Resolution 711 (I-07), “Securing Medicare GME Funding for Research and Outside Rotations During Residency,” introduced by the Resident and Fellow Section and referred to the Board of Trustees, asked that our American Medical Association (AMA):

- continue to study current funding mechanisms for residency training programs and potential funding limitations;
- encourage research and extramural educational opportunities; and
- work to change current Direct Medical Education (DME) regulations and funding guidelines which may limit research and extramural educational opportunities during residency training.

Reference Committee testimony stated that the intent of this resolution is to better meet the needs of residency training by changing current funding rules for graduate medical education (GME) that make it difficult for residents and fellows to take advantage of research and extramural educational activities. The following report summarizes current GME funding mechanisms and explains how current GME funding guidelines limit research and extramural educational opportunities.

BACKGROUND

The sponsors of GME programs (e.g., teaching hospitals, medical schools, regional consortia) have ultimate responsibility for the management and quality of the GME-related activities conducted under their purview, and must balance multiple social missions, including specialized patient care, indigent care, teaching, and particularly for academic health centers, research. Research of up to 6 months scheduled during one or more of the accredited years of the residency program is required in many Accreditation Council for Graduate Medical Education (ACGME)-approved specialties, and research rotations may also contain a clinical element. Most ACGME-accredited and American Board of Medical Specialties-approved clinical fellowships also have some required research component.

Legislation involved in allotting funds to support GME programs directly affects the number of residency positions, the ability of residents to switch specialties, the patient population during
training, and the quality of training. Medicare, the single largest funding source for GME, helps offset some of the costs associated with educating residents, caring for patients who require more intense and complex care, and the special missions of teaching hospitals. Medicare supports teaching hospitals with 40% of the total cost for their GME. Other sources of GME funds include Medicaid, the Department of Defense (DOD), the Veterans Administration (VA), and private payers who also pay for portions of GME. Alternate funding sources vary by institution and state and are often subject to the political process of annual appropriations. However, although more than $2 billion of GME was funded by Medicaid in FY 2000, Medicaid funding of GME has been markedly reduced or eliminated in many states due to budget deficits during the last 3 to 4 years. Furthermore, the Centers for Medicare and Medicaid Services (CMS) is now trying to eliminate Medicaid funding of GME.

Limited funding by the CMS due to caps on the number of resident trainees imposed by the Balanced Budget Amendment of 1997 restricts the flexibility of teaching hospitals to expand the number of resident physicians in their programs (Appendix A). In addition, CMS rules and regulations impose limits on the settings in which GME can occur. Such limitations of funding regarding ambulatory and other non-hospital sites of training have resulted in concentrating GME training in limited modalities and settings, predominantly inpatient services. In September 2007, the Council on Graduate Medical Education (COGME) the entity mandated by Congress to study and advise the Federal Government about the nation’s physician workforce, recommended the removal of regulatory barriers that limit the flexibility of GME training programs and limit their training venues. COGME also recommended that funded GME positions be increased by a minimum of 15% to directly support innovative training models that address community needs and reflect emerging, evolving, and contemporary models of health care delivery, e.g., the patient-centered medical home model.

RESIDENCY TRAINING IN NON-TRADITIONAL SETTINGS

Medicare reimbursement covers salary, fringe benefits, and attending physician compensation for residents in an approved program working in all areas of the hospital complex, based on the institution’s number of residents in an approved program in a current year and a historical average GME cost per resident in a base year. Additional years spent in research, employment, or training outside of prerequisites for the specialty or subspecialty program are not used to determine the graduate-year level.

Medicare regulations address the situations of residents whose salaries are paid by the hospital but who spend some time training in a non-hospital setting, such as an independent clinic, nursing home, or a physicians private office. While such costs and time cannot be included in the calculation of the base year per resident amount, residents can be included in calculating the number of FTEs for cost reporting periods after July 1, 1987, as long as two conditions are met: (1) the time must be spent in patient care activities; and (2) there must be a written agreement between the hospital and the entity where the resident is working specifying that the hospital will assume the costs of the resident's salary and fringe benefits (and travel and lodging where applicable) while the resident is training in the non-hospital site. The agreement must also indicate that the funding the hospital is providing to the non-hospital site is reasonable compensation for supervisory teaching activities.

Teaching institutions often employ a resident physician or fellow to stay in the program longer in order to continue a course of research together with or under the general oversight of faculty.
physicians who are on teaching staff at the hospital. The resident physician’s or fellow’s time
would not be included in the hospital’s resident counts for the direct graduate medical education
(DGME) and indirect medical education (IME) payments if the individual is no longer in an
approved training program.\textsuperscript{7}

\textbf{FUNDING FOR CLINICAL RESEARCH}

The Association of American Medical Colleges (AAMC) recently convened a Task Force on
Clinical Research (CRTF II) to advise the academic medical community how best to (a) attract,
develop, and nurture increased numbers of independent translational and clinical investigators; (b)
create the infrastructure needed by these investigators to be successful; and (c) finance translational
and clinical science. The CRTF II surveyed 125 research deans and published a report in 2006
showing that 72\% of the responding institutions had introduced one or more new clinical research
training programs for fellows and/or junior faculty, or enhanced the rigor of an existing program.\textsuperscript{10}

New National Institutes of Health (NIH) funding helped stimulate this positive change. The study
also showed:

The current healthcare financing systems do not provide a dependable funding source for
sustaining salary for translational and clinical investigators. Unremitting pressures to
contain healthcare costs have drained excess patient care revenues from the system,
markedly increased the clinical service demands on physicians, and reduced the ability to
cost shift from patient care to research.\textsuperscript{10}

As follow up to the study, the CRTF II urges every medical school and affiliated teaching hospital
to develop a sustainable long-term strategic and financial plan for ongoing investment to develop
and support a robust translational and clinical research enterprise. The funds to do so may not be
readily identifiable, but the CRTF II believes:

This hurdle can be overcome by purposefully tapping or reallocating existing funding
sources, astutely leveraging external sources of support, aggressively targeting new fund-
raising, and by reducing the financial burden itself. Institutions can obtain efficiencies and
cost-savings by providing essential clinical research support via centralized shared
infrastructure that avoids wasteful duplication. Furthermore, academic institutions and the
NIH are examining new ways to provide and maintain the infrastructure for clinical trials,
so that these large and expensive arrangements are not repetitively built, dismantled, and
rebuilt according to the vagaries of clinical trials funding opportunities.\textsuperscript{10}

The AAMC has submitted an \textit{amicus curiae} brief arguing that time spent in research and other
scholarly activities by resident physicians should be included in the Medicare IME payment count
of FTE residents (Appendix B).

\textbf{OTHER SOURCES OF RESEARCH FUNDING}

Total health research and development in the United States from all sources is only 6\% of the
annual total expenditures on health care.\textsuperscript{11} Philanthropic foundations also support research. Two
examples include the Josiah Macy, Jr. Foundation, which created a program to increase exposure of
post-doctoral students and medical faculty to conduct research away from their home institutions,
and the Howard Hughes Medical Institute, which launched its own program known as the “Med
into Grad Initiative,” of institutional grants to integrate medical knowledge into graduate education and train PhD students in medical and clinical sciences.\textsuperscript{12,13}

Biomedical research supported by industry has increased from approximately 32\% to 62\% during the last 2 decades, and financial relationships among industry, scientific investigators, and academic institutions are widespread. Studies show that research with industry support “publish at higher rates, patent more frequently, participate in more administrative and professional activities and earn more than colleagues without such support.”\textsuperscript{14} However, significant conflicts of interest arise from these ties that can influence biomedical research and pose risks for academic institutions.

Federal funding for health services research, administered largely through the Agency for Healthcare Research and Quality, the Veterans Health Administration, and the NIH itself, is a small fraction of the Public Health Service budget.

Some institutions also make research a high priority and invest a portion of their discretionary funds in the clinical research enterprise. These medical schools and teaching hospitals determine their level of investment relative to their size, circumstances, and competing priorities. The sources of revenue are similar in public and private institutions, and significant research funding is leveraged on a relatively small share of available “other institutional support” that includes fund-raising.\textsuperscript{10}

\textbf{AMA POLICY}

\textbf{AMA policies H-305.929, “Proposed Revisions to AMA Policy on the Financing of Medical Education Programs” and D-305.967, “The Preservation, Stability, and Expansion of Full Funding for Graduate Medical Education” (Appendix C).}

It is AMA policy that:

\begin{itemize}
  \item Adequate and stable funding should be available to support quality undergraduate and graduate medical education programs. Our AMA and the federation should advocate for medical education funding.
  \item Diversified sources of funding should be available to support medical schools’ multiple missions, including education, research, and clinical service. Reliance on any particular revenue source should not jeopardize the balance among a medical school’s missions.
  \item Funding for graduate medical education should support the training of resident physicians in both hospital and non-hospital (ambulatory) settings.
  \item Our AMA oppose regulatory and legislative efforts that reduce funding for GME from the full scope of resident educational activities that are designated by residency programs required for the accreditation of residency programs and the board certification of their graduates (e.g., didactic teaching, community service, off-site ambulatory rotations, etc.).
\end{itemize}

\textbf{DISCUSSION}
Research at medical schools and teaching hospitals is a critical component of future scientific advances into better diagnostics, treatments, and prevention of diseases. Similarly, extramural educational opportunities are a vital part of a balanced residency training program. Organizational and financial barriers in academic medical institutions are limiting the exposure of resident physicians to clinical research and more flexible models of medical care. Federal CMS rules have also limited the ability of GME sponsors to respond to the needs of their communities and over time have begun to impede the continued development of their educational mission.

To ensure that our nation’s future physicians are competent in diagnosing and treating a broad spectrum of diseases and can meet the challenges of the growing burden of chronic illness requires that GME training programs be more flexible in responding to their communities’ needs. Therefore, despite GME funds being tied to inpatient, hospital-based care, medical practice and education are already shifting more to the ambulatory setting for both primary and specialty care services with a greater emphasis on multiple patient encounters. Furthermore, mandates for competency and quality assessment of physician performance are requiring curricula to include other educational initiatives, such as proficiency-based training utilizing real, virtual, and simulated patient experiences, and enhanced patient safety and care, and are competing for hospital, patient-care service time historically provided by resident physicians.

The current CMS resident funding limits are impeding the establishment of new residency programs. A recent study showed that there has been modest expansion in the number of resident physicians in ACGME-accredited programs. This expansion appears to have been driven by physicians pursuing specialties with longer training periods and growth in the number of US citizen graduates from offshore medical schools who are returning for training. The ACGME duty-hour rules that took effect on July 1, 2003 may have also encouraged hospitals to increase their number of residents to cover services that might be uncovered due to the new duty-hour rules. It is not clear how these new positions are being funded; further research is warranted.

Research funding and the development of a national educational research infrastructure will ultimately determine the success of clinical research. In 2002, Medicare payments for GME totaled $8.8 billion and supported the training of nearly 100,000 residents and fellows in the United States. In 2007, Medicare still provided $8.8 billion to teaching hospitals in support of GME, but the number of residents and fellows had grown to 106,012. Of this total, less than 0.001% was invested in health professions education research. Many investigators are supported by institutional, specialty organization, or foundation grants, but most education research projects are completely unfunded.

Physicians undergo one of the longest training periods of any profession in the United States (3 to 9 years). Their compensation is relatively low during residency and fellowship, and most have already accumulated significant educational debt (the average debt burden for the 87.6% of medical school graduates with debt has risen to $139,751). Rates of indebtedness have been growing at an average of 6.9% for public medical school graduates and 5.9% for their private school counterparts. High medical student indebtedness is likely to continue to influence choice of specialty and practice location. However, since the future earnings of some specialties are much higher than for primary care, some have suggested that any increase in public funding should be directed entirely towards primary care specialties. The AMA supports legislation that would provide incentives to ease medical school debt burdens, such as loan forgiveness and loan deferment programs (i.e., restoring the 20/220 pathway) and income tax exemptions for medical student scholarships.
Under current CMS reimbursement rules, DGME cost is adjusted only by inflation, so institutional resources to increase resident compensation are limited. Furthermore, Medicare faces increasing financial constraints which are likely to get worse. Financial incentives must be changed so that medical students are not deterred from starting a career in medical education or research, entering public health service, practicing primary care, or practicing medicine in medically underserved areas.

SUMMARY AND RECOMMENDATIONS

GME sponsors must provide sufficient resources to ensure the effective implementation and support of its programs in compliance with the institutional, common, and subspecialty-specific program requirements of the ACGME. However, current laws and rules concerning Medicare’s funding of GME are based upon resident participation in direct patient care, mainly in a hospital setting or hospital-sponsored clinic, and are limiting the ability of many residency programs and teaching hospitals to support relevant academic and clinical experiences. Furthermore, inflexible rules for federal funding of GME have created financial, administrative, and other barriers to educational experiences that take place outside of the residency program’s sponsoring institution and discourage research and extramural educational opportunities that would contribute to scientific and academic advances in medicine that would benefit the American people.

The Council on Medical Education, therefore, recommends that the following be adopted in lieu of Resolution 711 (I-07), and that the remainder of this report be filed.

That our American Medical Association (AMA):

1. Reaffirm AMA Policies H-305.929 and D-305.967 on the financing of medical education, including that diversified sources of funding (including Medicare, Medicaid, the Department of Defense, the Veterans Administration, and National Institutes of Health) should be available to support medical schools’ multiple missions, including education, research, and clinical service; and that reliance on any particular revenue source should not jeopardize the balance among a medical school’s missions. (Reaffirm HOD Policy)

2. Advocate for the Centers for Medicare and Medicaid Services (CMS) (both federal Medicare and federal/state Medicaid) funding for the time residents and fellows spend in research, didactic activities, and extramural educational activities required for the Accreditation Council for Graduate Medical Education (ACGME) accreditation during their training. (Directive to Take Action)

3. Continue to work with organizations such as the Association of American Medical Colleges (AAMC) and the Council on Graduate Medical Education (COGME), to make recommendations to change current Graduate Medical Education (GME) funding regulations during residency training, which currently limit funding for research, extramural educational opportunities, and flexible GME training programs and venues. (Directive to Take Action)

4. Monitor any public and/or private efforts to change the financing of medical services (health system reform) so as to advocate for adequate and appropriate funding of GME. (Directive to Take Action)
5. Prepare a Council on Medical Education report for the 2009 Interim Meeting that broadly addresses issues of GME funding that includes examples of successful state and regional innovations. (Directive to Take Action)

6. Advocate for funding for training physician researchers from sources in addition to CMS such as the National Institutes of Health, the Agency for Healthcare Research and Quality, the Veterans Administration, and other agencies, and reaffirm policies H-460.982 and H-460.930. (Directive to Take Action)

Fiscal Note: Less than $4,500
Medicare Funding

The Balanced Budget Act (BBA) of 1997 introduced a cap on funded GME positions and limited the number of allopathic and osteopathic medical residents that would be counted for purposes of calculating Medicare direct graduate medical education (DGME) payment. [BBA Section 1886 (h) (4) (E) of the Act, as added by section 9202 of the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 (Pub. L. 99-272)]. This legislation set the number of Medicare GME-funded resident positions to the number of approved positions the institution had in place in December 1996. Coupled with cuts to Medicare GME funding in the BBA of 1997 and the Balanced Budget Refinement Act of 1999, sponsoring institutions have found it difficult to maintain their bottom line that has historically depended on resident service and to expand their residency training programs even when they have sufficient educational opportunities to support growth in their GME positions. 2, 8, 19

DGME reimbursement covers salary, fringe benefits, attending physician compensation for residents in an approved program working in all areas of the hospital complex. 6 DGME payment is calculated based on the institution's number of residents in an approved program in a current year and a historical average GME cost per resident in a base year. 7 This count of residents is the most difficult aspect of the regulations, because residents are "weighted" by three factors: 1) the number of years of their residency; 2) whether they are international medical graduates; and 3) how much time they spend in the hospital. 2, 3

The BBA and subsequent regulations also permit indirect medical education (IME) funds to be paid to select outpatient facilities to cover the indirect costs associated with training residents. Although the IME payment is based on an institution's number of residents in approved programs, it is not given for services furnished by residents in training, but, rather, for the higher operating costs incurred by the teaching institution as a class. IME funds cover the ordering of more tests, longer patient stays, sicker patient populations, and greater technological needs, and offset the lack of private insurance’s contribution to GME. 2, 3

The rules on Medicare payment for residents working both inside and outside of approved programs are complex. The proper application of these rules may require the collaboration of hospital financial and compliance officers, administrators of a hospital's graduate medical education programs, and physicians who supervise the trainees whose time is at issue. Such collaboration is essential to ensure appropriate Medicare payments and minimize compliance risk. 7 Also to be considered, are residents who may spend time in residency programs at locations other than the sponsoring institution. When residents split their time among hospitals, their time must be allocated as partial FTEs at each facility. If a resident spends time in more than one hospital or in a non-provider setting, the resident counts as partial FTE based on the proportion of time worked at the hospital to the total time worked. A part-time resident counts as a partial FTE based on the proportion of allowable time worked compared to the total time necessary to fill a full-time residency slot. 3
Appendix B

The Association of American Medical Colleges Submits Amicus Brief on IME Count*

The Association of American Medical Colleges (AAMC) Aug. 22 submitted an amicus curiae brief to the U.S. Court of Appeals for the First Circuit in a case that involves the question of whether time spent in research and other scholarly activity by medical residents should be included in the Medicare Indirect Medical Education (IME) count of full-time equivalent (FTE) residents. In Aug. 2007, Rhode Island Hospital received a favorable District Court decision that involved the IME resident count for 1996. The government appealed the court's decision.

The AAMC's brief argues that "excluding time spent in research and other scholarly activities because they do not occur within 'areas' (defined by the nature of the resident's services, and not the geographical location of his/her assignment) of the hospital subject to the prospective payment system simply ignores the indisputable fact that research and scholarly activities are part of 'teaching activities' in an approved program."

A favorable Appeals Court decision may be helpful to other hospitals that are appealing IME exclusions related to research prior to the implementation of a 2001 regulation. In 2001, the Centers for Medicare and Medicaid Services (CMS) issued a regulation that excludes time residents spend in research from the IME, so even if the Circuit Court issues a favorable opinion, it will not have an effect on resident counts for reporting periods after the rule became final.

*AAMC News Release, September 15, 2008, available at:
http://www.aamc.org/advocacy/library/washhigh/2008/091208/start.htm#1
Appendix C

AMA Policy H-305.929, “Proposed Revisions to AMA Policy on the Financing of Medical Education Programs”

It is AMA policy that: (1) Since quality medical education directly benefits the American people, there should be public support for medical schools and graduate medical education programs and for the teaching institutions in which medical education occurs. Such support is required to ensure that there is a continuing supply of well-educated, competent physicians to care for the American public. (2) Planning to modify health system organization or financing should include consideration of the effects on medical education, with the goal of preserving and enhancing the quality of medical education and the quality of and access to care in teaching institutions are preserved. (3) Adequate and stable funding should be available to support quality undergraduate and graduate medical education programs. Our AMA and the federation should advocate for medical education funding. (4) Diversified sources of funding should be available to support medical schools’ multiple missions, including education, research, and clinical service. Reliance on any particular revenue source should not jeopardize the balance among a medical school’s missions. (5) All payers for health care, including the federal government, the states, and private payers, benefit from graduate medical education and should directly contribute to its funding. (6) Full Medicare direct medical education funding should be available for the number of years required for initial board certification. For combined residency programs, funding should be available for the longest of the individual programs plus one additional year. There should be opportunities to extend the period of full funding for specialties or subspecialties where there is a documented need, including a physician shortage. (7) Medical schools should develop systems to explicitly document and reimburse faculty teaching activity, so as to facilitate faculty participation in medical student and resident physician education and training. (8) Funding for graduate medical education should support the training of resident physicians in both hospital and non-hospital (ambulatory) settings. Federal and state funding formulas must take into account the resources, including volunteer faculty time and practice expenses, needed for training residents in all specialties in non-hospital, ambulatory settings. Funding for GME should be allocated to the sites where teaching occurs. (9) New funding should be available to support increases in the number of medical school and residency training positions, preferably in or adjacent to physician shortage/underserved areas and in undersupplied specialties. (CME Rep. 7, A-05; Reaffirmation I-06; Reaffirmed: Sub. Res. 314, A-07; Reaffirmation I-07)

AMA Policy D-305.967, “The Preservation, Stability and Expansion of Full Funding for Graduate Medical Education”

(1) Our AMA will actively collaborate with appropriate stakeholder organizations, (including Association of American Medical Colleges, American Hospital Association, state medical societies, medical specialty societies/associations) to advocate for the preservation, stability and expansion of full funding for the direct and indirect costs of graduate medical education (GME) positions from all existing sources (e.g. Medicare, Medicaid, Veterans Administration, CDC and others). (2) Our AMA will actively advocate for the stable provision of matching federal funds for state Medicaid programs that fund GME positions. (3) Our AMA will actively seek congressional action to remove the caps on Medicare funding of GME positions for resident physicians that were imposed by the Balanced Budget Amendment of 1997 (BBA-1997). (4) Our AMA will strenuously advocate for increasing the number of GME positions to address the future physician workforce needs of the nation. (5) Our AMA will oppose efforts to
move federal funding of GME positions to the annual appropriations process that is subject to instability and uncertainty. (6) Our AMA will oppose regulatory and legislative efforts that reduce funding for GME from the full scope of resident educational activities that are designated by residency programs for accreditation and the board certification of their graduates (e.g. didactic teaching, community service, off-site ambulatory rotations, etc.). (7) Our AMA will actively explore additional sources of GME funding and their potential impact on the quality of residency training and on patient care. (8) Our AMA will vigorously advocate for the contribution by all payers for health care, (including the federal government, the states and private payers), to funding both the direct and indirect costs of GME. (9) Our AMA will work, in collaboration with other stakeholders, to improve the awareness of the general public that GME is a public good that provides essential services as part of the training process and serves as a necessary component of physician preparation to provide patient care that is safe, effective and of high quality. (10) Our AMA staff and governance will continuously monitor federal, state and private proposals for health care reform for their potential impact on the preservation, stability and expansion of full funding for the direct and indirect costs of GME. (Sub. Res. 314, A-07; Reaffirmation I-07)
References

1. Accreditation Council for Graduate Medical Education. Available at: http://www.acgme.org (Accessed 7/31/08)
8. Direct Graduate Medical Education [BBA Section 1886 (h) (4) (E) of the Act, as added by section 9202 of the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 (Pub. L. 99-272)]. Available at: http://www.cms.hhs.gov/AcuteInpatientPPS/06_dgme.asp (Accessed 7/28/2008)
