amanda Hansmann of Farmington, Minn., with a friend at the 2021 Teddy Bear Clinic, wherein elementary schoolers learn about clinical care via their favorite stuffed animal.

Please note that photos in *Vital Signs* showing groups of unrelated people indoors without masks were taken before the COVID-19 pandemic reached the United States.

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JOGGIN' WITH JOSH

EDUCATE. DISCOVER. SERVE.

Keep your finger on the pulse of the latest news and events from the UND School of Medicine & Health Sciences

 [instagram.com/UNDSMHS](https://www.instagram.com/UNDSMHS)

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FOR YOUR HEALTH

Read Dean Joshua Wynne's weekly column in *For Your Health*, the School's digital newsletter delivered to your inbox: blogs.UND.edu/for-your-health

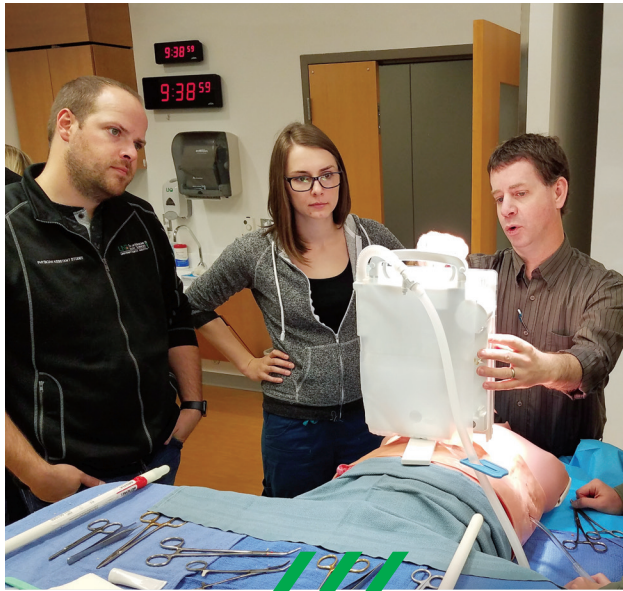


Subscribe to *North Dakota Medicine*, the School's quarterly magazine available on the SMHS website: med.UND.edu/nd-medicine or through a print subscription.

To subscribe to *For Your Health* or *North Dakota Medicine*, please contact Kristen Peterson, kristen.peterson@UND.edu or 701.777.4305.



PURPOSE STATEMENT



EDUCATE

More than 1,300 part-time or volunteer clinical faculty in more than 30 communities throughout the state help to educate medical students and residents:

- There are four clinical campuses located in Bismarck, Fargo, Grand Forks, and Minot.
- Health sciences students receive training not only in North Dakota but also across the country, including occupational therapy in Casper, Wyo., and a medical laboratory science program at Mayo Clinic in Rochester, Minn.
- The School's patient-centered-learning curriculum is nationally recognized for producing caring, patient-centered, and dedicated practitioners.
- The School uses the latest in simulation technology for interprofessional teaching and serves as a valuable resource for health care professionals throughout North Dakota and the region.
- Interprofessional learning activities, including an interprofessional health care course and simulation activities, provide students with a strong practical understanding of the various health care professionals on their team.



DISCOVER

Areas of research strength:

- Aging
- Cancer
- Health disparities in rural and American Indian communities
- Infectious diseases
- Neurodegenerative disorders

The School has facilities for the study of drug addiction and neurodegenerative diseases such as Parkinson's, Alzheimer's, multiple sclerosis, and epilepsy. Faculty at the UND SMHS not only publish their research in leading journals each year but apply for and are awarded tens of millions of dollars in grants from agencies such as the National Institutes of Health, the Centers

for Disease Control and Prevention, and the Department of Health and Human Services.

Among other awards given to the School and its faculty in 2021, Department of Biomedical Sciences Associate Professor John Shabb was given the UND Award for Excellence in Online Course Development & Innovative Teaching Strategies, and Clinical Professor and Chair of our Department of Psychiatry and Behavioral Science, Andrew J. McLean, and Associate Professor in our Department of Indigenous Health, Shawnda Schroeder, won the UND Award for Interdisciplinary Collaboration in Research and Creative Activity.



SERVE

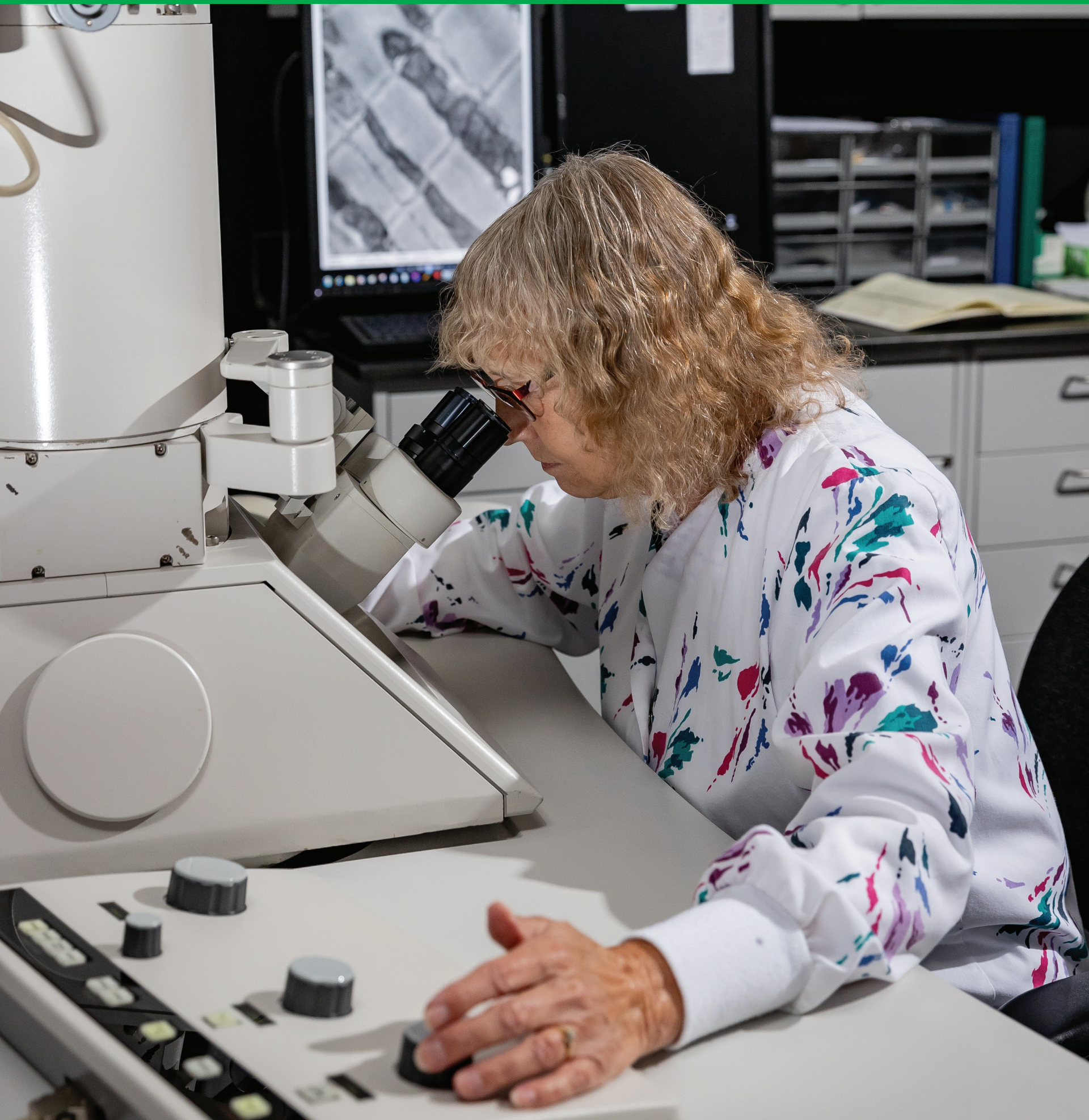
The School improves the health and health care of North Dakotans through research, community engagement, and prevention programs:

- Direct primary care is provided to North Dakotans through the School's family medicine clinics in Bismarck and Minot.
- The School leads the nation in rural health through the Center for Rural Health (CRH), which serves as the State Office of Rural Health for North Dakota. It is home to six national programs: The National Resource Center on Native American Aging, the National Indigenous Elder Justice Initiative, the Rural Health Information Hub, the Rural Health Research Gateway, the Rural Health Reform

Policy Research Center, and TruServe, a web-based information tracking system that is now used by most state offices of rural health. CRH works to develop capacity and skill at the rural community level through education, training, assessment, planning, program and workforce development, and evaluation. Primary focus areas include community development, research, Indigenous health, behavioral and mental health, population health, quality improvement, evaluation, health policy, and education.

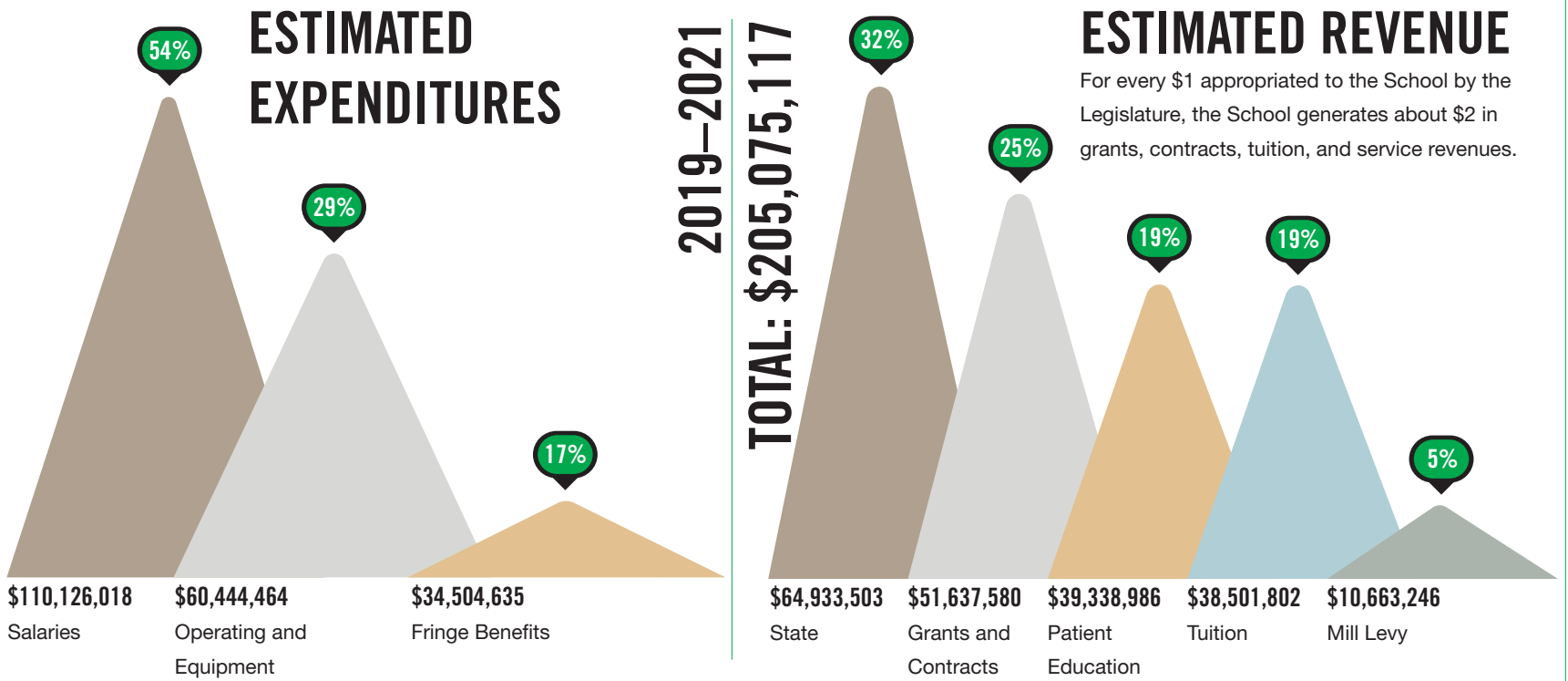
The primary purpose of the University of North Dakota School of Medicine and Health Sciences is to educate physicians and other health professionals for subsequent service in North Dakota and to enhance the quality of life of its people. Other purposes include the discovery of knowledge that benefits the people of this state and enhances the quality of their lives.

—North Dakota Century Code (Section 15-52-01)

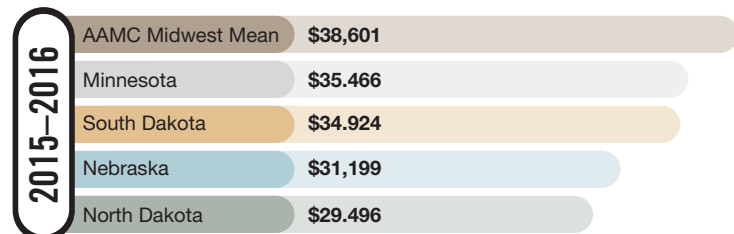
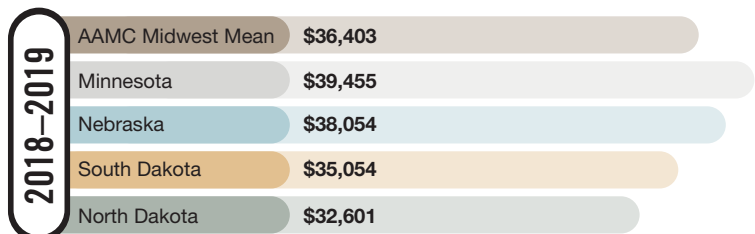
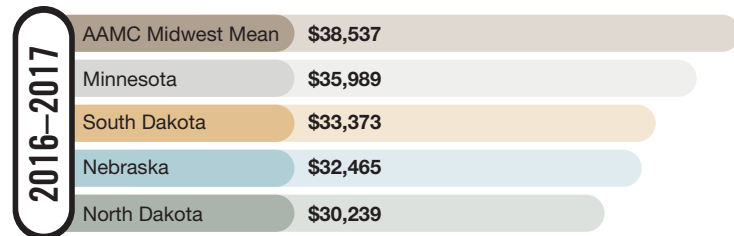
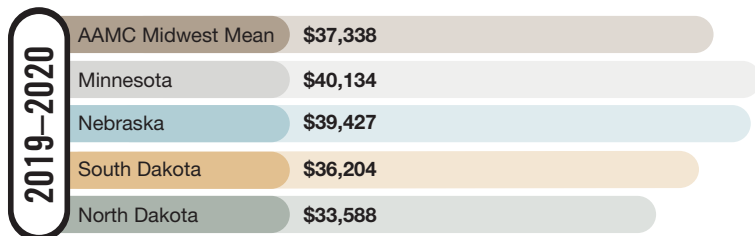
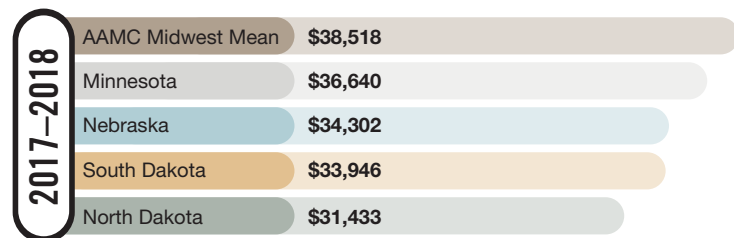
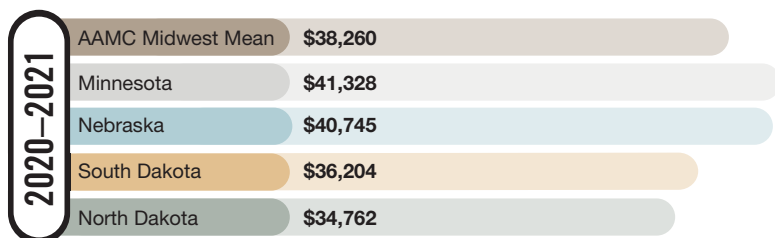


FINANCE BUDGET/TUITION

Our 2019–2021 biennial budget is \$205,075,117. The majority comes from non-state sources such as grants, contracts, patient revenue, and tuition.



1ST YEAR IN-STATE RESIDENT TUITION AND FEE RATES FOR REGIONAL MEDICAL SCHOOLS PER THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES (AAMC)

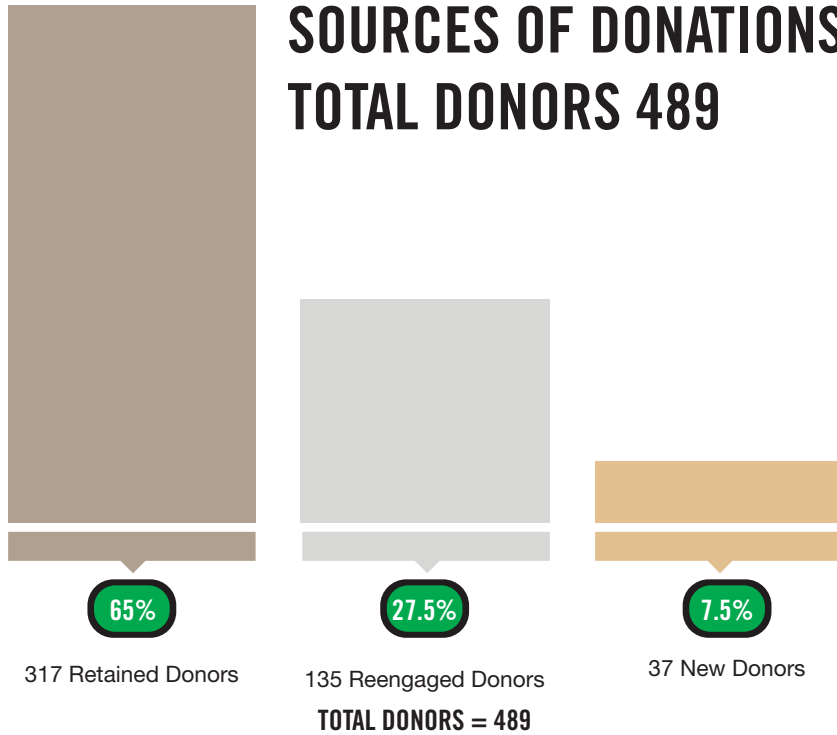


Source: aamc.org/data-reports/reporting-tools/report/tuition-and-student-fees-reports

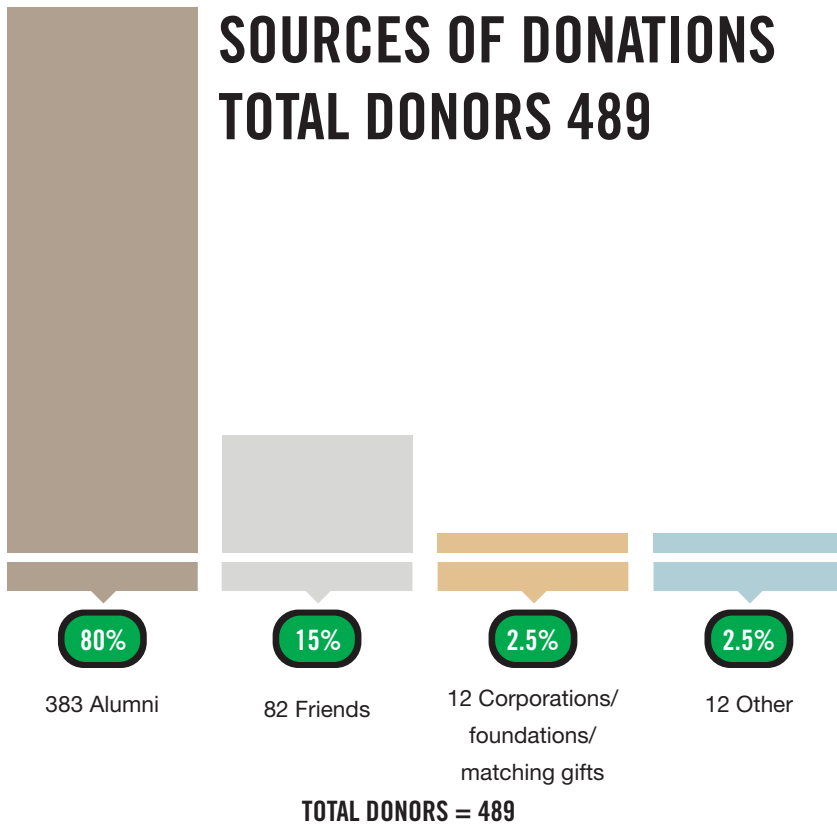
FINANCE PHILANTHROPY

FISCAL YEAR 2021

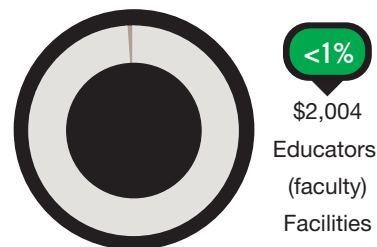
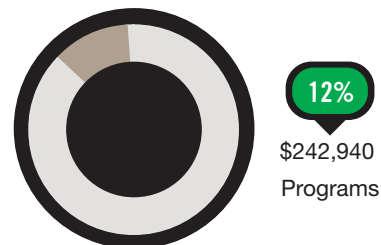
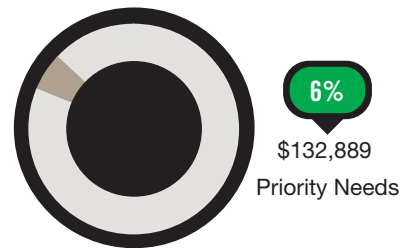
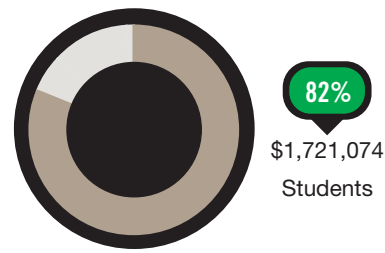
SOURCES OF DONATIONS TOTAL DONORS 489



SOURCES OF DONATIONS TOTAL DONORS 489



USES OF DONATIONS TOTAL \$2,098,907



FISCAL YEAR 2020

Retained Donors	392
Reengaged Donors	121
New Donors	49
TOTAL DONORS	562

Alumni	461
Friends	75
Other	13
Corporations/foundations/matching gifts	13
TOTAL DONORS	562

Students	\$ 1,457,537
Priority Needs	234,945
Programs	57,815
Educators (faculty)	4,513
TOTAL	\$ 1,754,810

FISCAL YEAR 2019

Retained Donors	442
Reengaged Donors	176
New Donors	66
TOTAL DONORS	684

Alumni	541
Friends	103
Other	21
Corporations/foundations/matching gifts	19
TOTAL DONORS	684

Students	\$ 1,363,886
Priority Needs	232,993
Programs	114,513
Educators (faculty)	108,629
TOTAL	\$ 1,820,021

“Thank you so much for your donation. I started my first year of medical school nine weeks ago and receiving my first stethoscope makes me all the more excited to continue my medical education!”



—Anya Edwards
Grand Forks, N.D.
M.D. Class of 2025

EDUCATE DEGREE PROGRAMS

GRADUATE PROGRAMS

Doctor of Philosophy (Ph.D.) and Master of Science degrees in Biomedical Sciences, with specializations in:

- Inflammation and Infectious Disease
- Neuroscience and Neurodegenerative Disease
- Epigenetics
- Molecular and Cellular Biology

Doctor of Philosophy and Master of Science degrees in Clinical and Translational Science, with specializations in:

- Molecular and Pathological Basis of Human Disease
- Bioinformatics and Human Population Genetics

MEDICAL DOCTOR (MD) PROGRAM

All medical students spend their first 20 months in Grand Forks. They learn through lectures, laboratories, patient simulations, and in patient-centered-learning groups, where basic and clinical sciences are taught in the context of patient cases. They then spend two years and four months of clinical training in Bismarck, Fargo, Grand Forks, Minot, or a rural community through the Rural Opportunities in Medical Education (ROME) Program. The School's new "Curriculum 2.0" is getting medical students into the clinical setting faster and giving them more elective options sooner.

INDIGENOUS AND PUBLIC HEALTH

The UND SMHS Public Health program is designed to prepare students to respond to the growing demand for public health professionals who can promote health and wellness through population-based approaches. Our program houses the world's first doctoral program in Indigenous Health and our master program offers three specializations – Health Management & Policy, Indigenous Health, and Population Health Research & Analytics. The Indigenous Health dissertation allows for either the academic or applied track.

This year also marks the inauguration of the world's first standalone Department of Indigenous Health. To learn more about this first-ever department, see page 20.

HEALTH SCIENCES

Athletic Training

- Four-year Bachelor of Science
- Master of Athletic Training coming in 2022

Medical Laboratory Science

- Four-year Bachelor of Science or post-baccalaureate certificate
- Categorical Certificate
- Master of Science
- More than 60 clinical training sites in 10 states with more than half in North Dakota and the surrounding region

Occupational Therapy

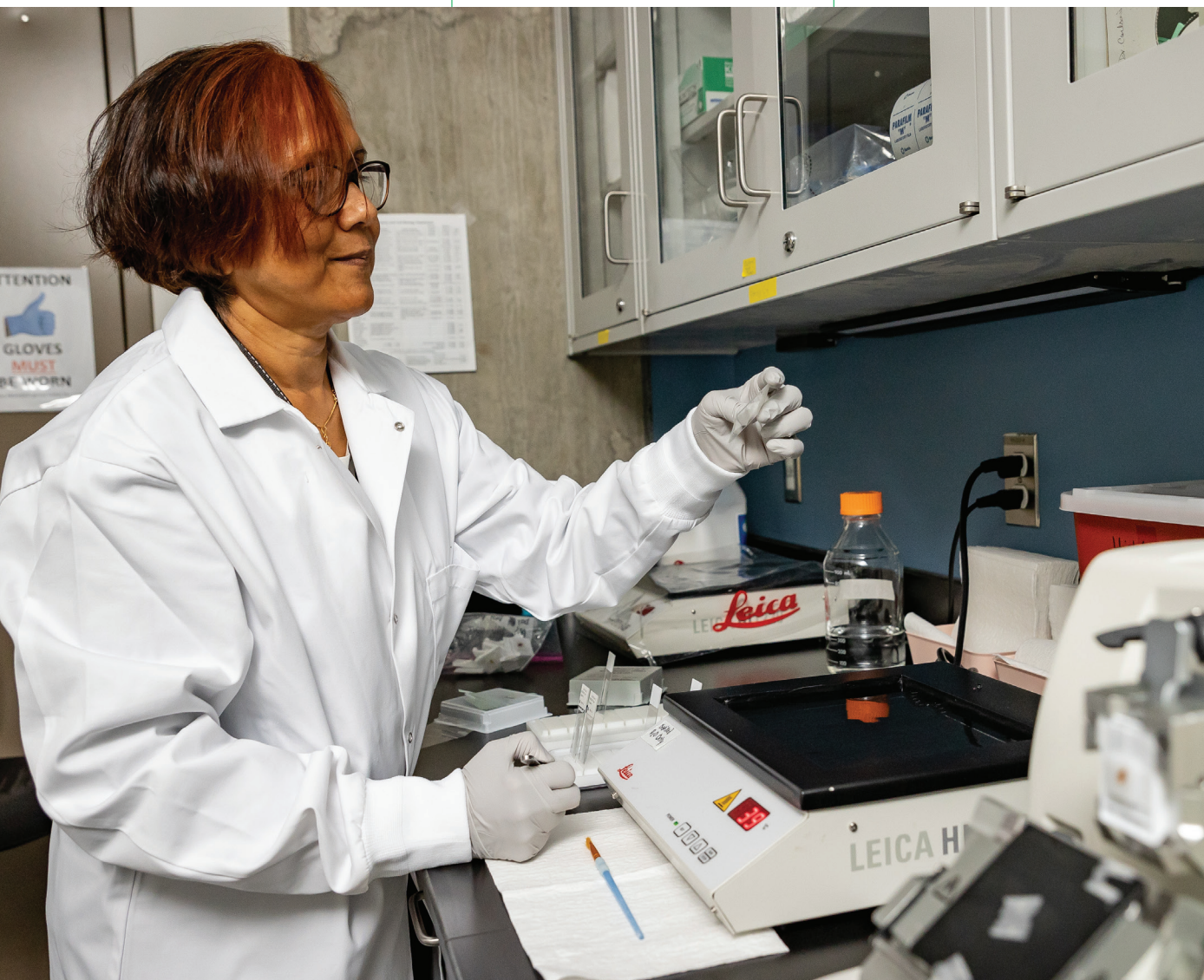
- Three-year pre-occupational therapy program and three-year Occupational Therapy Doctorate (OTD)

Physical Therapy

- Three-year pre-physical therapy program and three-year Doctor of Physical Therapy (DPT)

Physician Assistant Studies

- Two-year Master of Physician Assistant Studies (MPAS) leading to the Certified Physician Assistant credential (PA-C)



The UND School of Medicine & Health Sciences is one of 35 medical schools in the country that is community-based, meaning we don't own or operate our own hospital. Rather, we partner with health care providers in the community to educate our students.



EDUCATE STUDENT ENROLLMENT*

GRADUATE PROGRAMS

Biomedical Sciences (Graduate—Master and Doctoral)	33
Clinical and Translational Science (Graduate—Master and Doctoral)	5
TOTAL	38

MEDICAL DOCTOR (MD) PROGRAM

Year 1 Class of 2025	78
Year 2 Class of 2024	78
Year 3 Class of 2023	70
Year 4 Class of 2022	75
TOTAL	301

POST-MD DEGREE (RESIDENCY)

Training in family medicine, geriatric medicine, hospital medicine, internal medicine, psychiatry, surgery, orthopedic surgery, transitional, neurology, and hematology/oncology	
TOTAL	158

HEALTH SCIENCES

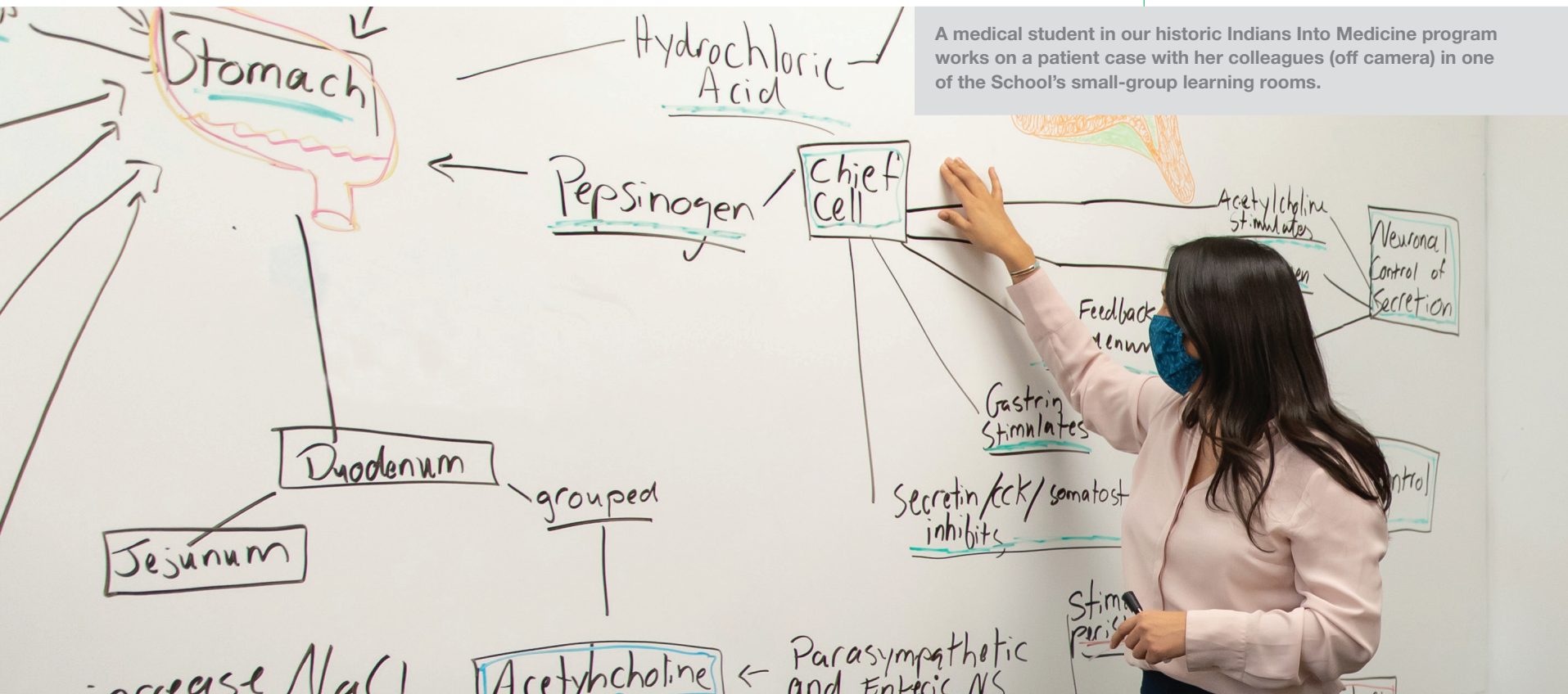
Athletic Training	
Pre-Athletic Training	16
Bachelor of Science	13
Medical Laboratory Science	
Pre-Medical Laboratory Science	111
Certificate	65
Bachelor of Science	113
Master of Science	58
Occupational Therapy	
Pre-Occupational Therapy	94
Occupational Therapy Doctorate	162
Physical Therapy	
Pre-Physical Therapy	177
Doctoral	146
Physician Assistant (Graduate—Master)	69
Public Health	
Master of Public Health	66
Indigenous Health Ph.D.	37
TOTAL	1,127

The School's faculty also teach courses in biomedical sciences (anatomy, physiology, pharmacology, biochemistry, microbiology, immunology) that enroll over 1,000 undergraduate students each year who will become physicians, therapists, nurses, dietitians, exercise scientists, public health professionals, and forensic scientists.

Now that the School's Healthcare Workforce Initiative (HWI) is fully implemented, 16 additional medical students, 30 health sciences students, and a variety of post-MD degree trainees are being educated through the UND SMHS each year, relative to 2012. In addition to expanding SMHS class sizes, the HWI utilizes a number of strategies to maximize success in increasing North Dakota's health care workforce:

- Acceptance of students to medical school weighted toward those from rural areas of North Dakota.
- Tuition forgiveness for those who commit to practice in a rural community in the state.
- Increased longitudinal experiences in rural communities.
- Increased geriatrics, population health, and public health focus.

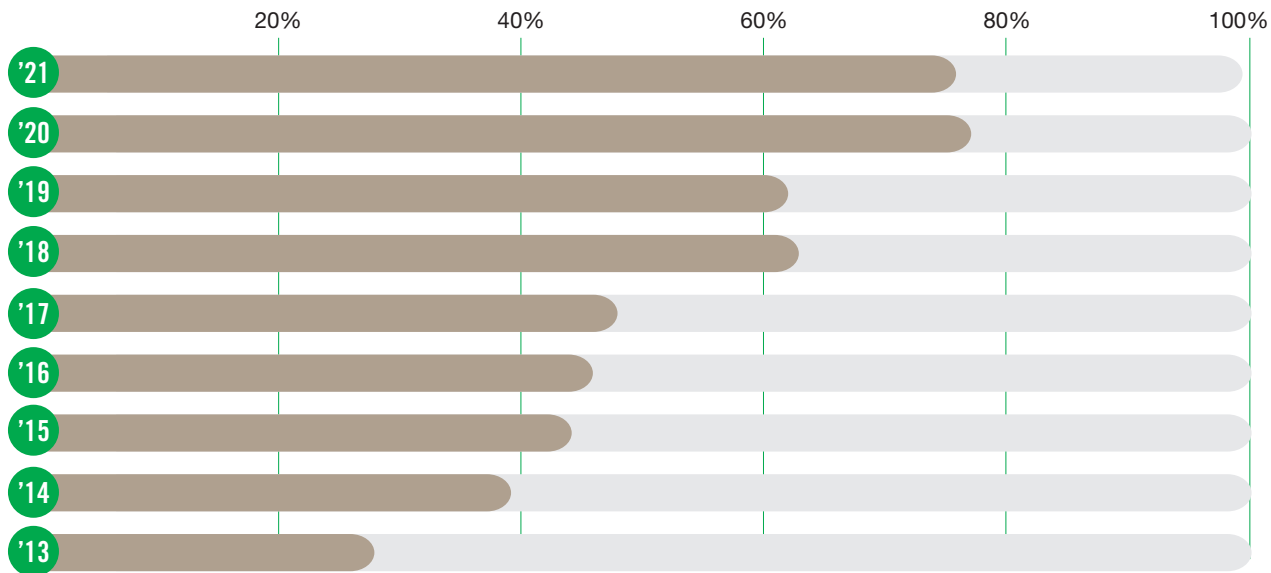
*Official fall 2021 enrollment figures per the University of North Dakota Office of Analytics & Planning.



EDUCATE PASS RATES/RETENTION

RETENTION OF UND SMHS MEDICAL STUDENT GRADUATES FOR PRACTICE IN-STATE

Percentile rank (compared with other medical schools)



Source: Missions Management Tool, 2021 AAMC

PROGRAM

- Athletic Training
- Medical Laboratory Science
- Occupational Therapy
- Physical Therapy
- Physician Assistant
- Medicine
 - Step 1
 - Step 2
 - Clinical Knowledge
 - Step 3

Sources: Data are from the most recent examination in each respective area.



Our goal is for our students in the health sciences and medicine to meet or exceed the accepted standard on nationally recognized exams measuring academic progress.

More than 700 practicing physicians now serving North Dakota communities received their education at UND.

UND SMHS PASS RATE

NATIONAL PASS RATE

78%	78%
92%	73%
100%	98%
94%	91%
100%	93%
99%	97%
100%	98%
98%	98%

PERCENTAGES OF PHYSICIANS PRACTICING IN NORTH DAKOTA WHO GRADUATED FROM THE UND SCHOOL OF MEDICINE & HEALTH SCIENCES OR COMPLETED AN IN-STATE RESIDENCY

	2019	2021
All Specialties	46%	50%
Family Medicine	74%	78%
Internal Medicine	41%	44%
Obstetrics and Gynecology	66%	69%
Pediatrics	41%	45%
Psychiatry	41%	48%

Source: Medical Marketing Service. (2021). *AMA Master File*, 2021. [Data file]. Wood Dale, Ill. Medical Marketing Service

SCHOOL OF MEDICINE & HEALTH SCIENCES ALUMNI

Medical Laboratory Scientists	2,571
Athletic Trainers	284
Physicians	2,390
Physical Therapists	2,017
Occupational Therapists	2,118
Physician Assistants	1,930
Public Health Professionals	76
Biomedical Sciences	243 (since 1995)
TOTAL	11,629

PERCENTAGES OF OTHER HEALTH CARE PROVIDERS PRACTICING IN NORTH DAKOTA WHO ARE GRADUATES OF THE UND SCHOOL OF MEDICINE & HEALTH SCIENCES

Athletic Trainers	30%
Occupational Therapists	52%
Medical Laboratory Scientists	47%
Physician Assistants	39%
Physical Therapists	48%

Data were collected from North Dakota state licensing boards and academic departments.

UND SMHS MEDICAL DOCTOR PROGRAM OUTCOMES

METRIC	PERCENTILE RANK
Graduates entering primary care	97th
Graduates practicing in rural areas	100th
Graduates practicing in family medicine	99th
Fraction of class identifying as American Indian	100th

Source: Missions Management Tool, 2021 AAMC

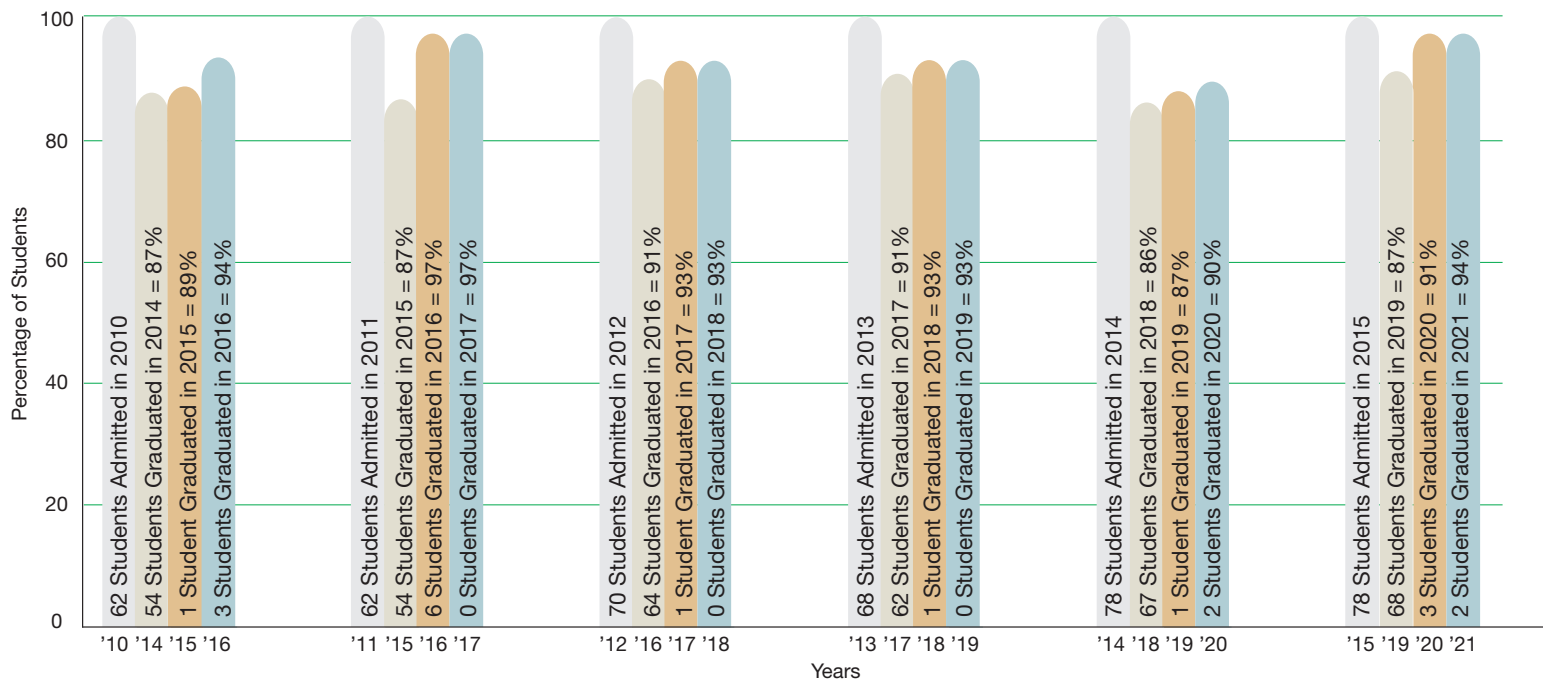


EDUCATE COMPLETION RATES

Completion rates* measure the percentage of students who enrolled in a professional degree program and completed their degree within the maximum allowable time, which varies based on the program. Colored bars represent the number and percentage of a class graduating relative to the initial number of enrolled students (gray) in a given year.

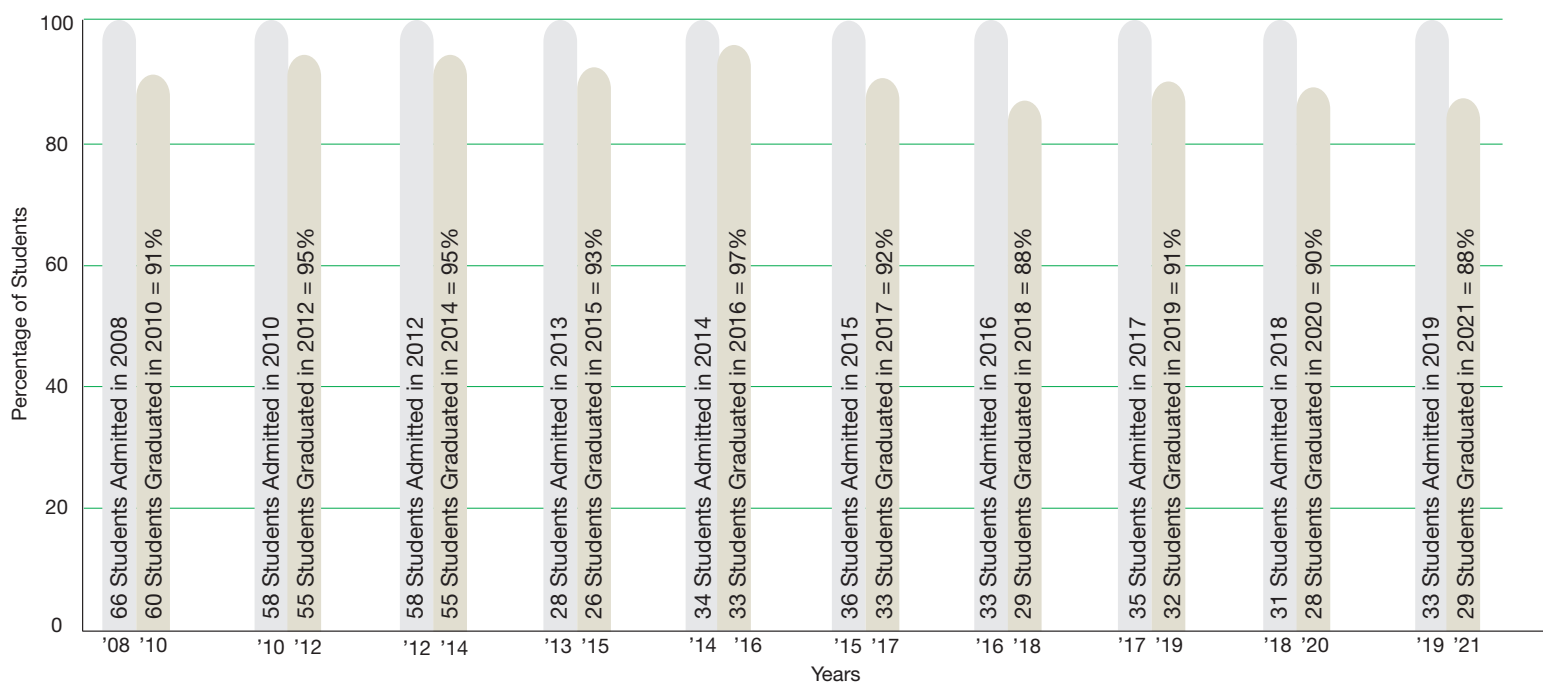
DOCTOR OF MEDICINE (FOUR-YEAR PROGRAM)

For Doctor of Medicine students at the School, the maximum time allowed to complete a four-year degree is six years. The national completion rate for medical students who graduate within seven years is 94 percent.



MASTER OF PHYSICIAN ASSISTANT STUDIES (TWO-YEAR PROGRAM)

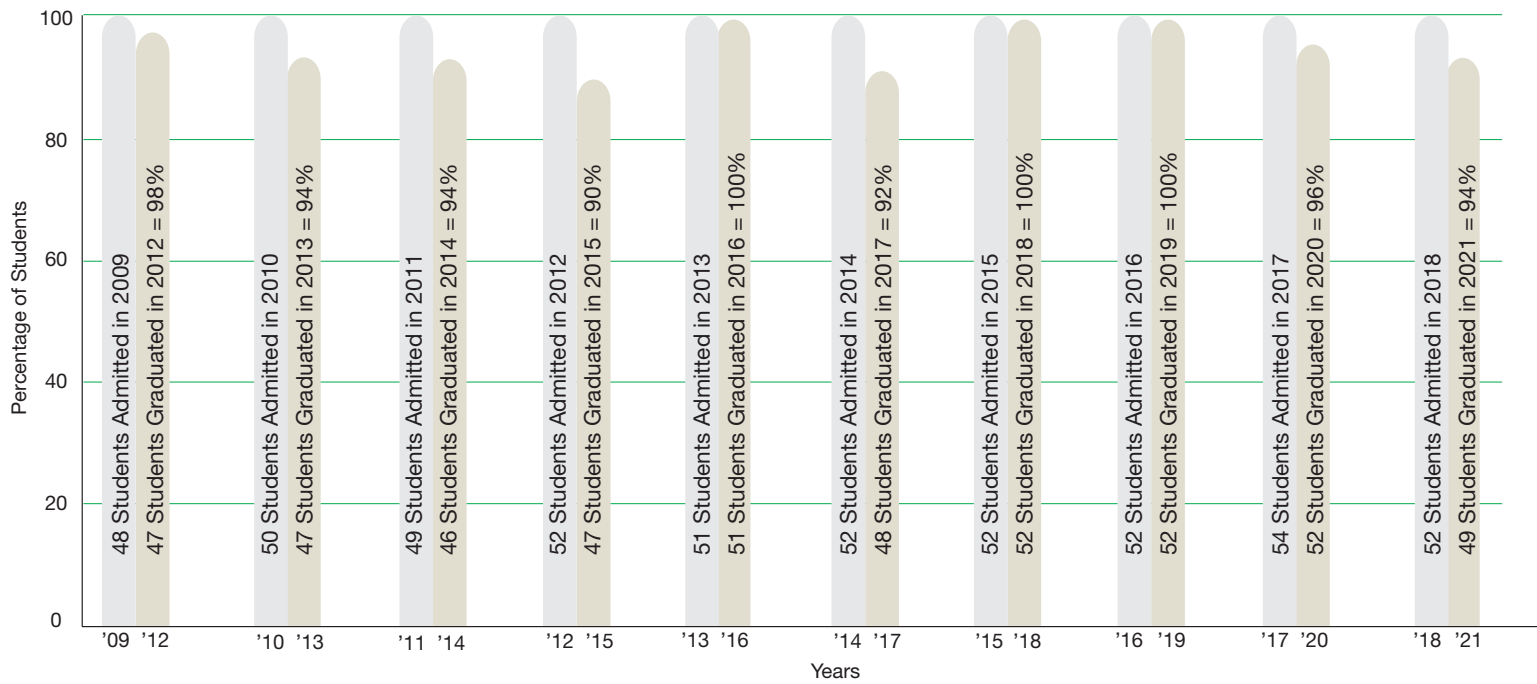
Beginning in 2006, the program accepted a new class every other year. It has returned to an annual admission structure effective with the class matriculating in 2013.



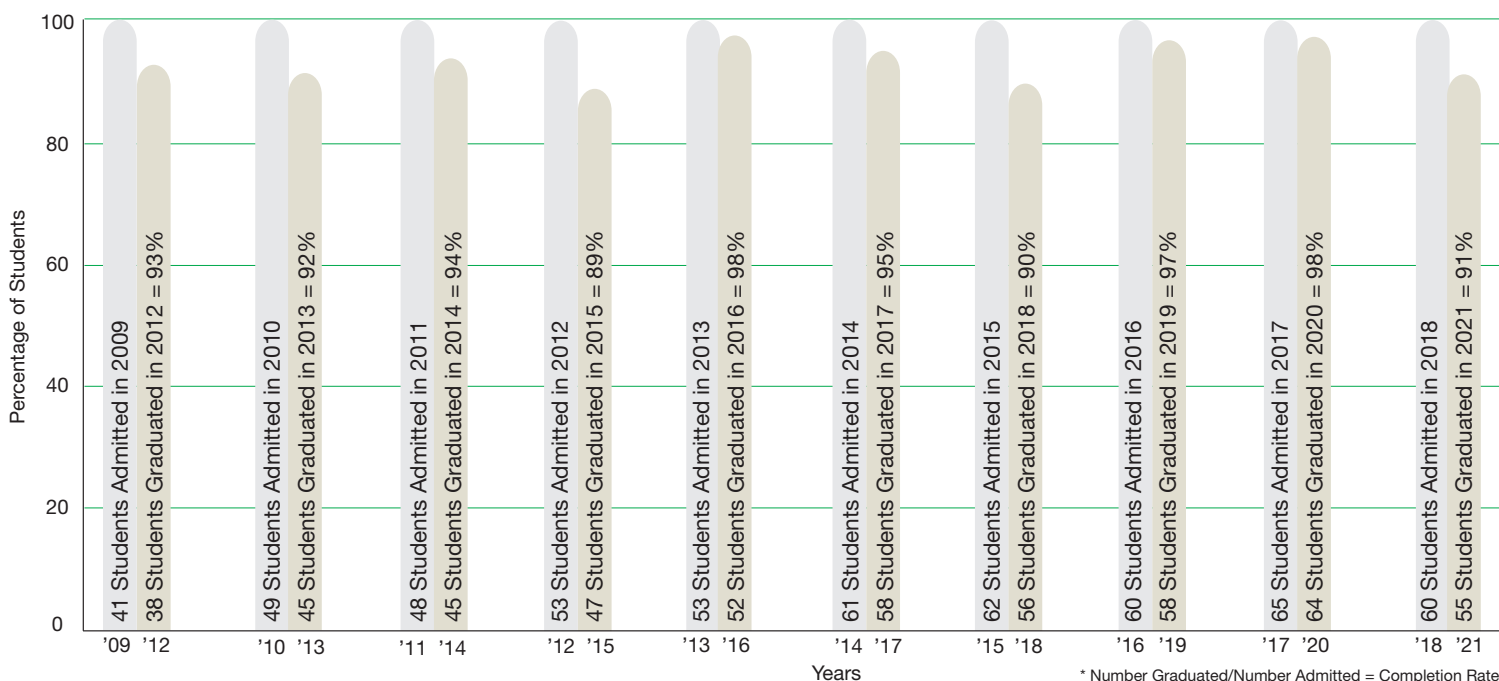


Our goal is to exceed the national benchmark for completion.

DOCTOR OF PHYSICAL THERAPY (THREE-YEAR PROGRAM)



MASTER OF OCCUPATIONAL THERAPY (THREE-YEAR PROGRAM)*



* Number Graduated/Number Admitted = Completion Rate

+ In 2019-2020 the UND Department of Occupational Therapy transitioned to a three-year Occupational Therapy Doctorate (OTD) program. The first OTD graduates will be in 2022.

EDUCATE MATCH DAY

RESIDENCY TRAINING

After graduating from medical school, physicians must complete residency training, a period of advanced intensive training in a chosen medical specialty, before independent practice as a physician. Depending on the medical specialty, medical school graduates complete anywhere from three to seven years of residency training after medical school.

Residency training throughout North Dakota is provided in eight specialties:

- Family Medicine (Bismarck, Fargo, Grand Forks, Minot, Williston)*
- Hospitalist (Bismarck)
- Internal Medicine (Fargo)
- Neurology (Fargo)
- Orthopedic Surgery (Fargo)
- Psychiatry (Fargo)
- Surgery (Fargo, Grand Forks)
- Transitional (Fargo)**

Residency training throughout North Dakota is provided in multiple regions:

- UND Family Medicine in Bismarck (Fort Yates), Fargo (Valley City, Detroit Lakes, and Wahpeton), Hettinger, Minot (Garrison), and Williston
- UND Surgery Rural Track (Minot and Fargo, N.D., and Perham, Minn.)
- UND Psychiatry (Rural Outreach to Dickinson, Williston, Devils Lake, Jamestown, Valley City, and New Town, plus Telemedicine)

Post-graduate Fellowships:

- Geriatrics (Bismarck, Fargo)
- Hematology-Oncology (Fargo)

In the fall semester of their final year of school, medical students apply to programs through which they hope to complete a residency—the period of advanced training in a medical specialty that medical school graduates complete before engaging in independent practice as a physician. Residency interviews are conducted anywhere between October and January of that academic year for most residencies.

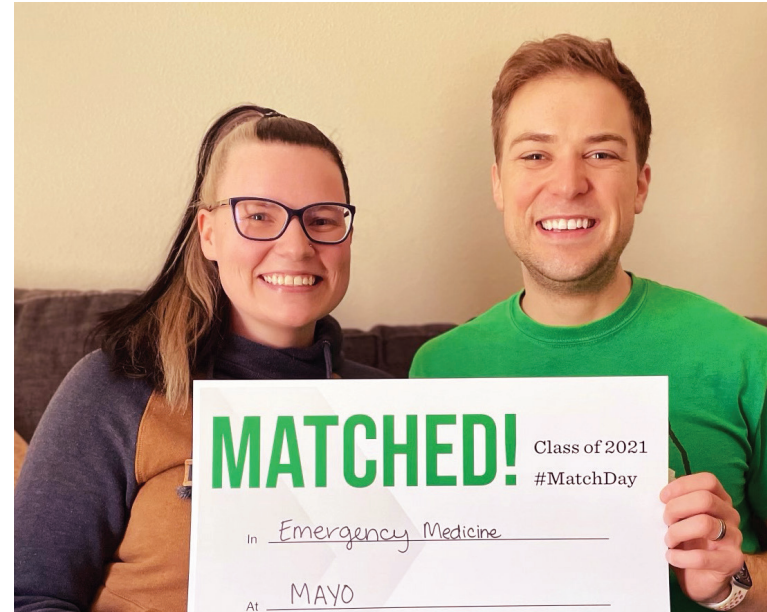
In their last semester, medical school seniors across the country find out where they will complete their residencies on “Match Day,” a celebration of residency placements coordinated by the National Resident Matching Program (NRMP).

The 2021 Main Residency Match was the largest in NRMP history. There were 38,106 total positions offered, the most ever, and 35,194 first-year (PGY-1) positions offered, an increase of 928 (2.7%) over 2020.

This year, 75 UND School of Medicine & Health Sciences students successfully matched with residency programs. In total, 61 percent of the MD Class of 2021 matched into primary care specialties of family medicine, internal medicine, obstetrics & gynecology, and pediatrics. A full 17 percent (13 of 75) of the cohort are set to enter family medicine, a figure nearly twice the national average of students matching into family medicine.

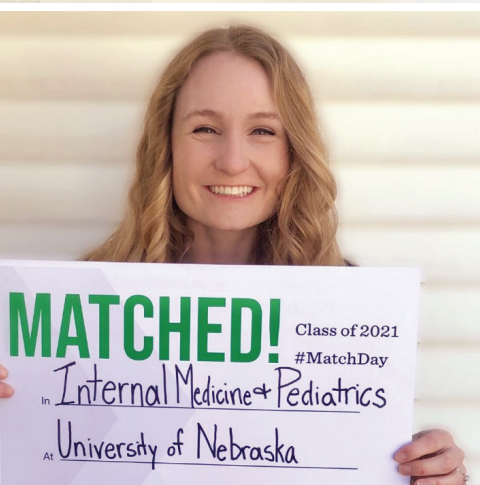
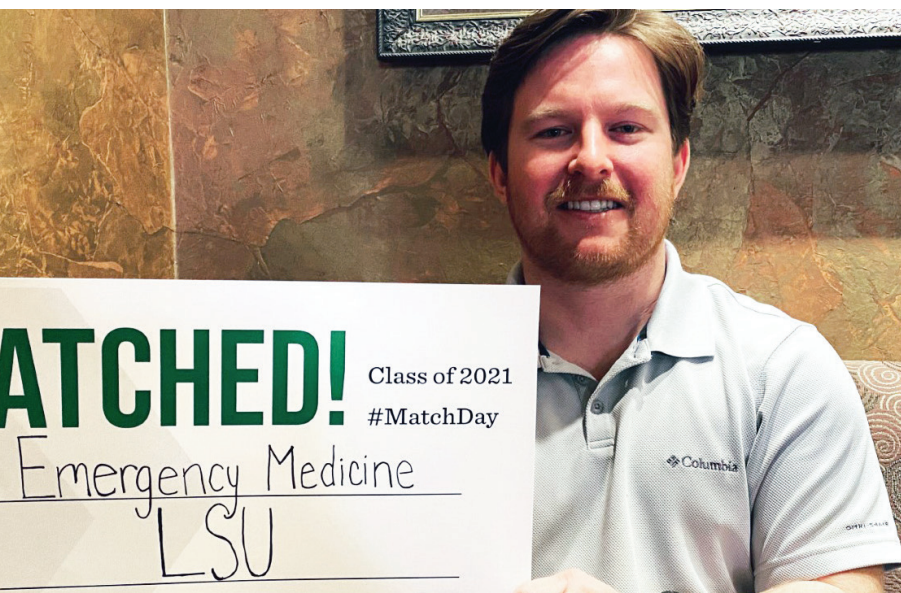
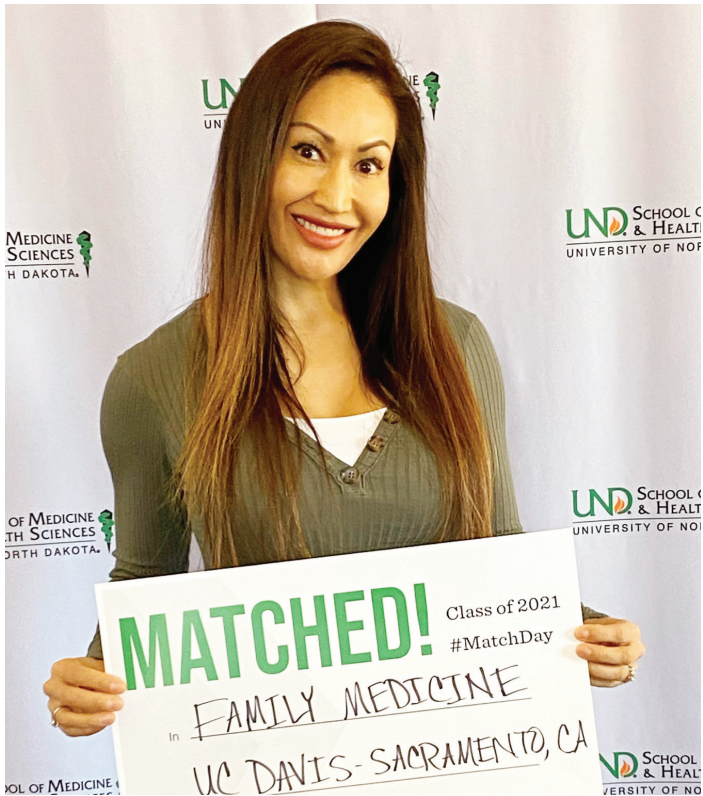
* The Family Medicine Program in Grand Forks is sponsored by Altru Health System.

** Transitional residency is a yearlong program designed to introduce graduates to a wide range of medical and surgical specialties. The goal is to build a broad foundation of clinical skills as a base for future training in a medical subspecialty.



////// "I matched into the Altru Health System Family Medicine Residency in Grand Forks! ...I am excited about my match in family medicine, and especially at Altru's program."

—Sarah Schaeffer
West Fargo, N.D.
M.D. Class of 2021



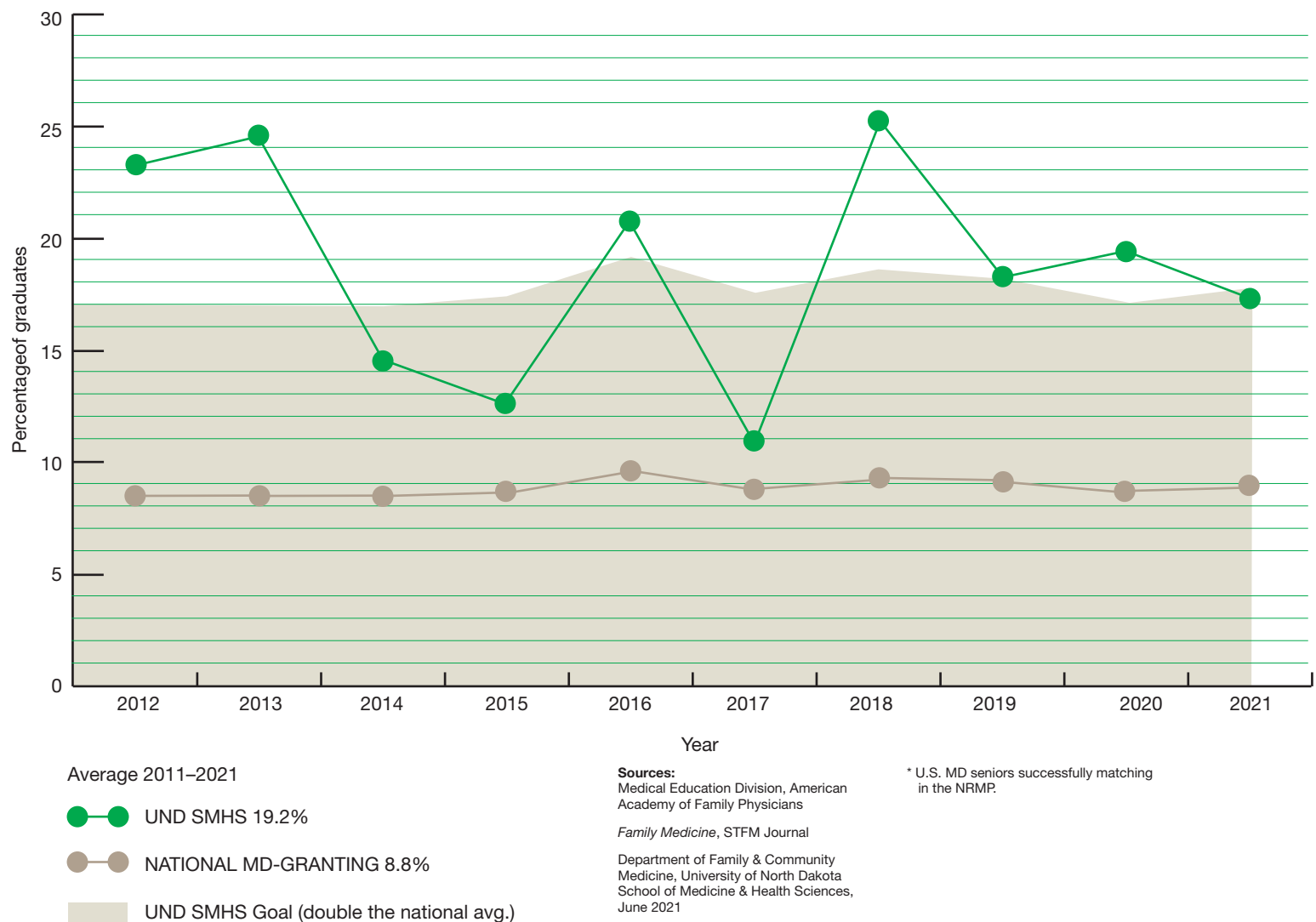
EDUCATE FAMILY MEDICINE RESIDENCY

Our goal is to exceed the national average of students specializing in family medicine by 100 percent.

A study completed by the American Academy of Family Physicians (AAFP) noted that the University of North Dakota School of Medicine & Health Sciences was again among the top contributors to building the nation's family physician workforce. The figure below represents various national studies conducted by the AAFP, and appearing in *Family Medicine*, that report retrospectively the percentage of graduates from U.S. Liaison Committee on Medical

Education (LCME)-accredited medical schools who enter Accreditation Council for Graduate Medical Education (ACGME)-accredited family medicine residency programs as first-year residents.

GRADUATES CHOOSING FAMILY MEDICINE 2012–2021*



EDUCATE PATHWAY PROGRAMS

 Growing our own: Innovative programs to produce health care providers for North Dakota.

ROME

Rural Opportunities in Medical Education (ROME) is a 24–28 week interdisciplinary experience in a rural primary care setting that is open to third-year students at the UND School of Medicine & Health Sciences. Students live and train in nonmetropolitan communities under the supervision of physician preceptors. ROME students experience health care delivery in rural areas throughout the state of North Dakota, where providing access to health care is sometimes challenging. Students learn about problems commonly encountered in primary care, from routine health maintenance to medical emergencies and rare and unusual diagnoses.

RuralMed

RuralMed is a state-sponsored program designed to increase the number of health care providers who practice in North Dakota. Medical students can apply to this program focusing their training on any medical specialty as long as they can establish a full-time practice in rural North Dakota. Students accepted for the RuralMed program will have the cost of four-years' tuition paid through a forgivable student loan, in return for five years of medical service in a rural North Dakota setting.

Minot Integrated Longitudinal Experience (MILE)

A clerkship is a course of clinical training that third-year medical students undertake in specialty areas. In the summer of 2012 in Minot, the first cohort of medical students undertook an integrated, longitudinal experience. Students work with preceptors in each of the specialties. An important feature of the new MILE is that students develop a panel of patients whom they follow throughout the year, accompanying them to consultant visits and procedures and following them through hospitalizations.

Summer Undergraduate Research

For 10 weeks each summer, more than two dozen undergraduate students from UND, as well as from rural and tribal colleges in Minnesota, North Dakota, and across the nation, conduct research and participate in a number of related educational activities at the UND School of Medicine & Health Sciences. Students work shoulder-to-shoulder with their mentor scientists from the UND Department of Biology, SMHS scientists and clinicians, Cankdeska Cikana Community College, and the Center for Rural Health. The research experience, under the direction of Professor Don Sens and the North Dakota IDeA Network for Biomedical Research Excellence (INBRE), culminates in a Summer Undergraduate Research Experience poster session in Grand Forks. One of the goals of the summer research program is to provide students with the opportunity to work directly with an established research scientist. An additional goal is to recruit students from rural and tribal colleges for future enrollment in UND undergraduate and graduate programs. The program has been successful in helping attract students to UND. In fact, 12 members of the MD Class of 2023 are INBRE summer research veterans!

R-COOL-Health Scrubs Academy

Since the annual Scrubs Academy started in 2011, 512 students have attended from numerous communities throughout North Dakota (375 students from rural communities). Students participate in a dissection, explore the inside of a 32-foot inflatable colon, and learn more about anatomy, medical laboratory science, emergency medical services, mental health, occupational therapy, physical therapy, public health, nutrition, music therapy, physician assistant studies, radiology, veterinary medicine, and other health careers. As part of the Academy, students receive Friends and Family CPR training and become certified in the Health Insurance Portability and Accountability Act (HIPAA). Most health facilities in North Dakota require that students be HIPAA-certified before allowing them to job shadow. Students are also given the opportunity to explore and learn more about the School of Medicine & Health Sciences, the UND campus, and the Grand Forks community. The 2021 Scrubs Academy was unable to be held due to the COVID-19 pandemic.

R-COOL-Health Scrubs Camps

Rural Collaborative Opportunities for Occupational Learning in Health (R-COOL-Health) Scrubs Camps are one-day learning experiences where students are able to explore healthcare careers from their local healthcare providers through hands-on, interactive activities. Since the program's start in 2010, 9,050 students, 3,050 volunteers, and dozens of local communities have participated in 111 Scrubs Camps across the state. From 2019-2021, only seven Scrubs Camps have been held due to the COVID-19 pandemic.

North Dakota Area Health Education Center

Since 2009, the North Dakota Area Health Education Center has utilized federal, state, and private funding to support learning opportunities for more than 23,256 participants reaching all 53 North Dakota counties. Of that total, more than 13,750 students have participated in health career awareness events and activities, and 144 students enrolled in health profession programs have completed rural clinical rotation experiences.

Frank Low Research Day

The School's annual Frank Low Research Day, named in honor of the former SMHS anatomy professor who came to UND in the 1960s and pioneered a series of new techniques for the electron microscope, is the culminating event of the academic year for area researchers working in the biomedical and health sciences. In 2021, a virtual event saw faculty, postdoctoral fellows, and graduate, medical, and health sciences students presenting prerecorded presentations.

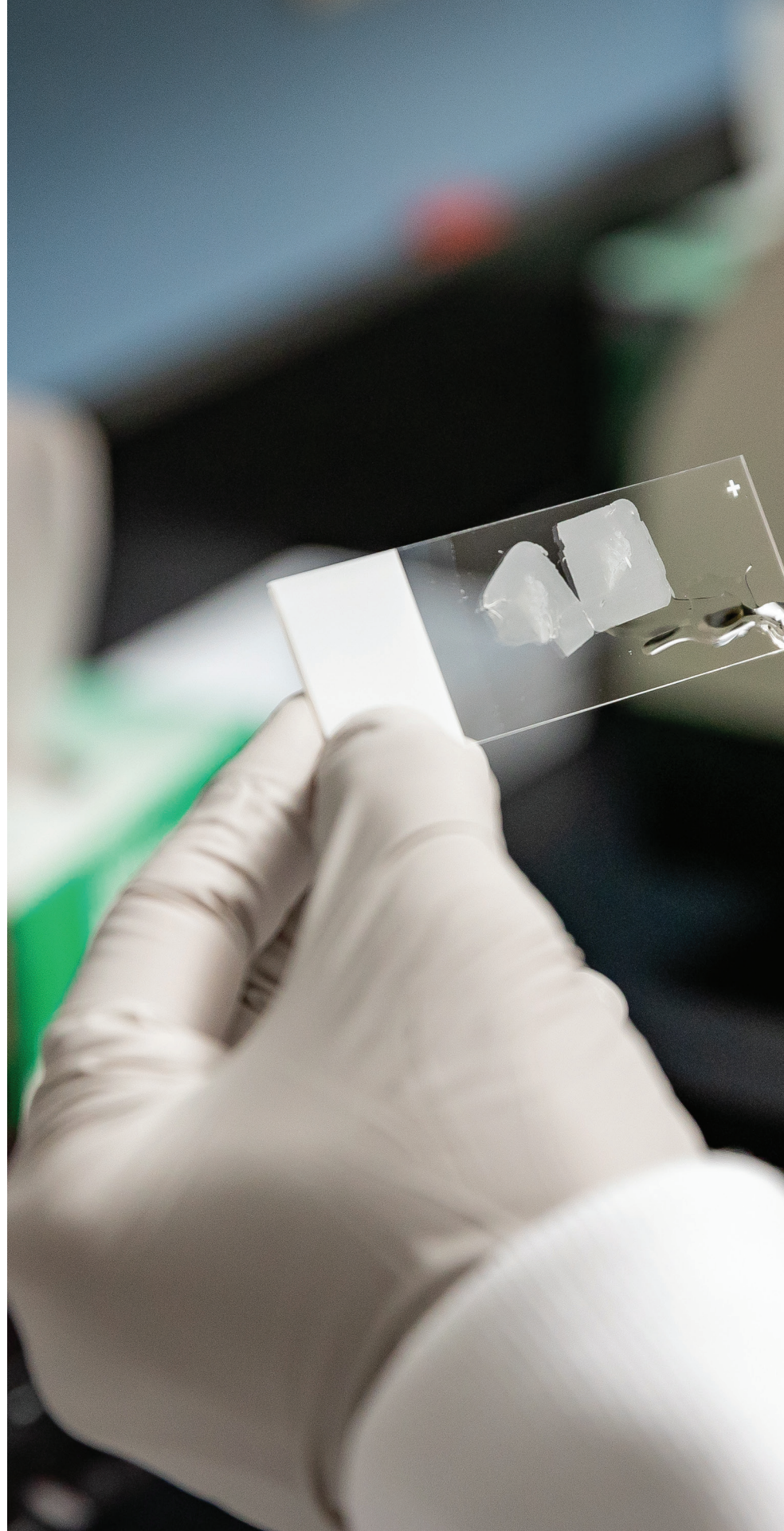
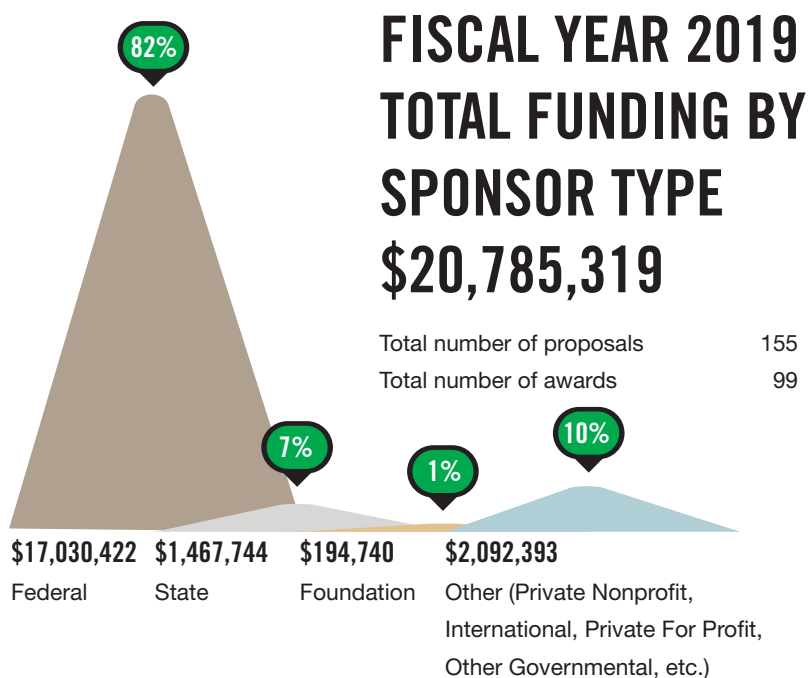
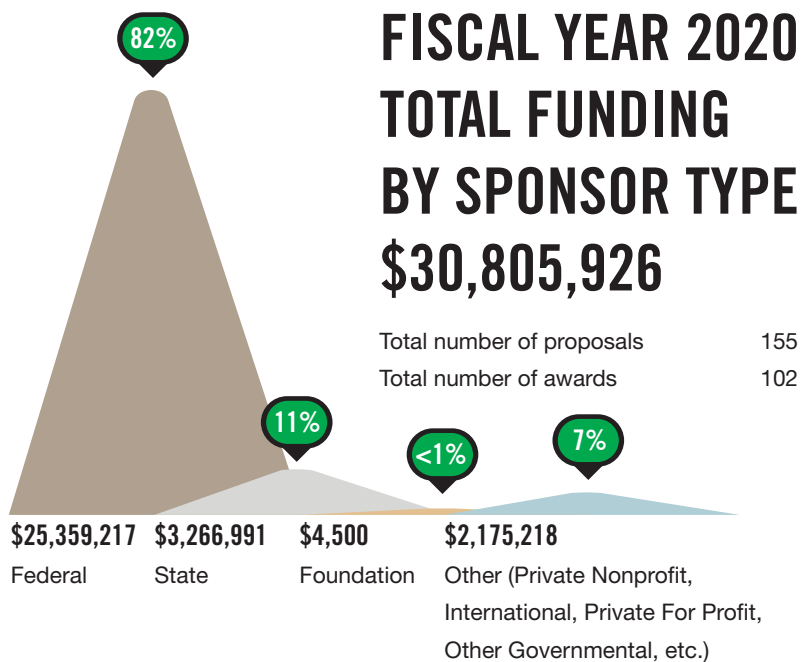
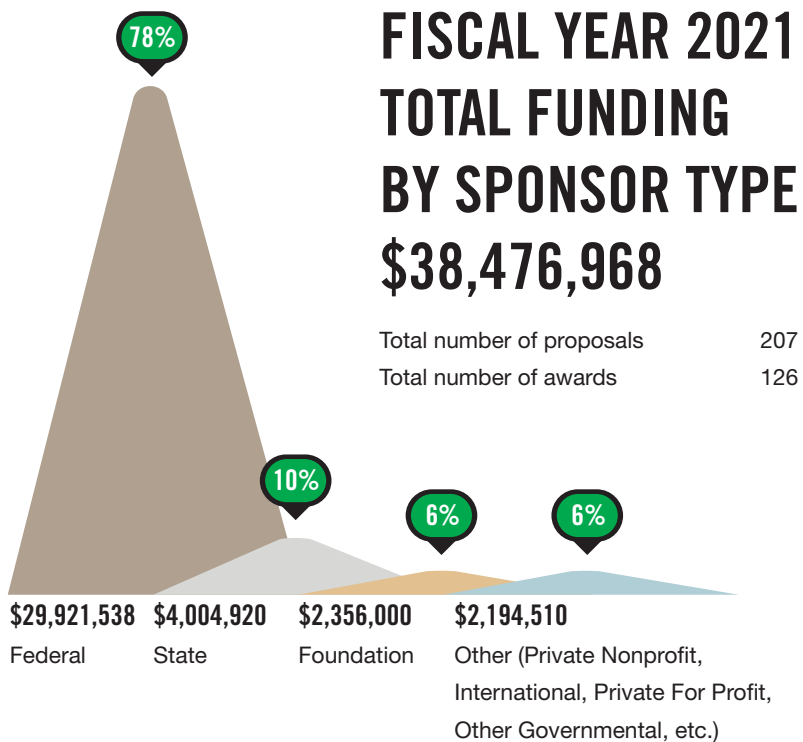
INMED

The Indians into Medicine Program (INMED), which was established in 1973, is a comprehensive program designed to assist American Indian students who aspire to be health professionals to meet the needs of our Indian communities and to serve reservation populations.

DISCOVER PROJECT AWARDS

//// For fiscal year 2021 (July 1, 2020–June 30, 2021), total research and sponsored funding was \$38,476,968. Over the past decade, the School has taken in nearly \$300 million in external funding for sponsored research and other projects.





Aside from some major grants given to our Center for Rural Health in 2021, the School received funding for research in the areas of cancer, Alzheimer's disease, and various infectious diseases, including COVID-19.



WORLD'S FIRST DEPARTMENT OF INDIGENOUS HEALTH

Fresh off its creation in 2020 of the world's first Ph.D. program in Indigenous Health, the School of Medicine & Health Sciences announced in August 2021 that it has founded the world's first Department of Indigenous Health.

"What's being built here is unprecedented," said Don Warne, M.D., M.P.H. "Nothing like this exists in the world."

The director of the School's public health and Indians into Medicine (INMED) programs was speaking of a new department that will serve as a hub for each of the Indigenous programs that have come online at the SMHS since 2019. These include not only the Ph.D. in Indigenous Health but the recently announced Indigenous Trauma & Resilience Research Center, the result of a five-year, \$10 million award from the National Institutes of Health, and the School's new Practice-based research network (PBRN) to be known as the American Indian Collaborative Research Network (AICoRN).

"We have a longstanding history of Indigenous programs at UND, beginning with INMED," said Warne of a program that has been producing Indigenous health providers since 1973. "Adding this full department in a medical school, we now have the opportunity to promote more synergy across our research, education, service, and other training opportunities that focus on Indigenous health and health equity. It creates a unique platform to expand the innovative work we're already doing, and explore more innovative programs."

Such innovations include AICoRN, which is a growing network of health providers in the region looking to do clinical research in a focused, community-based way.

According to AICoRN director Dr. Allison Kelliher, who found the prospect of conducting collaborative work in the context of a standalone Department of Indigenous Health too compelling to pass up, although PBRNs are not a new concept nationally, there were zero such networks representing the Dakotas, Montana, and Wyoming.

Until now.

"We're developing that network of practices and providers interested in creating a body of research and pursuing questions to benefit Indigenous population health," said Kelliher, a family medicine physician affiliated with the Koyukon Athabaskan tribe, who is also board certified in integrative and holistic medicine.

"This will require partnership with as many tribal stakeholders as are interested: tribal, urban, and Indian Health Service settings across our four states, in addition to collaborating internationally."

As Kelliher put it, not only clinical but laboratory-based research often takes "a couple of decades," historically speaking, to translate into real-time therapies for patients. But PBRNs like AICoRN – particularly if combined with the School's new Department of Indigenous Health – can help reduce that lag time.

"We need to build the evidence base of culturally relevant interventions to improve health outcomes, which can lead to more resources for our communities to implement effective health programs," concluded Warne, an enrolled member of the Oglala Lakota Tribe in Pine Ridge, S.D. "The other focus of this program will be to provide research mentorship to early career faculty and to establish them as independent investigators. This will lead to ripple effects in terms of additional grants, studies, resources, and programs through UND."



SERVE CENTER FOR RURAL HEALTH

The Center for Rural Health (CRH) at the School of Medicine & Health Sciences serves North Dakota, the region, and the nation. The Center, which last year celebrated forty years, focuses the majority of its resources on the state's 53 counties and generally works with 100 or more communities each year. CRH provides technical assistance to all 38 rural North Dakota hospitals, 36 of which are Critical Access Hospitals. CRH works closely with other groups too, such as public health, emergency medical services (EMS), rural primary care clinics (such as Rural Health Clinics), behavioral and mental health, and tribal health. Assistance is directed at improving access to quality healthcare services, the viability of rural health systems, and community engagement. CRH administers a variety of funding sources used to support and assist rural communities in North Dakota totaling:

- \$10,525,399 for FY2021

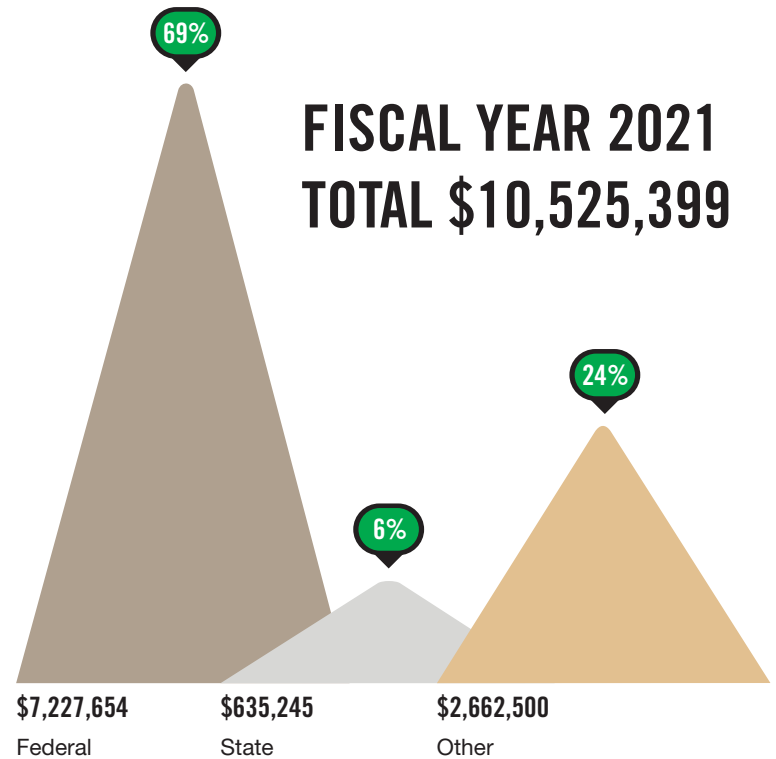
FISCAL YEAR 2021*

Federal Grants: \$7,227,654 CRH supports 21 grants in this category, including:

- Two national programs that focus on indigenous populations: the National Indigenous Elder Justice Initiative (NIEJI) and the National Resource Center on Native American Aging (NRCNAA). These programs focus on improving health outcomes and the wellbeing of American Indian, Alaska Native, and Native Hawaiian Elders. CRH Native programs have a predominantly Indigenous staff with expertise in geriatrics, elder abuse, mental health, suicide prevention, health disparities, community-based participatory research, tribal participatory research, resiliency, and wellness. CRH works with nearly half of the 574 federally recognized tribes. NRCNAA has expanded to include a focus on urban-based Native Elders and administers an effort to expand Qualified Service Providers into reservation communities.
- Nationally sponsored projects like the Rural Health Information Hub and Rural Health Research Gateway provide resources, information, and dissemination of information regarding the latest rural health research and programs.
- CRH receives federal funding for other programs that support healthcare, such as the Rural Hospital Flexibility Program, Small Hospital Improvement Program, and the State Office of Rural Health. This funding helps rural hospitals improve quality, finance and operation; integrate EMS and innovative healthcare models; and engage communities.

State Grants: \$635,245 CRH has sponsored contracts with the state of North Dakota for the Traumatic Brain Injury Network, and behavioral health programs.

Other Grants: \$2,662,500 CRH administers and supports other sponsored contracts that serve and enhance rural health in the state and region. Initiatives include Truserv; the Dakota Conference on Rural and Public Health; the Blue Cross Blue Shield Caring Foundation grant; the Native Urban Elder Needs Assessment Survey, funded by AARP; the Native Aging in Place Program, funded by the Margaret A. Cargill Philanthropies; and Community Health Needs Assessments.



FISCAL YEAR 2020

Federal Grants	\$ 9,548,107
State Grants	690,494
Other Grants	161,711

TOTAL \$ 10,400,312

FISCAL YEAR 2019

Federal Grants	\$ 6,611,248
State Grants	406,747
Other Grants	881,586

TOTAL: \$ 7,899,581

* In Spring 2021, UND's Center for Rural Health received a substantial SHIP COVID-19 grant award (\$3,035,412). This one-time funding was provided by HRSA under the Coronavirus Air, Relief, and Economic Security (CARES) Act. The funding was specifically designated to support COVID-19 activities in North Dakota's 36 Critical Access Hospitals. CRH facilitated the distribution of these federal funds.



Staffers at the UND Center for Rural Health pose for the Center's fortieth anniversary in 2020.

SERVE FACULTY/STAFF/STUDENTS

Each year UND School of Medicine & Health Sciences faculty, staff, and students engage in many projects that seek to improve the communities in which they live and work. Here are a few highlights from 2021:

UND awarded \$10 Million NIH grant to study Indigenous resilience and health effects of trauma

In March, the School received a five-year award from the National Institutes of Health totaling more than \$10 million to develop an Indigenous Trauma & Resilience Research Center. According to Dr. Don Warne, director of the School's Indians Into Medicine (INMED) and public health programs, the goal of the research center will be to address the impact of historical and unresolved trauma on health inequities within the American Indian and Alaska Native population.

"We need to understand the impact of these issues, and, more importantly, we need to understand the best ways to overcome these challenges and to improve health outcomes," Warne concluded. "The outcomes generated from this research have the potential to be applied in other marginalized populations. Over time, improved health status translates into reduced healthcare costs and improved quality of life."

For example, said Warne, the poor health outcomes that result from childhood trauma require a holistic approach to healing, which can include greater exposure to Indigenous

histories, ceremonies, and foods, all of which may be included in the broader American Indian definition of "medicine."

The data suggest that the need for such a center is great. American Indians in North Dakota and the region suffer from significant health disparities, relative to the non-Native population, and much of this is related to historical trauma, adverse childhood experiences, forced boarding school participation, social marginalization, and toxic stress. On the Pine Ridge Reservation in South Dakota, for example, life expectancy is lower than anywhere in the western hemisphere, with the exception only of Haiti.

The project, which will be managed by Warne and his team, also includes resources to begin the first-ever SMHS-based clinical trial in School history. The trial will be conducted in partnership with the U.S. Department of Agriculture (USDA) and the federally funded Human Nutrition & Research Center (HNRC) in Grand Forks.

"Indigenous communities deserve representation not only in research as leaders

and participants, but also in the development of relevant research questions that amplify community strengths while getting to the heart of what matters most in communities," added Nicole Redvers, N.D., a member of the Deninu Kué First Nation, who will direct the trial. "I am humbled and proud of the support we've seen from the School, our partners, and faculty mentors at UND that have enabled me to lead the first clinical trial hosted at the SMHS. I am even more proud that this clinical trial will be investigating a traditional Indigenous food with a long history of use for healing in Indigenous communities."

The five-year grant may be renewed twice for a possible grant period of 15 years. Warne said that immediate next steps for the team are to establish the infrastructure to support the research projects, including implementing its administrative core, and hiring several new staff and faculty members to conduct community engagement and outreach. Research priorities for the center will be community-based and revolve around the UND team's long history of community engagement.



The SMHS annual Service Learning Day continued in 2021

Despite the pandemic, the third annual School of Medicine & Health Sciences Service Learning Day was held on Wednesday, Jan. 27, 2021, via Zoom. Service Learning Day is an event that gives students an opportunity to reflect on how their volunteer work affects the communities in which they live and work and shapes their view of health and healthcare. Initiated by medical students in 2019, the poster event has expanded to any SMHS student interested in connecting their health training to community needs. In 2021,

students produced posters on their volunteer work with the immigrant integration group Global Friends Coalition in Grand Forks, their outreach to assisted living facilities in the region whose residents have been even more isolated since the pandemic began, and efforts to shed light on the importance of suicide prevention and mental health via the UND "Out of the Darkness" walk.

SERVE WORKFORCE

THANK YOU UND SMHS EMPLOYEES FOR YOUR SERVICE AND DEDICATION

Although COVID-19 meant that UND was unable to hold its annual Employee Recognition Ceremony in May, the University still honored employees' work anniversaries. As usual, many of these honorees are based out of the SMHS, including the following honorees:

45-YEAR HONOREES

Alyson White, Physical Therapy

40-YEAR HONOREES

Julie Horn, Biomedical Sciences

35-YEAR HONOREES

Faye Aker, Education Resources

Terrance Nelson, Dean's Office
Medicine

30-YEAR HONOREES

Jane Thorvilson, Student Affairs
& Admissions

25-YEAR HONOREES

Cherylyn Stoltman, Medical
Laboratory Science

20-YEAR HONOREES

Valeria Becker, Education Resources

Angeline Belbas, Physician Assistant
Studies

Angela Floden, Biomedical Sciences

Danping Guo, Pathology

Stacie Klegstad, NE Campus,
Grand Forks

Maren Niemeier, Rural Health

Susan Rundquist, Rural Health

Victoria Thompson, Information
Resources

15-YEAR HONOREES

Janice Flatin, Rural Health

Brian Schill, Alumni & Community
Relations

Dawn Seaver, Dean's Office Medicine

10-YEAR HONOREES

Edward Bina, Pathology

Craig Bohn, Bismarck Center
for Family Medicine

Jeanette Gratton, Dean's Office
Medicine

Rachel Osowski, UND Simulation
Center

Sarah Owens, Geriatrics

Mandi-Leigh Peterson, Rural Health

Jodi Rathjen, SW Campus, Bismarck

John Roberts, Information Resources

Tara Specht, Bismarck Center

for Family Medicine

Michael Ullrich, Biomedical

Sciences

5-YEAR HONOREES

Megan Denis, SMHS Library
Resources

Susan Holden, Indians Into Medicine

Erika Johnson, SMHS Library
Resources

Allee Mead, Rural Health

Michelle Montgomery, Psychiatry
& Behavioral Science

Dorothea Nelson, Rural Health

Joyce Rice, Biomedical Sciences

Courtney Souvannasacd, Rural Health

Zauna Synnott, Public Health

Program

Jean Vedquam, Bismarck Center

for Family Medicine

Marissa Wuori, Bismarck Center

for Family Medicine

FACULTY & STAFF TURNOVER

The faculty turnover rate (faculty who left their jobs) at the UND SMHS for FY 2021 was 7.8 percent. The turnover rate for all North Dakota University System (NDUS) faculty for that same year was 13 percent.

Likewise, the staff turnover rate at the UND SMHS for FY 2021 was 11.1 percent while the rate for all NDUS staff was 13.5 percent.

In FYs 16, 17, 19, 20 and 21, the University of North Dakota offered a voluntary separation program (VSIP) for both faculty and staff. Six SMHS employees accepted voluntary separation in FY21.

	2020 ⁺	2021 ⁺
Total Benefited Faculty*	185	205
Full-time	174	192
Part-time	11	13
Turnover Count	10	16
VSIP	1	1
Total Benefited Staff*	250	270
Full-time	237	260
Part-time	13	10
Turnover Count	29	30
VSIP	5	5

* Benefited appointment is 20 hours/week or more.

⁺ Fiscal Year



2021 JOGGIN' WITH JOSH

After holding a "virtual" event in 2020, the 12th annual Joggin' with Josh 5K/10K walk/run was held in person again, outdoors of course, on Thursday, Sept. 23, 2021. That sunny fall afternoon, more than 70 faculty, staff, students, and community members made it out to celebrate and promote wellness and an active lifestyle.