Health Care and Medical Education in North Carolina

Board of Governors Update

January 13, 2017

The Boston Consulting Group

Today's Agenda

Context

UNC System Updates

- UNC Health Care
- ECU

Overview on North Carolina GME

Recommendations

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UNC System with the help of BCG set out to gather the requisite facts and perspectives to address the following

Is there a need for a UNC System or NC Statewide strategy?

If no, what can be done in the near term to encourage collaboration and teaming?

Is there appetite across UNC System's institutions to take this on? What is the urgency?

Who should be at the table for driving this effort?

How should decisions be made around System or Statewide healthcare delivery and medical education?

Two parallel processes were undertaken to understand the "Lay of the Land"

Interviewed 36 executives across the UNC System and NC Policy Makers

UNC System
- Margaret Spellings, President
- Junius Gonzalez, SVP Academic Affairs
- Lou Bissette, Chair Board of Governors
- Peter Hans, Senior Advisor

UNC-HC
- Bill Roper, CEO, Dean, UNC-CH SOM
- Andy Willis, Chief of Staff
- Dale Jenkins, Chair, Board

UNC / Other Chancellors
- Carol Folt, UNC Chapel Hill
- Phil Dubois, UNC Charlotte
- David Belcher, Western Carolina University
- Robin Cummings, UNC Pembroke
- Franklin Gilliam, UNC Greensboro

ECU
- Cecil Stanton, Chancellor
- Phyllis Horns, VC Health Sci.
- Nick Benson, Vice Dean Brody
- Elizabeth Baxley, Sr. Assoc Dean, Brody SOM

Vidant
- Mike Waldrum, CEO
- Marcus Albernaz, Chair Vidant Board

UNC System BoG
- Joan Perry
- Henry Hinton
- Harry Smith
- Craig Souza
- Hannah Gage
- Anna Nelson
- Jim Holmes
- Scott Lampe

NC Policy Makers
- Nelson Dollar
- Donny Lambeth
- Ralph Hise
- Tom Apadoca
- John Fraley
- Dr. Randall Williams
- Rick Brajer
- Dr. Warren Newton
- Brian Perkins
- Brad Wilson

Developed a comprehensive Factbase on NC healthcare delivery and medical education

North Carolina Landscape
- What is the payer, provider, and medical school landscape? Who are the major competitors for the UNC System?
- What are the different market segments in North Carolina?

Relevant Healthcare Delivery and Medical Education Trends
- What are the major healthcare trends facing North Carolina over the next several years?
- What are the implications for the UNC System?
- How do these trends affect the System's approach to medical education?
- How do they impact the System's approach to healthcare delivery?

System Governance
- What decisions should be made at the system level vs. individual institutions and how should they be made?

Executive summary

Trends in healthcare delivery, med. education, political climate call for a long term Statewide strategy

I **The facts suggest an imperative for action at a Statewide level**

Significant change is occurring in medical education and healthcare delivery across North Carolina, particularly impacting the healthcare labor force, clinical outcomes, grants/funding, network footprint, and the interaction of health systems with regional and national payers

Unchecked, these changes will adversely impact healthcare quality and equity, and create an economic burden for the State

Individual institutions are planning, but no one is addressing the needs at a North Carolina level

II **The case for change is understood, and growing in urgency**

Many leaders across the System and State corroborate these issues and observations

Recent election outcomes increase overall urgency, raising the importance of State leadership

The healthcare sector dynamics observed in NC, along with trends across the medical education and healthcare delivery industries more broadly, and the changing political landscape create an urgent call for scenario planning and the development of a comprehensive strategy for the State

III **A Statewide strategy is needed; strong coalition will be key**

Therefore, we recommend a strong representative coalition from across North Carolina be formed to develop a long term Statewide strategy for healthcare delivery and medical education

We also recommend a set of near term, tactical actions for UNC System to pursue in order to demonstrate progress to the State and to begin fostering more collaboration – e.g., advocacy for GME/residency spots, Project Unify support

Looking at healthcare delivery and medical educ. in NC, the facts to date all point to significant and wide scale change

	Relevant considerations	Overview
Medical Education	A New and larger labor force needed to meet rising healthcare needs	• NC will need a 24% increase in its healthcare labor force by 2024 • Estimates suggest State education programs will differentially meet demand – NP and PA supply plans appear more sufficient, than dentist and physician ones
	B Increasing competition for research funding	• Public funding increasingly a challenge to receive – NIH grants awarded nationally down 11% since 2005 • UNC Chapel Hill continues to be a leading research institution and recipient of NIH funding annually: top 10 within the nation and strong asset to overall UNC System
Healthcare Delivery	C Greater need to address clinical variations in the market	• North Carolina 10th in GDP growth and 4th in Economic Outlook but 43rd in healthcare equity and 30th in healthcare access • Mental/behavioral health issues prevalent, with ~40% of NC's mental health needs in being met as of 2016 • Overall, unfavorable health outcome places large economic burden on the State
	D Consolidation increasing; intensified system & cross-border competition	• The top 11 provider systems likely to become top 5 or fewer; and/or be acquired by out of state players
	E Increased focus on payer and population strategies to address healthcare market	• 60% US consumers open to narrow networks • Value-based reimbursement to be 50% of payments by 2020 • Managed Medicaid to be introduced to NC in 2019 • Medicare Advantage has grown at 16% over the last 5 years

The outcome of the Federal election will magnify or redirect how HC delivery and med. educ. is administered

Changes that will be on the table in 2017
(not exhaustive)

- Elimination of the individual mandate
- Elimination of mandated benefits
- Insurance crossing state lines
- Expansion of tax-free HSAs as a supplement to HDHPs
- Creation of high-risk insurance pools targeted at those with chronic conditions
- Medicare and Medicaid reform: raising Medicare age, privatization of aspects of both
- Changes to MACRA and other reimbursement programs
- Medicaid block grants
- Funding for "disproportionate share" (e.g., uninsured, impoverished)
- Repeal of tax on medical devices, Cadillac tax

... leading to several key implications specific to health systems

- Overall, greater State involvement in healthcare delivery
- Faster move to risk assumption
- Provider margin compression
- Reimbursement cuts
- Consumers' heightened sensitivity to costs
- More M&A, network consolidation and service line differentiation activity

Overall, the Republican platform aims to minimize gov't involvement in healthcare, shift to greater private administration, increase competition

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UNC SCHOOL OF MEDICINE

UNC School of Medicine

Presentation to UNC Board of Governors

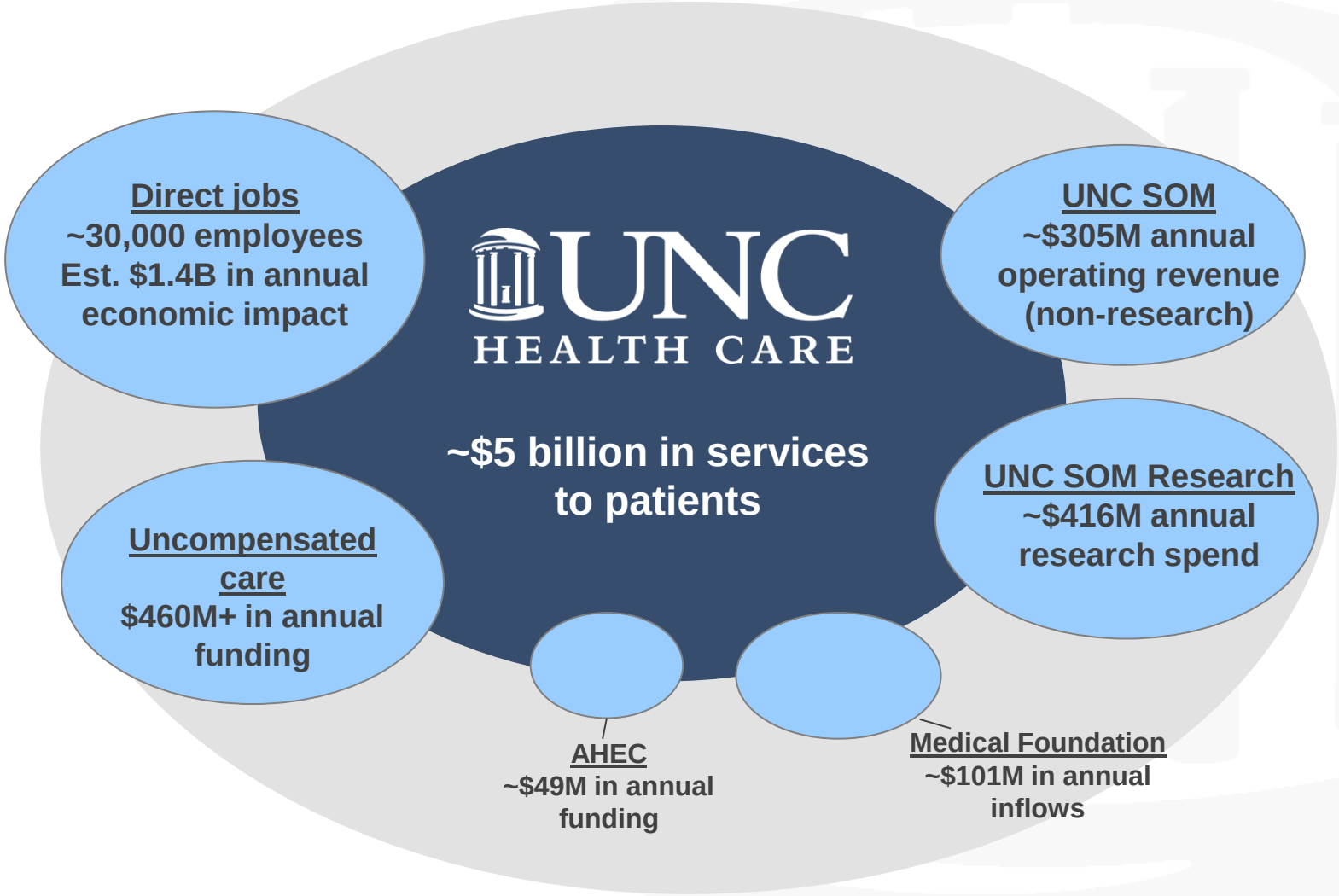
January 13, 2017

Vision: To be the Nation's Leading Public School of Medicine and Academic Health Care System

- Train the next generation of physicians
- Conduct research and develop innovative tools, techniques and approaches to find new cures, and better treatments
- Serve the needs of our patients/citizens
  - Greater access to services
  - Highest quality of patient care
  - Regardless of the patient's ability to pay

Reputation and Quality	Education	Clinical Care	Research
***U.S. News & World Report*:** **#2 Primary Care** **#2 Family Medicine** **#2 Rural Medicine**	• 180 med students per class • 90 PhD students per class • 172 new residents each year	• Patients from all 100 NC counties • US News ranked #1 in NC: Cancer ENT Gyn Kidney	• Top 15 NIH funding • >$400M in research funding for FY15 • 100 spinoff companies from faculty research

Combined UNC School of Medicine and UNC Health Care's economic impact is greater than $10B annually to the State of North Carolina



UNC School of Medicine Expansion Request

$15M for the expansion of the class with 50 new medical students

Residency expansion essential to produce the doctors that NC needs

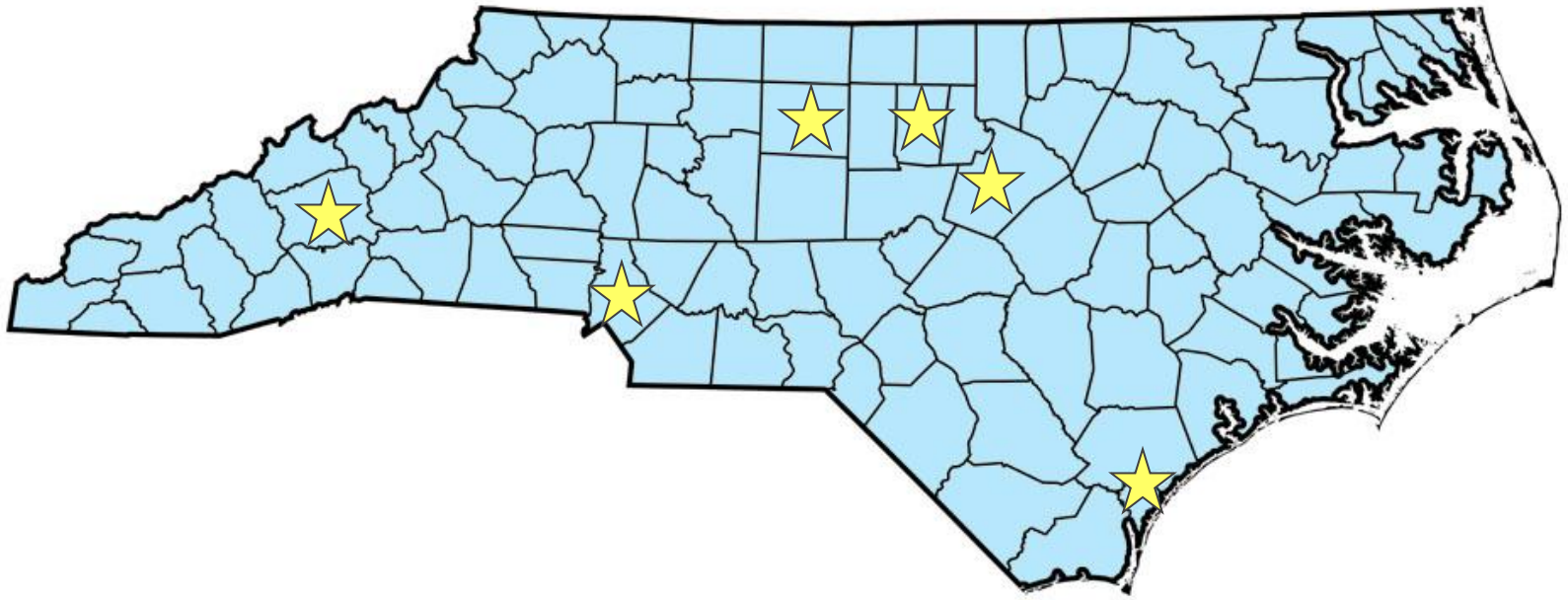
Meeting the Rural Workforce Need

- Kenan Primary Care Medical Scholars Program
- NC Rural Promise Scholarship

- Fully Integrated Readiness for Service Training (FIRST)

- The Underserved Track – UNC Family Medicine Residency
- The Pediatric Primary Care Residency

Branch Campuses: Teaching across the state



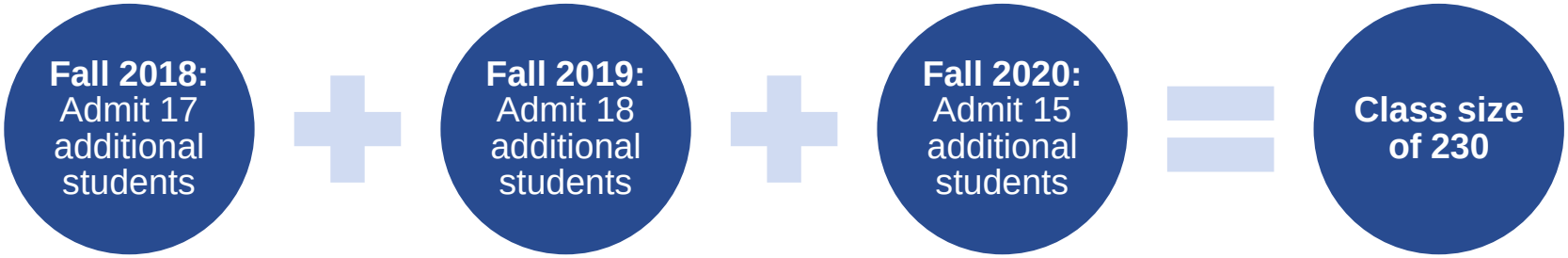
Asheville | Charlotte | Wilmington branch campuses

With additional teaching in Raleigh and Greensboro

Asheville	Charlotte	Wilmington
• 24 per year • Growing thanks to state support	• 24 per year • Capacity to expand	• Launched this year • Growing to 12 per year

School of Medicine Expansion

We propose a gradual increase in class size



Costs			
FY18	**FY19**	**FY20**	**FY21**
$5.5M recurring for faculty	$3.7M recurring expense	$3.7M recurring expense	$2.2M recurring expense

$15M annual recurring increased cost

New tuition will bring in approximately $5M to the School of Medicine/University

Training North Carolina's Needed Physicians

Who practices in NC?

- **46%** of UNC SOM graduates
- **44%** of physicians who completed a residency at UNC
- **70%** of UNC SOM alums who completed their residency at UNC
- **43%** of NC-educated practicing doctors went to UNC

NC needs more physicians graduating from UNC SOM and doing their residency here

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East Carolina University

Health Care Workforce Needs of North Carolina

Brody School of Medicine Plans for Expansion

UNC Board of Governors
January 13, 2017

Promises Made, Promises Kept

For 40 years the Brody School of Medicine has consistently – and cost-effectively – delivered on our legislatively-mandated mission to:

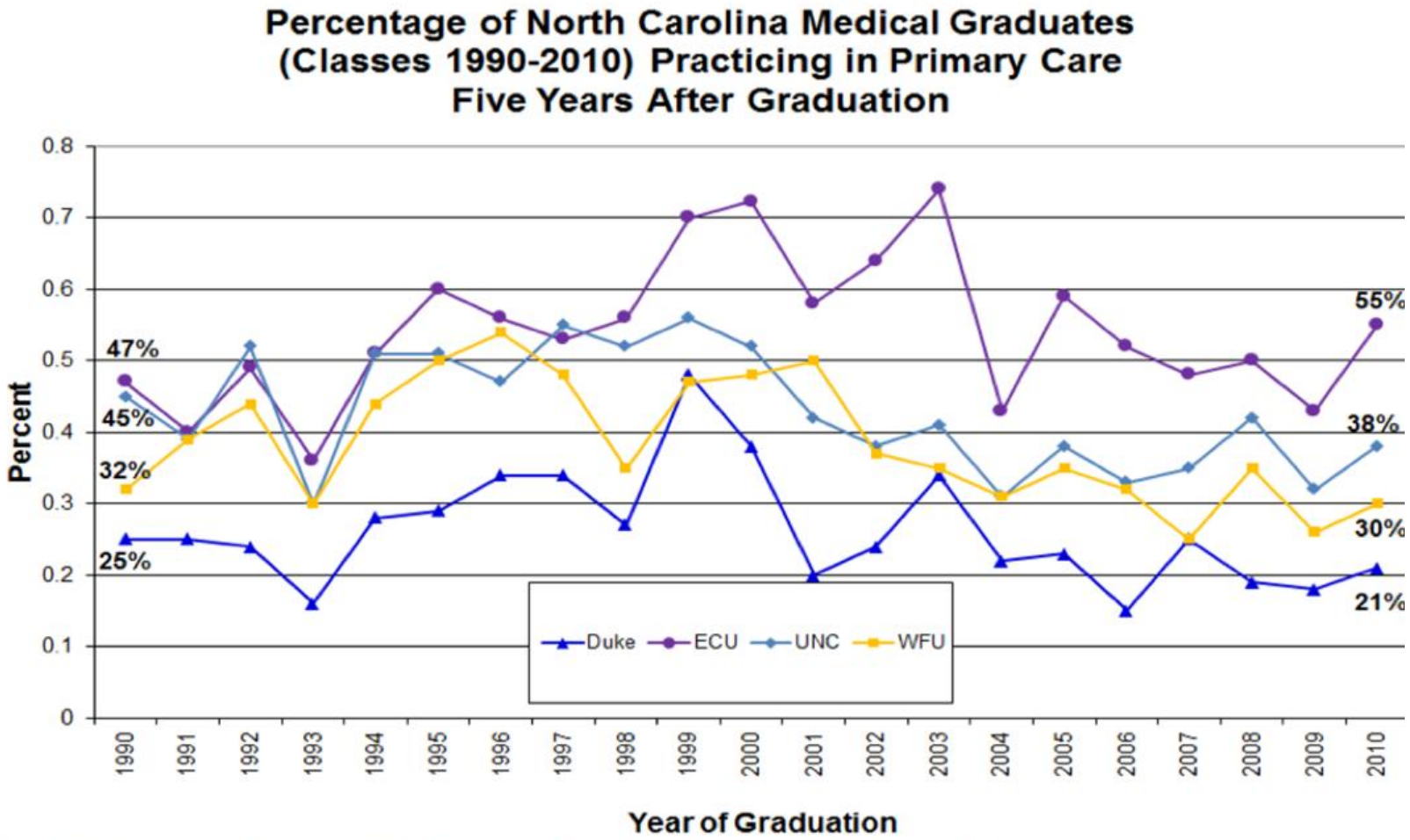
- **Increase the supply of primary care physicians for our state**
- **Enhance access of minority and disadvantaged students to a medical education**
- **Improve the health status of citizens in eastern North Carolina**

How Well Do We Meet Our Mission?

US Medical School Graduates		
	Brody	National Average
Practicing in rural areas	15.5%	5.1%
Practicing in underserved areas	36.2%	19.0%
Practicing in North Carolina (same state)	57.3%	37.5%
Practicing in Primary Care	44.2%	24.4%
Practicing Family Medicine	19.1%	9.0%
Who are African American	12.9%	5.3%
Who are Native American	2.8%	0.6%
Average debt of indebted graduate	$108,068	$156,174

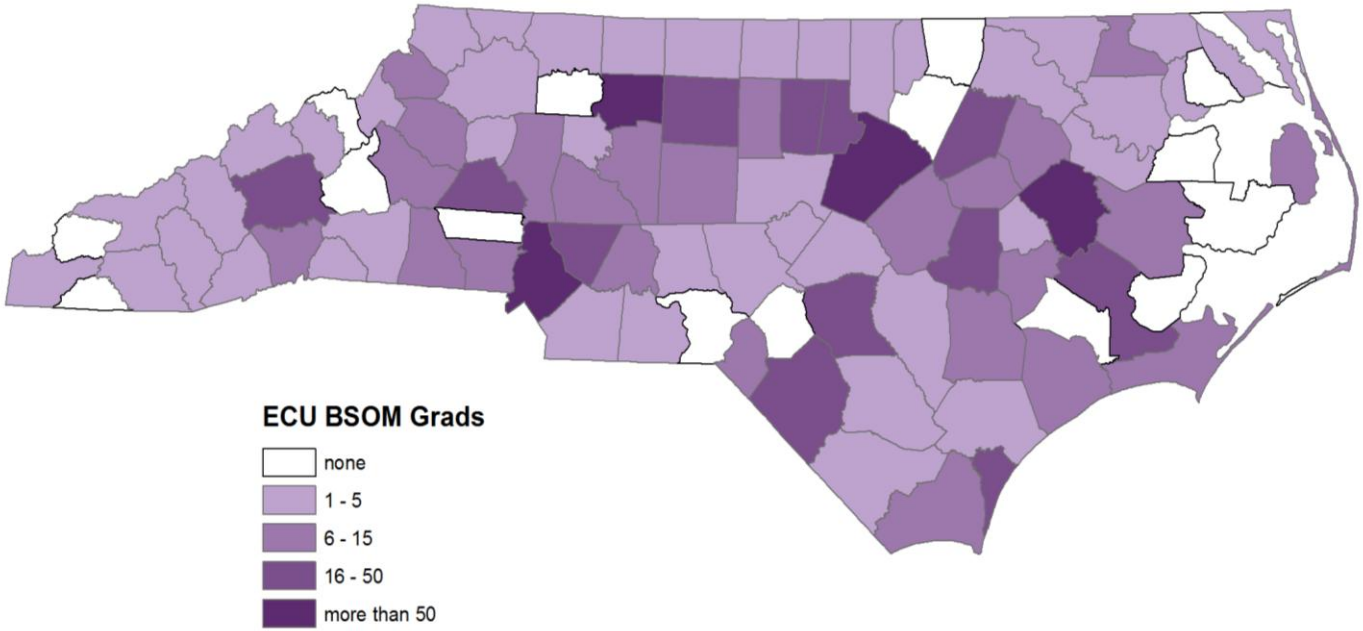
2016 AMA Physician Masterfile

Brody Graduates Remain in Primary Care



Sources: NC Health Professions Data System and NC AHEC with data derived from Duke, UNC-CH, ECU, Wake Forest, NC Medical Board, and AAMC.
Note: Primary Care = Family Medicine, General Pediatric Medicine, General Internal Medicine, Internal Medicine/Pediatrics, and Obstetrics/Gynecology.
The NC Medical Board changed the way the collect specialties, and these specialty data are used for physicians practicing within the state. This may partially explain the drop in primary care.

Brody Graduates Remain in North Carolina



Source: North Carolina Medical Board, Doctors with active license, as of March 1, 2016

Brody Leads the Way in Health System Science Education

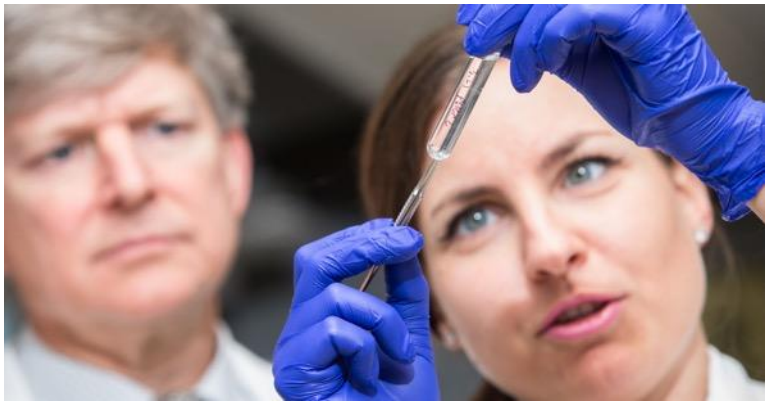
- We are one of 11 schools selected nationally to develop and test transformative changes in medical education.

East Carolina University
REACH
Redesigning Education to Accelerate Change in Healthcare

- Our focus is on preparing graduates to lead change in an evolving *health care system.*

We Are Advancing Knowledge that Addresses NC Health Conditions

- We are international leaders in the study of metabolic diseases like diabetes, hypertension and obesity.
- East Carolina Heart Institute is devoted exclusively to research and treatment of cardiovascular diseases.
- Our surgeons are studying innovative approaches to targeted treatment of pancreatic and other cancers.



We Address Critical Health Care Needs for NC

- We provide essential primary and specialty “safety net” care for eastern NC’s 29 counties.
- We lead a statewide telepsychiatry network that improves access to mental health services in a cost-effective way.
- We are national leaders in the detection and treatment of early lung cancer, training physicians in advanced diagnostic procedures.

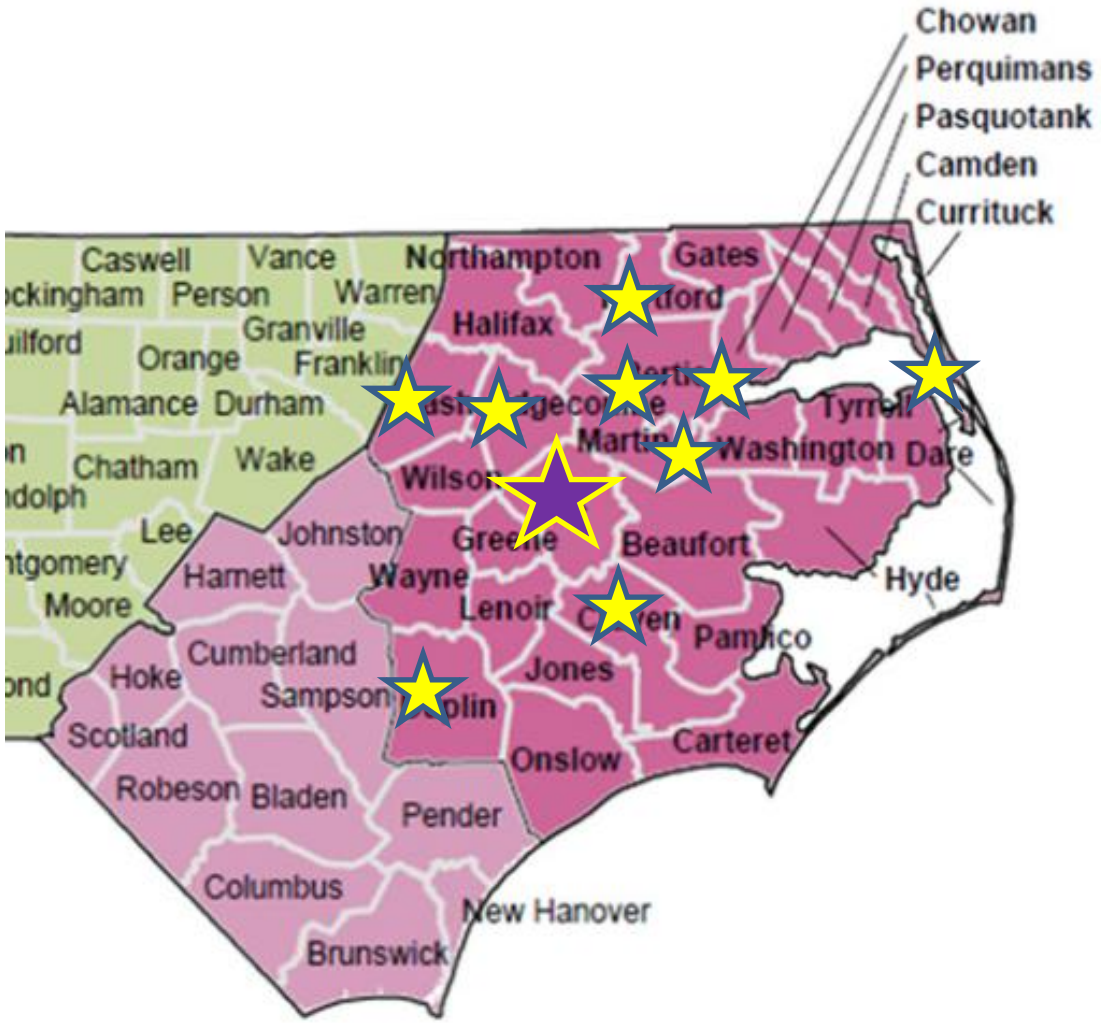
Brody Expansion Principles

- Build upon Brody's existing mission.
  - Increase physician workforce to meet the state's current and future needs
  - Getting those physicians to the places they are needed
- Focus on rural training that supports the shared vision of BSOM and Vidant Health to become the national model for rural health and wellness.
- Expand and Improve care provided in regional hospitals, practices and communities through integration of medical education

Planned Medical Student Expansion Plan

- Increase from 80 to 120 students per year, in an incremental fashion
- Further develop pipeline programs for student recruitment
- Develop regional campuses in eastern NC communities.
- Increase training experiences in rural communities for all students.
- Acquire necessary new medical education building; add faculty, staff, and educational resources to support class size.

Potential Brody UME-GME Expansion Sites



Medical Class Expansion Costs

Capital Construction

- $215 million for 260,000 sq ft building
  - FY17-18: Advanced planning cost = $2 million
  - FY18-19: Design cost = $12 million
  - ECU to assist in funding remaining construction cost = $201 million

Operations

- $13M annual recurring increased cost at fully expanded enrollment
- New tuition will bring in approximately $4M to the university
- Start-up operational costs = $5 million

Economic Benefit of Expansion

Positive annual economic impact (direct and indirect) of additional students, staff, faculty from 110 new jobs created

New building alone will add over 3,000 new job during construction period

Graduate impact: 1 MD supports total economic output of $2.2 million/year

- **Brody graduates currently practicing in NC represent annual contribution of over $3 billion to the state**
- **Improvements in health outcomes impacted by this additional physician workforce will reduce health care costs due to improved health status**

North Carolina Needs MORE of What We Do

- People are living longer
- The burden of disease is increasing
- The population of our state is growing
- NC physicians are aging, retiring
- Expanded insurance coverage has increased access to health care

The collective contribution of NC medical schools does not meet state physician workforce needs.

Brody is Ready!

- We are poised to make a greater contribution to North Carolina's physician workforce to improve:
  - Access to health care across our state
  - The quality of care being delivered in our communities
  - The overall health and welfare of North Carolina's citizens

Medical student expansion alone will not realize the workforce benefits that NC Needs

It is also essential to expand Graduate Medical Education so that medical students may remain in state to complete their training

- 70% of physicians who complete medical school at Brody and and residency training at Vidant Medical Center remain in NC to practice

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Graduate Medical Education

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Graduate Medical Education (GME) – Also known as Residency Training

- Doctors cannot practice immediately after graduating from medical school
- Residency training is required
  - Three years in primary care, longer for psychiatrists, surgeons and others

Graduate Medical Education (GME)

- Residency training is expensive
  - Residents are paid a salary and employed by hospitals

- Traditionally paid by the federal government, but UNC Health Care System, Vidant and most of the NC academic centers are at or above the Federal cap for funded slots

We need alternatively funded GME slots (resident positions) to increase NC's physician workforce

Increasing medical school class size, alone, doesn't solve the physician shortage problem for NC

- Must be coupled with more resident education spots

- Best outcomes are when medical school and residency are both done in NC
  - Of physicians who attend medical school in NC and complete their residency in NC, 70% stay in-state (compared to 35-40% if they just attend medical school in NC).

- Over the last decade, established medical schools in NC have expanded. In addition, there is a new medical school at Campbell. This has led to approximately 200 more new graduates per year.
  - Most of these graduates will train out of state if we do not create more NC opportunities with residency slots

What the NC General Assembly has recently done regarding GME funding

- Over the past two years, the NC General Assembly has funded residency slots at two non-state institutions:
  - Cape Fear Valley Hospital, Fayetteville - $7.7M (HHS Appropriations)
  - Mountain Area Health Education Center, Asheville - $8.0M (Education Appropriations)

- NC General Assembly reduced overall GME funding from the HHS budget by $32M (R), unless funds are made available in the HHS Medicaid budget to pay for going forward

We must advocate for state funding of GME

- Advocate for no cuts and restoration of funding for GME in the HHS Budget

- Advocate for new funds in the HHS section of the budget to provide for slots for needed disciplines
  - Primary Care (Family Medicine, Pediatrics, Primary Care Internal Medicine), Psychiatry, General Surgery, OB/Gyn
  - Provide a priority for rural service
  - Tie to medical schools for faculty support

If you want to produce more physicians in NC, there are two things you can do:

- Increase number of medical school graduates per year by a total of 90
  - Increase ECU Class Size – by 50%
    (Produces 40 more graduates per year)
  - Increase UNC Class Size – by 28%
    (Produces 50 more graduates per year)

- Advocate for funds for more residency slots all across NC

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The aforementioned trends and perspectives underscore the urgency for a longer term Statewide strategy

A Statewide strategy can make a significant impact by...

Medical Education

...Addressing the critical labor force shortages and shortfalls	...Leveraging the research strengths of UNC Chapel Hill to procure greater grant funding, and in turn bring strong economic contributions to NC	...Drawing upon the differentiated regional strengths of the collective assets across UNC System – e.g., rural care, primary care retention

Healthcare Delivery

...Closing clinical outcomes gaps with consistent action across UNC System other key regional systems	...Designing a network footprint that creates a competitive scale advantage across North Carolina and the region	...Creating strategic payer relationships to be positioned advantageously with evolving segments and at a favorable cost of care point with consumers

It is recommended that a set of near term, tactical actions for UNC System to pursue to build more collaboration

1) **Define a common funding advocacy plan to "speak with one voice" in the January 2017 legislative session (state appropriations, funding of approved SoM seats)**

2) **Come together to develop plans around increasing the number of residency spots and specific GME programming across the System**

3) **Select a couple specific opportunities for research and/or operational coordination across the System**

4) **Support Project Unify by more clearly articulating how the benefits accrue to Brody (both financial, relationship) so a robust, consistent message is relayed**

5) **As new i) hospital and physician group arrangements and ii) medical education programming come up, communicate about the best way to proceed for the benefit of the System as a whole**

Propose a multi-phased approach to address near term actions, build toward longer term strategy

Near term

NC healthcare delivery and medical education market assessment

- Detailed North Carolina healthcare delivery and medical education factbase
- Executive interview process with leadership from UNC System, NC Policy and Legislation

UNC System near term collaboration efforts

- Funding advocacy plan
- Residency / GME planning
- Project Unify communication / support
- Research and/or operational collaboration
- Establish communication protocols around external moves impacting System

Long Term

Statewide labor shortage: planning and strategy

- State and reg'l i) supply / demand and ii) import / export assessment for all HC delivery resources – e.g., PCPs, SCPs, NP/PA, dentists, mental
- Implications / planning across all MedEd programming in NC

Statewide healthcare delivery for superior clinical outcomes: planning and strategy

- State and reg'l strategy development for:
  - Network footprint development, incl. affiliation / mgmt agreements
  - Pop. health / CIN
  - Payer partnerships

Current Participants

- UNC Health Care
- UNC Chapel Hill
- ECU
- Vidant

Add'l Participants to include in long term planning

- Additional UNC System institutions
- Other private systems – e.g., Duke, Carolinas
- Reg'l community colleges
- Payers
- Chamber of Commerce
- Other healthcare business leaders