

MEDICAL EDUCATION

1. Notable accomplishments:

Undergraduate Medical Education (UME)

- Developed and implemented the new “Cells to Society” curriculum with integration of basic science and clinical courses centered on the patient. Two national models have already been developed: 1. The first 3 days of medical school classes (the Cells to Society Introduction) covers one disease, diabetes, in its entirety --taking a student from basic science small group discussions to visiting laboratories, interviewing patients and learning about the societal effects of obesity; 2. Teaching and assessment of Clinical Skills: the Clerkship Clinical Skills Education Program (CCSEP) is a grant supported model program designed to enhance basic clinical skill performance. The program has three goals: the development of clinical skills teaching workshops (30 different skills workshops developed to date); a clinical skills assessment program using standardized and real patients; simulation techniques in objective structured skills assessment exercises (23 exercises developed thus far); and the development of a clinical skills education website (<http://www.med-ed.virginia.edu/courses/clinskills/>).
- Students receive training in information management and critical thinking in all years. Teaching focuses on finding, evaluating and using quality information; the training is problem-based and context specific.
- The Center for Humanism in Medicine was created to nurture humanism in medicine to evaluate the outcomes and effectiveness of a humanism focus on the curriculum and to evaluate the impact of the center upon faculty by defining and measuring areas for improvement, e.g., reducing burnout, improved physician-patient relationship. A director of professionalism education was appointed to develop the Professionalism/Humanism program, along with the Center for Humanism in Medicine. The Becoming-a-Clinician ceremony implemented in 2005 for students starting their clinical clerkships focuses on the central roles of humanism and professionalism in the care of patients.
- The Center for Biomedical Ethics has the mission of advancing education, research, and service concerning moral values in health care, including clinical ethics, the ethics of research involving human subjects, ethics and genetics, health care organization ethics, and the history of bioethics. The Center has established a program in Ethics and Policy in Healthcare Systems to conduct research on ethics, policy, and healthcare relating to issues with the “system” such as pharmaceutical companies or the ethics of methods of distribution of vaccine in time of national emergency.
- Between 2002-2005, the average medical student GPA went from 3.66 to 3.74, and the average Medical College Admission Test score from 10.56 to 10.74. The number of under-represented minority students went from the lowest quartile among schools in the country to the top quartile.
- Students with documented financial need are now fully supported through a combination of scholarships and loans.
- The Claude Moore Medical Education Building is on schedule for occupancy in 2010.

- The SOM will consider a 10-15% increase in the medical school class size after the Medical Education Building opens in 2010.
- The highly acclaimed Academy of Distinguished Educators (ADE) was established to identify and reward teaching efforts and to assist in medical education and medical education research.
- High profile teaching awards have been created, including the David C Harrison Distinguished Educator Award, the Robert J. Kadner Award for Outstanding Graduate Teaching, master teacher awards, the Dean's teaching awards, the Faculty Excellence in Humanism Award and student teaching awards for faculty.
- Proposals for medical education research by ADE have been funded at \$100,000/year. We have also established an annual ADE Medical Education Research Poster Session. Examples of funded proposals include John A. Owen, Ph.D., et al.'s "Assessment of predictors of participation in rural practice" focusing on medical students, and Patrick J. Brown, M.D., et al.'s "Measuring resident performance in the NICU," a multi-center study of resident learning.
- A Master of Public Health program was established.
- Students now have access to joint degrees (e.g., M.D./Ph.D., M.D./MPH).

Graduate Medical Education (GME)

- The RAFT (Resident and Fellow Tracking) system is fully operational. Initial results show duty hours compliance is good and programs are using the competency evaluation format. Both the General Surgery and Neurosurgery programs have used weekly RAFT data to document compliance with their 10% exception agreements. Anesthesiology and Family Medicine are using the competency evaluation system in very creative ways.
- Enhancements of benefits and quality of work life issues for residents have been addressed with popular changes to health insurance, meals, and parking.
- A GME innovation grant program to support medical research education was created. Multiple projects have been funded and have highly successful outcomes including Dr. Jeff Young's study of how residents learn to make decisions in acute or emergency situations such as trauma and critical care. Dr. Steve Borowitz is studying the "handoff" process of information exchange between residents at end of duty time.

Continuing Medical Education (CME)

- Programmatic volumes increased 10% from 207 to 227 sponsored activities a year from FY04 - FY05.
- Broadcast technologies have been used to increase international visibility and include programs broadcast to physicians in the Middle East and Europe. National awards have been won by UVa CME and CardioVillage.
 - 2005 EHealthcare Strategy and Trends awarded:
 - Gold Award for Best Special Effects (Physician/Clinician Focused site)
 - Silver Award for Best Special Effects (Physician/Clinician Focused site)

- A new fee structure was implemented to strengthen the financial viability of the Office of CME.
- UVA is the CME provider for Elsevier Publishing's renowned "Clinics of North America" and its new "e-Dition" CME series.
- UVA will begin serving as the Discovery Health Channel's CME sponsor in FY07.

Goals Planned But Not Implemented.

- Design and implementation of pay-for-teaching model. Substantial preliminary work has been done, but consensus has not yet been reached on the model. The goal is to complete development and implementation.
- Design and implementation of a UME course to focus on the basic science, clinical and population based impact of the major diseases of our time. The course will be offered for the first time when the current first year class completes the core clerkships in 2008. Implementation is dependent on changes in the basic science and clerkship schedules that will be completed in the spring 2007. A course director has been selected and planning has begun.
- Information management and critical thinking - integrated across the spectrum of UME, GME, and CME. Elements of the program have been implemented, but additional basic medical education research is needed to develop a truly integrated plan (see below).
- Development of a medical education research core. To date, medical education research has been funded through the ADE, but there have not been sufficient funds to develop a medical education research core and undergraduate student database. As outlined below, an endowed Medical Education Research Institute is now proposed.

2. Two-Year Goals and Metrics for Success

Models for all of US

- Establish a Medical Education Research Institute (MERI) for basic research on medical education, development and application of personalized learning and teaching models specific to the education of physicians across the spectrum of medical education. Medical education is a varying mixture of traditional classroom activities, professional apprentice learning and case study methodology in an environment increasingly based on adult learning principles. The SOM has the opportunity and the commitment to focus considerable scholarly attention in this effort and consequently to make a major contribution to the field. (How do we learn? How should we teach?)
 - We will study students, residents, and physicians to determine how they learn most effectively.
 - Then, programs will be developed to integrate and align competency-based learning across the entire spectrum of medical education and practice (UME, GME, CME).

- How to instill and assess the concepts and ideals of professionalism, humanism, leadership, collaboration and teamwork into the education environment as early as possible.
- How to teach more effectively in group settings using the TEAL (technology enhanced active learning) spaces in the new Medical Education Building.
- How to use telemedicine increasingly as an educational technology.
- In collaboration with the Curry School,
 - A Certificate in Education program will be developed to equip medical residents with the skills needed to conduct effective research in medical education.
 - A Master of Education in Educational Research will be developed for faculty.
- Continue to introduce new planned innovations in the Cells to Society undergraduate curriculum.
 - Basic Science for Careers to be implemented in 2008.
 - Full implementation of Clinical Skills Education and Evaluation Program for UME and extension to selected areas of GME.
 - Expanded offerings in information mastery.
- Center for Global Health and SOM Curriculum Committee will develop international health curriculum and training sites.
- Expanded teaching of cultural competency, medical economic, business, legal, and cultural factors involved in healthcare delivery.
- Pursue combined MD/MBA with Darden.
- Enhance the GME curriculum
 - GME Certificate program - introductory policy course offered July 2006, three specialty courses offered J-term January 2007, remaining by July 2007.
 - Teach Residents to Teach – Academy of Distinguished Educators Resident as Teacher committee to train residents as teacher, enhanced orientation (June 2006) and web-based tutorials.
 - Develop Learning Portfolio software for a set of Pilot Programs.
- Develop inter-professional opportunities
 - Develop thematic seminars (e.g., ethics, professional behavior) in which both the School of Medicine and School of Nursing would participate.

Improve rankings

- Receive full LCME re-accreditation.

- Receive full accreditation of Institutional Standards from ACGME.
- Initiate Pay-for-Teaching Program to compensate faculty for teaching time.
- Improve recruitment of best and brightest applicants to the SOM and residency programs. The Admissions Office hosts “A Day at the Medical Center,” inviting pre-medical students and advisors from Virginia colleges and universities to learn about the SOM. The Associate Dean for Admissions visits college campuses speaking personally with pre-medical students about the UVA SOM, admissions requirements and process, and dual degree programs. The Admissions website provides details about the SOM, including a video tour of the SOM.
- Increase endowment for need-based and merit scholarships by initiating efforts toward \$10 million capital campaign scholarship goal.
- Complete architectural plan for Claude Moore Medical Education Building.
- Complete new learning center and 24/7 study space in the Claude Moore Health Systems Library.
- Continue participation in high visibility CME activities.
 - Publish high visibility medical education research related to UME, GME, and CME– how medical students, residents and physicians learn.

Improve operations

- Complete implementation of UME electronic scheduling and evaluation system.
- Create comprehensive student and resident databases for research.
- Reorganize GME office and move to new space.
- Greater than 80 percent of reviewed GME programs obtain full cycle accreditation.
- Incorporate additional quality measures in CME programs.

3. 5-year goals and Metrics for Success

Models for all of US

- Complete implementation of Cells to Society and assessment of the curriculum.
- Five GME certificate programs in operation (Public Health, Health Administration, Law and Ethics, Clinical Research, and Medical Education.) With work with Darden, the School of Law, and the Curry School to develop degree options and programs for our residents.

Improve rankings

- Open the Claude Moore Medical Education Building.
- Endow professorships (at least 10) for partial support of medical educators.

- Improve GME reputation and visibility; e.g., publish 2 papers per year on GME research in major education and/or medical journals.
- Achieve success in obtaining a major medical education grant.
- Continue CME participation in high visibility activities such as the Discovery Health Channel and other print and electronic media through Elsevier Publishing.

Improve operations

- Full implementation and coordination of the educational precinct including the new medical education building, the new learning center and new study space in the Claude Moore Health Sciences Library, and the new simulation center.
- All GME programs on full cycle accreditation.
- Incorporate additional quality measures in planning for CME programs.

4. Resources Needed and Barriers to Success

- SOM support (financial and logistical) for medical educational programs and faculty including a pay-for-teaching model to compensate for faculty teaching time/efforts, cost-of-living increases in the education and student services budgets, and centralized office space for the Office of Medical Education Support. If a pay-for-teaching program is not implemented by 2007, \$75,000/year in additional funds will be needed for the Basic Science for Careers course.
- Funding for Medical Education Research Institute (\$10 million for positions funded, endowment, generation of grant proposals, operations, etc) and endowed support of ADE (\$5 million).
- Maintenance of adequate extramural teaching sites for clinical education in light of changing accreditation standards, economic factors, etc.
- Faculty development programs to teach in new ways.
- Space for simulation and clinical skills training and assessment before the Claude Moore building opens.
- Negative ACGME survey of Institutional Standards.
- Support for GME program directors, job descriptions, and standards.
- For CME, labor intensive challenges of adherence to ACCME Commercial Support and Conflict of Interest/Disclosure Standards.
- Meeting challenges in contract generation and indirect cost recovery rates that have the potential to adversely affect CME ability to compete in the market.