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Health Care Workforce in North Dakota

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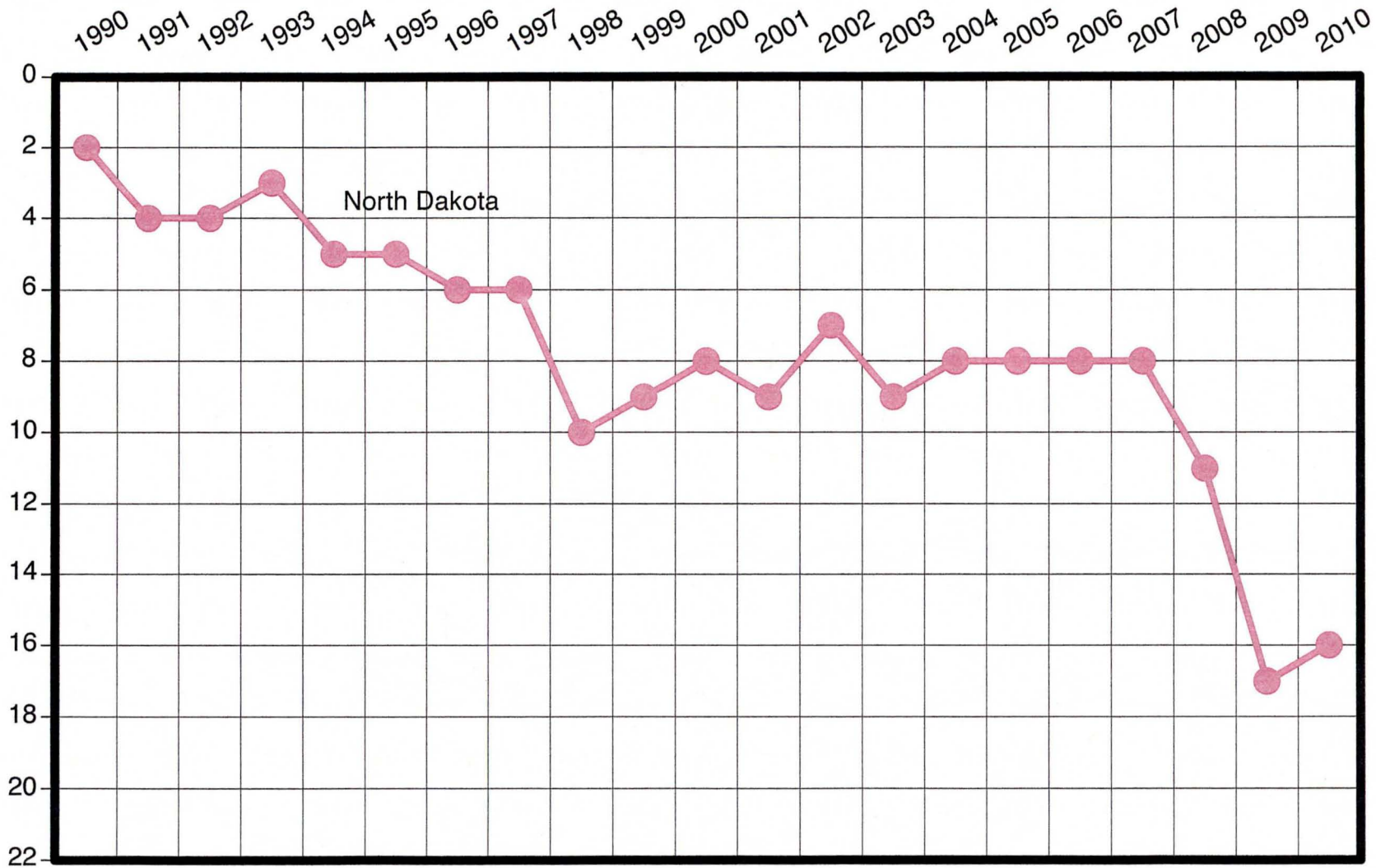
Grand Forks, North Dakota

Presented at North Dakota Legislative Management Health Services Committee
Bismarck, North Dakota
October 26, 2011

APPENDIX R

Exhibit 1
2010 National Health Rank
United Health Foundation Rankings



11/26/11 Chart23

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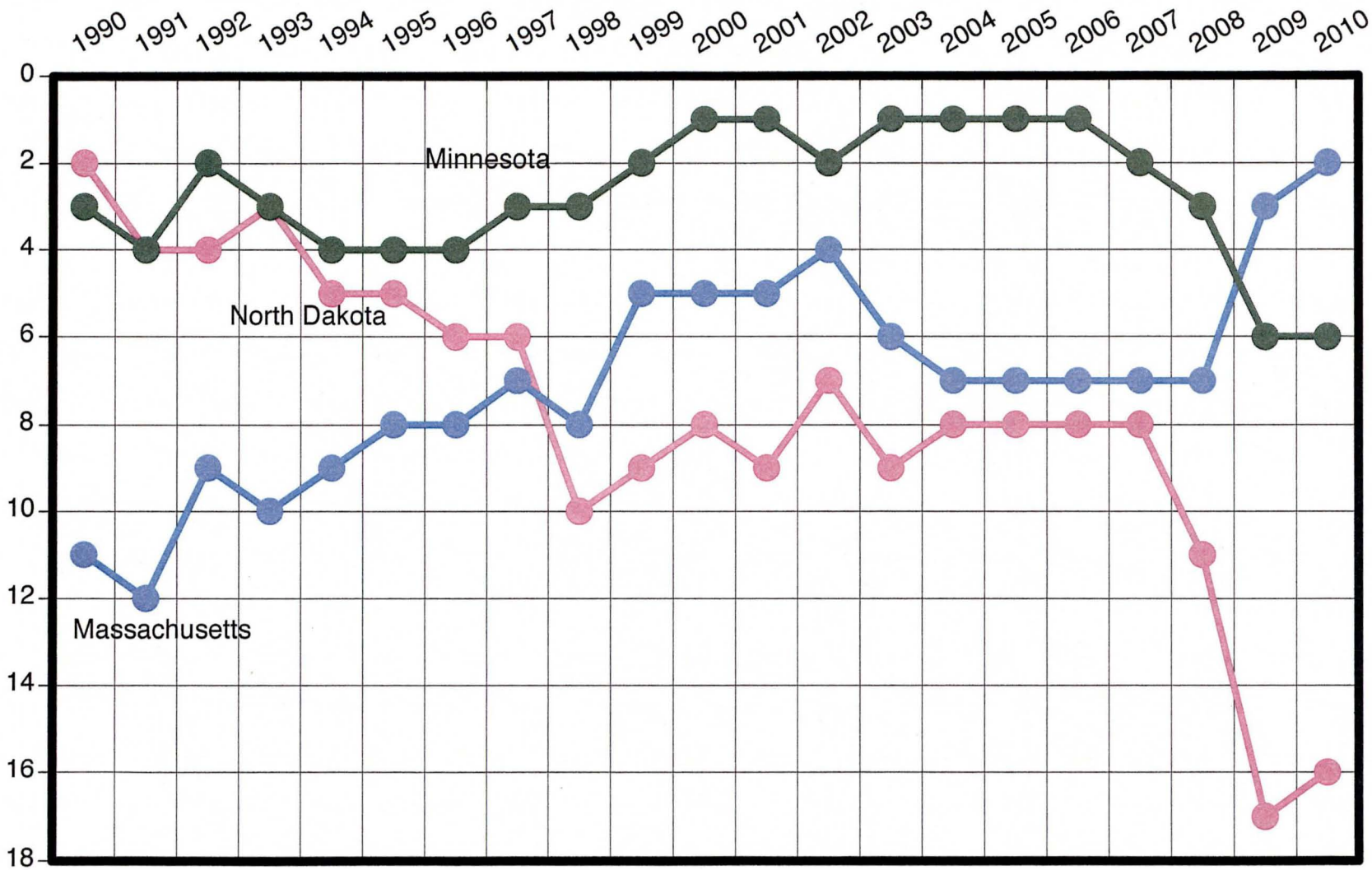
Exhibit 2
2010 National Health Rank
United Health Foundation Rankings



11/26/11 Chart9

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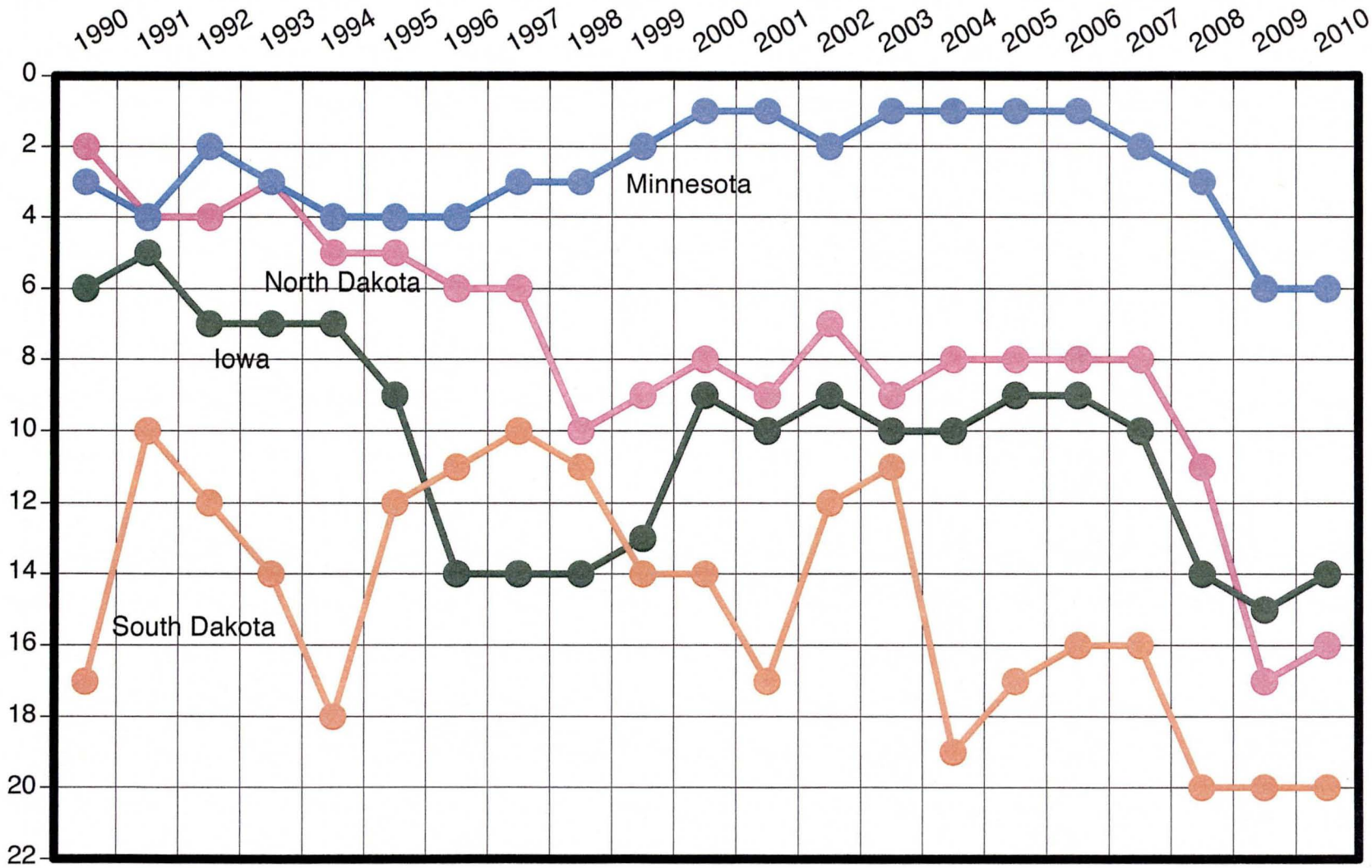
Exhibit 3
2010 National Health Rank
United Health Foundation Rankings



11/26/11 Chart10

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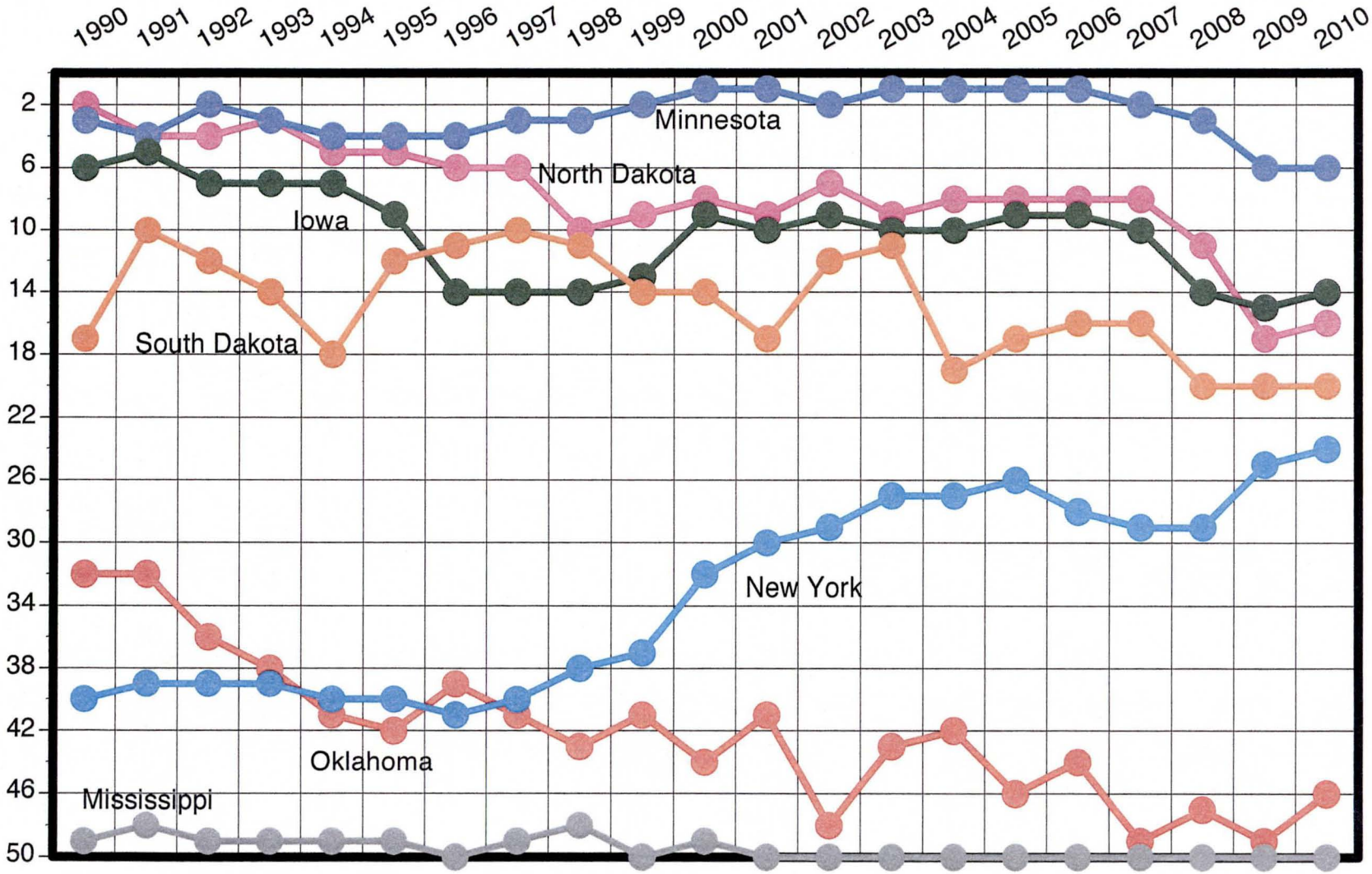
Exhibit 4
2010 National Health Rank
United Health Foundation Rankings



11/26/11 Chart10B

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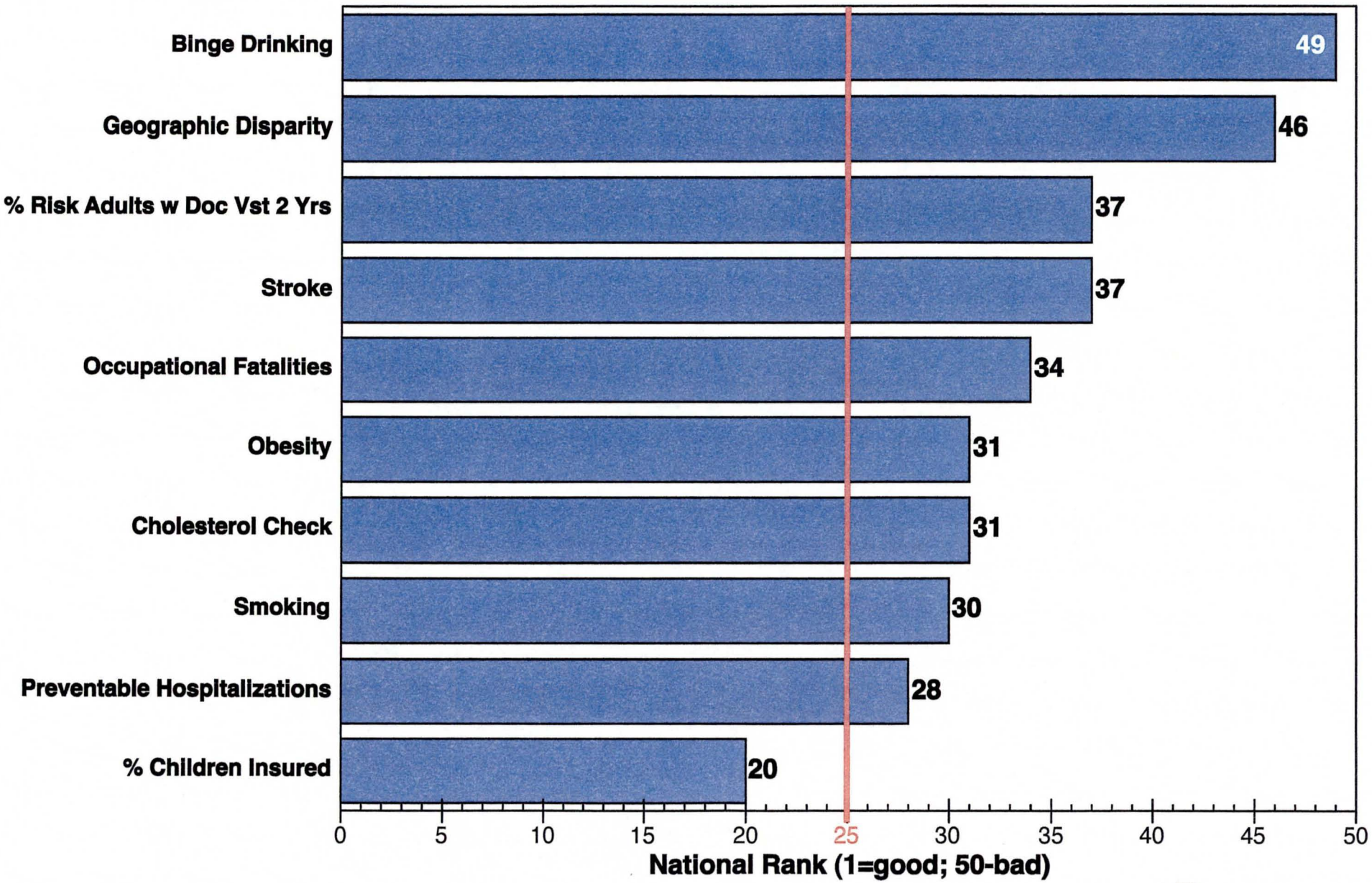
Exhibit 5
National Ranking of North Dakota on Selected Health Measures (2009 & 2010)



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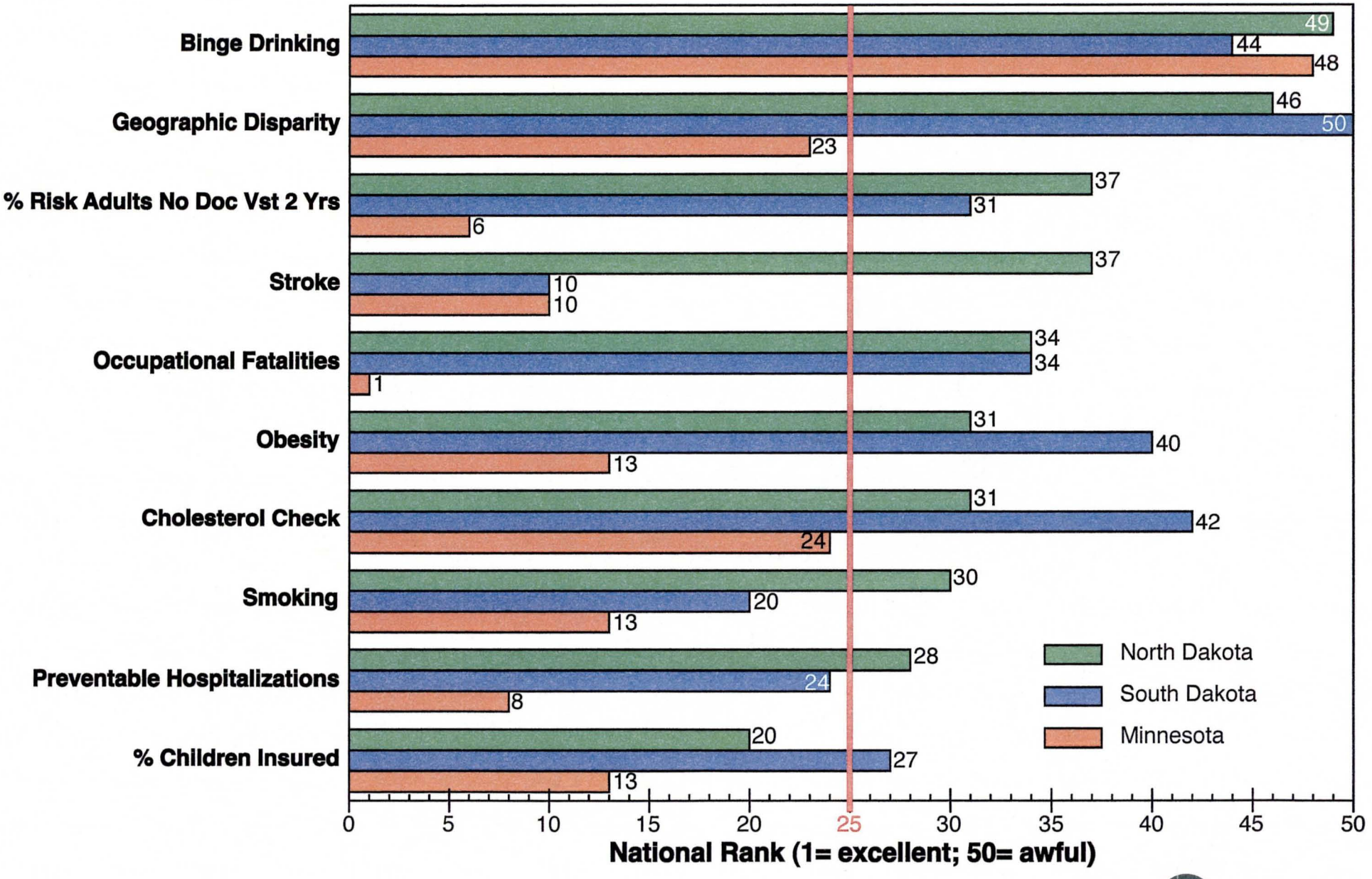
11/26/11 Chart21

Exhibit 6
National Ranking of ND, SD, & MN on Selected Health Measures (2009 & 2010)



11/26/11 Chart22

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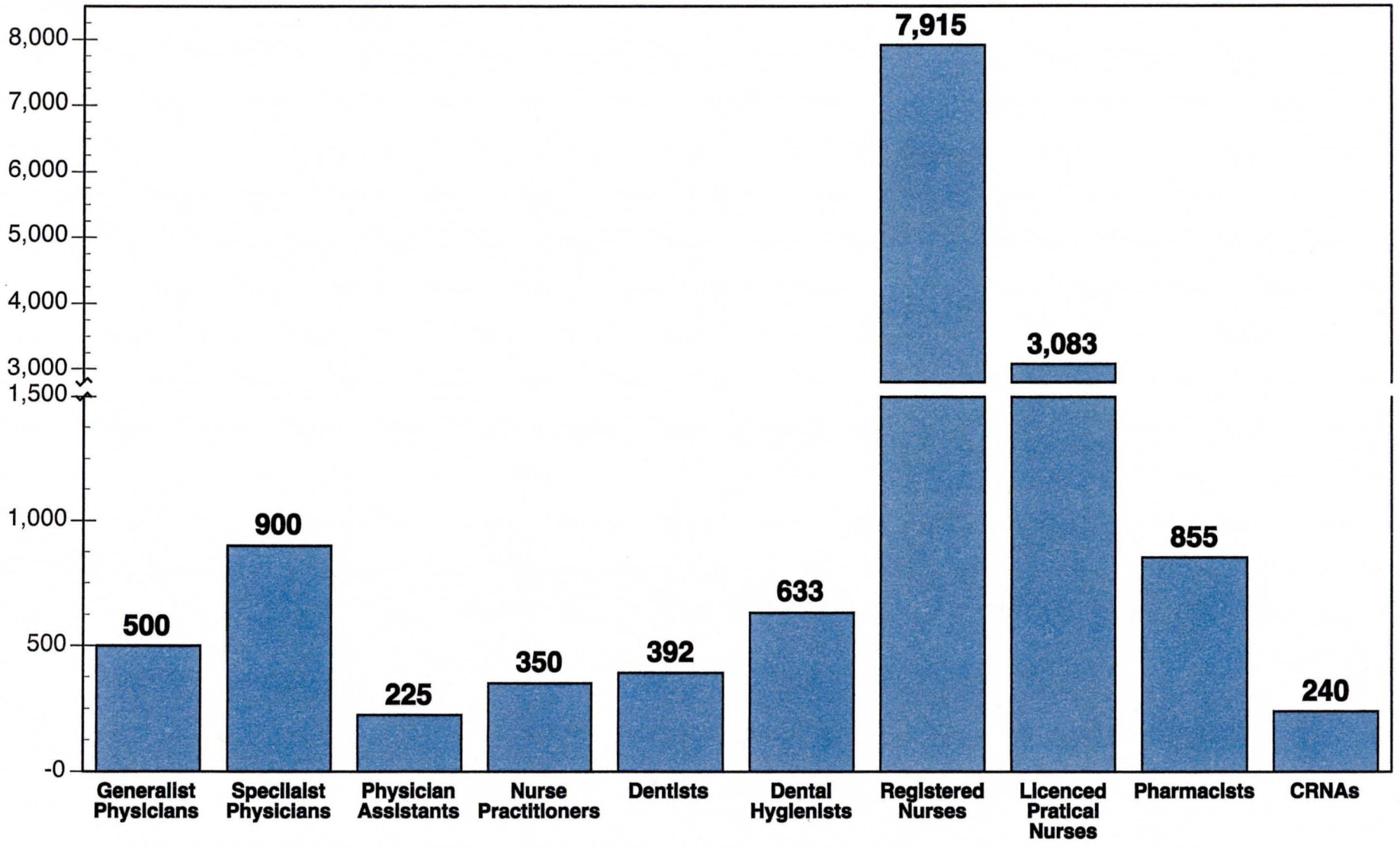
Exhibit 7

Number of Selected Health Care Providers in North Dakota (2011)



11/26/11 Chart1B

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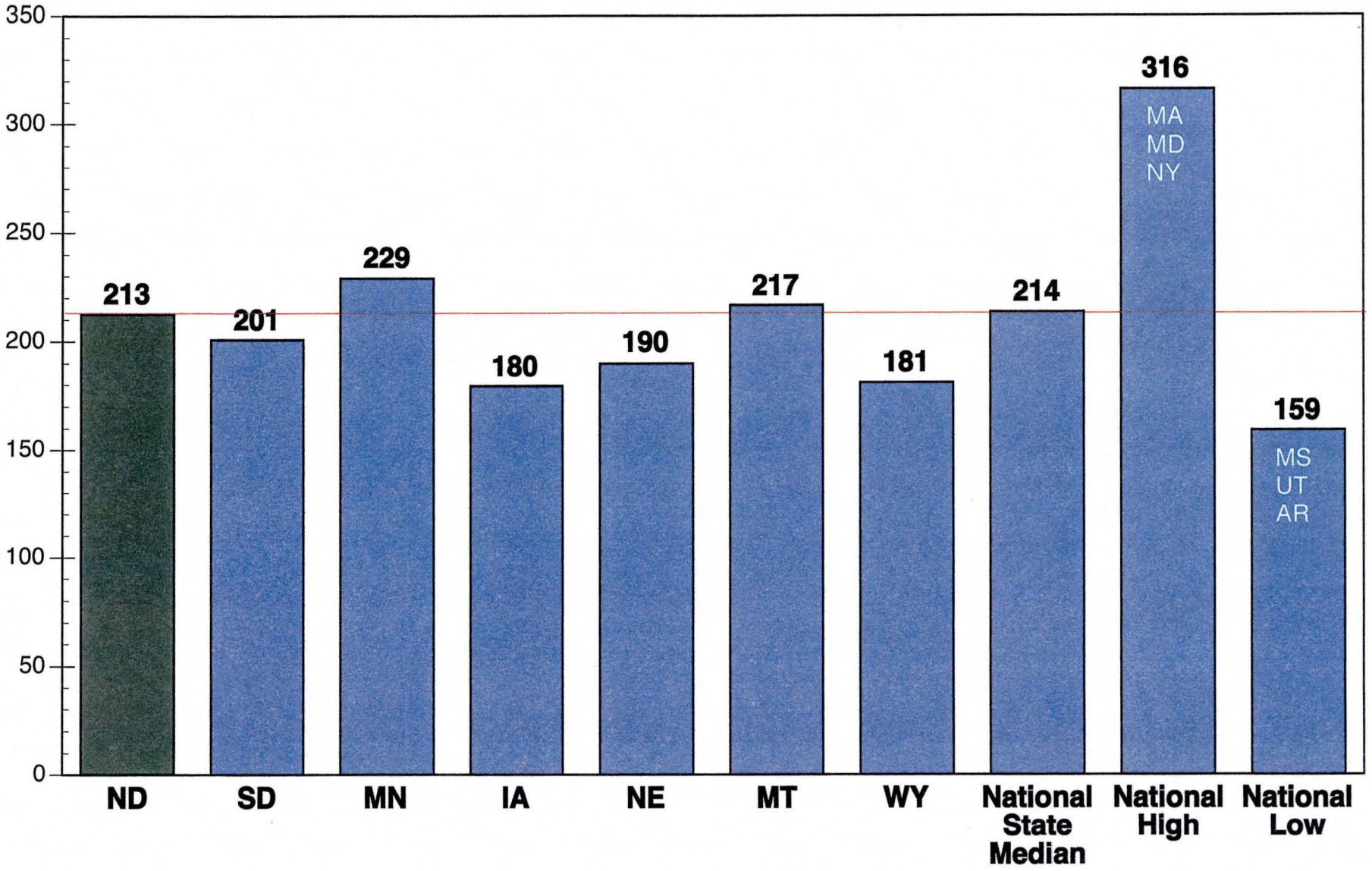
Exhibit 8

How can the number of health care providers be misleading?

- In the interests of time and simplicity, this presentation focuses on physicians but much of what is shown would also be representative of other health care provider groups.
- Most of time the number of a provider type count is from licenses and not all of those licensed are practicing or necessarily even residing within North Dakota. Surveys can be used to make estimates more accurate.
- Many providers are not working full-time (e.g., a 20 hour a week dental hygienist is a .5 full-time equivalent (FTE)).
- In many instances, it is difficult to know about the medical scope of practice of providers. For example, some physician assistants (PAs) are practicing primary care (generalist care) while others are practicing specialist (partialist) care. Thus, counting all PAs as primary care providers substantially overestimates the number of primary care providers.
- Some care provided by specialists involves primary care services and some care provided by primary care providers involves specialty services.

Exhibit 9
Active Patient Care Physicians per 100,000 Population (2009)



Rates for: CO (227), KS (189), MO (208), WI (220), & IL (214).

11/26/11 Chart12

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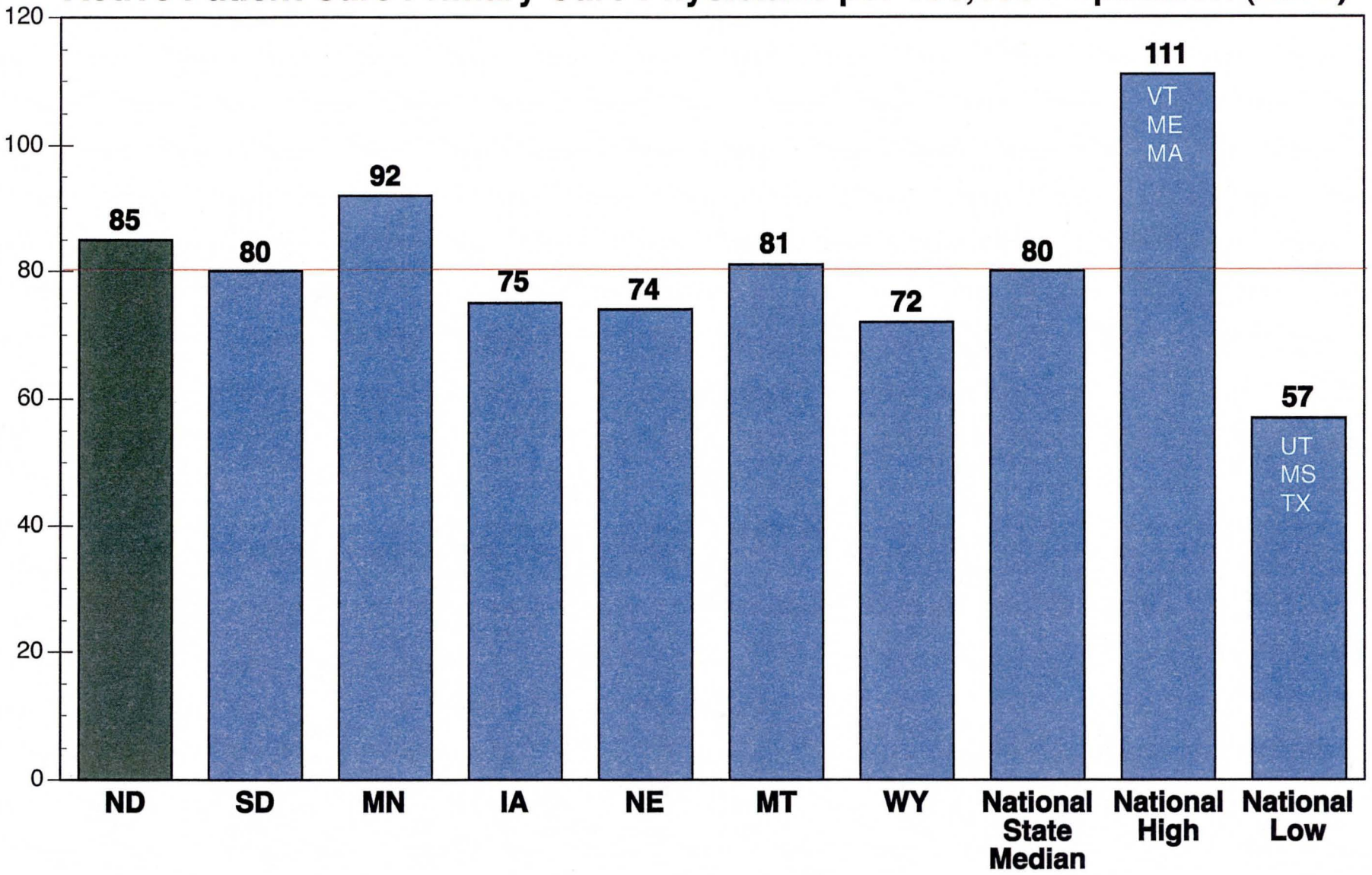
Exhibit 10

Active Patient Care Primary Care Physicians per 100,000 Population (2009)



Rates for: CO (83), KS (75), MO (75), WI (85), & IL (81).

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Exhibit 11

If North Dakota is relatively high in per capita primary care physicians, why do we need more?

- North Dakota's population is small and dispersed over a large geographic state.
- ND primary care physicians are maldistributed across rural areas (Exhibit 12).
- The ND population, especially the rural population has a high proportion of elderly (depending on which age groups 65 and older, ND is ranked from 2nd to 10th most elderly of the states).
- The elderly use much more medical care than younger residents – for instance, a 10 year old averages 2 ambulatory visits per year while an average 75 year old averages 9 visits per year (450% more ambulatory visits for more serious conditions that often require additional hospital and other medical resources).
- The ND rural population is far from specialist care where some of their primary care needs could be met in the absence of primary care providers.
- However, there are shortages of many types of specialty physicians in urban areas.

Exhibit 12

North Dakota Health Professional Shortage Areas

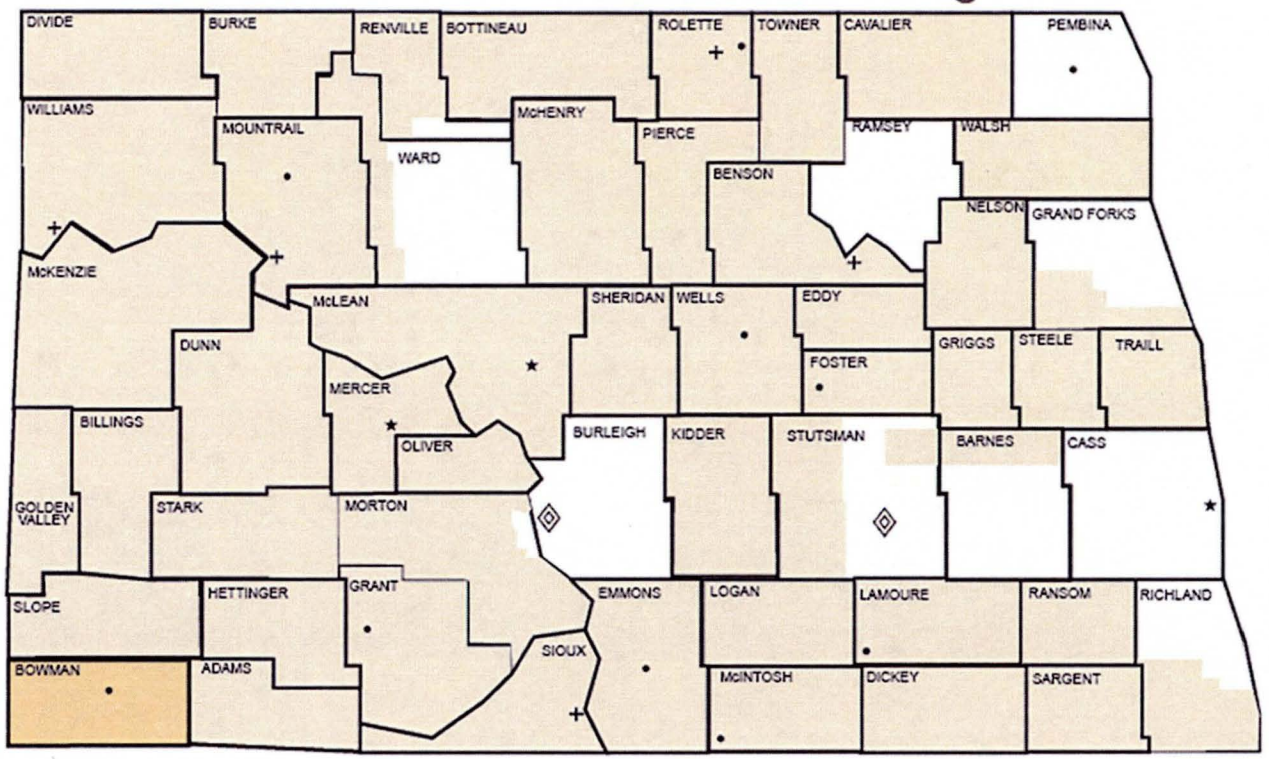

Exhibit 13
Medical Students Per 100,000 Population (2009)

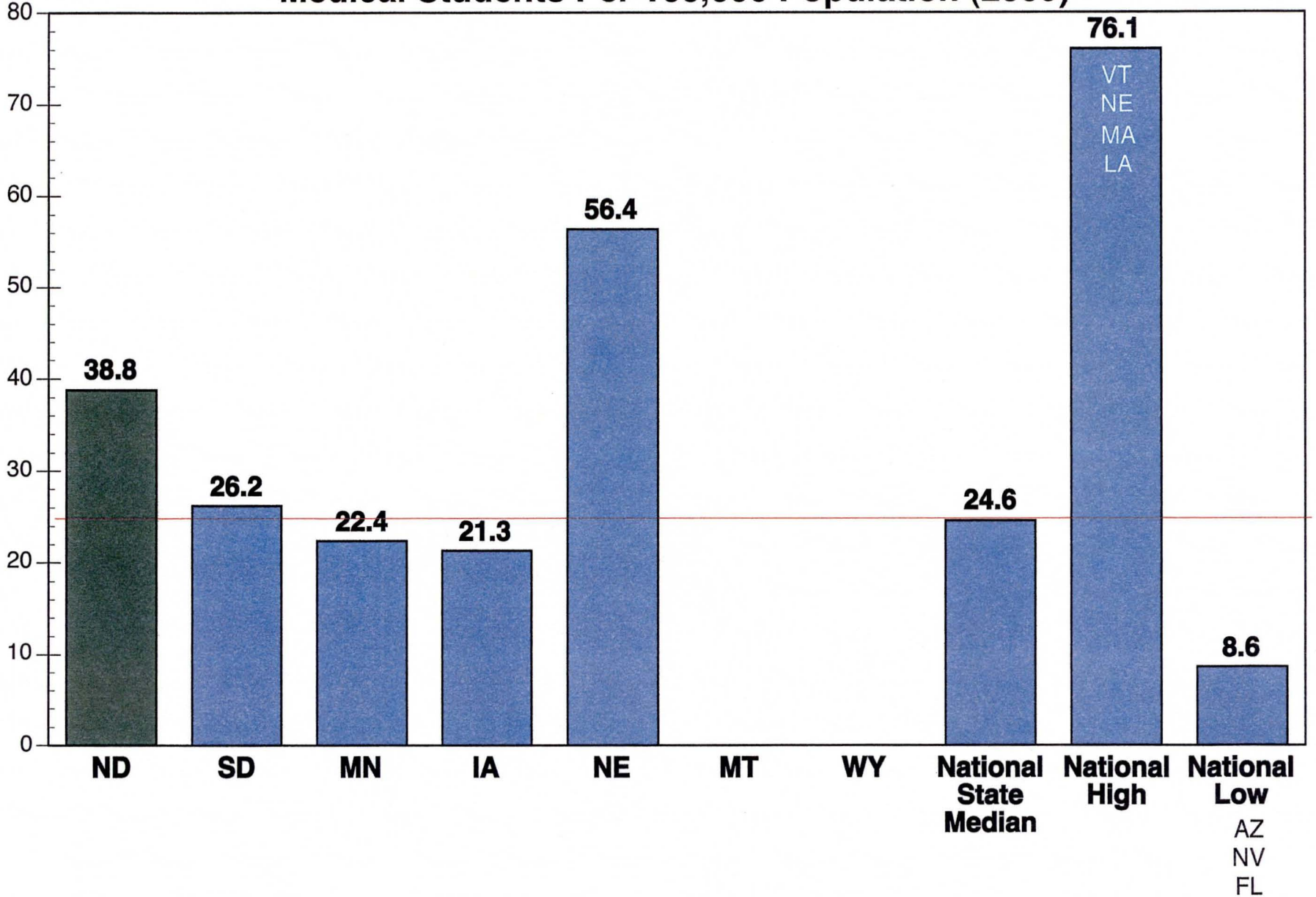

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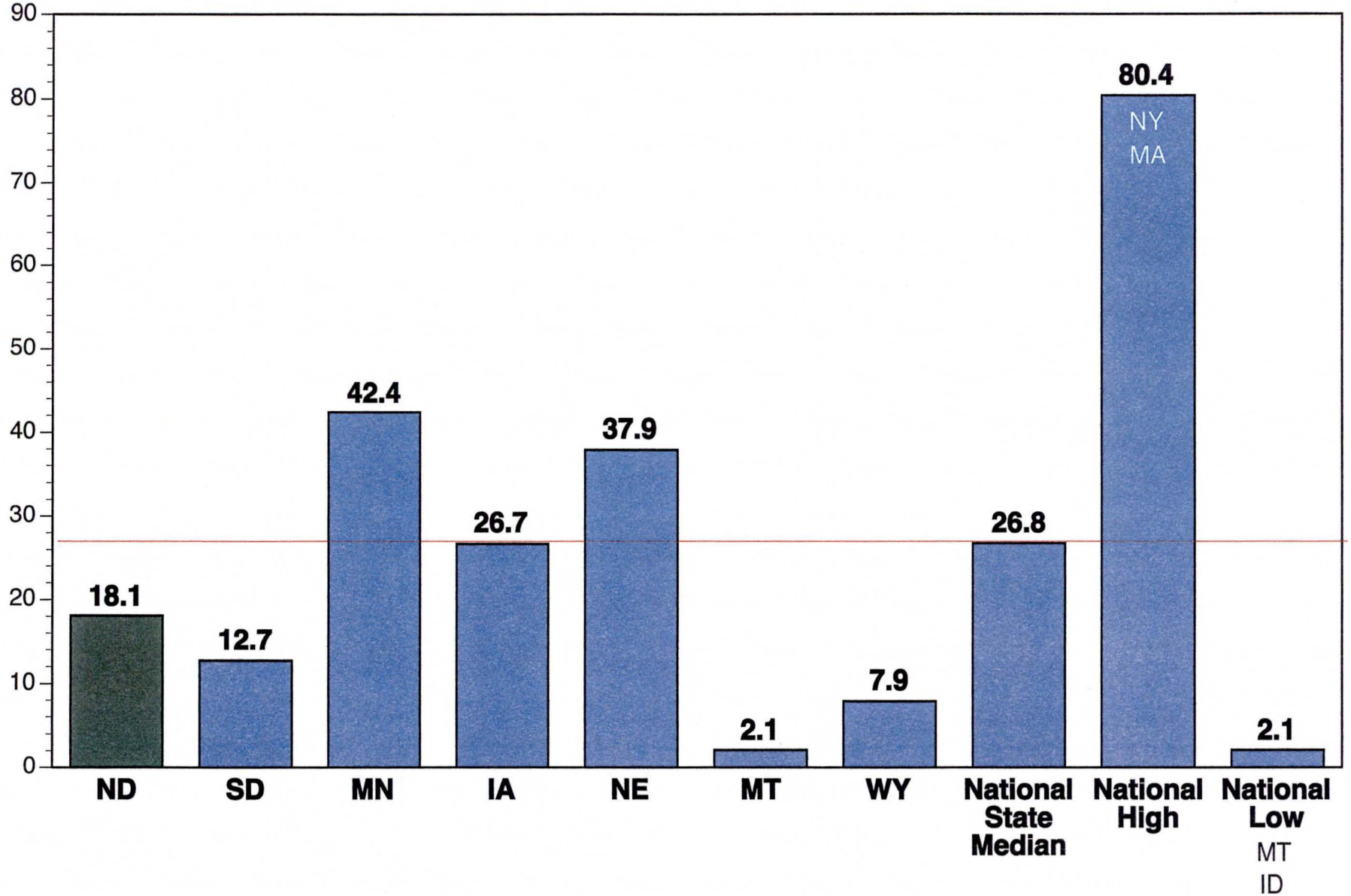
Exhibit 14
Physician Residents Per 100,000 Population (2009)



11/26/11 Chart4

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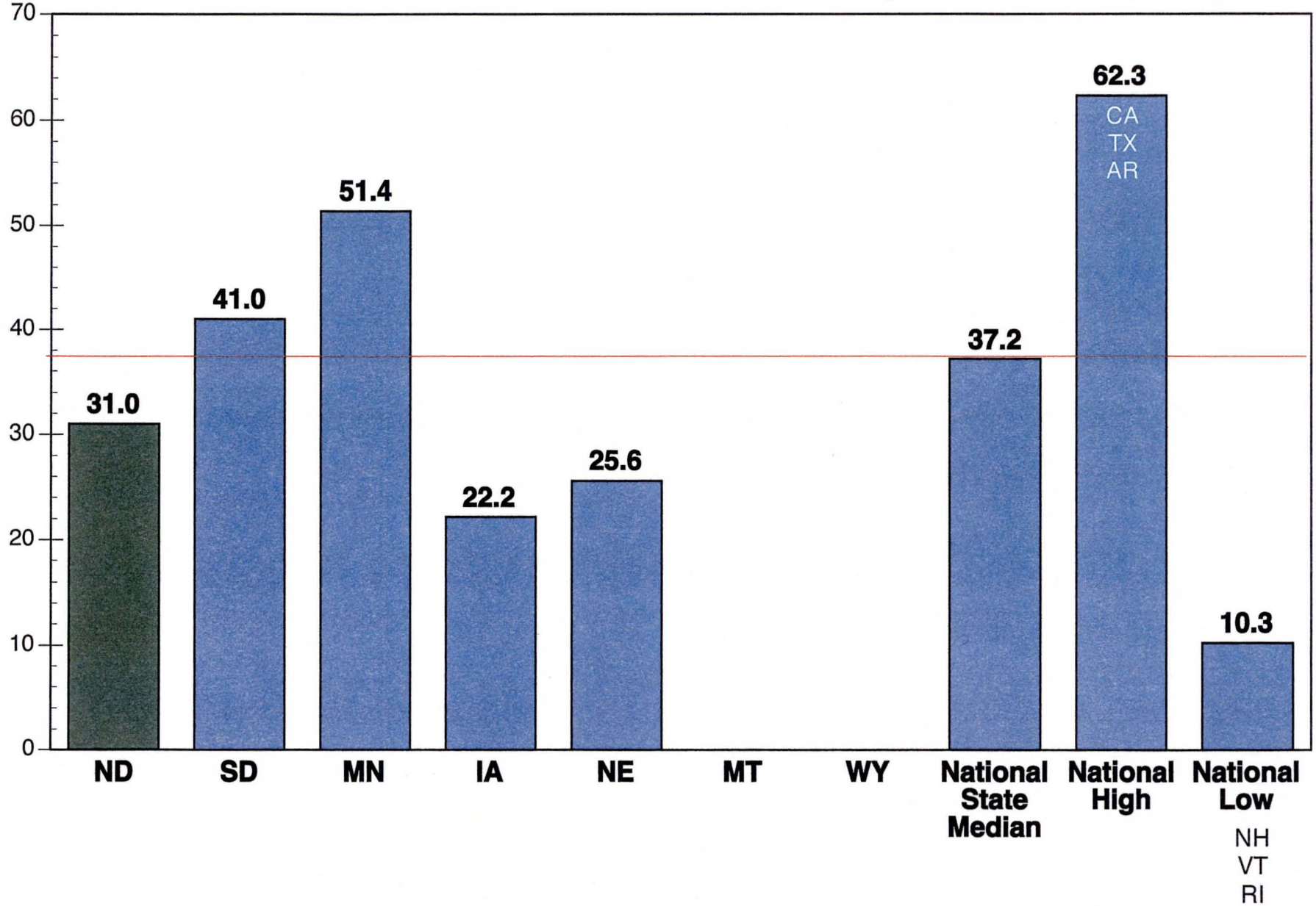
Exhibit 15
Percent of Medical School Graduates Who Stay Within State (2009)



Retention percentages for: CO (42.6), KS (36.7), MO (21.2), WI (37.8), & IL (31.7).

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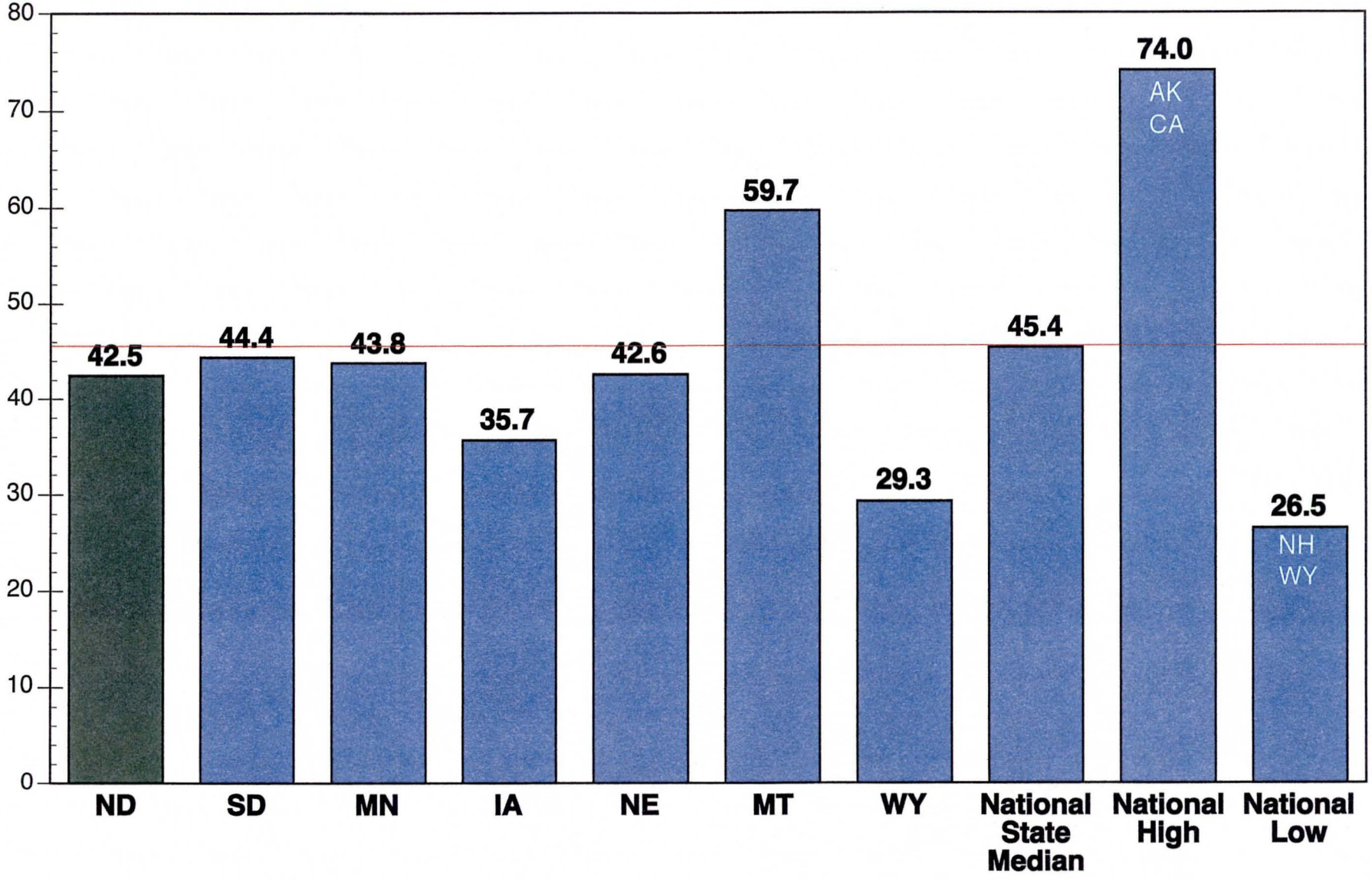
Exhibit 16
Percent of ND Residency Graduates Who Practice In ND (2009)



Retention percentages for: CO (45.3), KS (38.1), MO (36.4), WI (46.8), & IL (49.1).

11/26/11 Chartt2

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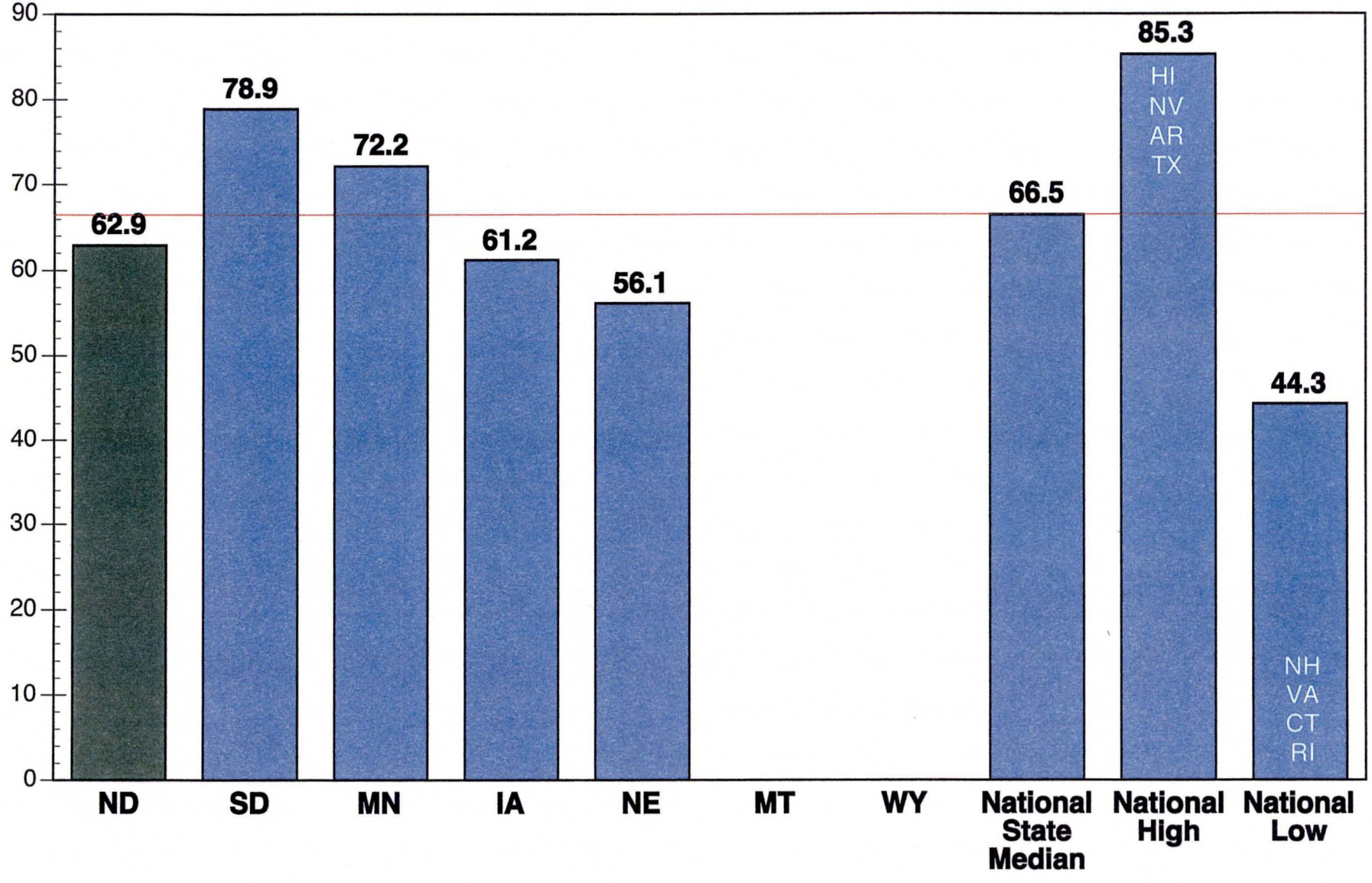
Exhibit 17

Percent ND Medical School and Residency Graduates Who Practice in ND (2009)



Retention percentages for: CO (71.5), KS (56.9), MO (53.8), WI (70.0), & IL (62.1).

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Exhibit 18

Why does the UND Medical School not do more to alleviate the specialist shortage in ND?

- There are specialty shortages of in pediatrics, OB/GYN, the subspecialties of internal medicine, general internal medicine, and family medicine and others. In addition, given that there are only a few small urban cities within the state and a small state-wide population (673,000 plus) there is an issue of not having part-time specialists (for instance, if the state needs 3.5 of a physician specialty there are issues of recruiting the .5 and of distribution across the four largest cities (night and weekend call if only 1 in a city).

- Elderly populations need proportionally more specialists and ND is relatively underserved by many specialties without even adjusting for the aged population.

- ND has residency programs in family medicine, surgery, internal medicine, and psychiatry -- some with a rural emphasis. Study needs to determine whether additional residencies in other specialties are feasible.

- So what are the barriers?
  - Specialist residency programs require large populations to support them – the more specialized the program the more threshold population is required (large numbers of people with the conditions the specialist focus on)
  - Specialist residency programs require significant numbers of clinician educators, who also need sufficient patients
  - ND's population is small enough that ND could not absorb the graduates (dollars wasted).
  - When our UND medical school graduates leave the state for specialist residency training they are unlikely to return. Because a high percentage of ND residency graduates stay in ND to practice, having ND residencies is a good idea if the benefit to ND's population is greater than the cost.
  - Residency programs have to be paid for with state and federal funds

Exhibit 19
Training of ND Direct Patient Care Physicians (2011)

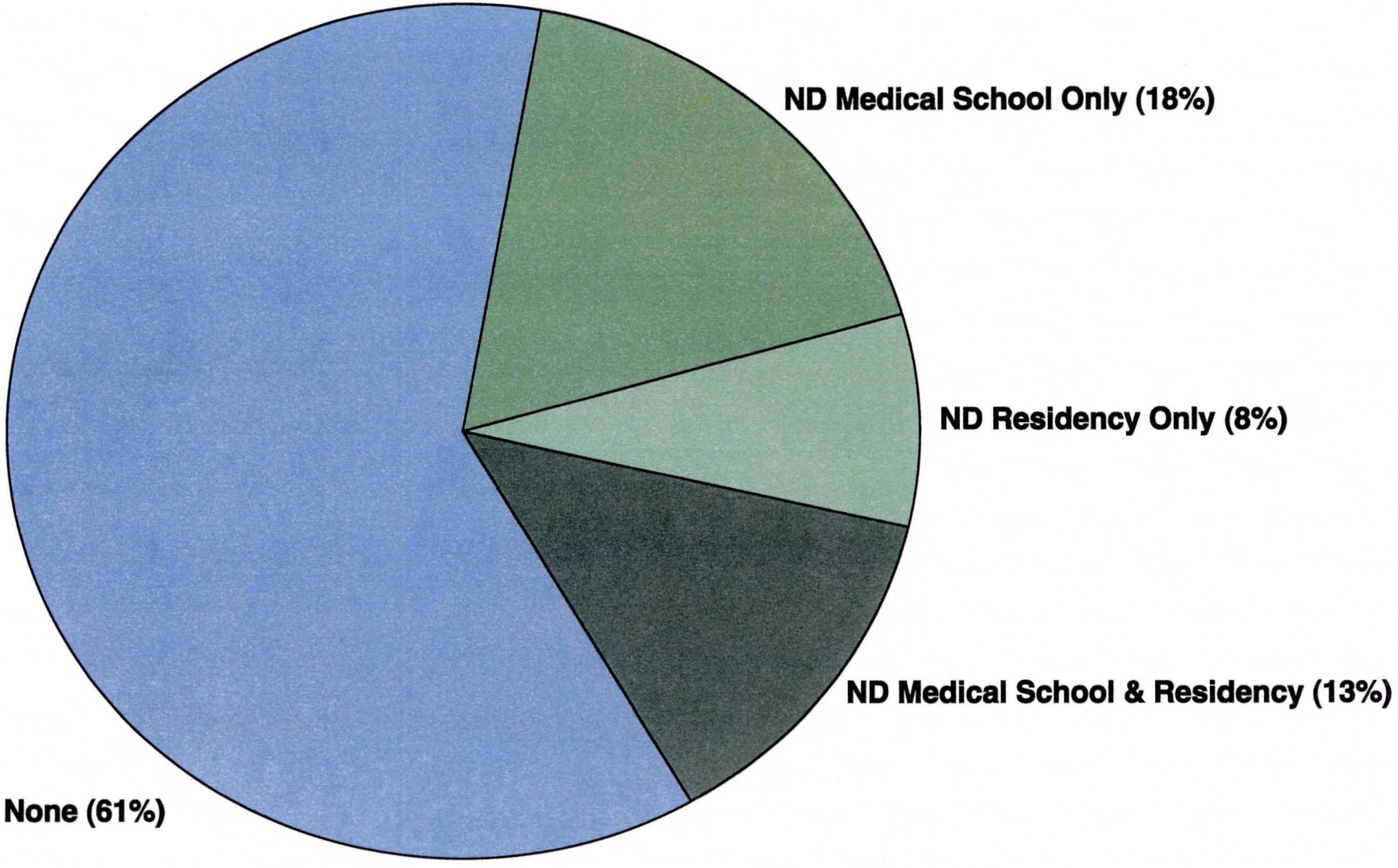

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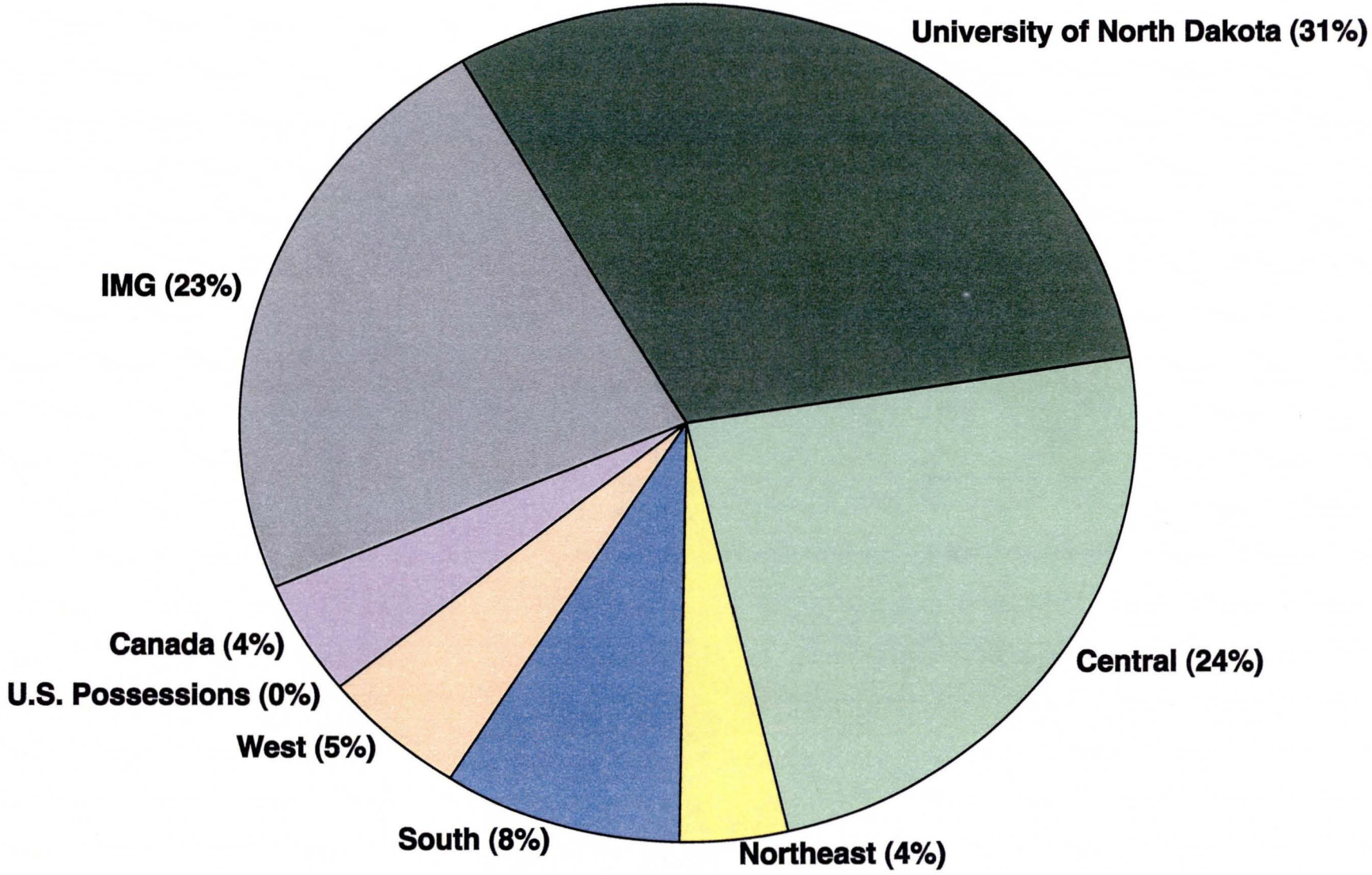
Exhibit 20A
Medical School Training of ND Direct Patient Care Physicians (2011)



East North Central = IL, IN, MI, OH, & WI.

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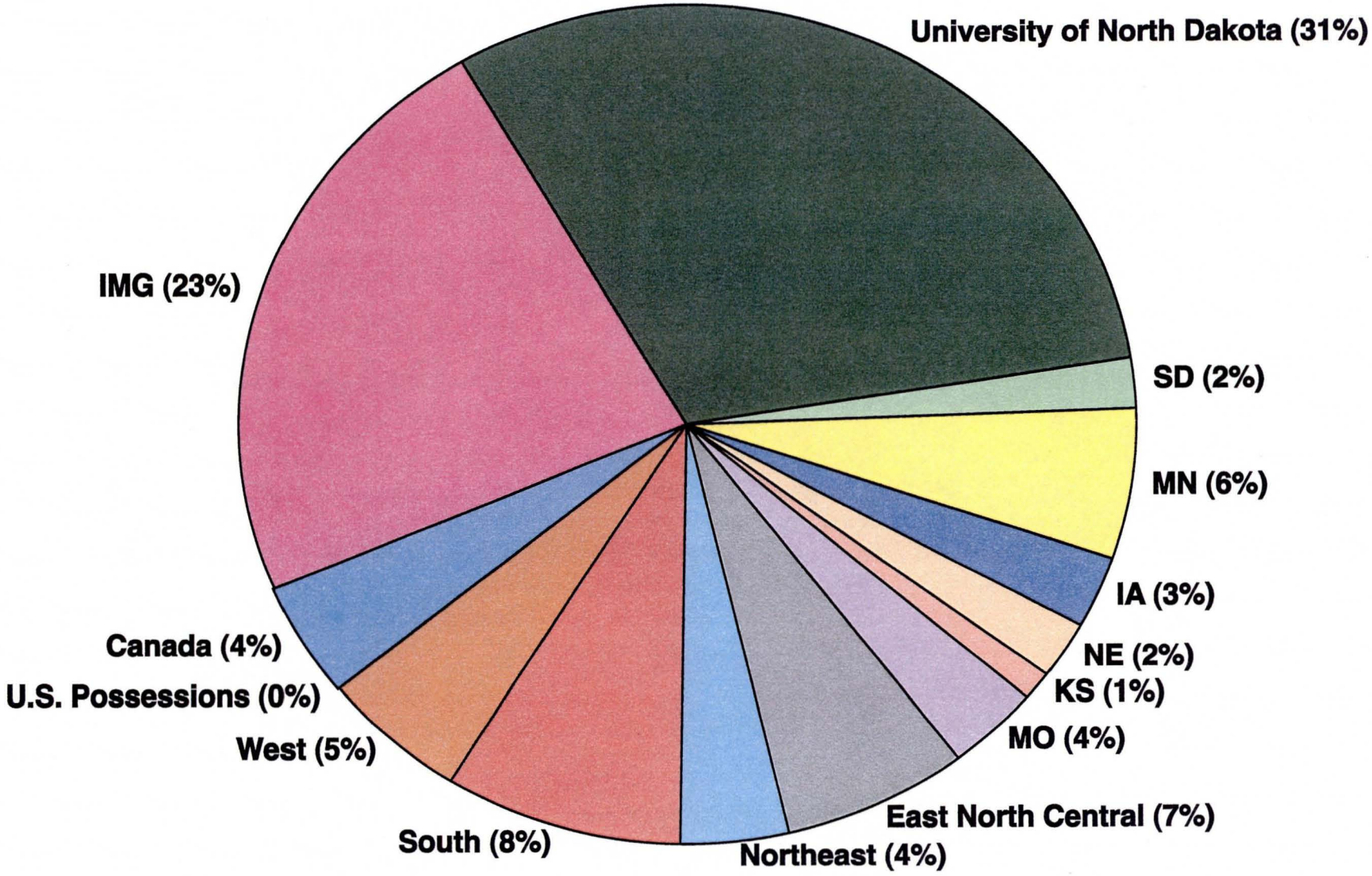
Exhibit 20B
Medical School Training of ND Direct Patient Care Physicians (2011)



East North Central = IL, IN, MI, OH, & WI.

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Exhibit 21
Medical School Origins of ND Direct Patient Care Physicians (2011)

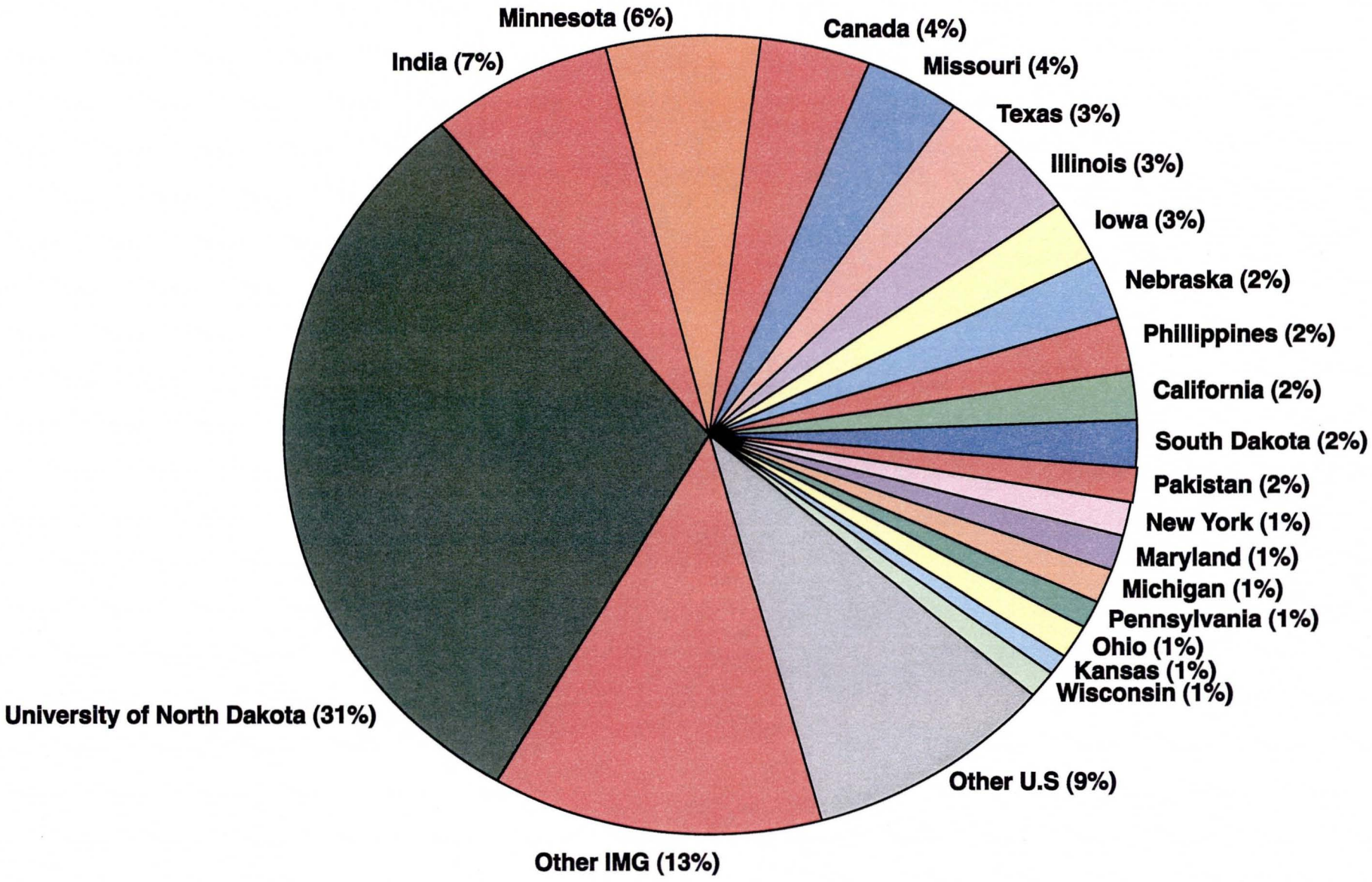

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Exhibit 22
Practice Locations of Practicing UND Medical School Graduates (2011)

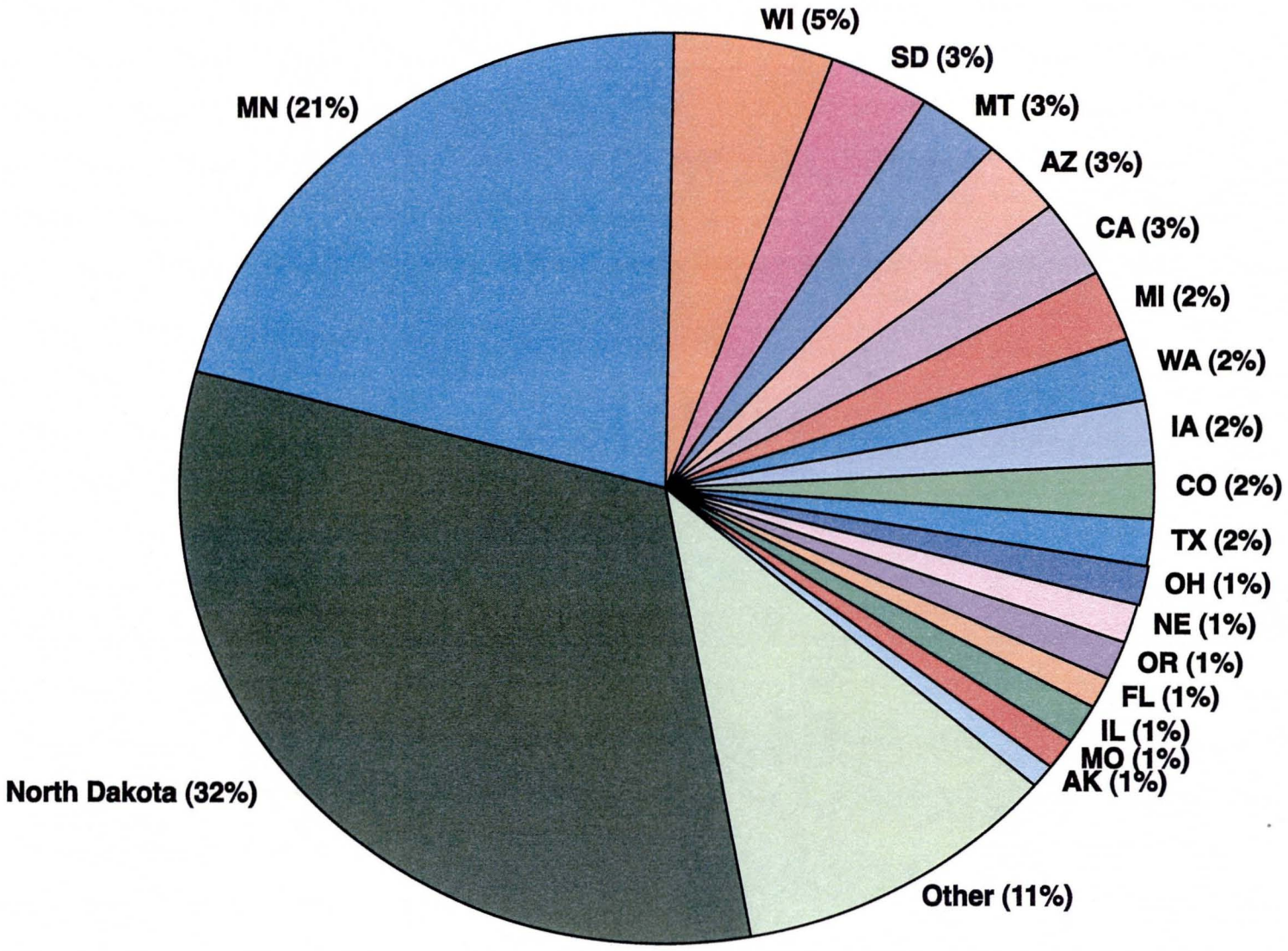

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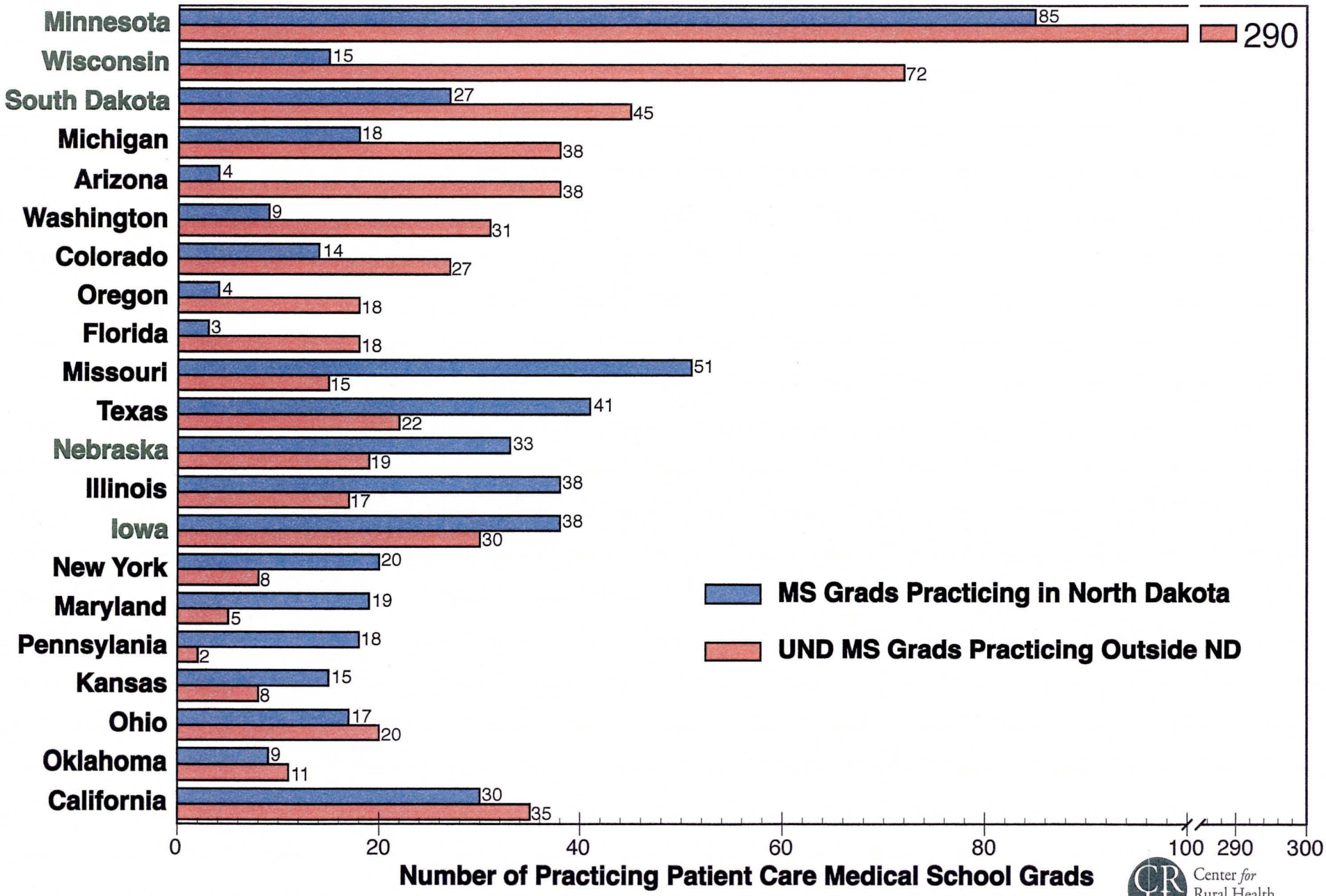
Exhibit 23

Comparison of UND Med School Grads Practicing Outside ND and Other State Grads Practicing Inside ND (2011)



11/26/11 Chart20

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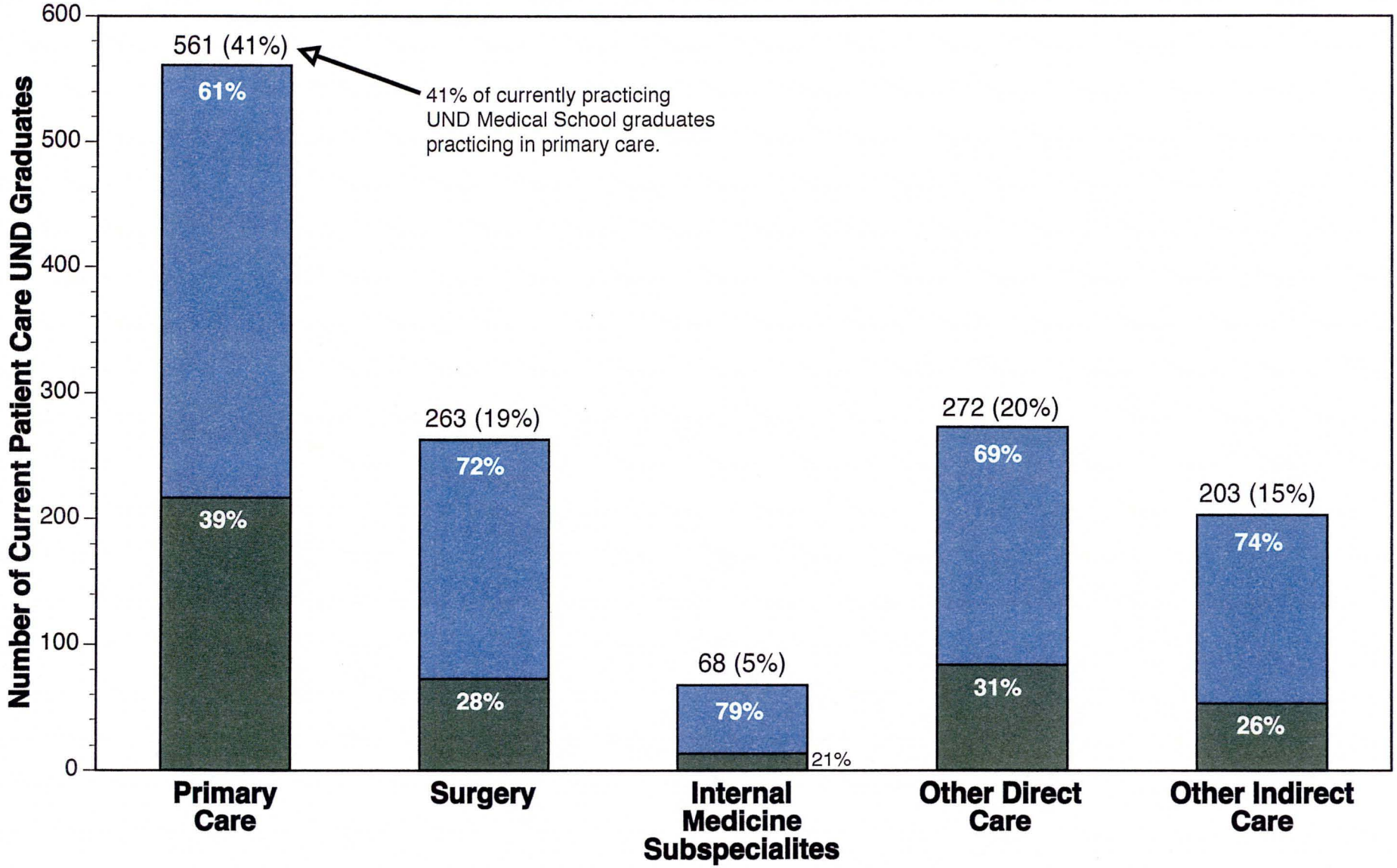
Exhibit 24
Percent of Practicing UND Medical School Graduates Practicing Within North Dakota by Specialty Category (2011)



Primary Care: family/general medicine, general internal medicine, and general pediatrics.
Surgery: general, orthopedic, plastic, vascular, colon & rectal, trauma, thoracic, hand, et al.
Internal Medicine Subspecialties: gastroenterology, nephrology, pulmonary, rheumatology, et al.
Other Direct Care: cardiology, psychiatry, ophthalmology, pediatric allergy, dermatology, et al.
Other Indirect Care: pathology, radiology, hematology, public health, anesthesiology, et al.

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Exhibit 25
Residency Program Origins of ND Direct Patient Care Physicians (2011)

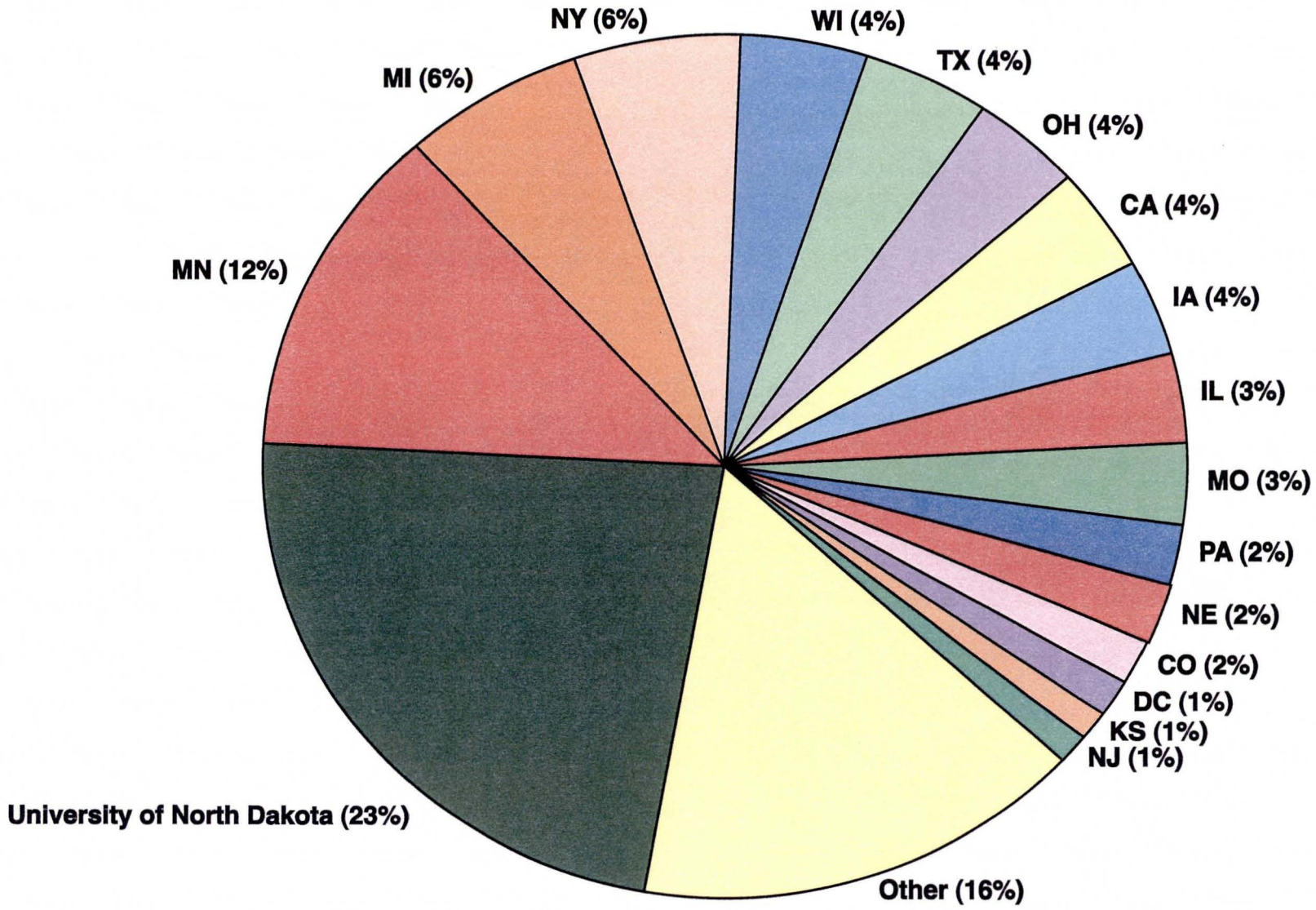

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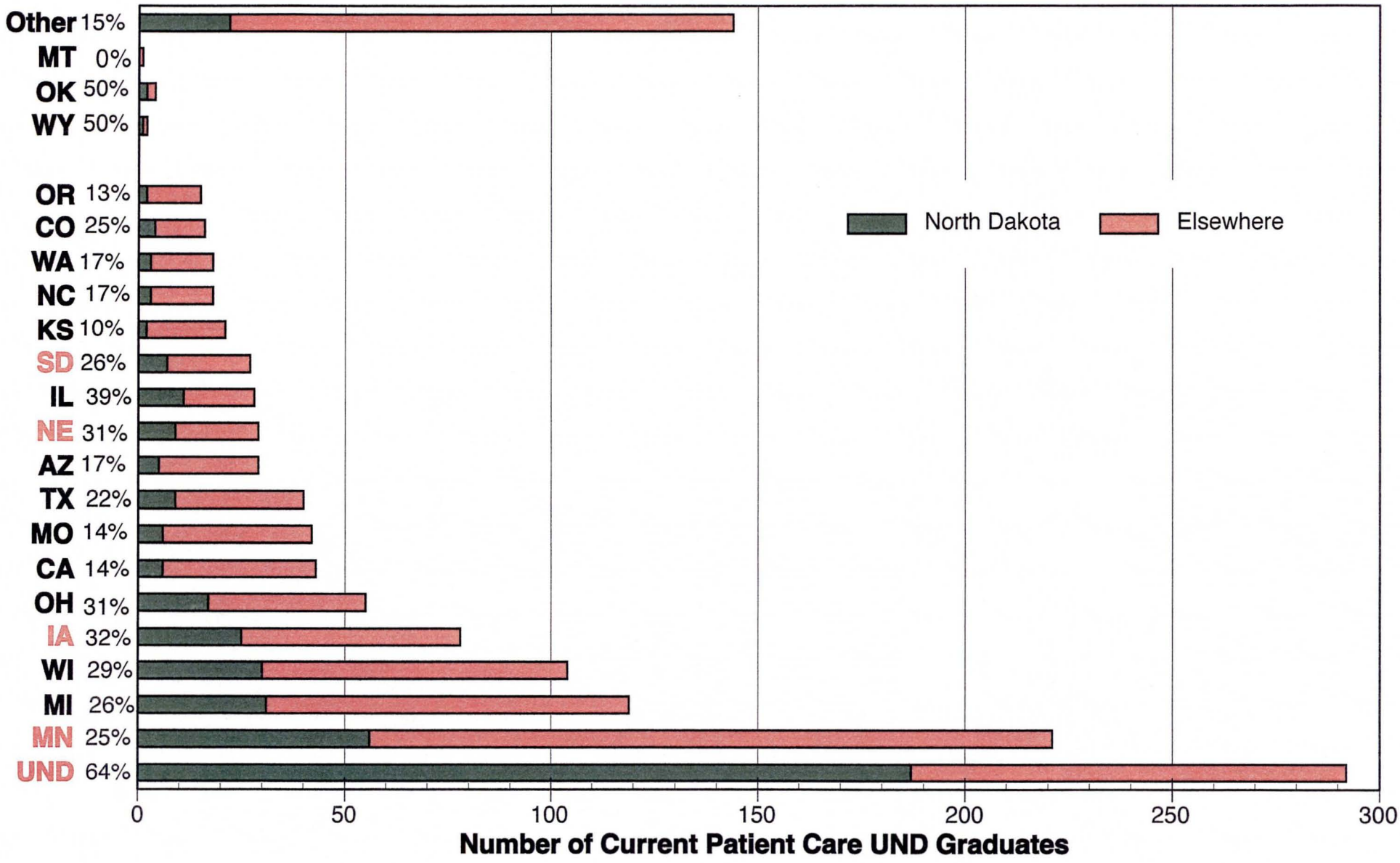
Exhibit 26
Currently Practicing UND Med School Graduates by Residency Training State and Whether They Practice in ND (2011)



11/26/11 Chart25

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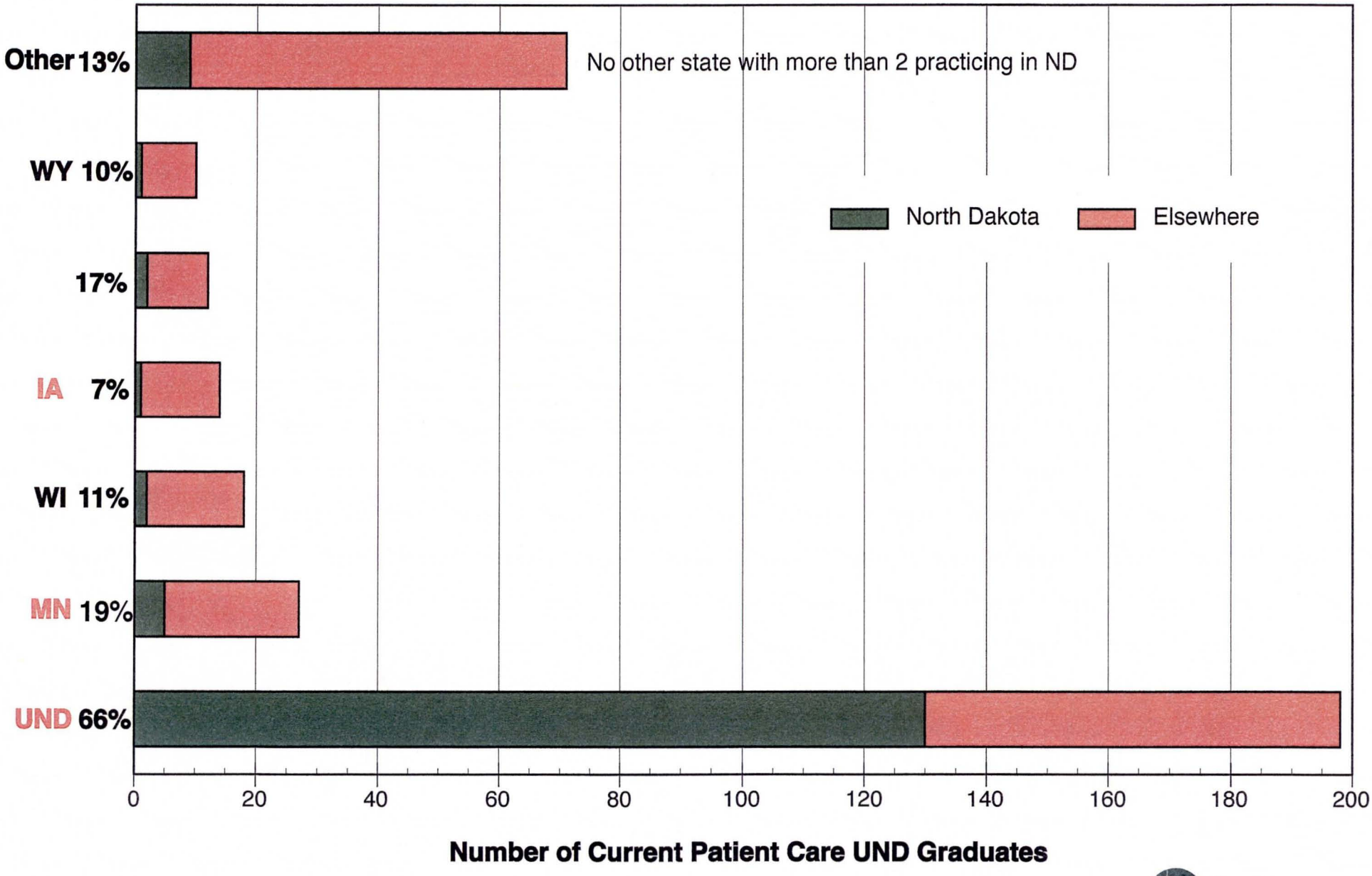
Exhibit 27

Currently Practicing UND Family Medicine Med School Graduates by Residency Training State and Whether They Practice in ND (2011)



11/26/11 Chart26

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Exhibit 28

What are some of the most important options to address the health care needs in the state?

- Increase the number of physician residencies in North Dakota, especially in primary care. Where possible be innovative and start residences in additional specialties, if feasible. Spread these residencies across the state from north to south and from west to east and include rural tracks and emphasis where possible.

- Increase the number of health professionals trained in North Dakota to make it more self sufficient where needed. Demand for health care services is likely to increase. Select students for programs based on increasing the number who eventually practice in ND. Assure that ND youth receive the opportunity to have careers as health care providers.

- Continue and expand the myriad of programs to interest and encourage North Dakota students to pursue health care professional careers, mentoring while in school, recruitment, retention, and the like. These programs are funded by the federal and state governments. The UND Center for Rural Health (CRH) and the School of Medicine and Health Sciences (SMHS) manages many of these programs but others also have programs including NDSU. Many of the programs include local ND community collaboration such as the CRH's Critical Access Hospital and AHEC regional centers.

- Tailor the curriculum for ND health professional training programs to best serve the State's population. For instance, assure that adequate geriatric training is included for nurses, physicians, and others.

- In training and practice, make efforts to assure that medical care is of the highest quality and that access to care is adequate.

- Perform quality health workforce analyses upon which to base sound public policy (note the good restaurant syndrome)

Exhibit 29

What will the future of medical care delivery hold for the state, especially in the rural areas?

- A critical issue is how the Accountable Care Act (ACA) morphs during the next several years. The ACA is filled with health workforce clauses that influence nurses, physicians, public health professionals, and many others regarding training, practice, and reimbursement.
- If the ACA provides expanded coverage that substantially increases demand for care in North Dakota and other states, North Dakota could experience a decrease in providers migrating to practice in North Dakota (currently 61% of physicians received no training in ND) – this could have severe consequences for rural North Dakota communities.
- A large proportion of the programs to support the rural health delivery system and providers are funded by the federal government. Reductions in funding because of the current Congressional budget deficit actions could reduce or eliminate much of this rural support. For instance the Center for Rural Health's Small Rural Hospital Flexibility Program (funded by the federal government) that helps the State's 36 Critical Access Hospitals (CAHs) is vulnerable. The Program is an integral part of CAH emergency services, quality improvement, financial planning, and other activities. It is unknown if the State can or will make up some of the federal reductions.
- No mixture of excellent programs to produce high quality health care providers in ND can be successful unless local communities maintain an environment that is professionally, fiscally, and socially satisfying for the providers. Health care providers have options to move elsewhere. Local communities must be enthusiastically and effectively involved.
- The good news is that North Dakota has a well-trained and dedicated health care provider base.
- The future of medical care delivery in ND, including its rural areas, is in the hands of North Dakota.

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Exhibit 30

What role will technological innovations and telemedicine be in providing health care in North Dakota?

- The role of health information technology (HIT) will increase dramatically in North Dakota over the next decade. For instance, AveraeCare eEmergency program is linking rural emergency rooms to ER physicians, NDSU's telepharmacy program has connections to over 70 pharmacies, and teleradiology is being widely employed.

- Significant progress is being made in creating near universal electronic medical records (EMRs) and the computer systems that support their use and sharing. This creates efficiencies and can increase the quality of care.

- Two-way audio-video is being used more and more for provider education, administration, and patient specialty care.

- Telemedicine will provide urban-based specialist care and consultation for rural populations. This care will provide the means for the geriatric population to know if they need to travel for face to face care and will allow follow-up care to be provided in the patient's local community, including even such issues as chemotherapy dose adjustments.

- However, despite the advantages of these technological innovations, the provision of primary care in rural and urban areas and of face-to-face contact cannot be underestimated. For instance, the need for local primary care providers allows community members to obtain general care in a timely and personal fashion. Using telemedicine for this function only means the providers can be at a distance site and does not reduce how many of them are required for quality care.

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