

Office of Regional Medical Education UTMB School of Medicine

History

The Office of Regional Medical Education (ORME) was created September 1, 2002 as a reorganization of the Office of Primary Care Education in the School of Medicine. Its creation reflects the growing regionalization of undergraduate medical education in the US, and the increasing importance of coordinating university-based and community-based components of that education. The concept of regional medical education (RME) refers to an emphasis on partnering between medical schools (including their full-time faculty and university hospital) and health care providers and supporters in the community (including community hospitals, practitioners and community resources such as Area Health Education Centers [AHECs]). At UTMB, this concept is designed to meet the guidelines of the School of Medicine Curriculum Committee, the UTMB Mission Statement, and the evolving standards of medical education and patient care across the US.

Basis for Regional Approaches to Medical Education

- **SOM Curriculum Committee**
 - "...appropriate degree of community-based education..."
- **UTMB mission statement**
 - "...develop strategic community partnerships..."
- **Patterns of medical education**
 - Harvard, J Hopkins, MSU, SIU
- **Patterns of patient care**
 - Reimbursement and decentralization

The Curriculum Committee of the SOM acknowledged the role of regional education in its Principles and Guidelines for Year 3 and 4 Curriculum Revision (2001). The UTMB Mission Statement also supports the cooperative efforts of the university with the community through the Office of Community Outreach. Blending medical school campus-based education with experiences in the community is now the rule rather than the

exception in US medical education, both with medical schools which have community-based teaching as their heritage (Southern Illinois University, Michigan State University) as well as more traditional medical schools (Harvard, Johns Hopkins).

Outpatient Teaching - US Schools

% of clerkship time in OP setting	Community-based (CB) outpatient teaching
Fam Medicine 94%	– 55-60% of schools include CB experience in interviewing/physical diagnosis courses
Pediatrics 42%	
Surg Spec 39%	– 60-75% of schools include CB experience in one or more clerkships
OB/Gyn 34%	
Neurology 32%	
Psychiatry 25%	
Int Medicine 24%	
Gen Surgery 20%	

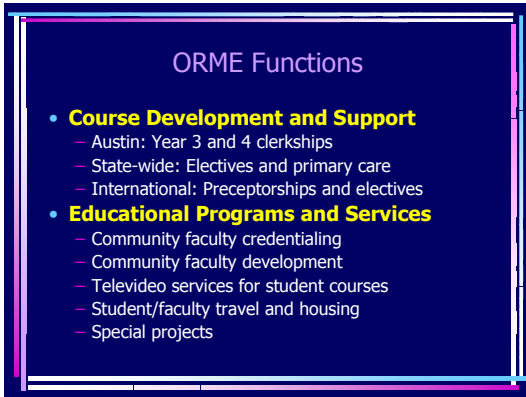
Source: AAMC

Regional approaches to medical education cut across disciplinary boundaries, and typically seek to capitalize on community-based strengths in ambulatory care. Both primary care and specialty-based disciplines typically include substantial ambulatory teaching in their clerkships in most US medical schools, and most schools rely on community-based sites to provide part of student education.

Mission and Personnel

The mission of ORME is to support UTMB's core values of community and education by contributing to the School of Medicine's mission of training competent, caring physicians through development of strategic partnerships between community and university-based regional medical education contributors. Staff of the Office includes Michael Ainsworth, M.D., Associate Dean for Regional Medical Education, Pamela Hentschel, M.S., Senior Medical Educator, Shelley Hoecker, Coordinator II, Special Programs, and Irene Taylor, Administrative Secretary. The Office works closely with the East Texas AHEC, Office of Educational Development, Curriculum Committee and medical school courses in its activities.

The ORME is engaged in a range of activities which focus on community-based medical education.

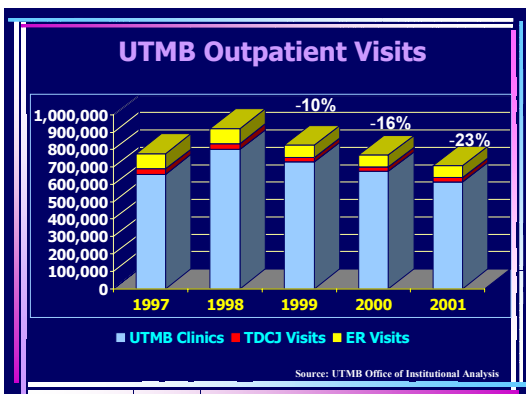


The activities span the four years of the curriculum (from Year 1 preceptorships to clerkships and advanced electives), and include interaction with individual physicians in a town or city, to more comprehensive efforts such as those that encompass all Year 3 and Year 4 clerkships in Austin.

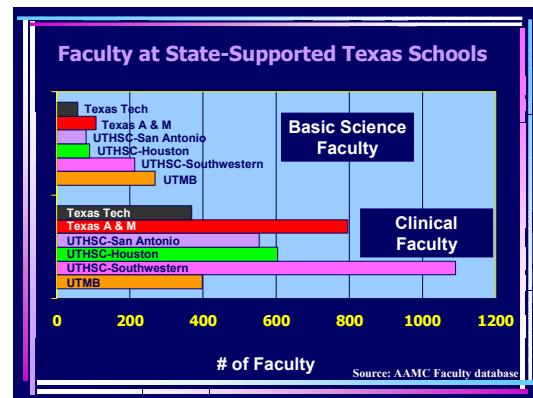
A Regional Approach at UTMB

Two major factors influence the School of Medicine’s approach to regional education.

Patients: Although the overall patient population at UTMB remains strong, this critical factor in student education is becoming strained in some areas. As referral and reimbursement patterns evolve, assuring the school has an adequate number of patients in all disciplines, in primary and specialty areas, and in inpatient and outpatient sites, has become increasingly difficult. Some departments need additional or complementary education experiences off-campus.



Teachers: Although the size of the basic science faculty in the School of Medicine compares favorably to other medical schools in Texas, the number of clinical faculty is relatively small. Not all clinical faculty are engaged in direct patient care activities, and relatively few do so on a full-time basis. As in all academic medical centers, the multiple demands on faculty time result in limited time for faculty to dedicate to teaching students in a clinical setting.



A regional approach to education also implies a structured and reasoned approach to selecting and maintaining regional education sites. Such sites should (a) fulfill a specific need of the medical school, complementing experiences available in Galveston, and filling areas least available locally, (b) take advantage of efficiencies available through regional clustering of activities, as opposed to activities spread randomly throughout the state, and (c) seek potential partnerships in the community that will strengthen the educational and research missions of the university, with both local care providers and with compatible health-care and educational organizations. Finally, such approaches should be sensitive to the needs and priorities of the communities they impact, anticipating their concerns and working to build coalitions that provide advantages for all participants.

The regional approach envisioned by the School of Medicine does not include introduction of Galveston-based faculty into local communities to generate patient care income, nor does the ORME function to foster specific career choices, or emphasize the importance of one medical discipline over another.

Austin – A Regional Education Prototype

Austin is the 4th largest city in Texas, and among the largest metropolitan areas in the US without a medical school. The city's progressive growth, technology industry, and sophisticated public and private medical infrastructure of hospitals, clinics and services provide substantial opportunity for collaboration. UTMB has held discussions with city and county officials, local physicians, and members of the Travis County Medical Society, Texas Medical Association and state legislature to review the potential benefit of its involvement in Austin, with positive reactions.

Austin is already home to teaching hospitals and residency training programs in Family Medicine, Internal Medicine, Pediatrics and Psychiatry, as well as affiliated programs in Surgery and Obstetrics/Gynecology. The introduction of student programs offers the advantage of building upon a substantial existing educational infrastructure.

Austin Medical Community

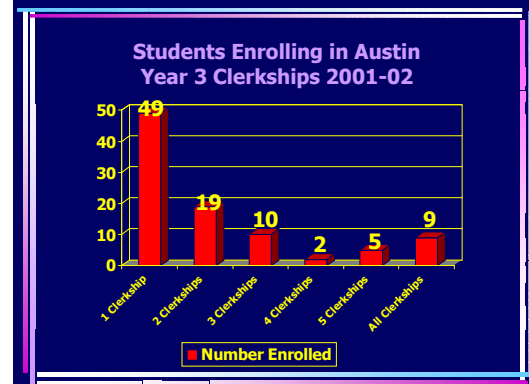
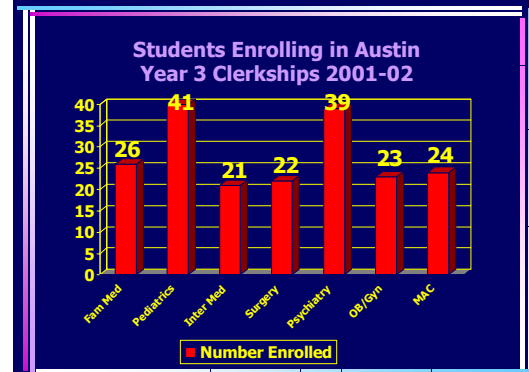
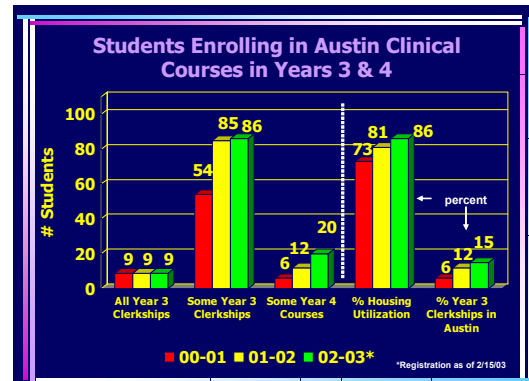
- **Brackenridge Hospital**
 - Internal Med, Surgery, OB/Gyn, Psychiatry
 - Specialty affiliations: Neurology, Emer Med
- **Children's Hospital of Austin**
 - Pediatrics
- **Austin State Hospital**
 - Psychiatry
- **VA system**
 - Outpatient psychiatry, other preceptors
- **Community physicians**
 - Fam Med, Int Med, Pediatric preceptors

UTMB's major partner in student education is the non-profit Seton Medical Group, part of the Daughters of Charity and Ascension Health Care. Seton, through the Austin Medical Education Program, is the GME sponsor of residency programs at both Brackenridge Hospital and Children's Hospital of Austin, and operates these 2 hospitals through a lease agreement with the City of Austin. The presence of UT-Austin and the VA system also provides substantial resources and expertise for future educational and research collaborations. The School of Medicine has affiliation agreements in place that allow the institution to develop specific initiatives as opportunities arise. UT-Austin also serves

as the provider of student services (health, counseling, recreation) to students during their rotations in Austin.

Current Status of Austin Programs

Student participation has grown steadily over the last 3 years. Students may now spend all of Year 3 and most of Year 4 in Austin, with rotations available in FM, IM, OB/Gyn Pediatrics, Psychiatry, Surgery, Neurology, Emergency Medicine and a growing range of preceptorships, electives and Acting Internships. Students can also select to complete individual rotations in Austin, while completing the remainder of their rotations in Galveston.



Educational Outcomes

The School of Medicine tracks student outcomes in three areas:

Academic Performance:

The performance of students who completed all Year 3 clerkships in Austin (“Austin-based” students) during the 2001-02 academic year (n=8) was compared with students who completed some but not all clerkships in Austin (n=85), and to those students who completed no clerkships in Austin (n=90). Comparisons were conducted by the Office of Institutional Analysis based on the academic performance information provided directed from each clerkship.

All Austin-based students volunteered for their assignments prior to the beginning of the academic year. Virtually all students assigned to Austin for individual clerkships were also volunteers, although in rare instances, students on Pediatric and Psychiatry clerkships were assigned to Austin randomly when an insufficient number of students volunteered. Students in these groups were not statistically different from each other in age, gender, or mean MCAT or USMLE Step 1 scores.

**Pediatric Clerkship Grades
Austin and Galveston 2001-02**

Means	Austin	Galveston	p-value
Test 1	84.5	83.8	0.6358
Test 2	N/a	N/a	N/a
NBME	N/a	N/a	N/a
CEX	87.1	88.9	0.0052
Clinical	88.1	88.3	0.7642
% Honors	12.5	12.8	0.4164

Source: UTMB Office of Institutional Analysis 11/02

**Internal Medicine Clerkship Grades
Austin and Galveston 2001-02**

Means	Austin	Galveston	p-value
Test 1	80.9	85.2	0.1226
Test 2	84.6	84.5	.9826
NBME	N/a	N/a	N/a
OSCE	85.6	84.4	.6952
Clinical	84.6	84.4	.6093
% Honors	6.3	10.1	.9453

Source: UTMB Office of Institutional Analysis 11/02

**Psychiatry Clerkship Grades
Austin and Galveston 2001-02**

Means	Austin	Galveston	p-value
Test 1	N/a	N/a	N/a
Test 2	N/a	N/a	N/a
NBME	86.8	85.1	0.2810
OSCE	N/a	N/a	N/a
Clinical	92.2	90.4	0.0007
% Honors	28.2	27.2	0.8938

Source: UTMB Office of Institutional Analysis 11/02

**OB/Gyn Clerkship Grades
Austin and Galveston 2001-02**

Means	Austin	Galveston	p-value
Test 1	62.3	60.4	0.328
Test 2	N/a	N/a	N/a
NBME	69.7	69.1	0.757
OSCE	N/a	N/a	N/a
Clinical	89.2	89.3	0.923
% Honors	17.0	20.0	0.733

Source: UTMB Office of Institutional Analysis 11/02

**Surgery Clerkship Grades
Austin and Galveston 2001-02**

Means	Austin	Galveston	p-value
Test 1	79.3	80.2	0.6131
Test 2	N/a	N/a	N/a
NBME	76.3	76.1	0.9338
OSCE	N/a	N/a	N/a
Clinical	Unavailable	Unavailable	Unavailable
% Honors	11.8	11.2	0.8269

Source: UTMB Office of Institutional Analysis 11/02

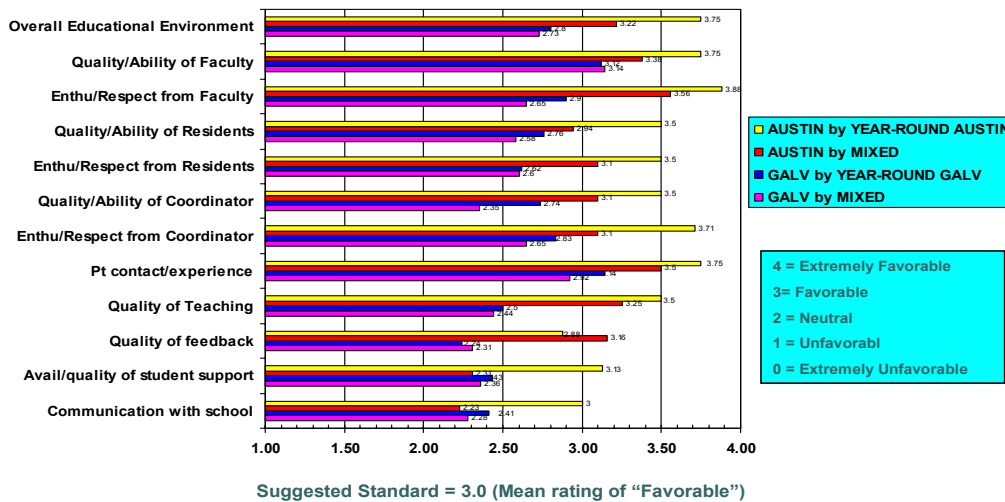
There were no statistically significant differences in performance measures between these three groups on objective cognitive exams (NBME subject exams and locally-generated exams) or standardized patient-based clinical examinations. Nor were differences seen in final course grades (percentages of Honors or Failing grades). Although faculty preceptor clinical evaluations were also indistinguishable in most departments, small differences were seen in Psychiatry preceptor ratings and Pediatric CEX (observed clinical encounter) scores that may represent either student performance differences or differences in faculty evaluation standards.

Student Evaluations of Clerkships:

Students complete (1) global evaluations of Galveston and Austin experiences each spring; and (2) clerkship-specific evaluations at the end of each rotation. These surveys

address issues of course planning and oversight, course educational content and experiences, faculty/resident interaction, and evaluation exercises. Students complete and submit these evaluations anonymously.

**Year 3 Clerkship Evaluations: Global Evaluations
Galveston and Austin Sites 2001-2002**



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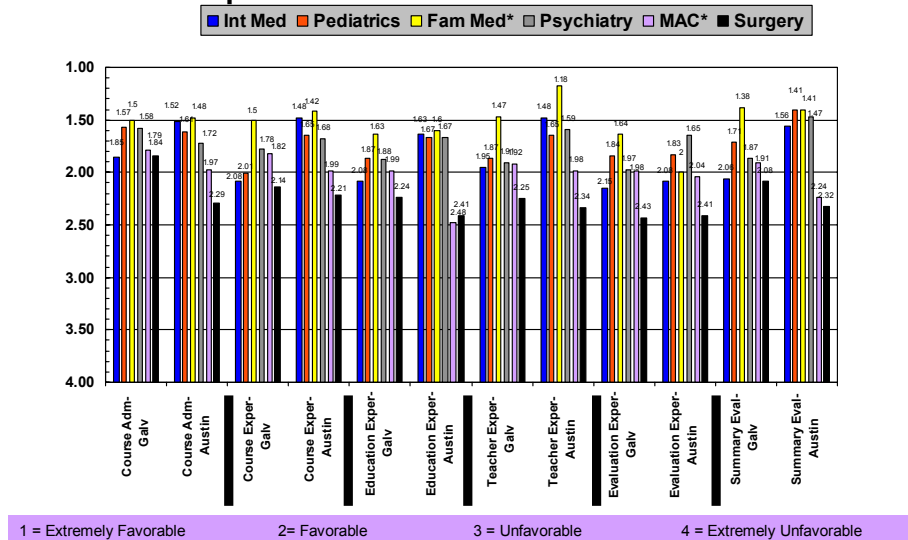
Discussion of Global Evaluations:

These evaluations are used to detect systematic or clerkship-independent areas of strength and weakness. Because student assignments are largely volunteer-based, students may be favorably predisposed to the site of assignments in either Galveston or Austin. For this reason, the analysis of global evaluations divided students into four groups:

- evaluation of Austin experiences by Austin-based students ("Austin by Year-Round Austin");
- evaluation of Austin experiences by students who spend time in both sites ("Austin-by-mixed");
- evaluation of Galveston experiences by students who spend all year in Galveston ("Galv by Year-Round Galv"); and
- evaluation of Galveston experiences by students who spend time at both sites ("Galv-by-mixed").

Student ratings in all categories, for both Galveston and Austin experiences, exceeded the suggested standard of 2.00 (mean rating of "Favorable"). In general, Austin-based students rated their experiences even more highly, with narrative comments focusing on the personalized attention afforded them by Austin faculty, and the favorable influence of a lower number of students, allowing them greater patient contact, and more direct hands-on experience. Students who spent time in both locations also tended to respond more favorably to their experiences in Austin. Comments also focused on interaction with Austin faculty and the richness of clinical experiences. The areas for improvement most frequently identified by Austin students were communication between clerkship coordinators, and better communication with SOM administrative staff while in Austin. These represent appropriate areas of focus as the program matures further each year.

2001-2002 Year 3 Clerkship Evaluations Comparison of Galveston and Austin Sites



*Students are assigned to sites throughout the state. *Galveston* data represent all sites in the state, excluding Austin.

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8/31/02

Discussion of Clerkship Evaluations:

Students have completed a uniform end-of-course evaluation form after each clerkship since 1994. In 2001-2002, these evaluations began to record student sites for each rotation (Galveston or Austin, plus "other" for the various state-wide sites used for Family Medicine and Multidisciplinary Ambulatory Clerkship students). Useable data for this comparison were obtained in 2001-02 for all courses except the OB/Gyn clerkship.

As in the global evaluations, student ratings in all categories for experiences in both Galveston and Austin exceeded the suggested standard of 2.00 (mean rating of "Favorable"). In general, Austin-based students again tended to respond more favorably in most categories in most clerkships. Ratings by Austin students in the "Overall Experience" category exceeded those by Galveston students for five of the six rated clerkships. Narrative comments followed the same pattern as those in the global evaluations, focusing on quality of faculty interaction and clinical contact. These survey results suggest students are responding favorably to the educational environment, rather than superficial issues.

Residency Match Performance:

One might speculate that students with interest in primary care careers would preferentially choose Austin as a year-round site in Year 3 (as a more community-based environment), while students interested in specialty-based careers would wish to complete their clerkships at the main UTMB campus in Galveston (at an academic medical center).

NRMP Performance

Residency Selection of Austin-based Students in Class of 2002 (n = 8)

- Family Medicine
- Internal Medicine
- Emergency Medicine
- Dermatology
- Radiology
- OB/Gynecology
- Orthopedic Surgery
- General Surgery

**5 UTMB students chose AMEP residency positions
2 of these were Austin-based students**

Alternatively, it is possible that students in Austin might be at a disadvantage for highly competitive residency choices because programs might view the students' clinical

training as inferior or because the students were too isolated from full-time Galveston faculty to receive appropriate advice, mentoring and contact for letters of recommendation. Neither of these concerns are supported by 2002 NRMP Match results. The year-round Austin-based students chose a wide range of residency disciplines, including highly sought after positions in Dermatology, Orthopedic Surgery and Emergency Medicine. Student career choices vary within a wide range from year to year, so few conclusions can be drawn from analysis of a single class. However, it appears that, as for Galveston students, the success of Austin students in the residency matching process is primarily dependant on the interests, abilities and accomplishments of the students themselves, rather than the site of training.

ORME Ongoing Projects

In addition to direct support of student educational programs, the ORME has responsibility for the following ongoing projects.



Institutional Affiliations/Program Agreements

ORME has negotiated agreements with the following institutions:

UT-Austin, Austin State Hospital, VA System
Central Texas Medical Foundation
Universidad de la Frontera – Temuco, Chile
Cebu Institute of Medicine - Philippines
University of Nigeria
Doctors Hospital of Laredo
SCCI Hospital of Victoria
University of South Alabama
Corpus Christi Medical Center
Williams Family Practice
Texas Gulf Coast Medical Group
Brownwood Regional Medical Center

Professionalism Project

Approved by the SOM Curriculum Committee in September 2000, the Professionalism Project's objectives are to lead efforts to define and measure professionalism, coordinate longitudinal tracking of students who demonstrate shortcomings in this area, and to develop methods to assist students who need further professional skills development. The office maintains a database of "Early Concern Notes", documents submitted by faculty and staff related to their concerns about professional behavior of students, and intervenes with counseling and other forms of assistance for identified students.

Clinical Skills Assessment

The Curriculum Committee has also charged ORME with long-term planning for evaluation of medical students' clinical skills, with emphasis on standardized patient-based assessments. The office currently directs the Integrated Curriculum Evaluation Exercise, a Year 4 summative examination as a graduation requirement. Current focus of development includes improving longitudinal assessment and tracking of student skills through the numerous existing skills examinations, development of a comprehensive Year 3 formative examination, and coordination of efforts to prepare students for the USMLE Step 2 Clinical Skills Exam for licensure, recently approved for implementation by the National Board of Medical Examiners in 2004.

School of Medicine Electives Program

ORME coordinates all elective course offerings within the School of Medicine, including approval of new courses, revisions to existing courses, and web-based publishing of the electives offered to students in each academic year, including the elective period recently approved for Year 3 students.

Year 3 and Year 4 Class Scheduling

ORME conducts class scheduling with the University Registrar for all Year 3 and Year 4 courses, including class meetings and brochures, and serves as the liaison with SOM departments. These responsibilities include oversight of courses at other medical schools, and community/international sites.

Faculty recruitment for small group teaching

All SOM Year 1 and Year 2 courses are interdisciplinary in structure and include an average of 6 hours/week of small group, problem-based, tutorial format sessions. Success of these courses depends on the generous participation of faculty across all SOM departments and the Institute of Medical Humanities. An average of 250 faculty contribute over 14,000 student contact hours in this teaching effort. The ORME is responsible for coordination, tracking and documentation of this teaching effort.

HCMP

The ORME serves as the liaison for the SOM with the Health Careers Mentorship Program, a student interest group from the University of Texas-Austin. Membership in this group is determined by academic achievement and community service as well as motivation towards a career in medicine. The ORME sponsors yearly visits by members of the group to UTMB to participate in a sampling of SOM courses, to visit with faculty, and to hear about SOM admission practices.

Future Directions

The immediate task ahead for ORME is to transition its support of community-based education from the Multidisciplinary Ambulatory Clerkship (MAC) to department-based efforts in Internal Medicine and Pediatrics. Although these departments are still developing their respective programs, it is likely that ORME will be expected to assist with preceptor development, coordination of student assignments and liaison with AHEC and community physicians in each program, much as it does now with the MAC.



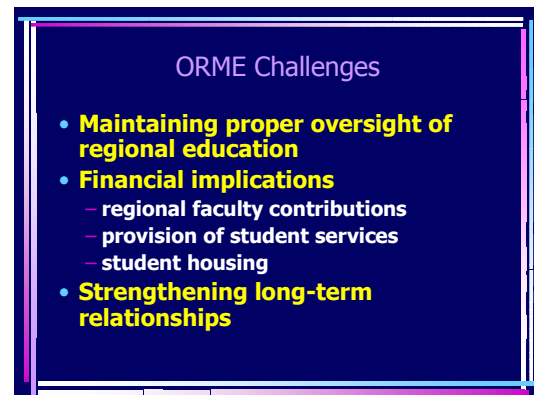
ORME Future Developments

- **Regional Support for Internal Medicine and Pediatrics**
- **Year 4 Ambulatory Community Medicine Elective**
- **Opportunities in Austin**
 - MD-PhD Combined Degree Program
 - Graduate Medical Education in Austin
 - Affiliations with UT-Austin, Seton, VA

The 2003-04 academic year will be a period of substantial planning for the Year 4 Ambulatory Community Medicine electives approved for 2004-05. Given the approval of these rotations for both primary care and specialty disciplines, ORME expects to work with all SOM departments in identifying appropriate community-based opportunities. The Office will also continue efforts at the institutional level to define opportunities that exist for developing stronger relationships with Seton, Austin State Hospital, VA and UT-Austin at the undergraduate (MD-PhD combined degree program), graduate (affiliation of existing GME residency training programs) and continuing education levels.

Future Challenges

As with any regional program, major challenges remain in defining and implementing the necessary level of local resources and oversight for effective education and accreditation purposes. Additional personnel in Galveston and Austin will be needed as programs expand.



ORME Challenges

- **Maintaining proper oversight of regional education**
- **Financial implications**
 - regional faculty contributions
 - provision of student services
 - student housing
- **Strengthening long-term relationships**

Financial implications of securing long-term commitments of community faculty time, effort and ongoing support will be equally challenging. Student housing, currently a major expense, may be modified with a larger contingent of Austin-based students (who provide their own housing) but the feasibility of that scenario remains unknown. Student services, currently provided on a comprehensive basis only to Austin-based students, will need to be defined more fully for all students who complete rotations away from Galveston. Finally, strengthening long-term relationships with community partners will be a key component of UTMB's success in regional medical education.

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