Physician Workforce and Graduate Medical Education in the United States of America

Statement of Principles
American College of Physicians-American Society of Internal Medicine
October 27, 2000

The following draft principles are not intended to be all-inclusive. Instead, they are meant to highlight particular issues that should be addressed by policy-makers as they consider proposals concerning the health professions workforce and graduate medical education. It is also not anticipated that one particular legislative proposal can or should address each and every one of the principles presented below. Instead, these principles are intended to guide College policy in evaluating legislative and other public policy proposals and to serve as the basis for further College policy development.

Principles

1. Undergraduate medical school class size and the total number of students graduating from U.S. allopathic and osteopathic medical schools should reflect national needs and requirements for physicians. In the current environment, where the aggregate supply of physicians is projected to continue to exceed requirements of the population, total enrollment in U.S. medical schools should be reduced, and there should be no net increase in the number of allopathic or osteopathic medical schools. Action should be instituted promptly due to the long medical education pipeline that takes up to twelve years or more from the start of undergraduate medical education until the completion of residency training.

2. All members of society benefit from having well-trained physicians and appropriately funded academic medical centers. Consequently, all health care payers should share in the costs of graduate medical education.

3. The number of graduate allopathic and osteopathic residency training positions should be reduced and related to the total number of U.S. medical school graduates plus an additional amount to allow some opportunities for international medical school graduates, retraining of physicians engaged in career changes, and flexibility in the system to accommodate transfers, interruptions of training, and turnover.

4. Physicians should be educated and trained in sufficient proportion to meet the nation’s need for a balanced mix of physicians among generalists and specialists.

5. The expanding roles and increasing numbers of nonphysician health care professionals must be taken into consideration in workforce planning, and the supply of these health care professionals should also be adjusted to reflect national needs and requirements.

6. Workforce policy should seek to improve the geographic distribution of physicians. Existing incentives should be expanded and/or new incentives should be developed to encourage all health care professionals to help meet the health care service needs of underserved populations, particularly in urban and rural areas.
7. There should be no discrimination based on age, sex, national origin, religion, sexual orientation, or political affiliation for career opportunities in medicine.

8. Funding for Graduate Medical Education should be sufficient, predictable and stable to support the academic, patient care, and research missions of teaching hospitals and ambulatory training sites. Financing must be sufficient to support teaching hospitals that provide a disproportionate share of care to indigent and medically under-insured patients.

Background for Principle #1

- Undergraduate medical school class size and the total number of students graduating from U.S. allopathic and osteopathic medical schools should reflect national needs and requirements for physicians. In the current environment, where the aggregate supply of physicians is projected to continue to exceed requirements of the population, total enrollment in U.S. medical schools should be reduced, and there should be no net increase in the number of allopathic or osteopathic medical schools. Action should be instituted promptly due to the long medical education pipeline that takes up to twelve years or more from the start of undergraduate medical education until the completion of residency training.

Numerous U.S. physician workforce studies during the past 25 years have shown that the supply of physicians has continued to exceed objective measures of national needs. A ratio of 171 physicians per 100,000 people was considered to be an adequate standard by GMENAC (Graduate Medical Education National Advisory Committee) in 1980. Today it is estimated that there are more than 260 physicians per 100,000 population. The Council on Graduate Medical Education (CoGME) notes that from 1985 to 1995 the nation added about 20,700 new physicians per year, while only 9,200 left practice each year. CoGME estimated that this resulted in a net growth of more than 130,000 patient care physicians over the 10-year period (CoGME 14th Report, p. 1).

The organization and delivery of health care also has continued to change. Managed care and advances in medical science and technology have made a substantial impact on how care is provided and the demand for physician services. Patients are hospitalized for shorter periods, more care is provided in ambulatory settings, increasing numbers of nonphysician health care professionals provide services formerly provided only by physicians, and treatments involve more effective medications and fewer invasive procedures. Restrictive referral policies of managed care organizations limit access to subspecialists and deter physicians from entering nonprocedural subspecialties. Primary care physicians generally have less time to spend with each patient. The average number of hours worked per week by physicians has not changed over the past decade. Physicians continue to work an average 58.5 hours per week, including 53.4 hours per week in patient care (CoGME 14th Report, p. 12).

Recognizing the high financial costs of undergraduate medical education plus the related public expenditures for graduate medical education and training, as well as the resulting future cost for health care delivery, public policymakers and the medical profession have favored limiting the number of students entering medical schools, rather than denying opportunities for the
completion of training. For more than a decade, enrollments in accredited U.S. allopathic medical schools have remained relatively constant with approximately 17,000 first-year students, 16,000 graduates, and total enrollments of 65,000 to 67,000 students each year.

While total enrollment in allopathic medical schools has remained relatively constant, the number of osteopathic students has been increasing. First year enrollments in osteopathic schools grew from 1,724 in 1986-87 to 2,535 in 1996-97.

**Background for Principle #2:**

- *All members of society benefit from having well-trained physicians and appropriately funded academic medical centers. Consequently, all health care payers should share in the costs of graduate medical education.*

Everyone benefits from having a system of graduate medical education. Even individuals and families that are healthy and do not require patient care services enjoy the benefits of having facilities where graduate medical education takes place. Everyone benefits from the assurance that, in a medical emergency, highly skilled medical and surgical specialists will be available to provide whatever care is needed at any time of the day or night. Patients may never need the high level of life-saving specialized care or the advanced technological equipment that is often available only at teaching hospitals; nonetheless they want those services to be available. Regardless of their personal health, all members of a community should also want assurance that health care services are available to everyone, treatment is provided to reduce the risk of communicable diseases, health care is provided cost-effectively, and facilities are available to provide the highly sophisticated care often needed by the frail and elderly. Patients expect their doctors to be well trained, clinically competent, knowledgeable and knowledgeable about the latest advances in medical science, and familiar with up-to-date medical technology. Patients also want their physicians to be able to consult readily with experts with particular skills in the diagnosis and management of a wide range of diseases. They want the assurance that services provided by physicians in graduate training are appropriately supervised and that high standards of quality are maintained.

Employers benefit from having a healthy workforce. Having access to high-quality health care facilities may have a direct bearing on employee productivity. Employers are especially interested in research that expands medical knowledge concerning the cost-effectiveness of care and promotes evidence-based medicine.

Graduate medical education is a unique public good that benefits all of society and must be financially supported. Graduate medical education provides intense educational experiences and supervised, hands-on training required to prepare physicians for clinical practice. Whether provided in an inpatient setting at an academic medical center, at a community hospital, or at an outpatient setting such as an ambulatory clinic or physician’s office, additional costs are involved and these costs are substantial. Yet in an era of curtailments in federal and state spending and increasing cost competition in the medical marketplace, financial support for graduate medical education is eroding. Medicare funding for the direct and indirect costs of graduate medical education has been cut substantially. Medicaid payments to support hospitals that provide a
disproportionate share of care to low-income and indigent patients have been slashed. Payment rates from public and private managed care plans have been drastically reduced. Some hospitals have already declared bankruptcy; others are losing money and may soon be forced to close. Meanwhile, medical students are incurring staggering amounts of debt for their undergraduate and medical school costs that continue to mount while they forego current earnings in order to obtain further requisite graduate medical education and training.

There are a variety of possible mechanisms for collecting contributions for the cost of graduate medical education from payers other than Medicare and Medicaid. These include taxes on health insurance premiums, surcharges on teaching hospital admissions, and payroll taxes for employers that either do not offer health insurance or that provide self-insured plans. Even with an all-payer system, the federal government should not abdicate its responsibility to ensure that there is an adequate supply of well-trained physicians and that academic medical centers receive appropriate funding. The impact of an all-payer system on the availability and affordability of health insurance would also need to be assessed prior to adoption.

Background for Principle #3:

- The aggregate number of graduate allopathic and osteopathic residency training positions should be reduced and related to the total number of U.S. medical school graduates plus an additional amount to allow some opportunities for international medical school graduates, retraining of physicians engaged in career changes, and flexibility in the system to accommodate transfers, interruptions of training, and turnover.

Despite more than 20 years of projections of a looming physician surplus, the supply of U.S. physicians continues to grow. However, the increasing aggregate national supply of physicians has not been successful in addressing problems of physician mal-distribution either geographically or among specialties. Increasing the total number of physician has not been an effective means for improving access to health care for under-served populations. These problems need to be addressed separately.

Increasing the overall supply of physicians has important health care cost implications — for patients, employers and health care payers, physicians, and society. Each additional physician generates substantial additional annual health care costs (estimated to be $1 million per year). Too many physicians can also lead to over-utilization of health care services and resulting reductions in health care quality. Furthermore, the costs of education and training for each physician, in terms of both time and money, are tremendous. These costs are borne by medical students and their families at the undergraduate level, by residents in terms of time and foregone income, and by the patients, taxpayers, and other health care payers who directly or indirectly pay most of the costs of graduate medical education.

The rate of growth in the supply of physicians has moderated slightly, but a surplus is still predicted. CoGME notes that the overall number of physicians in training appears to be leveling-off and may decrease during the next few years. Although the number of graduates of allopathic medical schools has remained relatively constant, the total number of physicians in residency training has increased dramatically from 69,142 in 1982 to 97,383 in 1998-99. The increase has
been due primarily to increasing numbers of international medical graduates (IMGs) and less so to increasing numbers of graduates of osteopathic schools. The number of residency training positions filled by IMGs doubled from 12,433 in 1980 to 25,415 in 1998-99. IMGs now account for more than 26% of all residents on duty in U.S. hospitals. CoGME reports that the number of IMGs continued to increase until 1994 but has decreased moderately during the past five years. Meanwhile, the number of osteopathic graduates increased from 1,804 in 1995 to 2,110 in 1998 and is projected to continue to increase to 2,436 in 2001 (CoGME 14th Report, p.8).

To avoid a surplus of physicians, CoGME recommended in 1994 that the number of new physicians entering residency training be limited to 110% of the number of U.S. medical school graduates in 1993 (19,758 physicians). The target was set with the view that all U.S. medical school graduates should have an opportunity to complete their education and training, and that a modest number of additional residency positions were needed to allow opportunities for some IMGs, graduates of Canadian medical schools, and transfers from programs like the Fifth-Pathway Program. When the target was set, the number of physicians being trained exceeded 140% of the number of U.S. graduates in 1993. Recently, CoGME has been re-examining its 110% target. It reported that some progress had been made, with the nation’s PGY-1 residents in 1997-98 at 129% of the number of U.S. medical school graduates.

Previous College policy called for no increase in the number of U.S. allopathic or osteopathic medical schools, no increase in total enrollments in these schools, restriction of the number of IMGs entering the U.S. for residency training, and achievement of a balance between the number of generalists and the numbers of specialists. College policy does not specifically address the target of limiting residency positions to 110% of the number of U.S. graduates, but the College did approve statements by the Federated Council for Internal Medicine in 1995 calling for a reduction to the 110% level.

At the June 2000 meeting of the AMA House of Delegates, the AMA recommended that "the number of federally-funded entry-level positions should be reduced over time, to no more than 120% of the number of 1997 graduates of US MD and DO-granting medical schools," and that there should be no increase in the number of graduates over 1997 levels (CME Report 2). The AMA noted that a reduction to 110%, as proposed by CoGME and others, would result in the loss of 6,000 residency positions, and that the remaining positions would not be adequate to meet the needs of U.S. medical school graduates and physicians who are retraining or have changed their choice of specialty. It contended that a more gradual reduction would allow opportunities for the re-entry of individuals with previous residency training and for some IMGs.

The expansion in residency slots in both academic medical centers and community hospitals over those years was clearly related to the availability of GME funding to hospitals and changes in Residency Review Committee (RRC) work limits, not societal need. This resulted in U.S. medical graduates moving out of inner city programs and created a vacuum that was filled by IMGs for the most part. The service needs of the inner city and rural programs demanded filled positions, and the vacuum was also filled by NPs and PAs. Funding has become further complicated for these hospitals, as funding for nonphysicians is not the same as for graduate medical education.
The expansion in residency slots over those years was clearly related to the availability of GME funding to hospitals, not societal need. It provided community hospitals with a different type of patient mix to expand programs and services in competition with academic medical centers. This proved to be a drain from the AMCs of personnel and dollars. Although the practical experience to trainees was more typical of later practice life, the classic training case content and public health exposure was lost. This also resulted in U.S. medical graduates moving out of inner city programs and created a vacuum that was filled by IMGs for the most part. The service needs of the inner city and rural programs demanded filled positions, and the vacuum was also filled by NPs and PAs. Funding has become further complicated for these hospitals, because funding for nonphysicians is not the same as for graduate medical education.

An effective health professions workforce policy must apply to the training of all health professionals: allopathic physicians, osteopathic physicians, and nonphysician clinicians. Limiting U.S. medical school positions for allopathic physicians without controlling the supply of other health professionals will not produce a balanced mix that best matches workforce supply with requirements.

**Background for Principle #4:**

- *Physicians should be educated and trained in sufficient proportion to meet the nation’s need for a balanced mix of physicians among generalists and specialists.*

Based on continuing evidence that the nation was producing too many specialists and not enough generalist physicians, CoGME also set a national goal for a 50/50 mix in residency training of specialists and generalists (9,879 of each). In its most recent report, CoGME found that some progress had been made, but that the number of specialists being trained still exceeds CoGME’s target by 41%. Approximately 40% of current entering residents are now likely to become generalists, and CoGME expects that its goal for the number of generalists is likely to be achieved within the next few years. College policy has supported the goal of achieving a 50/50 balance between generalists and specialists.

Achieving a physician workforce in accord with societal needs will be difficult, if not impossible to achieve. There is no consensus on the appropriate number or specialty mix of physicians. Although the goal should be to achieve a balanced mix of physicians among generalists and specialists, it should be noted that not all specialties are in over-supply. There are shortages of physicians in some subspecialties, and patients with certain diseases can be adversely affected by physician workforce shortages. Workforce projections of the population’s future needs or requirements are at best an art, certainly not a science. Past projections of societal requirements for physician often have failed to recognize important emerging developments like the AIDS/HIV epidemic, the impact of managed care, the increasing proportion of women in medicine, the aging of the population, or other factors that have major implications. Still, continued expansion of the total physician supply beyond the best estimates of societal requirements, and far in excess of the annual number of U.S. medical school graduates, cannot be sustained because of the ramifications for health care costs and quality.
Physician workforce policy must be responsive to changing demographic and geographic needs. This may mean that some educational programs will need to close or relocate. Limitations on the total number of residency training positions may force the closure of those of lowest quality. However, mechanisms are yet to be developed to assure that this will occur. All physicians in graduate medical residency training deserve training experiences that are of high quality. Patient care service needs of institutions should not be the primary factor determining the number of residency training positions.

Background for Principle #5:

- The expanding roles and increasing numbers of nonphysician health care professionals must be taken into consideration in workforce planning, and the supply of these health care professionals should also be adjusted to reflect national needs and requirements.

While the numbers of allopathic medical students have stabilized and efforts have been made to curtail the numbers of physicians in residency training, the numbers and scope of practice of nonphysician health care professionals have continued to expand. During the 5-year period 1992-97, the annual number of nurse practitioner graduates tripled, chiropractor graduates almost doubled, and graduates of physician assistant training programs increased at least 50%. CoGME projects that the supply of each of these nonphysician health care professionals will increase even more dramatically through 2015. By 2015, CoGME predicts that there will be approximately 150,000 nurse practitioners (compared to about 25,000 in 1990), there will be approximately 140,000 chiropractors (compared to about 50,000 in 1990), and there will be approximately 70,000 physicians assistants (compared to about 20,000 in 1990). Other nonphysicians, such as pharmacists and dieticians, as well as practitioners of alternative medicine, such as acupuncturists, have also increased in numbers and expanded their scope of practice to include services traditionally provided only by physicians.

College policy has supported expanded roles for nurse practitioners and physician assistants but "within a collaborative health care system that includes a physician who takes responsibility for the quality of care provided." (ACP-ASIM position paper, January 2000) The College advises that the scope of practice of nurse practitioners and physician assistants should be evidence-based. Therefore, ACP-ASIM encourages well-designed clinical trials that will test new roles for nurse practitioners and physician assistants.

Background for Principle #6:

- Workforce policy should seek to improve the geographic distribution of physicians. Existing incentives should be expanded and/or new incentives should be developed to encourage all health care professionals to help meet the health care service needs of under-served populations, particularly in urban and rural areas.

Despite the growth in the supply of both physicians and nonphysicians, problems continue to persist concerning access to health care. Approximately 44 million people currently lack health insurance and must rely primarily on their own financial resources to obtain health care services.
Other barriers to care include an uneven distribution of health care providers, including physicians, among geographic areas and disparities in the availability of health care services among population groups, particularly among minority and disadvantaged populations.

The federal Bureau of Health Professions has designated 2,790 urban and rural areas as primary care Health Professions Shortage Areas (HPSAs). Another 653 areas have been designated as HPSAs for mental health services and 1,157 areas have been designated as shortage areas for dental services.

Federal programs to improve access to health care services for under-served populations include the National Health Service Corps (NHSC), the Indian Health Service, and the Public Health Service. The NHSC provides **scholarships, loans, and grants in exchange for commitments by primary care health professionals to serve in designated shortage areas.** The NHSC seeks to foster the development of primary health care teams including allopathic and osteopathic physicians; nurse practitioners, physician assistants, certified nurse midwives, and dental, mental, and behavioral health professionals. It reports assisting over 23,000 health professionals to meet the needs of under-served and vulnerable populations since 1972. Services are also provided directly through Community Health Centers, Migrant Health Centers, Black Lung Clinics, and programs for homeless children.

ACP-ASIM policy supports programs that encourage physicians to locate in medically under-served areas and to otherwise provide services to under-served populations. The College has also been supportive of the NHSC and has advocated for increased funding for the program. College Policy Papers on Rural Primary Care (1995) and Inner-City Health Care (1997) highlighted the problems of access to health care for residents of these areas. The Inner-City Health Care paper noted that although cities typically have high concentrations of medical professionals, the distribution of these professionals within cities is uneven and leaves serious shortages in the communities with the greatest need. It called for a major reorientation of resources to meet the health needs of these communities.

**Background for Principle #7:**

- *There should be no discrimination for career opportunities in medicine based on age, sex, national origin, religion, disability, sexual orientation, or political affiliation.*

ACP—ASIM opposes discrimination in any form. The College itself provides equal membership opportunities for all qualified applicants in conformity with all applicable state and federal statutes and regulations. ACP-ASIM affirms that there should be no discrimination in private practice or academic settings against physicians, including international medical graduates, who have passed appropriate examinations, completed training, and become licensed, and who demonstrate essential communication and clinical skills. The College opposes discrimination on the basis of any of the above listed characteristics against qualified applicants in regard to selection for residency training, hospital privileges, governance, credentialing, referral networks, membership in managed care organizations, and opportunities to practice. In addition, there should be no discrimination in academic settings as regards appointments, remuneration, promotion and tenure opportunities, and grant applications and awards. (Based on ACP-ASIM,
Background for Principle #8:

- Funding for Graduate Medical Education should be sufficient, predictable, and stable to support the academic, patient care, and research missions of teaching hospitals and ambulatory training sites. Financing must be sufficient to support teaching hospitals that provide a disproportionate share of care to indigent and medically under-insured patients.

Projections of future physician supply assume continuation of current trends. Changes in physician lifestyles, productivity, and practice arrangements will affect future workforce requirements in ways that are difficult to predict. New diseases, advances in medical science, changes in medical practice, and changes in patient demand for or access to health care services could also influence future workforce requirements in unpredictable ways. A substantial disruption in funding would certainly alter current workforce projections. It should also be recognized that there is a continuous entry and exit in the profession; that is, new practicing physicians enter and others leave due to career changes, retirement, or death. There is a constant need to train physicians for the future. Medical knowledge is also rapidly expanding, and the nature of training changes correspondingly. Research will lead to new therapies, which will further change workforce requirements. More recently trained physicians will have skills and knowledge not possessed uniformly throughout the existing talent pool.

Financial support for graduate medical education also enables physicians to enter medical specialties, such as general internal medicine and other nonprocedural specialties, that are needed to meet the nation’s health care needs, but which are not the most financially remunerative. Rising student educational costs or increased indebtedness due to loss of financial support for graduate medical education could force greater numbers of new physicians to choose medical careers in over-subscribed, high-income specialties, thus further distorting the nation’s mal-distribution of physicians among specialties.

The educational pipeline is extremely long. Those specialties predicted to be in surplus or shortage today could face quite a different outlook ten or more years from now. Needs also change quite rapidly, and the assignment of public funds often cannot respond to these changes or anticipate newly evolving needs with the alacrity that could be required. The physician workforce must be flexible enough to adapt to and deal with emerging health threats. The AIDS epidemic, emergence of multi-drug resistant tuberculosis, and outbreaks of Ebola fever and Lyme disease, all required physicians with special expertise and health workforce needs that could not have been predicted.

Funding should also be provided to assure that sufficient numbers of physicians are trained in those specialties that are most needed and those for which there are expected to be shortages. Then nation’s system of graduate medical education must be preserved. Patient care services at settings where graduate medical education takes place must continue to be of high quality. Opportunities for entry to the medical profession must be available to the most qualified
candidates, including students from under-represented populations and from under-served areas. Adequate, broad-based, and stable funding is required. Federal funding support for GME through the Medicare program should remain stable and should not be subject to the annual budget appropriations process. Without adequate financial support, teaching facilities will be unable to continue to perform their essential missions of patient care, education, and research. The safety net provided by the nation’s teaching hospitals is badly frayed. Action now is essential to assure continued financial viability of our health care infrastructure.