



# Senate Appropriations Committee

March 18, 2019

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Vice President for Health Affairs, UND

Dean, UND SMHS

Executive Secretary, UND SMHS Advisory Council

# Overview of Today's Presentation

- Current status of health and healthcare in North Dakota
- Strategic direction of the UND SMHS
  - Where we were
  - Where we are now thanks to North Dakota's *Healthcare Workforce Initiative (HWI)*
  - Where we hope to go
- Budget implications
- Recommendations for the ND Legislature from the UND SMHS Advisory Council

# Reference Materials

- Copy of PowerPoint slides used in today's presentation
- *UND SMHS Fact Sheet* with overview of various UND SMHS programs, statistics, and answers to frequently asked questions
- Executive Summary of the *Fifth Biennial Report – Health Issues for the State of North Dakota 2019*
- *Vital Signs – 2018 Community Report*


FIFTH BIENNIAL REPORT | 2019

# HEALTH ISSUES FOR THE STATE OF NORTH DAKOTA



SCHOOL OF MEDICINE & HEALTH SCIENCES  
ADVISORY COUNCIL



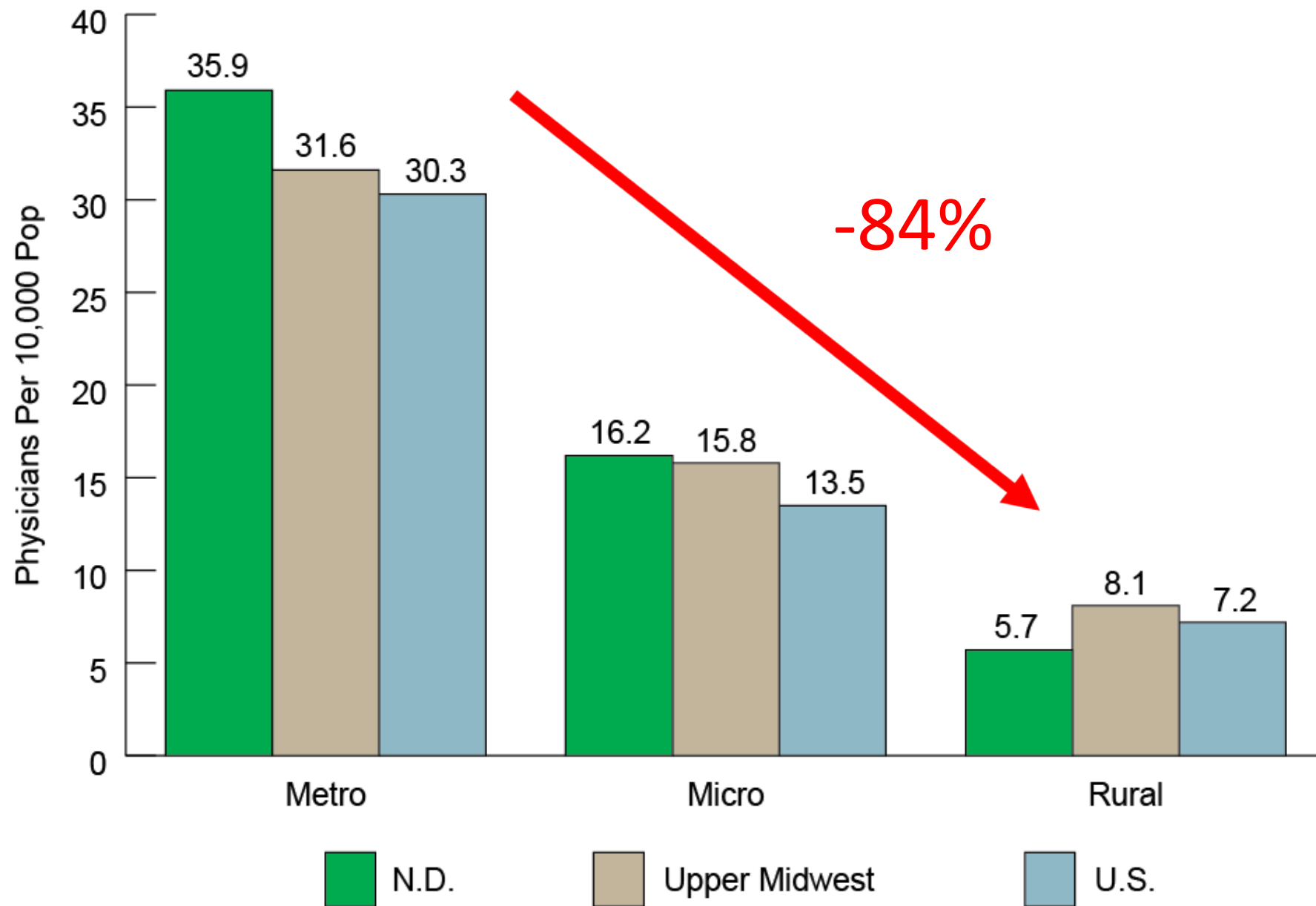
**UND** SCHOOL OF MEDICINE  
& HEALTH SCIENCES  
UNIVERSITY OF NORTH DAKOTA 

# Key Points from the *Fifth Biennial Report – Health Issues for the State of North Dakota 2019*

- Although North Dakotans have a lower prevalence of diabetes than the rest of the U.S. and are less likely to report fair or poor health, they have a higher risk of certain cancers and a mortality rate that exceeds the national average.
- North Dakota is tied for fourth in the country in the percentage of its state population 85 years of age or older. Because demand for healthcare increases with age, demand for services is especially pronounced in the state.

# Key Points from the *Fifth Biennial Report – Health Issues for the State of North Dakota 2019*

- A majority of hospital nurses are licensed practical nurses (LPNs) or registered nurses (RNs) and were trained in-state. There was a vacancy rate of greater than 10 percent for all levels of nurses in 2018.
- For all provider types, there are substantially more providers in urban compared with rural regions. For physicians, there are 84% fewer providers in rural compared with urban areas (adjusted for population).



**Figure 3.3. Physicians per 10,000 population for North Dakota with comparisons, 2015.<sup>1,3,6</sup>**

# Key Points from a National and State Healthcare Provider Perspective

- We recruit for healthcare providers on a regional, national, and even global stage. The same is true of health care educators. Thus, proper incentives for recruitment and retention are essential.
- With the aging of the population and especially of the physician healthcare provider workforce, the challenges of providing appropriate healthcare will only increase in the future.



# Healthcare Workforce Shortages in North Dakota Are **Not** New

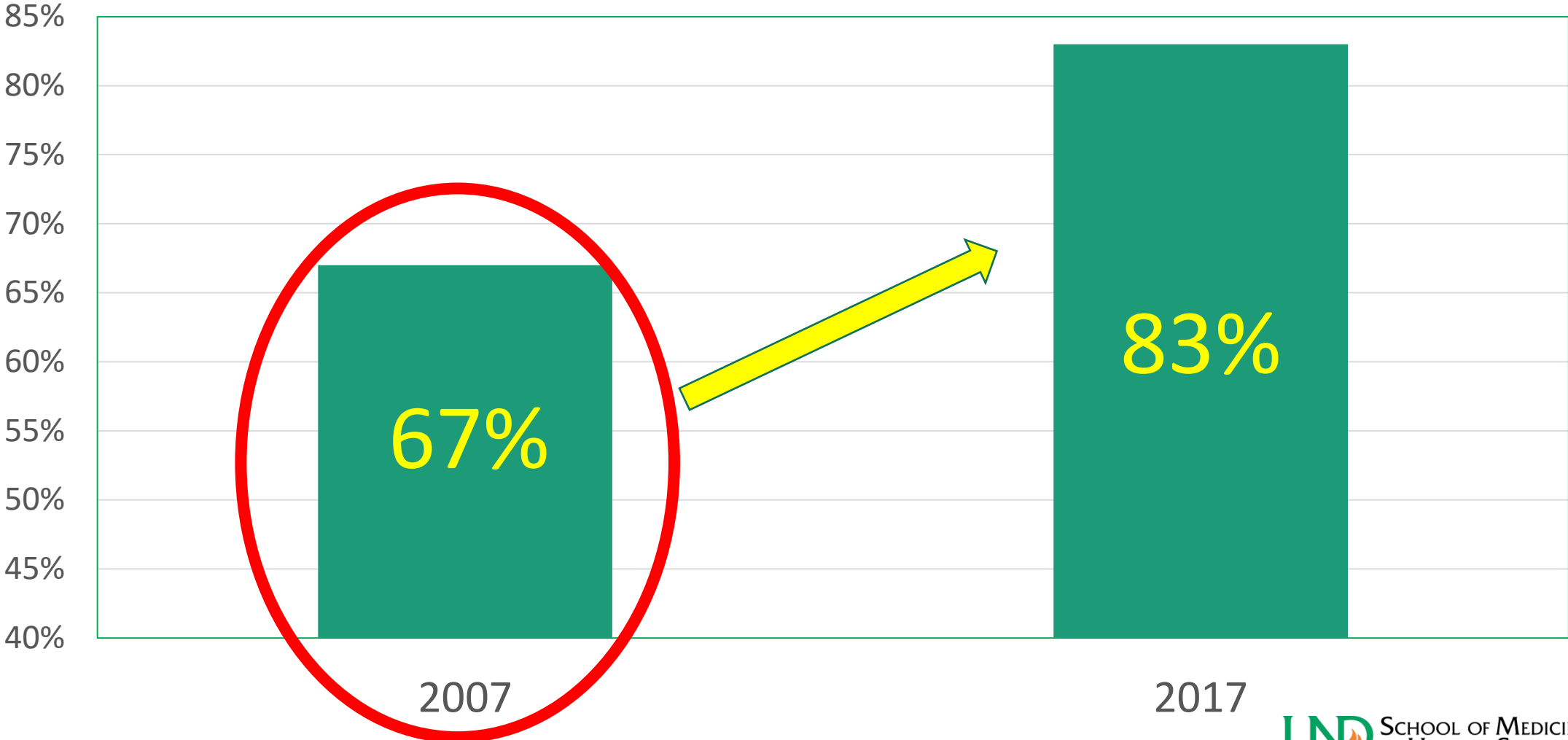
- *Report of the Country Life Commission (1909)* – President Theodore Roosevelt  
“Physicians are further apart and are called in later in cases of sickness, and...medical attendance is...more expensive.”
- Carnegie Commission’s *Report on Medical Education (1970)*  
“The geographic distribution of health [providers] is highly uneven, and...there is little question that the supply of health [providers] is gravely deficient in some parts of the nation.”

# ***North Dakota's Healthcare Workforce Initiative***

What is new is that we have a plan to address health care workforce issues



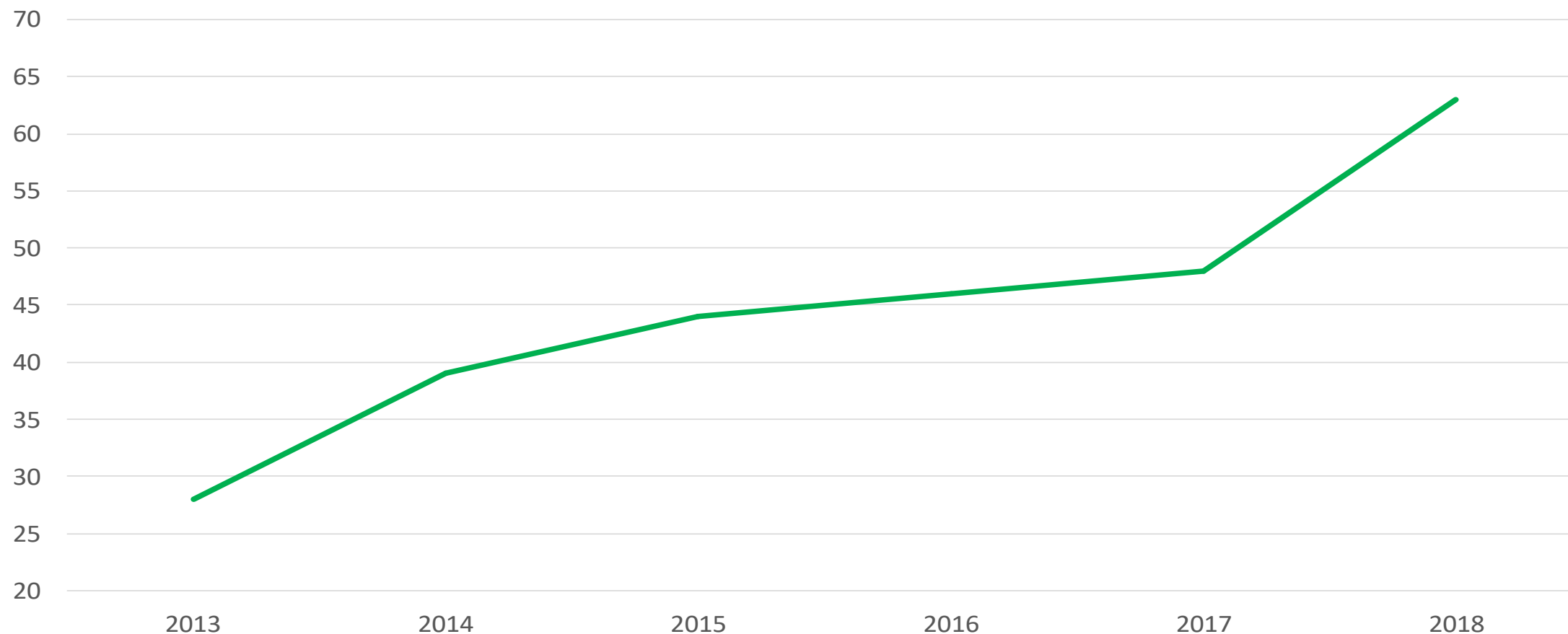
# Percent of ND Medical Students Going to UND SMHS



Source: AAMC 2007 and 2017 State Physician Workforce Data Books

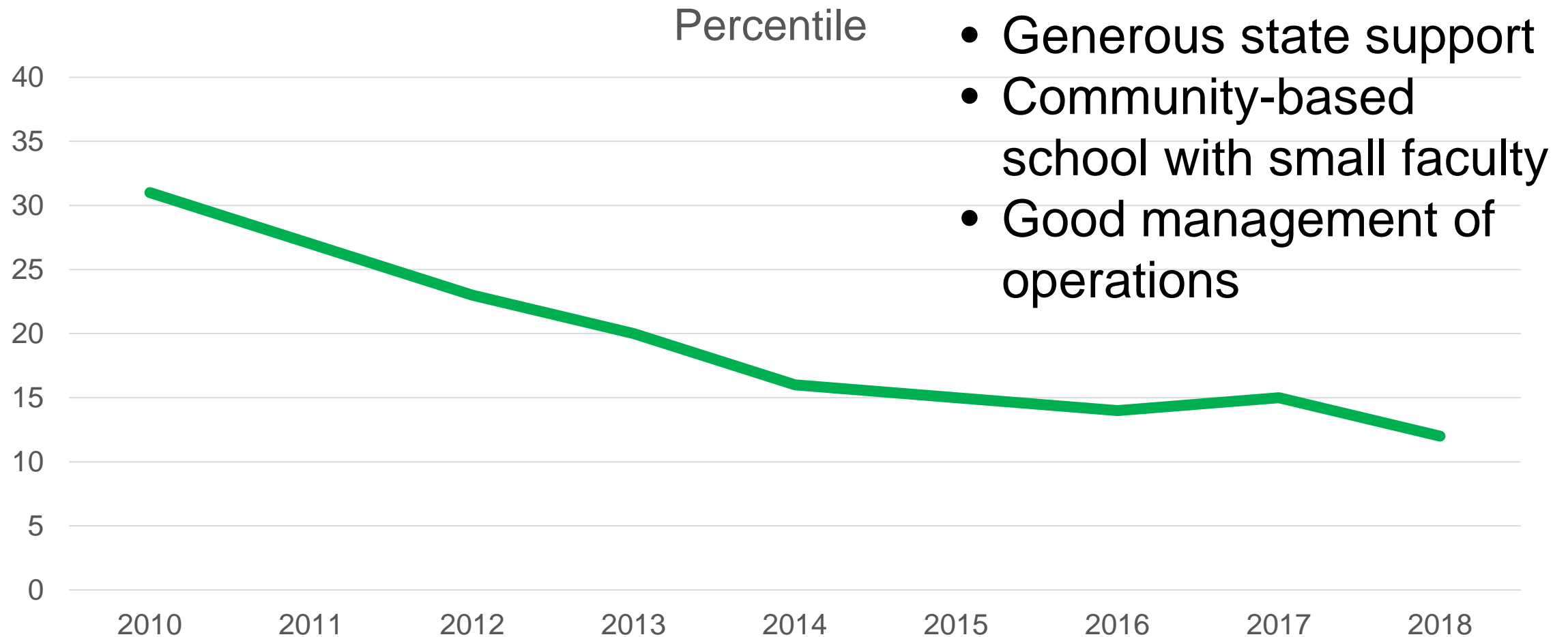
# Retention of UND SMHS Medical Student Graduates for Practice In-State

Percentile



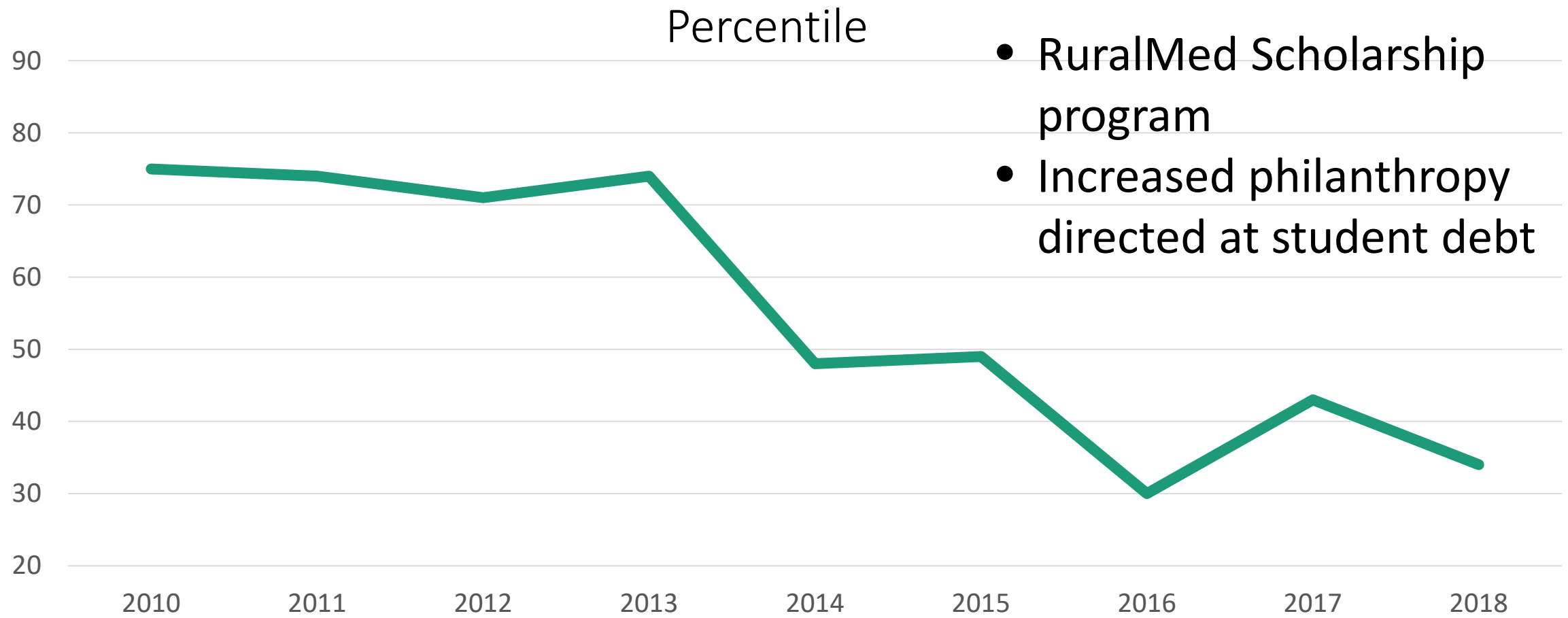
Source: Association of American Medical Colleges Missions Management Tool 2018

# Medical Student Cost to Attend (In-state)



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

# Medical Student Debt



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

# UND SMHS Outcomes

Metric	Percentile Rank
Percent of graduates practicing in rural areas (graduates 2003–2007)	98 <sup>th</sup>
Percent of graduates entering family medicine (2018)	100 <sup>th</sup>

Source: Association of American Medical Colleges Missions Management Tool 2018

# UND SMHS Outcomes

Metric	Percent
Completion rate for medical students (MD program) (average of last three years)	95%
Completion rate for 4 major UND SMHS graduate programs (including MD) (average of last 5-7 years depending on program)	94%

Source: *Vital Signs – 2018 Community Report* prepared by UND SMHS



# Value of the School and its Programs to the State

## Providing healthcare professionals

- 72% of Family Medicine Physicians
- 44% of Physicians
- 52% of Physical Therapists
- 52% of Occupational Therapists
- 42% of Physician Assistants
- 40% of Medical Laboratory Scientists

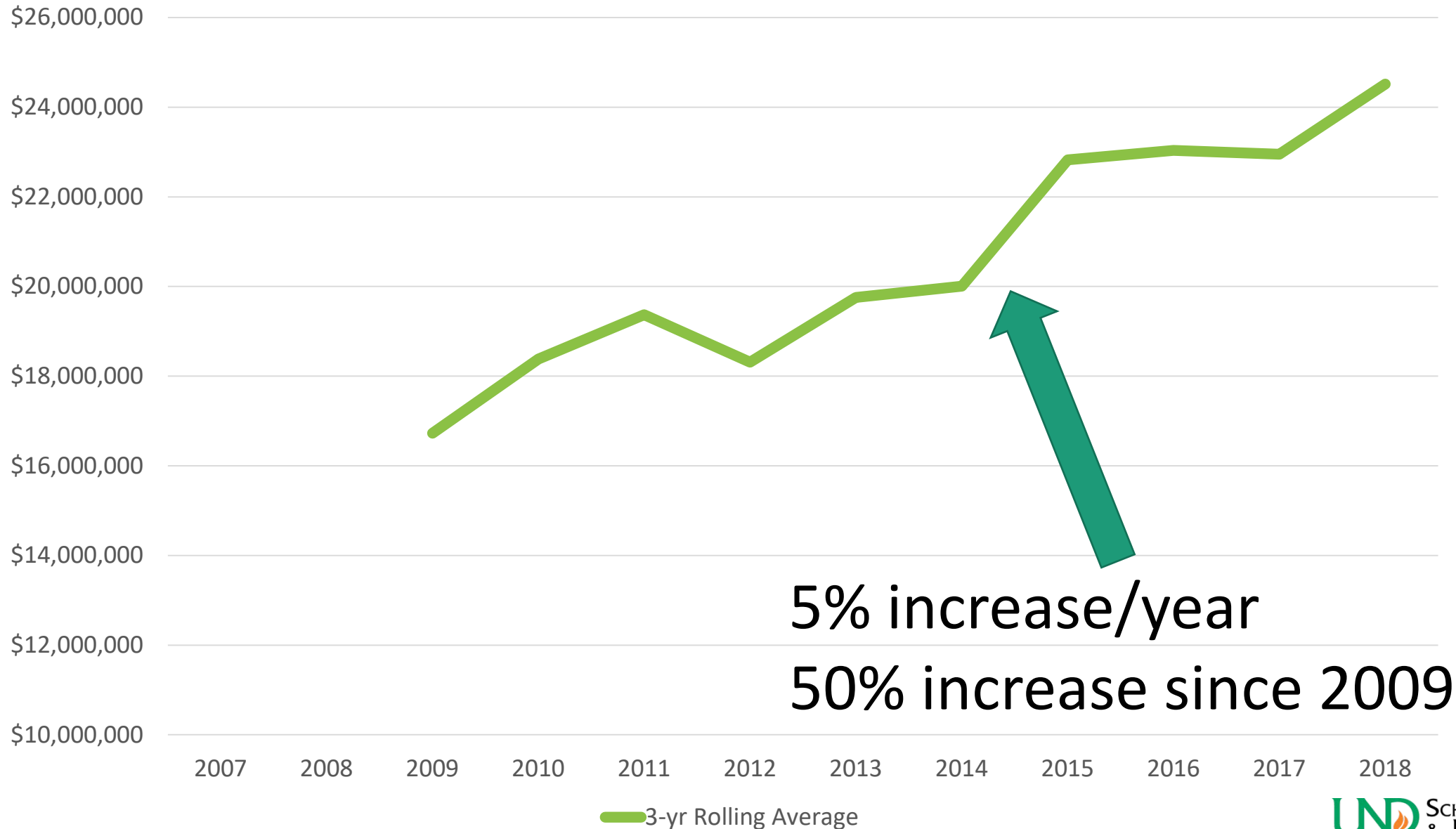


## Research Funding – FY2007 to FY2018

- Over those 12 years, UND SMHS faculty and staff submitted \$1,076,887,806 in grant requests (over one **billion!**).
- Over those same 12 years, they were awarded \$254,002,454 in grants (over a **quarter of a billion!**).
- This is an effective yield of 24%!



# UND SMHS Sponsored Funding



# North Dakota's Healthcare Workforce Initiative Started in the 2011-13 Biennium

- Reduce disease burden → focus on population health
  - Master of Public Health degree programs (UND and NDSU)
- Retain more healthcare provider graduates for North Dakota
  - RuralMed Program

# Healthcare Workforce Initiative

- Train more healthcare providers
  - Medical student class increased by 16/year (total of 64)
  - Health sciences students increased by 30/year (total of 90)
  - Resident (post-MD training required prior to clinical practice) slots increased by a total of 35 (original plan was for 51)
- Improve the efficiency of the healthcare delivery system
  - Training in interprofessional healthcare teams
  - Developing “virtual care” approaches that bring the clinic to the patient rather than the other way around (especially important in rural areas)

# Healthcare Delivery

- Improving the efficiency and effectiveness of healthcare delivery → Perhaps most important
  - Transform the delivery of care
    - Increased utilization of non-physician providers, especially for routine care
    - Telemedicine
    - Personal devices (cell phones, etc.)
    - Emphasis on population health and behavioral determinants
    - Interprofessional healthcare teams

# Implementation of Healthcare Workforce Initiative Over the Past 4 Biennia

- Increased class sizes by almost 25%
- Expanded medical student and other academic programs
  - Minot Integrated Longitudinal Experience (MILE) Program for medical students
  - Master of Public Health/new Department of Population Health
- Added new residency programs focusing on rural primary care and other clinical physician provider shortage areas in North Dakota
- Intensified clinician retention efforts
  - RuralMed program
- Intensified efforts to train providers dedicated to transforming health care delivery
  - Interprofessional teams
  - Virtual medicine

# Predictors of Rural Primary Care Physician Practice

- Systematic review of 284 full-text articles in the medical literature with in-depth review of 72 studies
- Found four predictive themes for rural primary care practice:
  - Personal characteristics or background
    - ✓ • Growing up in a rural area
    - Prior interest in rural or family medicine practice
  - Financial factors
    - ✓ • Loan repayment, scholarships, or other programs

Source: Goodfellow et al, Academic Medicine, 91:1313-1321, 2016



# Predictors of Rural Primary Care Physician Practice

- Medical school curricula and programs
  - ✓ • Family medicine specialty
  - Rural medicine program
- Graduate medical program (residency)
  - ✓ • Family medicine rural track
  - Community health center exposure

# Summary of Impact of HWI over the Past Decade

- Helped improve the health of North Dakotans
  - ND moved up five spots from #18 to #13 healthiest state in the nation\*
- Retained more physicians and other clinicians for practice in North Dakota
- Trained more physicians and other clinicians for practice in North Dakota
- Improved the efficiency of healthcare delivery

\*Source: America's Health Rankings 2018

# Summary of Impact of HWI over the Past Decade

- Constructed the largest government-funded building project in the history of North Dakota\*

- ✓ • Project finished on time
- ✓ • Project finished on budget
- ✓ • Project finished without significant incidents



“We shape our buildings and afterwards our buildings shape us.” (Winston Churchill)

\*In nominal dollars

# UND SMHS Budget Adjustments

- How did we adjust to the FY18-19 budget reduction?
  - Voluntary staff and faculty separations
  - Increased operational efficiencies
  - Reduced implementation of programs
    - Only able to fund 35 of the 51 approved residency slots
- Needs-based budget proposed by NDUS implicitly incorporates spending reductions because of increased operational expenses. This will be addressed through:
  - Additional operational efficiencies
  - Elimination of specific recruitment positions (e.g., Associate Dean for Research)
  - Expectation of increased self-generated (non-general fund) dollars

# Limited Options for UND SMHS Budget Adjustments

- Available options
  - Admit additional students
  - Admit out-of-state students
  - Increase tuition
  - Eliminate programs

# UND SMHS Degree Programs

1. Doctor of Medicine
2. Physical Therapy
3. Occupational Therapy
4. Medical Laboratory Science
5. Physician Assistant Studies
6. Sports Medicine/Athletic Training
7. Master of Public Health
8. Graduate programs in biomedical sciences/pathology

# Our Goals

- To be the best community-based school in the country
- To continue to be an innovator in education (with a focus on interprofessional teams)
- To continue to develop focused programs of research excellence
- To serve the people of North Dakota and beyond
  - Rural health
  - Healthcare workforce
    - Primary care (especially family medicine)
  - Health promotion
    - Interprofessional care
    - Virtual care

# Our Purpose as a School

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



# Our Purpose as a School

- Educate
- Discover
- Serve



# Metrics of Success

- Educate
  - Medical and health sciences graduates meet or exceed accepted standards on nationally recognized exams measuring academic progress
  - Exceed national average of medical students going into family medicine by 100% (i.e., at least double)

# Metrics of Success

- Discover (Research)
  - By 2025 rank in the top 4 of all public community-based medical schools in the US in sponsored (grant) funding
    - Currently in the top quarter (78<sup>th</sup> percentile)
- Service (Healthcare Workforce Initiative)
  - Ensure an adequate supply and distribution of healthcare providers\* throughout ND and the region by 2025
  - Generate at least \$2 of other funding for every \$1 of funding from general fund (ROI of  $\geq 200\%$ )

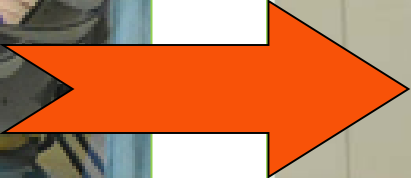
\*Including virtual care

# Assessing Our Results

- Annual report prepared in December of each year
- Called *Vital Signs*, it is a way for stakeholders to “take the pulse” of the UND SMHS
- Incorporates a variety of objective metrics to assess the progress of the UND SMHS in meeting its educational, research and scholarly, and service missions and obligations



# Our Mission for the last 114 years:





# David Molmen, MPH

Chair, UND SMHS Advisory Council

Trustee, American Hospital Association

Former CEO, Altru Health System, Grand Forks, ND



# Responsibilities of the UND SMHS Advisory Council

“The advisory council...shall study and make recommendations regarding the strategic plan, programs, and facilities of the school of medicine...The recommendations must:

- (1) Address the health care needs of the people of the state;
- (2) Provide information regarding the state's health care workforce needs; and
- (3) Provide information that specifies the contributions that the university of North Dakota school of medicine and health sciences and the residency training programs in the state are making to meet the health care provider workforce needs of the state.”

# UND SMHS Budget Proposal

- The HWI involved an agreement between the School and the legislature for increased healthcare clinicians and healthcare programming for North Dakota provided by the UND SMHS to be supported by increased financial resources provided by the state.
- The UND SMHS is keeping its side of the agreement.
- Now the state needs to do the same.
- The School is not asking for more to do less; it is asking for the necessary funding so it can do even more.



# Recommendations

UND SMHS Advisory Council Meeting 12/3/18

1. The highest recommendation is to provide the requisite funding for the UND SMHS and the Healthcare Workforce Initiative (HWI) by approving the fully funded **needs-based budget** contained in engrossed HB1003.
2. It is important that *all* of the HWI funding is in “**base**” rather than some in “one-time” funding (as specified in engrossed HB 1003). This is important because we make longitudinal commitments to students/residents and faculty that extend beyond the biennial budget cycle.

# Recommendations

UND SMHS Advisory Council Meeting 12/3/18

3. To ensure the recruitment and retention of high-performing faculty and staff, it is important to endorse **salary merit increases**. Because such funding does not cover all of the associated costs (non-appropriated salary sources and health insurance premium increases), the UND SMHS is prepared to absorb the additional expense associated with this proposal.

# Comparison of UND SMHS Medicine Faculty Salaries

UND Department	Public Medical Schools
Basic Sciences Faculty	-18%
Clinical Faculty	-8%

Source: Association of American Medical Colleges Adjusted FY 2017-18 public medical schools mean salary survey data

# Recommendations

## UND SMHS Advisory Council

Endorsement of these three funding recommendations by the ND Legislature will enable the UND SMHS to continue its efforts to provide the necessary healthcare workforce and programming to improve the quality of life of North Dakotans (as specified in the North Dakota Century Code).

THIS SCHOOL OF MEDICINE AND HEALTH SCIENCES  
BUILDING IS DEDICATED TO THE  
**CITIZENS** OF NORTH  
DAKOTA  
FOR THE **EDUCATING**  
PURPOSE OF  
HEALTHCARE PROFESSIONALS  
AND DISCOVERING KNOWLEDGE  
TO ENHANCE THE QUALITY OF LIFE FOR  
**ALL NORTH DAKOTANS**