TEXAS A&M
HEALTH SCIENCE CENTER

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Chairman Zaffirini and members of the committee, it is my pleasure to appear before you today to discuss the critical issues facing Texas with regard to our physician workforce shortage and how it can be addressed.

Interim Study Charge: Consider the state's allocation of and need for resources for medical education, including graduate medical education, geographic distribution of those resources, and the value of associating a medical school with a top-tier academic campus.

I. First, let's consider the allocation of and need for resources for Undergraduate Medical Education (UME) and Graduate Medical Education (GME).

	Medical School	**Residency Training**
Annual cost per student	~$75,000	~$100,000
State contribution	~$50,000	~$5,000
Alternative sources	Tuition, fees, reserves to cover gap in formula funds	Medicare IME & DME, hospitals funding, county indigent funds
Retention rate for UME vs. GME	61.4% of TX physicians are TX med school grads	56.4% of TX physicians are TX-residency trained

- The best retention rate (79.5%) is among physicians who complete both medical school and residency training in Texas. (5th highest retention in the country.)
- In order to meet the physician shortage, we must increase the state investment in BOTH UME and GME.
- Texas already is a "net importer" of physicians, with more than half (56%) of our doctors coming from other states or countries. We cannot rely on out-of-state recruits to meet our workforce needs.

A. Growth Needed in Undergraduate Medical Education (UME):

- Total medical students: 5,861 (25th state ranking per 100,000).
- Total first year medical students: 1,334
- 30% increase needed by 2015, reaching 7,619 total students, including 1,734 first-year students.
- Increase needed: 400 new first-year students by 2015
  (September 2007 data)

B. Growth Needed in Graduate Medical Education (GME):

- Total residents in Texas: 6,741 (22nd state ranking per 100,000)
- To maintain that ranking in 2025, we need to add 1,478 positions for a total of 8,219 slots.
- An increase of at least 200 first-year slots is needed by 2012 to accommodate expected medical school enrollment growth and to retain our med school graduates for GME in Texas.
  (January 2007 data)

(Source: 2007 State Physician Workforce Data Book, AAMC November 2007)

Texas A&M HSC College of Medicine is adding 135 students of the 400 needed statewide, leaving 265 additional students to be contributed by other schools.

C. Health-Related Institution Formula Funding Recommendations:

In addition to addressing the issue of needs specific to medical education (both UME and GME), we must attend to the fundamental issue of restoring adequate rates for our core funding formulas for Health-Related Institutions (Instruction & Operations, Research, and Infrastructure).

Current HRI formulas, when adequately funded and appropriately administered, provide an effective mechanism to support health professions education. For FY2010-11, the Coordinating Board recommends a return of formula funding rates to FY2000-01 levels, over two biennia. This is a critical commitment to insure the ability of our HRI's to meet the workforce needs of Texas.

II. Second, let's consider geographic distribution of health professions education as well as access to those programs for a wide range of students.

A. Consider the success of the Irma Lerma Rangel College of Pharmacy:

- It is the first professional college south of San Antonio, and the inaugural class will graduate in 2010.
- 50% of students are from South Texas and the Valley, and 36% are Hispanic.
- The entering class of 2008 ranked in the top 5% nationwide on average PCAT score (76.5 vs. 70 for national average).

The location of our higher education institutions and programs is important, along with the geographic origin of our prospective students. Attracting geographically diverse students can impact the maldistribution of healthcare professionals in Texas.

B. Reverse the trend of U.S. medical schools admitting more students who are less likely to choose to practice in underserved areas:

- U.S. medical schools have been admitting more students with the highest income levels and the most urban origins, the majority of which were raised, educated, and trained in or near major medical centers. They are most likely to return to practice in or near major medical centers.
- Only 30% of our medical school graduates come from the middle and lower income population that is the same population most in need of healthcare.
- Rural-born medical student admits have declined to less than 10% even though the rural population remains at over 22%.
  (Source: Robert C. Bowman, M.D., Center for Physician Workforce Studies. University of Nebraska Medical Center.)

We must admit more rural-born Texas students into medical school, provide GME slots for them to stay here to train and improve the practice environment for primary care physicians through strategies such as loan repayment as well as significant reform of the healthcare finance system.

C. Maximize use of the community-based medical school model in Texas:

Definition of a "community-based" medical school (AAMC):

- Does not have an integrated teaching hospital
- Accredited in 1975 or later
- Smaller-operating budgets

Fundamental principles for community-based medical schools:

- They use community hospitals to achieve their educational mission as opposed to traditional academic medical centers.
- They emerged due to the increased demand for stronger ties between medical education and communities.
- 19 U.S. medical schools are designated "community-based" including Texas A&M and Texas Tech.

Community-based medical schools that recruit students from rural areas and from economically disadvantaged backgrounds are best suited to address the maldistribution of physicians and to increase participation in primary care.

D. Support "pipeline programs" to increase participation by a wide range of students in the health professions:

While expanding our existing TAMHSC colleges and starting a new College of Nursing, we also have developed pipeline programs spanning K-16 into college, serving students in the greater Houston area, Dallas/Fort Worth, the Coastal Bend, and the Lower Rio Grande Valley. These programs increase participation of students who are underrepresented minorities and/or who hail from rural and underserved areas.

Example: **Partnership for Primary Care (TAMHSC and A&M System Universities)**

- Targeting students from underserved areas, the Partnership is an opportunity for qualified applicants to gain automatic acceptance to medical school.
- Students must have GPA of 3.5, be predicted to graduate in top 10%, achieve a 1200 SAT or 26 ACT, have residence in rural/underserved area, be a U.S. citizen and Texas resident, and commit to attend one of the A&M partner universities.
- Currently there are 35 students from the PPC program who are currently enrolled in the HSC medical degree program. We also have 2 students from JAMP and 4 students who came from the Prairie View Undergraduate Medical Academy.
- 53% of TAMHSC College of Medicine graduates chose primary care residencies in 2007.

Our newest pipeline partnership is through our Round Rock campus with the East Williamson County Higher Education Center, which has started a "rural early college high school" from which we'll be able to recruit students. This strategy of recruiting students from rural and underserved areas in combination with rural rotations for medical students in locations such as Beeville will expose more students to rural medical practice, hopefully resulting in better distribution of our future graduates.

III. Finally, let's consider the issue of medical schools associated with top-tier institutions.

Approximately 60% of the nations medical schools are imbedded in general academic institutions and those organizational models vary greatly in terms of leadership structure, geographical proximity, and other factors.

The University of California system has a variety of medical school models, including those that are imbedded in the true sense (UCLA), those that are part of the institution but geographically separate (UC-San Diego; UC-Davis) as well as UC-San Francisco, a standalone health science center.

TAMHSC is an interesting case study because we certainly are associated with Texas A&M University, one of the state's two flagships, and in fact we we were created to consolidate health professions education across within the A&M System.

Our medical school began 30 ago as a College within Texas A&M University and has spent the last 10 years as part of the Health Science Center. Both institutions have benefited from the change in organization and growth that resulted.

The synergy of two, separate entities with different missions, priorities, resources, and expertise combing forces is an undeniable catalyst that leads to innovation, as evidenced by the multiple partnerships we share with TAMU:

- TAMHSC and TAMU share 36 joint faculty appointments.
- We also share in various facilities, support services and committees (13 identifiable) as well as 11 Institutes and Centers.
- We are collaborating on joint degree programs: a Doctor of Philosophy in Neuroscience and a Master of Science in Neuroscience offered by the faculty of Neuroscience, Colleges of Liberal Arts, Science and Veterinary Medicine, and Biomedical Science.
- We have joint interdisciplinary programs in Neuroscience, Nutrition, Reproductive Biology, Toxicology, and Genetics.

In closing, I would add that the independence of the HRI's in our state is critical in fostering scientific and translational research at the highest level while promoting public health outreach at the community level.

Thank you for the opportunity to present this testimony. I'll be happy to answer any questions.