

REPORTS OF COUNCIL ON MEDICAL EDUCATION

The following reports, 1-4, were presented by Richard Allen, MD, Chair:

1. ANNUAL REPORT ON MEDICAL EDUCATION IN THE UNITED STATES: 2000

HOUSE ACTION: FILED

This informational report provides details on the major activities of the Council on Medical Education during 2000. Information about the Council's activities can be found at <http://www.ama-assn.org/ama/pub/category/2954.html>. This site also includes the Council Bylaws, Rules and Regulations, and membership.

THE COUNCIL ON MEDICAL EDUCATION

The Council on Medical Education was formed in 1904 to improve medical education in the United States. Over the years, the Council, supported by the staff of the Medical Education Group, has come to have four general roles:

- To propose policy on medical education to the American Medical Association (AMA) House of Delegates.
- To collect and disseminate information about undergraduate, graduate, and continuing medical education.
- To ensure the quality of medical education and of the physician graduate.
- To act as primary liaison between the AMA and other organizations with responsibility for medical education and physician performance.

Specific activities in 2000 related to each of these roles are described in detail in the following sections of this report.

Policy Development: During 2000, the Council submitted eight reports for consideration by the House of Delegates, as well as two informational reports. The reports addressed a number of important issues in medical education:

Physician Workforce Planning and Physician Retraining (CME Report 2-A-00) considered how the number of physicians who were undergoing specialty retraining and changing specialties could impact the number of graduate medical education (GME) positions needed. The report recommended that the AMA collect data on access to health care by specialty and geographic region to assist in workforce planning.

Enforcement of ACGME Requirements (CME Report 3-A-00) discussed alternatives to probation or loss of accreditation as a means for promoting the enforcement of Accreditation Council for Graduate Medical Education (ACGME) Program Requirements.

Registration of Accredited CME Sponsors (CME Report 4-A-00) described a collaborative process with the Accreditation Council for Continuing Medical Education (ACCME) to ensure that accredited sponsors who designate American Medical Association Physician's Recognition Award (AMA PRA) credit adhere to AMA PRA policy.

Essentials for Approval of Examining Boards in Medical Specialties (CME Report 5-A-00) proposed the eleventh revision of the "Essentials." These criteria are used by the Liaison Committee on Specialty Boards (LCSB) for review of new specialty boards. The LCSB is composed of four AMA Council and four American Board of Medical Specialties (ABMS) representatives and is responsible for approval of new medical specialty boards.

Impact of the NLRB Ruling in the Boston Medical Center Case (CME Report 7-A-00) considered the implications of the National Labor Relations Board (NLRB) ruling that resident physicians are employees as well as students.

Physician and Nonphysician Licensure and Scope of Practice (CME Report 1-I-00) identified the scarcity of reliable data on quality and patient outcomes comparing physician- and nonphysician-delivered care. The report recommended reaffirmation of current policy opposing the practice of medicine by nonphysicians, recommended wide distribution of data on the training and scope of practice of physicians and nonphysician groups, and called for the study of models of collaborative education and patient care.

Medical School Financing, Tuition, and Student Debt (CME Report 2-I-00) summarized data on the relationship of tuition to medical school financing and described the rising level of student debt. The report recommended a number of strategies to both reduce debt levels and to help young physicians manage the debt that they have acquired. The Council selected medical education financing as one of its priority issues for 2001. In collaboration with the Section on Medical Schools, the Resident and Fellow Section, and the Medical Student Section, the Council will be collecting and sharing information on innovative programs by medical schools and other groups, such as state medical societies, to address the issue of student debt.

Evaluation of Medical Students' and Resident Physicians' Professional Behavior (CME Report 3-I-00) presented data on how professional behavior currently is evaluated during medical school and residency training and proposed a new policy requiring such evaluation as part of medical student and resident physician education.

To provide a basis for new policy development, the Council distributed a survey at the March 2000 National Leadership Development Conference and the June 2000 meeting of the AMA Section on Medical Schools. The survey asked respondents to identify significant areas of concern related to medical education and priorities for AMA action. The following areas were rated as of both high concern and high priority for action:

- the increasing pressure on physicians to be accountable for their clinical competence;
- the high level of medical student debt;
- the lack of support from public and private payers for financing medical education;
- the need to educate the public and policy makers about the financial requirements to maintain a quality system of medical education; and
- the decreased availability of patients for medical education because of payer requirements and regulatory pressures.

The Council has addressed some of these topics in its reports during 2000. New initiatives related to these issues are being planned, independently and in collaboration with other units internal and external to the AMA.

Internally, the AMA underwent a repositioning during 2000 that impacted the Medical Education Group significantly and resulted in redefining divisions and eliminating certain programs. The roles and activities of the remaining divisions, as they relate to the Council, are described in the remainder of this report.

DIVISION OF UNDERGRADUATE AND GRADUATE MEDICAL EDUCATION POLICY AND STANDARDS

Undergraduate Medical Education

Accrediting Activities: Ongoing Council involvement in undergraduate medical education includes nominating physicians to be appointed by the AMA Board of Trustees as members of the Liaison Committee on Medical Education (LCME). The LCME, established in 1942 by the AMA and the Association of American Medical Colleges (AAMC), approves educational programs leading to the MD degree in the United States and Canada, the latter in cooperation with the Committee on Accreditation of Canadian Medical Schools. The LCME also serves as the deliberative body through which standards and procedures for accrediting educational programs are established. During 2000, the LCME conducted 13 full surveys and six limited surveys, and the LCME Secretariat conducted a consultation visit to one medical school. The LCME Secretariat also conducted an initial accreditation visit for a proposed new medical school at Florida State University.

The LCME is in the process of reviewing and reorganizing all accreditation standards and has developed annotations to assist schools in standard interpretation. In addition, the LCME has organized three improvement groups to evaluate the site visit and survey report process; improve the effectiveness and efficiency of the quarterly meetings; and enhance and facilitate the role of LCME public members.

Medical Education Bulletin: The scope of the *Graduate Medical Education Bulletin*, published two times a year to communicate with GME program directors and AMA representatives on the various Residency Review Committees (RRCs), will be expanded to include information about undergraduate as well as graduate medical education and accreditation. The distribution will also include all members of the Section on Medical Schools. A regular part of this publication is a review of the actions of the House of Delegates of special interest to medical educators.

Career Information for Premedical and Medical Students: In response to the Council's interest in promoting careers in medicine, medical education staff answered more than 5,000 requests from high school and college students asking for information about the medical profession. E-mail inquiries have recently increased in volume. New materials have been developed to encourage and support interest in the profession at a time of public anxiety about the desirability of careers in medicine. The AMA's response to inquiries about medicine as a career will be greatly enhanced through development of a Web page, at www.ama-assn.org/ama/pub/category/2320.html. The web site will be completed by the summer of 2001.

Graduate Medical Education

Accrediting Activities: Ongoing Council involvement in GME includes recommending physicians for nomination by the AMA Board of Trustees to serve on the ACGME and recommending physicians for appointment to the 26 ACGME RRCs.

A subcommittee of the Council, which replaced the former Graduate Medical Education Advisory Committee, reviews proposals for new and revised accreditation requirements for specialties and subspecialties and consults with ACGME RRCs as necessary. Comments are sent to the RRC and ultimately to the ACGME. During 2000, the Council reviewed and commented on Program Requirements for 20 specialties and subspecialties, including those for new subspecialties in pain management in psychiatry, neurology, and physical medicine and rehabilitation, and endovascular surgical neuroradiology in neurosurgery and radiology. The number of specialties and subspecialties with Program Requirements at the end of 2000 was 112.

Joint GME Survey: The AMA and the AAMC continued their collaboration on the GME survey with the development of an online annual survey of accredited residency programs. As a result of technical problems the online version of the survey had to be discontinued and programs were given paper copies to complete. Data were exchanged through a seamless connection between the AMA and AAMC Internet sites. The AMA continues to be responsible for quality assurance for both resident and program data. An improved version of the online survey incorporating changes suggested by users of the 2000 survey will be available in June 2001. This collaborative effort should increase the historically high response rate of the AMA's Annual GME Survey.

FREIDA Online to be enhanced: Available through the AMA home page at www.ama-assn.org/freida, FREIDA Online (Fellowship and Residency Electronic Interactive Database Access) is used extensively by medical students, resident physicians, and others to search more than 7,800 ACGME-accredited programs and 200 board-approved combined specialty programs by specialty/subspecialty, state/region, program size, and educational requirements, among other variables. More than 85% of the listed programs include expanded information, such as program benefits, compensation, work schedule, policies, and educational environment. FREIDA Online allows AMA student members to request up to 30 free mailing labels and allows program directors to make basic changes to their information online. As a result of discussions with program directors and focus sessions with medical students and residents, FREIDA will be modified to provide more timely information and more useful reports for users.

GME Directory: Many Council reports or discussions incorporate material from the 1,200-page *Graduate Medical Education Directory*. This still is the only comprehensive source for listings of 7,800 ACGME-accredited programs and 200 board-approved combined specialty programs, 1,600 teaching institutions, the ACGME Institutional and Program Requirements, medical specialty board requirements, a GME glossary, a list of US medical schools, and information on medical licensure, residency matching programs, and international medical graduates. The usefulness of the *Directory* is enhanced by other products in the GME family, including the *GME Library on CD-ROM* (which contains additional data from the GME database), the *GME Directory Supplement*, and *State-Level Data for Accredited GME Programs in the US*. The licensing of electronic addresses for program directors is being investigated.

CONTINUING PHYSICIAN PROFESSIONAL DEVELOPMENT

The Council is responsible for overseeing the maintenance of the AMA's recognition as an accredited provider of continuing medical education (CME) through the Division of Continuing Physician Professional Development (CPPD). The work of the Council in the continuing professional development of the physician and in CME reflects the many changes in the physician practice environment. To review these matters on a continuing basis, the Council has appointed a working sub-group to replace the Continuing Medical Education Advisory Committee, which was eliminated in 2000.

AMA Physician's Recognition Award (AMA PRA): The Council has focused on ensuring the continued relevance of CME and the AMA Physician's Recognition Award program to the needs of practicing physicians. During the past year several changes were made that recognize certain learning achievements of physicians as eligible for AMA PRA category 1 credit. These include credit for articles published in peer-reviewed journals, poster presentations at major conferences, specialty board certification and maintenance of certification (recertification), teaching in CME activities designated for category 1 credit, and earning an advanced degree in an area related to medicine. The Council also is exploring new areas in which physicians can earn AMA PRA category 1 credit. Three separate pilot projects have been established that will explore (a) new types of interactive knowledge acquisition and learning made possible by the Internet; (b) learning that occurs as a result of participation in quality improvement/performance improvement activities; and (c) the possibility of reciprocity of international CME credit that conforms to AMA criteria for designation of credit. The Council plans to make a decision regarding the suitability of each of these for designation of category 1 credit by accredited sponsors based on recommendations emerging from the pilot projects.

New informational booklets for the AMA PRA were issued in 2000. To make the information as useful as possible, separate booklets now are available for physicians and for accredited providers.

Educational Project on Gifts to Physicians from Industry: The Council had previously urged that an educational campaign be developed to educate physicians about the implications of the AMA Council on Ethical and Judicial Affairs (CEJA) opinion on Gifts to Physicians from Industry. The Council has made adherence to the CEJA opinion a requirement for designation of AMA PRA category 1 CME credit. However, 10 years after the opinion was issued there is a lessened awareness of the opinion among physicians at all levels of training. The Council believes that physicians must continually be made aware that accepting gifts or other subsidies from industry may give the appearance of undue influence on the practice of medicine by the pharmaceutical industry and jeopardize the physician-patient relationship. CEJA, the Council, and AMA constituent organizations are represented on the National Working Group on Gifts to Physicians from Industry, which will oversee a national education campaign to begin in 2001.

Improved Online Resources: The Council has guided the AMA's efforts to establish an improved online national resource for CME information. For many years there has been a searchable database that helps physicians identify CME courses (National CME Online Locator). In 2000, the various aspects of CME, including the AMA PRA information, were aggregated in a single area on the AMA home page, called CME Select (www.ama-assn.org/ama/pub/category/2797.html). The Council was disappointed that the CME credit tracker system, noted in last year's annual report, which would record CME credits of physicians, has not as yet received final approval from AMA leadership.

Accreditation Activities: The Council nominates, and the Board of Trustees appoints, three physicians to serve as the AMA's voting representatives to the ACCME and three to serve on the ACCME Accreditation Review Committee. Council representatives also serve on a new ACCME-AMA "bridge" committee to discuss issues of mutual concern between the two organizations relating to provider accreditation and the designation of AMA PRA credit.

Publications: The Council is pleased to report that the book resulting from the May 1999 Invitational Conference for CME researchers/experts is in production. Titled *Continuing Professional Development of the Physician*, the book will explore the many factors affecting the translation of knowledge into practice and the status of current research in this area. AMA Press will publish the book during 2001. The *AMA CME/CPD Report* continues to be published three times a year, with each issue highlighting a new topic or suggested area for physician CME that will serve as a needs assessment for CME providers nationwide.

MEDICAL EDUCATION LIAISON AND OUTREACH

Section on Medical Schools

There was a joint submission for the AMA 2002 Strategic Plan from the Governing Council of the Section and the Council on Medical Education. During each Annual and Interim meeting, joint sessions are held between the two councils to discuss issues that will come before the House of Delegates, and Council members attend the educational program of the Section. In addition, the Section will continue to work with the Council on Medical Education in its

initiatives to reduce medical student debt and to help young physicians deal with their debt burden. The Section web page (www.ama-assn.org/ama/pub/category/1843.html) has been recently updated and expanded and includes information on the latest issues and activities relevant to academic physicians.

Liaison and Outreach

Responsibilities include communicating and sending Council or staff representatives to physician credentialing organizations, such as the ABMS, the Federation of State Medical Boards (FSMB), and the Educational Commission for Foreign Medical Graduates (ECFMG), regarding medical education issues. The Council serves as the critical link between these external organizations and the AMA and obtains feedback from the representatives to assist in policy development and implementation. In addition, RRC activities are monitored by the division. Representation to physician assistant accrediting and certifying bodies and health professions accrediting organizations, such as the Commission on Accreditation of Allied Health Education Programs (CAAHEP), are coordinated by the division and provide feedback to the Council. Many of these relationships are essential to the continued production of several medical education books and CD-ROM products that serve as references for the Council, as noted below.

Medical Education Products

The relationship with CAAHEP and 17 other allied health professions accrediting agencies is embodied in the annual *Health Professions Career and Education Directory* (available in paper and CD-ROM formats), which provides information on more than 6,100 educational programs in 52 different professions. Helping to reinforce and strengthen these relationships is a new electronic newsletter, the Health Professions Career and Education E-letter (www.ama-assn.org/ama/pub/category/2302.html), which is distributed monthly via e-mail to more than 5,000 readers. Similarly, relationships with the ACGME, ABMS, and FSMB are key to publication of the *Graduate Medical Education Directory* and *State Medical Licensure Requirements and Statistics* (information is available at www.ama-assn.org/ama/pub/category/2543.html).

2. ATTENDANCE OF NON-PHYSICIANS AT COURSES TEACHING COMPLEX DIAGNOSTIC, THERAPEUTIC OR SURGICAL PROCEDURES (RESOLUTION 305, I-00)

HOUSE ACTION: RECOMMENDATIONS ADOPTED AS FOLLOWS AND REMAINDER OF REPORT FILED

Resolution 305 (I-00), which was submitted by the American Orthopaedic Foot and Ankle Society and referred to the Board of Trustees, asks that:

Our AMA establish policy that training programs in complex diagnostic and/or surgical procedures be offered only to practitioners who possess the education, training, and experience to manage the care of surgical patients undergoing these procedures.

This report addresses the training of physicians (MD/DO) and non-physician practitioners in continuing medical education (CME) programs and assumes that the intent of the resolution is to ensure that those practitioners who perform procedures have the appropriate comprehensive educational background to ensure patient safety.

ACCESS TO CONTINUING EDUCATION PROGRAMS FOR PHYSICIANS (MDS/DOS)

Providers of continuing medical education are accredited by the Accreditation Council for Continuing Medical Education (ACCME). Accredited providers, in turn, may designate CME activities for American Medical Association Physician Recognition Award (AMA PRA) category 1 credit, provided the activities conform to the AMA definition and rules for credit. Specific guidelines and AMA policies govern participation in continuing education for physicians. The House of Delegates in 1995 adopted a comprehensive report from the Council on Medical Education on physician credentialing and privileging. The report recommended:

To ensure safe and effective patient care and to provide assistance to those charged with granting new or expanded clinical privileges, the medical community recognizes the critical need to have appropriate educational standards for training leading to the acquisition of new skills. This training should be accessible, without discrimination, to all physicians in every specialty, who have the appropriate education, training, experience, and documented competence. (Policy H-230.964, AMA Policy Database)

The report enumerates general guidelines for such training, and for educational programs that offer training in new procedures and skills. Defined requirements for trainees are included:

2.D. The trainees must have background knowledge, basic skills and clinical experience relevant to the tasks to be learned. The trainees may be required to provide documentation of the above. If appropriate, the trainees may be pre-tested to demonstrate eligibility....[when there is a component to the education/training where the trainee undertakes to learn and practice a procedure under supervision.] In addition, the trainee must have a current and valid license to practice medicine, or meet local requirements for waiver of licensure. The trainee should be able to provide evidence of current liability coverage, hold current clinical privileges in an accredited health care institution, and should have completed an accredited residency training program. Alternatively, the trainee could provide verifiable evidence of equivalent training or board certification. (Policy H-230.964)

For situations where Physician's Recognition Award (PRA) category 1 credit is awarded, training programs focusing on the learners' acquisition of skills must be sponsored by an organization accredited by the ACCME or a state medical society, or be approved for "Prescribed" credit by the American Academy of Family Physicians (AAFP) for family physicians. Further, the trainee must be certified as having obtained a stated level of achievement, in addition to being awarded the appropriate hours of AMA PRA credit. The AMA levels of achievement are: (a) Level 1 - Verification of attendance; (b) Level 2 - Verification of satisfactory completion of course objectives; (c) Level 3 - Verification of proctor readiness; and (d) Level 4 - Verification of physician competence to perform the procedure without further supervision.

These policies are part of the requirements for designation of AMA PRA CME credit. They may apply when physicians plan to use their participation in educational activities to acquire new knowledge and skills as a basis for requesting new or expanded clinical privileges. Detailed information on these requirements is available in the AMA PRA Information Booklet for Providers, Version 3.0 (2000).

The AAFP also offers credit for continuing medical education directed at family physicians. In the AAFP "Application for Activity Approval" it states that "only CME activities which are intended primarily for physicians will be eligible for AAFP prescribed credit." Applications for activity approval must include the principal audience for the activity.

ACCESS TO CONTINUING EDUCATION PROGRAMS FOR NON-PHYSICIANS

Each of the health professions has its own policies and procedures for offering approved continuing education for its members. Providers of continuing education for other health professionals typically are recognized by the relevant professional association, using individual profession-defined accreditation standards. There is no central authority, across professions, to determine who may have access to training programs. This decision is made by the profession and, often, by the specific provider of the training.

The medical profession determines who has access to its training programs in complex diagnostic and/or surgical procedures. Non-physician health care professionals who participate in an educational activity designated for AMA PRA category 1 credit currently may be given certificates documenting their attendance, but may not receive AMA PRA category 1 credit.

Non-physicians can benefit from participation in some continuing medical education activities. It may be useful for non-physicians who are members of a health care team to learn basic information about new procedures. Current AMA policy states that "since the ultimate purpose of continuing medical education is to improve patient care it should be recognized that, in the interest of the team approach, it is often appropriate that other health professionals attend specifically designated continuing medical education programs so that each health professional operating within his/her scope of practice may perform better for the patient's benefit." (Policy H-300.9919[1]). Education

that involves learning how to actually perform a procedure is, however, another issue. In this case, to ensure patient safety, the same guidelines that are used to admit physicians to CME programs should apply. The Council believes that organizations that accredit continuing medical education providers (such as the ACCME and the AAFP) should ensure that providers of CME consider the educational background and preparation of attendees as a criterion for admission to programs.

There are no mechanisms by which the AMA could unilaterally and universally limit access to continuing medical education programs. However, the AMA could encourage other groups, such as the ACCME and the AAFP, to adopt the principle that accreditation should be granted to providers whose focus is on the education of physicians.

IMPACT OF PARTICIPATION IN CONTINUING EDUCATION ON SCOPE OF PRACTICE

The authorization for a practitioner to perform complex diagnostic and surgical procedures mainly rests in state laws and regulations governing practice and in credentialing decisions made by health care facilities. Credentialing decisions are made by individuals who are familiar with the local practice environment and with the practitioner's abilities. AMA policy states that the granting of clinical privileges should be based predominantly on the "best interests of patients" and should be awarded on an individual basis commensurate with an applicant's education, training, experience, and demonstrated competence" (Policy H-300.991). Current AMA policy disapproves of the concept that continuing medical education courses can be the sole basis for expanding a non-physician's scope of practice. Since medical practice acts are "within the province of the states," state medical societies should "call to the attention of legislators that evidence of attendance at continuing medical education programs should not be used to expand the area of functioning of any non-physician group" (Policy H-300.991[2,3]). In no instance should attendance at continuing medical education programs be the sole basis for allowing an expanded scope of clinical practice to individuals who otherwise do not have the necessary educational background to ensure patient safety.

RECOMMENDATIONS

The Council on Medical Education recommends that the following be adopted in lieu of Resolution 305 (I-00) and that the remainder of this report be filed:

1. That our American Medical Association encourage the Accreditation Council for Continuing Medical Education, the American Academy of Family Physicians, and other groups that accredit providers of continuing medical education to adopt the principle that continuing medical education should be focused on physicians (MDs/DOs). Courses teaching complex diagnostic, therapeutic or surgical procedures should be open only to those practitioners and/or sponsored members of the practitioner's care team who have the appropriate medical education background and preparation to ensure patient safety. This should not be construed to limit access to or apply to programs leading to life support certification, e.g., ATLS, ACLS.
2. Non-physicians attending courses teaching complex diagnostic, therapeutic or surgical procedures may receive certificates of attendance but not certificates indicating or implying competence to perform those procedures.
3. Evidence of attendance at continuing medical education programs should not be used to extend the scope of practice or area of functioning of any non-physician practitioner.
4. That Policy H-230.964, "Physician Credentialing and Privileging," be reaffirmed.

3. FOSTERING PROFESSIONALISM DURING MEDICAL SCHOOL AND RESIDENCY TRAINING

HOUSE ACTION: RECOMMENDATIONS ADOPTED AS FOLLOWS AND REMAINDER OF REPORT FILED

Resolution 318 (I-98), which was submitted by the Section on Medical Schools and adopted by the House of Delegates, asks that our American Medical Association "develop plans and strategies for enhancing the teaching and learning of professionalism as part of medical education." This report summarizes the current status of education about professionalism and recommends principles to enhance education across the continuum of medical school and residency training.

PROPOSED NATIONAL OBJECTIVES FOR PROFESSIONALISM EDUCATION

There have been major efforts to define the objectives related to professionalism that should be attained by medical students and resident physicians. The 1998 Association of American Medical Colleges (AAMC) Medical School Objectives Project (MSOP) developed the following set of attributes for medical students to achieve under the general goal that “physicians must be altruistic”:

- Knowledge of the theories and principles that govern ethical decision-making and of the major ethical dilemmas in medicine;
- Compassionate treatment of patients, with respect for their privacy and dignity;
- Honesty and integrity in all interactions with patients’ families and colleagues;
- Understanding of and respect for the roles of other health professionals and of the need to collaborate in caring for individual patients and promoting the health of communities;
- Commitment to advocate the interests of one’s patients above one’s own interests;
- An understanding of the threats to medical professionalism posed by conflicts of interest in the health system; and
- The capacity to recognize and accept limitations in one’s own knowledge and clinical skills, and a commitment to improve.

Similarly, the AAMC released a Graduate Medical Education (GME) Core Curriculum in 2000 that included the following goals:

- Residents should adhere to principles of medical ethics, respecting and protecting patients’ best interests.
- Residents should be altruistic and accountable.

Under each of these general goals, there were specific objectives that residents would be expected to attain.

Both the AAMC MSOP objectives and the GME Core Curriculum are voluntary. A number of medical schools have, however, incorporated the MSOP Objectives, or a variant, into their educational programs.

Other groups also have specified characteristics related to professionalism that trainees should acquire. For example, the American Board of Internal Medicine’s 1995 Project Professionalism enumerated the following elements of professionalism that must be exhibited by candidates for certification:

- A commitment to the highest standards of excellence in the practice of medicine and in the generation and dissemination of knowledge;
- A commitment to sustain the interests and welfare of patients; and
- A commitment to be responsive to the health needs of society.

ACCREDITATION REQUIREMENTS RELATED TO PROFESSIONALISM

What is taught during medical school and residency training is influenced by the standards for accreditation. The Liaison Committee on Medical Education (LCME) standards for accreditation of educational programs leading to the MD degree state that the curriculum:

...must include the sciences basic to medicine, a variety of clinical disciplines, and ethical, behavioral, and socioeconomic subjects pertinent to medicine. There should be presentation of material on medical ethics and human values....A medical school must assure that its students learn and exhibit scrupulous ethical principles in caring for patients and in relating to patients’ families and to others involved in the care of patients.

In 1999, the Accreditation Council for Graduate Medical Education approved a set of General Competencies that must be incorporated into the accreditation requirements for residency training in each specialty by July 2002. The competency related to professionalism states that residents:

...must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

CURRENT EDUCATION RELATED TO PROFESSIONALISM

In Medical School

Most U.S. medical schools teach about professionalism in a variety of locations in the curriculum. A 1998 survey by Swick and colleagues received responses from 116 schools. Of these, 104 (90%) reported that they offered formal curriculum content related to professionalism and professional values. Similarly, the 1999-2000 Liaison Committee on Medical Education (LCME) Annual Medical School Questionnaire asked the 125 LCME-accredited medical schools where in the curriculum students were given instruction about the characteristics of professional behavior. Of the 123 medical schools that responded to this item, 114 taught about professionalism in the Introduction to Clinical Medicine/physical diagnosis course, 105 in one or more clinical clerkships, 105 during a white-coat ceremony, 91 during small group discussion sessions in the first two years of the curriculum, and 91 during a course on the doctor-patient relationship. There were 51 schools (41%) that reported covering the topic of professionalism in all the above sites in the curriculum.

Medical ethics is one of the core areas of professionalism. In the 1999-2000 LCME questionnaire, 124 of the 125 schools reported that they taught medical ethics as a separate required course and/or as part of a required course. In 98 schools, the characteristics of professional behavior were explicitly included as part of ethics teaching.

Even though medical schools report that ethics is included in the curriculum, students may not be satisfied with the amount of instruction provided. Of 12,679 fourth-year medical students who responded to the 1999 AAMC Medical School Graduation Questionnaire, 14.4% believed that the time devoted to instruction in ethics was inadequate. Another 9.7% believed that excessive instructional time was devoted to ethics. This latter finding could be due to the students' not perceiving the relevance of the information that was taught.

One problem is that there appears to be no current consensus across medical schools about what content areas should be part of an ethics curriculum. It also is unknown how well ethics teaching during the preclinical years is reinforced in the clinical setting in the context of actual patient care.

In Graduate Medical Education

The 1999 AMA survey of graduate medical education programs, which was sent to 7946 ACGME-accredited and combined specialty programs and had a 95% response rate, collected information about the presence of a structured ethics curriculum. The percent of programs reporting that they had such a curriculum varied somewhat by specialty. For example, 96.7% of Emergency Medicine programs, 96.8% of Family Practice programs, 99.5% of Internal Medicine programs, 100% of Obstetrics-Gynecology programs, 74.4% of Pathology (anatomic and clinical) programs, 99.5% of Pediatrics programs, 98.9% of Psychiatry program, 81.8% of Radiology programs, and 94.2% of Surgery programs had a structured ethics curriculum for the 1999-2000 academic year.

BARRIERS TO LEARNING PROFESSIONALISM

Even with the presence of ethics and of other content related to professionalism in the curriculum, there have been reports that students' ethics and values are being negatively impacted during medical school. For example, in a 1994 survey by Feudtner and colleagues, more than 60% of responding third- and fourth-year medical students believed that at least some of their ethical principles had been eroded or lost during their clinical education.

Students' and residents' development of professionalism is affected both by what they are taught in formal teaching sessions and by what they learn by being in the educational environment. In the case of medical education, this means being in settings where health care is being provided. It has been pointed out that the "hidden curriculum," the informal learning that occurs by students being in a specific environment, has a great deal of power to instill attitudes and values. What is being learned through the hidden curriculum may be contrary to the messages about professionalism and ethics that students and residents receive in their formal coursework. For example, Feudtner and colleagues found that a majority of students had observed behavior in the clinical setting that they believed to be unethical and that 40% had done something they thought was unethical in order to fit in. Students who had observed unethical behavior were more likely to report that they themselves had behaved unethically.

PLANNING TO ENHANCE EDUCATION IN PROFESSIONALISM

While medical schools and residency programs report that teaching related to professionalism does occur, it may not be optimal. The Council believes that the following elements should be included in planning efforts directed at enhancing this teaching.

1. Develop consensus about desired goals and outcomes for education in professionalism.

In order to arrive at a common set of goals and outcomes for education in professionalism, there is a need for a common definition. Ideally, this definition should be based on what physicians actually do and be sensitive to the changes that have occurred in the health care system that impact physicians' work. One possibility is to use a set of guidelines meant to impact the behavior of practicing physicians, such as the *AMA Principles of Medical Ethics*. These principles, which are "standards of conduct which define the essentials of honorable behavior for the physician," address the areas that also have been identified by others as constituting professionalism. There is a strong benefit in using principles aimed at practicing physicians to guide education, as the outcome of the education is directly relevant.

2. Based on the desired goals and outcomes for education in professionalism, examine and revise the content of the medical curriculum.

There have been suggestions about what new knowledge and skills related to professionalism should be added to the medical curriculum to prepare physicians for practice in the current health care environment. Examples include advocacy skills, to better ensure that patients' needs can be met; responsibility for population health; medical economics, history, and policy; evidence-based medicine; and the laws and regulations, as well as the professional codes, governing physician professional conduct. All these have been included by some as elements in a new conceptualization of professionalism.

3. In teaching professionalism, include both explicit didactic instruction and appropriate role modeling by those in authority.

Education should take into account both the content that is taught and the context in which education occurs. A survey of residency program faculty in obstetrics-gynecology indicated agreement about the importance of professionalism training and the central role of faculty examples and role modeling. Given the concerns about what medical students and resident physicians are learning through the "hidden curriculum," attention must be given to the educational environment, especially in clinical settings. Faculty development for attending physicians and resident physicians, as well as for other hospital personnel, will be required to sensitize them to the negative "lessons" they may be unintentionally providing trainees.

4. Feedback about the environment for education, including attention to professionalism, should be actively and continuously solicited from trainees.

Trainees should be given an opportunity to explicitly provide feedback on the environment for medical education. For example, medical students in many schools evaluate the professionalism of their teachers, as part of the regular course/clerkship evaluation process. The 1999-2000 LCME Annual Medical Questionnaire showed that students evaluate the professionalism of basic science faculty in 83 schools, of full-time clinical faculty in 96 schools, of volunteer clinical faculty in 84 schools, and of resident physicians in 78 schools.

SUMMARY AND RECOMMENDATIONS

There is general agreement that understanding the elements of professionalism is an important part of learning to be a physician. Much significant work already has been done to identify goals and outcomes for medical education related to professionalism. While these goals and outcomes have been widely circulated and education about professionalism is occurring, it may not be optimal because of the diffuse focus of the teaching and the competing messages that medical students and resident physicians are experiencing in the training environment. Therefore, the Council on Medical Education recommends that the following be adopted and that the remainder of this report be filed.

1. That our American Medical Association, in consultation with other relevant medical organizations and associations, work to develop a framework for fostering professionalism during medical school and residency training. This planning effort should include the following elements:
 - (a) Synthesize existing goals and outcomes for professionalism into a practice-based educational framework, such as provided by the AMA's *Principles of Medical Ethics*.
 - (b) Examine and suggest revisions to the content of the medical curriculum, based on the desired goals and outcomes for teaching professionalism.
 - (c) Identify methods for teaching professionalism and those changes in the educational environment, including the use of role models and mentoring, which would support trainees' acquisition of professionalism.
 - (d) Create means to incorporate ongoing collection of feedback from trainees about factors that support and inhibit their development of professionalism.
2. That our AMA, along with other interested groups, continue to study the clinical training environment to identify the best methods and practices used by medical schools and residency programs to fostering the development of professionalism.

(References pertaining to Report 2 of the Council on Medical Education are available from the Medical Education Group.)

4. IMPACT OF HEALTH SYSTEM CHANGES ON MEDICAL EDUCATION

HOUSE ACTION: RECOMMENDATIONS ADOPTED AND REMAINDER OF REPORT FILED

This report is in response to Recommendation 4 of Council on Medical Education Report 4-A-99, Resolution 309 (A-00), and Resolution 310 (A-00).

Recommendation 4 of Council on Medical Education Report 4-A-99, "Training of Physicians Under Managed Care," which was adopted by the House of Delegates, asked that the American Medical Association "ask the Liaison Committee on Medical Education to survey those schools and academic health centers with managed care contracts for the presence of exclusion provisions that curtail the education of medical students and resident physicians."

Resolution 309 (A-00), "Impact of Managed Care on Medical Education," which was submitted by the Georgia Delegation and adopted as amended, asked that our AMA, "through appropriate in-house committees and other agencies, study the impact of managed care on medical education and academic centers and present a report at the 2001 Annual Meeting."

Resolution 310 (A-00), "Evaluating the Impact of Hospital Mergers on Clinical Education for Medical Students and Resident Physicians," which was submitted by the Section on Medical Schools and adopted by the House of Delegates, asked the AMA to study the "impact of hospital mergers on access to clinical educational opportunities for medical students and resident physicians."

This report addresses the impact of health system changes, including the growth of managed care and the increasing occurrence of hospital mergers and acquisitions, on the following:

- The finances of medical schools, teaching hospitals, and other sites used for clinical teaching;
- The general availability of patients to participate in clinical education; and
- The ability of medical students and resident physicians to perform procedures under supervision.

HEALTH SYSTEM CHANGES AND ACADEMIC MEDICAL CENTERS

The report focuses primarily on the period from 1990 to 2000, which encompasses the emergence of managed care as a major influence on the U.S. health system. As background, however, it is important to note that academic medical centers (that include medical schools and their associated teaching hospitals) had been expanding for decades before 1990. For example, the number of full-time medical school faculty has been rising steadily, especially in the clinical departments, while the number of enrolled medical students has been relatively constant since about 1980 (see Table 1).

The organizational structure of medical schools and academic medical centers also had become more complex, to reflect the increasing importance of the clinical enterprise. The average number of clinical departments increased from 10.5 in 1966 to 14.4 in 1996. In 1966, the medical school dean also was the vice president for medical affairs in 7% of institutions. By 1996, the deans at 27% of schools also held the title of vice president for medical affairs.

Table 1 - Full-Time Medical School Faculty

Year (# schools)	Number of Full-time Faculty		Total Medical Student Enrollment	Faculty: Student Ratio
	Basic Science Departments	Clinical Departments		
1970 (103 schools)	8,053	19,433	40,487	0.68
1980 (126 schools)	12,840	37,696	65,497	0.77
1990 (126 schools)	15,455	59,352	64,986	1.15
2000 (125 schools)	17,627	84,819	66,500	1.54

Source: Medical Education Issues of *JAMA*

U.S. medical schools use a large number of hospitals to support their clinical education programs, but the pattern of ownership of clinical teaching sites has shifted (Table 2).

Table 2 - Types of Hospitals Used as Inpatient Sites for Clerkships

Type of Hospital	Percent of Schools Using Hospital Type in that Year (Number of Schools Responding)		
	1996	1998	2000
	(116)	(122)	(122)
Medical School/University Owned	57%	47%	43%
Not-for-Profit, Private	76%	84%	82%
For-Profit, Private	22%	30%	32%
Federal (VA, Department of Defense)	75%	78%	78%
Public (State, County, City)	53%	58%	61%

Source: Medical Education Issues of *JAMA*

One notable change in the past five years has been the decrease in the percent of schools using medical school- or university-owned facilities. This could be due to corporate restructuring that spins off the clinical enterprise into a separate public corporation or to the sale of medical school/university hospitals to non-profit or for-profit health systems. The latter could be one reason for the increasing percent of schools using private, for-profit hospitals for required clinical clerkships. This increase is striking. In 1996-1997, 28 medical schools used a total of 51 for-profit hospitals; in 1999-2000, 40 schools used 101 for-profit hospitals.

The total number of U.S. hospitals involved in mergers peaked in the mid-1990s and has since declined. Total facilities involved in mergers were 735 in 1995, 768 in 1996, 627 in 1997, 687 in 1998, 530 in 1999, and 318 in 2000. This trend is reflected in the subset of hospitals that medical schools use for required clinical clerkships. Since 1995, the Liaison Committee on Medical Education (LCME) Annual Medical School Questionnaire has been asking the 125 LCME-accredited schools whether there was a merger of acquisition of an owned/affiliated hospital used for one or more core clinical clerkships. Such activity was reported by 42 schools for 1995, 47 schools in 1996, 35 schools in 1997, 30 schools in 1998, and 18 schools in 1999.

In the mid-1990s, another event occurred which had the potential to impact the ability of educational programs for medical students and residents to carry on quality clinical education. The Health Care Financing Administration (HCFA) guidelines for Evaluation and Management Services became effective in 1996. The complex documentation required to bill Medicare could detract from the time that faculty physicians can devote to teaching. In addition, in order to bill Medicare, the Final Rule for Teaching Physicians explicitly required considerable involvement by supervising physicians in patient care situations involving medical students and resident physicians. This requirement for attending physician participation could limit student and resident ability to interact with patients and perform procedures, under supervision.

MEDICAL SCHOOL FINANCES IN THE 1990S

During the 1990s, faculty practice was the single largest source of medical school income, contributing almost 30% of total revenue in 1988-89 and more than one-third of total revenue in 1998-1999. Table 3 summarizes the contributions from all sources to total medical school revenue in 1988-89 and 1998-99.

Revenue from faculty practice is important for maintaining a quality educational program. A study using data from the early 1990s found that practice revenue supported academic programs by direct transfer of funds to the medical school (the "Dean's tax") and through underwriting some of the clinical faculty time spent in teaching. The report concluded that, of every dollar of practice plan revenue, 8 cents was spent on undergraduate medical education and 7 cents on graduate medical education.

Another important source of medical school revenue is from hospital-medical school programs. This is funding that supports medical school programs in hospitals and clinics and includes payments for the supervision of residents, for residents' salaries, and for contracts to manage medical services (such as, faculty providing specialized services at affiliated hospitals). During the 1990s, the percent of total revenue from this source increased (see Table 3).

Table 3 - Sources of Medical School Revenue*

Revenue Source	Average % of Total Revenue	
	1988-89	1998-99
Practice Plan	29.8	34.5
Federal/State/Local Appropriations	14.6	8.5
Grants and Contracts (G&C)		
Federal Research	13.0	13.5
Other G&C	12.3	10.1
Facilities/Administrative (Indirect) Costs	6.8	6.5
Hospital/Medical School Programs	9.9	14.6
Tuition and Fees	4.3	3.7
Gifts/Endowments	3.9	4.2
Other Sources	5.4	4.2

* Includes revenues recorded in medical school and affiliated hospital accounts
Source: Medical Education Issues of *JAMA*, 1991 and 2000

There is general agreement that revenue from clinical faculty practice is in jeopardy. In addition, data from the Association of American Medical Colleges (AAMC) show that the median operating margins of teaching hospitals that are integrally associated with medical schools (in an academic medical center) declined from just under 4% in 1994 to about 1.5% in 1999. There have been recent difficulties, including operating losses, decreases in bond ratings, and/or layoffs, at some large and previously financially sound academic medical centers. These financial problems have resulted from the increasingly competitive health care market and from reduced payments from public programs. The 1997 Balanced Budget Act (BBA) has been implicated in this worsening financial performance, and the BBA relief legislation passed in 1999 and 2000 have not completely reversed the initial negative impact.

The problems of teaching hospitals have been exacerbated during the 1990s by their overall higher costs for patient care. A study using data from the early 1990s found teaching hospital costs were higher, even adjusting for case mix, wage levels, and direct graduate medical education costs. Studies in some areas with high managed care penetration showed that managed care organizations were not willing to pay much of a premium, or any premium, for care at academic medical centers. This could have the tendency to direct patients away from teaching hospitals, which has implications both for financing and for the availability of patients to support clinical education programs.

AVAILABILITY OF PATIENTS FOR CLINICAL EDUCATION

Contact with patients is the core of clinical education for medical students and resident physicians. Accreditation standards for both MD and residency programs require that there be sufficient patients to provide a good educational experience. The standards of the LCME for medical education programs leading to the MD degree state that:

The faculty must participate in a process that defines the objectives of clinical education and establishes quantified criteria for the types of patients (real or simulated), the level of student responsibility, and the appropriate clinical settings necessary to accomplish these purposes.

Similarly, the Accreditation Council for Graduate Medical Education program requirements for resident education also address the adequacy of the patient base. For example, the requirements for Internal Medicine state:

Patients must be available in sufficient numbers for training purposes in general internal medicine in inpatient, ambulatory, and other settings.

The program requirements for Pediatrics state:

A sufficient number, variety, and complexity of patients, ranging in age from infancy through young adulthood, must be present.

There is evidence that some sites traditionally used for teaching have suffered an erosion of their patient base. Of the 125 medical schools responding to the 1999-2000 LCME Annual Medical School Questionnaire, 6 (5%) reported that the number of inpatients available for medical student teaching had decreased in the past year across all clinical sites and disciplines, 59 (47%) that available inpatients had decreased at some sites or in some disciplines, and 60 (48%) that the number of available inpatients had not changed from last year.

There are no comprehensive data on availability of patients for residency training. One survey of obstetrics-gynecology residency programs done in the mid-1990s revealed that 59% of responding programs had experienced a decrease in patient volume, stimulating 80% of those programs to increase the number of their teaching sites.

ABILITY TO PERFORM HISTORIES AND PHYSICAL EXAMINATIONS AND PROCEDURES UNDER SUPERVISION

It has been asserted that medical students and resident physicians have less ability to interact with patients and perform procedures under supervision because of payor regulations. One reason given is that the HCFA guidelines for teaching physicians now require that, for billing purposes, attending physicians must duplicate and document the significant portions of a history and physical that was initially performed by a medical student or a resident physician. Such duplication may be unwelcome to patients and faculty may find that the need to re-perform the relevant sections of the history and physical exam competes with the time available for teaching. It may, therefore, be more efficient for the faculty member to care for the patient without trainee involvement. The billing regulations also have made attending physicians reluctant to allow resident physicians to perform procedures. Another reason that has been proposed is that exclusion contracts may be interfering with trainee access to patients.

All medical schools were surveyed in order to determine if medical students' access to patients was being compromised. The 1999-2000 LCME Annual Medical School Questionnaire asked if regulations set by payors, including Medicare and managed care companies, had limited the ability of medical students to take patient histories and do physical examinations or to perform procedures under supervision. Of the 125 LCME-accredited medical schools, 32 (26%) responded affirmatively to this statement. In about one-half of these schools, the limitation had not been severe enough to require the development of supplemental educational experiences. The other schools had increased the use of standardized patients or simulation devices, and/or utilized other clinical sites where the restrictions do not apply in order to counteract the limitations.

Certain types of hospital mergers also may impact the provision of services and, consequently, the access of trainees to specific educational experiences. This most directly relates to the availability of reproductive services in hospitals that have been acquired by Roman Catholic health systems. The implementation of the Ethical and Religious Directives for Catholic Health Care Services in previously non-sectarian hospitals acquired by Roman Catholic health systems has resulted in elimination or restriction of abortion, contraception, and infertility treatment services. If these institutions serve as sites for clinical teaching, medical students or resident physicians could lose the ability to learn about or participate in provision of these services.

SUMMARY AND RECOMMENDATIONS

Health system changes are affecting both the finances of academic medical centers and the environment for medical student and resident physician education. The ability of full-time and volunteer faculty to devote time to teaching, the availability of patients for clinical education, and the access of trainees to certain educational experiences all have been negatively impacted to some degree.

There is a need to ensure that a strong system of quality medical education survives. The Council on Medical Education, therefore, recommends that the following be adopted and that the remainder of this report be filed.

1. That Policies H-305.946, which encourages society and payors of health care to recognize the cost of medical education and develop a stable funding source specifically dedicated to support the education of medical students, and H-305.976, which supports continued efforts along with other professional organizations to assure an adequate and stable national system of financial support for graduate medical education, be reaffirmed.
2. That our American Medical Association adopt as policy that maintaining the quality of medical education, including the access of medical students and resident physicians to patients, should be a key factor during planning for mergers, acquisitions, or other organizational changes involving teaching hospitals and their affiliated medical schools.
3. That our AMA continue to monitor the financial status of academic medical centers and the availability of faculty and patients to support the clinical education of medical students and resident physicians. This should both include collecting information and synthesizing information from other sources on these issues.

(References pertaining to Report 4 of the Council on Medical Education are available from the Medical Education Group.)