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PHARMACIST SUPPLY AND PHARMACY EDUCATION IN TEXAS

1. Does the State need more pharmacists?

Texas appears to be facing a shortage of pharmacists. A December 2000 report of the U.S. Department of Health and Human Services (HRSA) shows that Texas ranks 44th among the 50 states in the number of pharmacists per 100,0000 population. While this ranking is a concern, it is also consistent with the state's rankings in other critical, health-related occupations. In the same report, Texas is ranked 45th in registered nurses, 41st in dentists, and 40th in physicians per 100,000 population.

The distribution of pharmacists by region in the state, is depicted in the following table (regions are ordered by lowest ratio to highest ratio of pharmacists per population):

Pharmacists Per 100,000 Population by Texas Region

Region	Ratio
Upper Rio Grande (includes El Paso Co.)	41.9
West Texas (includes Ector Co.)	57.7
* South Texas (includes. Bexar, Cameron, Hidalgo, Nueces, Kleberg, Webb cos.)	65.6
Southeast (includes Jefferson Co.)	72.1
Upper East Texas (includes Smith Co.)	78.1
Metroplex (includes Dallas and Tarrant cos.)	82.0
Northwest Texas (includes Wichita and Taylor cos.)	83.7
Central Texas (includes Travis Co.)	88.0
Gulf Coast (includes Harris Co.)	91.7
High Plains (includes Lubbock Co.)	98.8

Source: Texas State Board of Pharmacy, September 2000.

* If Bexar County numbers were to be eliminated from the total, the ratio for the South Texas region would be 55.8 pharmacists per 100,000 population.

Another HRSA study identified some of the causes for the national shortage of pharmacists, including:

- Increased use of a wide range of prescription medications (in part due to an aging population);
- Increased access to health care and more health care providers authorized to prescribe medications;
- The requirement in pharmacy education for a Doctor of Pharmacy degree, the new standard for certification and licensing, which lengthens the education program and increases the amount of training in clinical practice; and
- Strong competition for pharmacists trained at the residency or fellowship level, with schools of pharmacy, managed care organizations, pharmaceutical corporations and hospitals all competing for these pharmacists, resulting in sector shortages especially for schools and hospitals less able to compete economically.

In the same study, HRSA reported proposals for addressing the shortage, including using more technicians to perform repetitive manual tasks commonly performed by pharmacists, greater use of automation to increase efficiency, and streamlining administrative tasks required by health plans and insurers.

2. Do we need a new pharmacy school?

Texas has four pharmacy schools which offer the six-year Doctor of Pharmacy (Pharm.D) degree: The University of Texas at Austin, Texas Southern University, University of Houston, and Texas Tech University Health Sciences Center at its facilities in Amarillo.

Establishing a new pharmacy school would be the most expensive of a number of possible solutions for relieving the shortage of pharmacists in the state. The Coordinating Board estimates that a new six-year pharmacy school (including the construction of a pharmacy building) would cost between $20.7 million and $21.3 million over a five-year period. While cost may be a primary consideration, other factors need to be considered:

- With the lag time in graduating pharmacy students from a new school (a minimum of six years), the Legislature would need to weigh the costs of the new school against possible changes in pharmacy practice that may affect the long-term demand for pharmacists. E.g., Would Texas continue to need additional graduates in 2010 given the atmosphere of proposed health care reform? For example, proposals that change the scope of pharmacist practice and the dispensing of prescription drugs may relieve some of the shortage problem.

- The Legislature also would need to consider vocational trends and the interests of incoming college students. Applications have dropped at two of the four existing pharmacy schools in 2000. If total student enrollment does not grow, a new school would not bring about an increase in graduates among five schools. – why? why not – new location will provide more + better access.

In the context of those concerns, some alternatives for meeting the need for pharmacists in Texas include the following:

- Increase the enrollment capacity of existing schools; is location or what the reason for loss of enrollment?
- Provide for existing schools to locate additional clinical training sites in critically under-served areas of the state. we deserve more than trainees – we don't want to import anymore we want to educate our own.
- Develop a new joint or cooperative pharmacy education program between an institution located in an underserved area of the state and an existing pharmacy school;
  Under this cooperative model, the first two-years of the professional program are taught at the existing pharmacy school and the second two years, emphasizing clinical training, are taught at the institution located in the underserved area. Examples of existing cooperative programs: The University of Texas at Austin and The University of Texas Health Science Center at San Antonio and The University of Texas at Austin and the University of Texas at El Paso.

- Develop a new cooperative pharmacy education program between an institution located in an underserved area of the state and a new pharmacy school;
  This cooperative model would function similarly to the option described above but would capitalize on existing science and health education resources of an affiliated institution. Possible Example: Texas A&M University System Health Science Center and another Texas A&M University component. (SA) VT

- Establish a loan forgiveness program or other incentive program that might attract Texas and out-of-state pharmacy graduates to critically underserved areas of the state; no importing !!!

- Fund the Roberta High Memorial Pharmacist Residency Program;
  This unfunded program was established by the 77th Legislature to support graduate pharmacy education and resident pharmacists. Funding could be targeted for new positions at hospitals and community pharmacy sites in underserved areas.

- Promote measures through professional development or legislation that would eliminate certain administrative and non-professional tasks that would allow pharmacists to focus on tasks they alone are authorized to do. Proposals such as using more technicians for repetitive tasks and expanding automated services could reduce the workload of pharmacists and indirectly relieve the shortage problem. (HRSA reported that retail prescriptions in the United States rose by 44 percent between 1992 and 1999; the estimated annual number of prescriptions filled by each retail pharmacist grew by 32 percent for this same seven year period.) Bull

3. Will a new pharmacy school address the shortage?

The Texas Workforce Commission projects that the state will have 430 job openings for pharmacists per year from 1998 to 2008. In recent years, the pharmacy schools have reported declining graduation rates as they made the transition from the five-year degree program to the clinical-intensive, six-year degree program. In May 2000, graduation numbers took an upward turn with the four pharmacy schools reporting 315 graduates. That total includes the first graduating class of 52 students from Texas Tech University Health Sciences Center (TTUHSC). While three of the four schools do not report retention rates of their graduates, TTUHCS estimated that 95 percent of its 2000 graduates would be licensed in the state two years after receiving their degrees.

The number of graduates appears to help meet the demand for pharmacists through 2008, but does not necessarily resolve the inequitable distribution of pharmacists in the state. Some of the schools have recently reported new initiatives to address the problem. Of the four colleges, The University of Texas at Austin (UT-Austin) has been the most active in the Texas-Mexico Border region, offering a joint pharmacy degree with The University of Texas Health Science Center at San Antonio for over 30 years, and since 1990, partnering with local practitioners in more than eight cities to train pharmacy students in community-based settings. In 1997, UT-Austin also began a cooperative program with The University of Texas at El Paso (UTEP). The model for that cooperative program is comprised of two years of pre-pharmacy instruction at UTEP, two-years of pharmacy instruction at UT-Austin, and two final years of distance education from UT-Austin with on-site training and internships in El Paso.

The University of Texas-Pan American (UT-PA) and UT-Austin would like to use the UT-Austin/UTEP model for a similar program in South Texas. For the 2002-03 biennium, UT-PA has requested $2 million in special item funding to develop an Edinburg facility that is expected to accommodate 72 students.

Texas Tech University Health Sciences Center also is expanding its clinical training to the Dallas area to access additional clinical placement opportunities and to offset professional shortages in that region.

4. Does Texas A&M University-Kingsville have the foundation in place to support a pharmacy school?

Texas A&M University-Kingsville (TAMUK) offers a diverse offering of degree programs with particular strengthens in agriculture, education, engineering and business. Degree offerings, and enrollment and graduation numbers in areas most related to pharmacy education are relatively low. The following table summarizes key information from data reported by the institution for fall 1999:

Number of Declared Majors and Graduates by Related Degree Program

Degree Program	Declared Majors	Bachelor's Degrees Awarded	Master's Degrees Awarded
Physical Sciences			
Biology	352	30	4
Chemistry	30	5	2
Physics	7	2	N/A
Health Sciences			
Speech Pathology/ Audiology	70	21	N/A
Health Studies	13	2	N/A
Medical Lab Tech	2	0	N/A
Total, Institution-wide	5,832	955	297

Source: Institution data reported by TAMUK to the Coordinating Board, fall 1999.

The number of declared majors and graduates from related programs suggests that the institution does not have an adequate internal pool of potential pharmacy students. It would need to attract new students or students from other institutions. + that is because we have no pharmacy school.

The numbers also suggest that the institution would require significant investments in facilities, faculty, and library resources to support a pharmacy school. The Coordinating Board's campus planning inventory indicates the following science facilities on the Kingsville campus: the Nierman Science Hall, (38,000 square feet) built in 1938; and the Lon C. Hill Hall, (24,000 square feet) built in 1960. The campus also offers the Kleberg Engineering Building (41,000 square feet) as a possible site for a future pharmacy school. It was built in 1950 and is scheduled to be vacated in August 2001 with the completion on a new engineering building. A similar proposal to expand and renovate a 42,000 square foot building for pharmacy education was estimated to cost $8 million in January 2000.

Faculty recruitment also would be a factor in the success of a new program. The Board's *1999 Statistical Report* shows that the average faculty salary of $45,076 at Texas A&M University-Kingsville is the lowest among the nine four-year institutions in the Texas-Mexico Border Region. With competition for pharmacists in the marketplace and among other pharmacy schools, TAMUK would need access to additional funds to initially recruit, and to sustain pharmacy faculty until formula income became adequate. appropriations.

Finally, TAMUK would need a sufficient number and variety of clinical sites in South Texas to adequately train pharmacy students. All of the state's colleges have had some difficulty establishing clinical sites for their students. Texas Tech University Health Sciences Center, for example, has had a significant problem in the Lubbock and Amarillo area and has expanded its clinical activities to the Dallas area.