



FACT SHEET WITH Q&As

Physician Education

Physician education throughout the United States is divided into four phases that follow each other sequentially over the professional life span of a doctor:

- Undergraduate (college)—This typically requires four years. However, there are a number of combined undergraduate and medical school programs that can shorten the time span; Dr. Wynne, for example, is a graduate of the Boston University combined program and entered medical school after only two calendar years of undergraduate education.
- Medical school—This typically requires four years as well. A few schools shorten the time required to three years. Medical school education (also called undergraduate medical education or UME) typically is divided into halves—the first two years principally are in the classroom and for UND SMHS students takes place mainly in the new building in Grand Forks. These years often are called “pre-clinical,” even though our students have patient contact beginning in their very first week of classes. The second two years are the clinical years, and take place in clinics and hospitals across the state. The UND SMHS operates four regional campuses to coordinate these teaching activities, in Grand Forks, Fargo, Bismarck, and Minot. In addition, students with a particular interest in rural practice participate in our Rural Opportunities in Medical Education (ROME) program, and they study and learn in a variety of rural communities throughout the state.
- Residency (also known as graduate medical education or GME)—In order to practice medicine in the United States, students who have graduated from medical school (and thus are allowed to use the title “Doctor”) must complete additional training after graduation in a specific area of medicine (such as family medicine, surgery, or pediatrics). This additional training is called a residency; older terms for various phases of residency training include “intern” and “fellow.” The level of training of a resident often is identified by what year of training they are in following medical school graduation, so a resident in the first year of training after graduation is referred to as a PGY1 (meaning first post-graduate year resident). Depending on the specialty choice of the resident, the trainee may need to complete several sequential residencies (so a doctor who wants to be a cardiologist, for example, would complete three years of internal medicine residency and then three [or more] years of cardiology residency). Most residencies (for example, internal medicine, family medicine, and pediatrics) are three years; surgery is five years. One of the fundamental concepts that differentiates residency training from college or medical school is that residents are paid a stipend, while college and medical students pay tuition.
- Continuing Medical Education (CME)—CME consists of the additional education and assessment of knowledge that is required of practicing physicians in order to maintain a license to practice medicine.

Questions and Answers about Residency

Q. How does a medical student get into a residency?

A. Most residency slots in the United States are apportioned through a computer matching process operated by the National Resident Matching Program (NRMP). This program collects match lists composed by residency programs and those composed by medical student applicants who apply to residency during their fourth (and last) year of medical school. The NRMP computer “matches” students with residency slots using the following principle: a student is matched to the highest residency choice on the student’s list that has ranked the student sufficiently high so that there is an available slot in that residency for the student.

Q. How are residency slots funded?

A. Most residency slots are funded through the Medicare program and are based on a cost report submitted by the participating hospital. In some states (but not North Dakota), Medicaid funding is used as well. The number of slots and associated funding were largely frozen by the Balanced Budget Act (BBA) of 1997. Residency slots that are added above the “cap” established by the BBA must be paid for using other sources of funding; this often is from hospital resources, state general funds, physician practice income, or other ancillary funding sources.

Q. Why is North Dakota funding additional residency slots?

A. Because it is one of the very best ways to retain more doctors for practice within the state, especially primary care (family medicine) doctors. Thus funding residency positions is directly related to increasing the distribution of physicians in the state, especially in rural areas. How so? Because the retention of doctors practicing in North Dakota increases dramatically if they complete both medical school and a residency in the state. About one out of three students completing just medical school here eventually practices within North Dakota. If an out-of-state medical school graduate completes just a residency here, there is a little less than a one in two chance of the doctor practicing here. **But, if a doctor completes both medical school and residency here, there is a two out of three likelihood that the doctor will practice here.**

Q. Why are the additional slots needed?

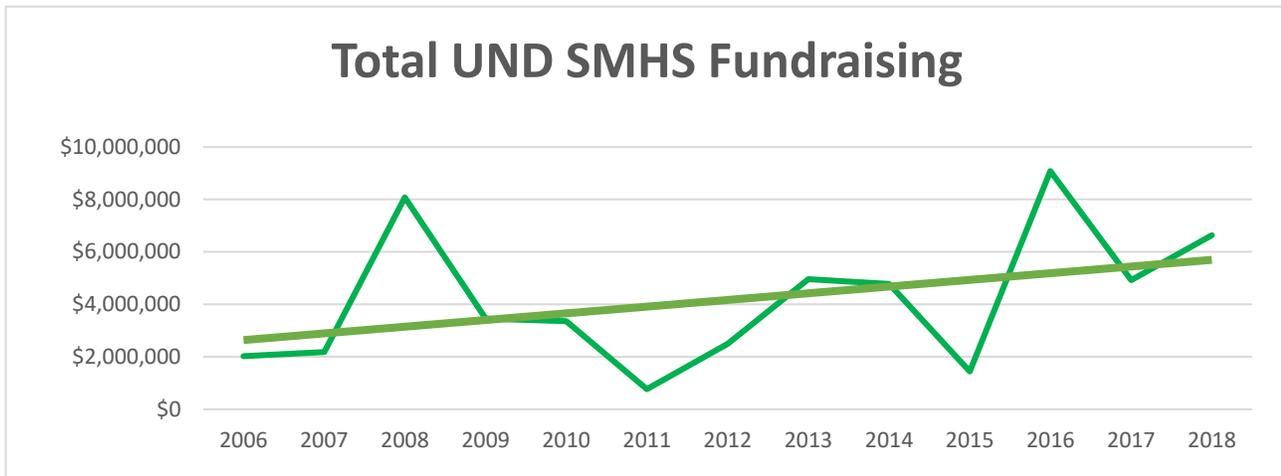
A. Because we don’t have enough slots for all of our graduating medical students. Before the expansion of our residency slots through the Healthcare Workforce Initiative (HWI), we had residency slots available for only half of the members of our graduating class of medical students. That meant that half the class had to leave the state to complete their residency. Our ratio of 0.5 residency slots/graduating medical student was far below the national average of 1.0 (meaning that there was at least one residency slot available for every medical student graduate if he or she wanted it), and placed us at the bottom of the heap compared with other states. We ranked 45th out of 45 of the states in the United States with medical schools! (Note that even as we increase the number of residency slots, some members of the class will still go out-of-state for residency; those who want to enter radiology or pediatrics, for example, must go out-of-state because we don’t have those residencies available in North Dakota. But at least all who’d like to stay will be able to with the increased number of slots).

Q. How can North Dakota justify the expense associated with the residency? Is it sustainable in the long run?

A. Although the UND SMHS continually looks for other sources of funding for the residency expenditures, even if none are found, funding for the residencies still makes sense. First, it will be impossible to retain (let alone attract) younger citizens and families to North Dakota without physicians and good healthcare. But it even makes good economic sense. At present, the HWI will graduate about 11 residents per year. The cumulative expenditures for those graduates will be around \$5 million. Of the 11 graduates, we will retain 8. National surveys have shown that each physician generates around \$2.25 million in annual economic activity, or around \$18 million for all eight. So over ten years, the return on a \$5 million investment will be nearly \$200 million dollars in economic activity for North Dakota!

Questions and Answers about Philanthropy

- Q. Why did the UND SMHS designate an increase in student scholarships as its main philanthropic goal over the last decade? Why not use those funds for, say, defraying the cost of programs (that is to say, operational costs)?
- A. The reason that the UND SMHS strove to increase scholarships for students was directly related to the purpose statement established for the School in the North Dakota Century Code: “...to educate physicians and other health professionals and to enhance the quality of life in North Dakota” (Source: NDCC 15-52-01). In order to increase the number of medical graduates practicing in North Dakota, especially in the rural areas, it is critical to eliminate roadblocks that impede that pathway. And a high level of educational debt is widely recognized as a major barrier to rural primary care practice. A review by Goodfellow and others in *Academic Medicine* (91:1313–1321, 2016) identified mitigation of student debt as one of four critical factors that enabled and encouraged rural primary care practice. Despite low cost to attend, UND medical students had higher than average educational debt (the average medical school debt in the United States is around \$170,000). Accordingly, we used the naming opportunities provided by the new building to acknowledge those donors who contributed to the UND Alumni Association and Foundation on behalf of the UND SMHS, and thus to increase our scholarship offerings.
- Q. How successful was the fund-raising effort?

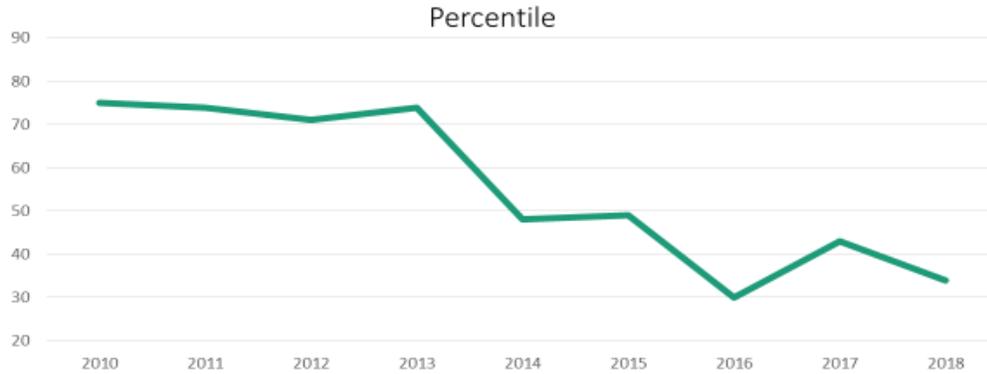


- A. It was spectacularly successful (see graph above with yearly totals and a trend line)! Note that the yearly average of donations shown on the trend line has increased from around \$3 million to almost \$6 million. The UND SMHS has raised more money through philanthropy in the last few years than ever in its history. As a consequence of being able to use the naming rights in the new building to attract potential donors, we raised \$8.44 million. An additional \$2.34 million came from the ND Challenge Fund for a total of \$10.78 million—the great majority of which (34 of the 38 named spaces) support student scholarships.

- Q. So, what happened to medical student debt?

- A. As a consequence of the increased philanthropy, scholarships were increased. This, along with the RuralMed Scholarship Program funded by the North Dakota Legislature, resulted in a precipitous fall in the cumulative debt of medical students, falling from well above average (around the 75th percentile) to well below average (around the 33rd percentile; see graph below on the next page). This should translate into more doctors practicing in rural North Dakota.

Medical Student Debt



Source: Association of American Medical Colleges Missions Management Tools 2010-2018



Further Details Regarding ND Residencies

Number of residents in North Dakota GME programs before HWI program implementation (UND programs [196] and associated program thru Altru Health System [36])

Biennial Numbers

Number of HWI residents on contract in 2019–21 232

Number of HWI residents on contract in 2019–21

Average Cost of each resident position for 2019–21 70

(Note that this cost is very much in keeping with national cost estimates per residency slot)

Average Cost per Resident Summary \$152,517

Average Cost of each resident stipend and fringe benefits: \$78,500

(Stipend: \$61,774; Benefits: \$16,726)

Average cost of each Resident for faculty supervision, administrative support, and operating costs: \$74,017

Composition of Medical Student Class of 2022

Category	Percent of Class
ND resident	67%
ND resident or ties to ND	85%
MN resident	10%
WICHE	6%
INMED	7 slots (out of 78)