Although *The Life Sciences* lists among its conclusions that "the quality of teaching and education in these institutions [colleges and universities] is at an all-time high. . . . And this is made no less true by student complaints about 'relevance' or about insufficient contact with distinguished professors," it does suggest some educational reforms including the following:

► Implementation of a single core curriculum for undergraduates in biology.

► Instruction in "humanistic" biology for students in other fields of science.

► Standardization of Ph.D. programs.

► Upgrading of teaching laboratories to include modern instruments.

Noting that curricula of colleges and universities are often structured to meet the needs only of future college teachers, research biologists, and physicians, the report suggests that a special undergraduate program in biology be taught for future high school and junior college teachers in order to upgrade the quality of biology instruction in high schools.

A chapter of the report titled "Communications in the Life Sciences" offers few specific recommendations, but it does survey the phenomenon "from the standpoint of the working biologist" and offers some guiding philosophy. "Investigators in all fields of biology," according to the report, "face the critical challenge of coping with waves of information that threaten to swamp them. . . . Yet only 15 years ago the situation was within bounds." Of some 26,000 distinct scientific and technical journals, more than half are concerned with the life sciences. But the report notes that more than 90 percent of the "truly significant original work" appears in about 1000 journals, and an individual biologist needs to read only 50 to 100 periodicals to keep up in his field.

Taking the position that the editorial judgment of declining to publish "incompetent, incorrect, or totally pedestrian" papers forms the backbone of the scientific information system, the report suggests a rigorous look at editorial standards and improvement of the quality of journals with the reader in mind. In every field, the report states, there is a hierarchy of journals, and "occasionally a paper is consecutively submitted to journals of diminishing quality until it finds acceptance." It implies that many scientific papers serve little purpose besides clogging the information system.

Perhaps if petitioners for government support would examine the origins of the "incompetent, incorrect, or totally pedestrian" work in their fields, their requests would be more attractive to government policy makers. Demands for "more of the same," such as *The Life Sciences*, seem destined to fall on deaf ears.

—ROBERT J. BAZELL

Health Care: AMA White Paper Offers Traditional Solutions

Boston.—In response to increasing demands for better health care in the United States, the American Medical Association still offers its time-tested solution: the well-paid private practioner, free from government constraints. At its semiannual meeting held here 30 November to 2 December, the AMA's ruling body—the House of Delegates—adopted as official policy a report already submitted to the Nixon Administration by the AMA's board of trustees. The report, titled "Considerations in Devising an Overall Health Plan," is intended as a "white paper," spelling out the AMA's expectations for federal action in the health field. It lists in order the following four priorities for meeting the medical service needs of the nation:

► Effectively using those practicing physicians we now have.

► Increasing the productivity of physicians.

► Augmenting the number of physicians.

► Using the physician effectively in his role as conservator of his patients' expenditures.

While the first three priorities are hardly controvesial, the suggestions offered for their implementation will appease few critics of the American health care system because they amount to little more than a defense of medical private enterprise. In expounding on the first priority, the report states that physicians, particularly general practitioners, have been fleeing from practice and that young doctors have not been motivated "to enter into direct patient care."

No solutions for this dilemma are offered; however, the report mentions several factors which could increase the exodus of doctors from patient care. For example: "In the existing climate of the United States, efforts to regiment, conscript, or apply economic sanctions to the medical profession are destined to make matters worse rather than better. They have the effect of driving even more physicians from active practice into research, teaching, administrative medicine, more narrow specialization, or premature retirement." Or, "measures which would freeze the income levels of physicians, eliminating their ability to adjust to the economic environment, are discriminatory and lead to still further departures from active practice."

Another factor threatening to reduce the number of practicing physicians, according to the report, is the establishment of prepaid group practices such as the Kaiser Health Plan in California. While the report concedes that such plans should be given a chance to prove themselves as competitive mechanisms, it warns that "to attempt to force all physicians into a rigid pattern of salaried group practice could be the most destructive move made by the government."

The president of the AMA, Walter C. Bornemeier, proposed at the Boston meeting of the House of Delegates that the AMA allow doctors to seek and accept financial assistance from the federal government to help them set up practices in the nation's ghettoes. The report of the board of trustees, however, rejects such a program, claiming that "highly trained physicians probably cannot be attracted into practice in rural areas or in many slum areas,

and alternative mechanisms for the provision of adequate medical service should be developed." No specific programs are mentioned.

As to the second priority, the report suggests nothing to increase physicians' productivity. But, several aspects of federal and state medical assistance programs (Medicare and Medicaid) are listed as detrimental to productivity. These include provisions in the program making it economically unfeasible for the doctor to delegate responsibilities to others—especially interns, residents, and office assistants; governmental antagonism toward those physicians who allegedly earn too much money from such programs; low compensation; excessive paper work; and adverse publicity because of payments received.

In commenting on the third priority the report mentions neither an increase in medical schools nor an increase in financial support to medical students. It does, however, suggest legal reforms to reduce the risk of malpractice suits and "a positive program of public relations dedicated to making the clinical practice of medicine attractive to oncoming generations of young Americans [which] would be more productive than a campaign to picture physicians as entrepreneurs requiring regimentation and control"—the implication being that certain politicians are currently conducting the latter type of campaign.

Many people, upon receiving their doctor's bill, would hardly view him as "the conservator of their expenditures." The report, however, suggests that, for the physician to maintain such a role, a system of peer review should be instigated to guard against excessive charges and that it would not be helpful "to dilute it with lip service to consumer representation."

The report concludes with the statement, typical of AMA arguments over the past several decades, that "when a physician is salaried, or otherwise divorced from the fee-for-service method of compensation, he is insulated from a specific interest in how his services or his authorizations for service have impact upon the economics of medical care."

Among other actions taken at the Boston meeting, the AMA's 224-member House of Delegates

► Called for the establishment of a new Federal Department of Health, whose chief officer would be a physician with cabinet rank.

► Expressed AMA opposition to federally controlled compulsory national health service programs such as proposed in a bill introduced in the current session of Congress by Senator Edward M. Kennedy (D–Mass.).

► Voted to oppose the legalization of marihuana. (Curiously, the AMA was one of the few organizations in the country to oppose the legislation which first outlawed marihuana in 1937.)

► Substituted a resolution calling for more stringent controls over advertising of proprietary drugs with one calling for more voluntary controls.

► Defeated an attempt by the New Jersey delegation to reestablish a strong AMA stand against abortion.

► Reiterated AMA opposition to chiropractic medicine as an "unscientific cult" and opposed any federal payments to chiropractors.—R.J.B.

RECENT DEATHS

E. J. Braulick, 83; former president, Wartburg College; 26 September.

Daniel J. Carr, 77; professor emeritus of chemistry, Seton Hill College; 18 October.

William H. Chandler, 92; former professor of horticulture, University of California, Los Angeles; 28 October.

Alfred H. Conrad, 46; professor of economics, City College, City University of New York; 17 October.

Harold W. K. Dargeon, 73; clinical professor emeritus of pediatrics, Cornell University Medical College; 29 October.

Marvin W. DeJonge, 64; professor of mathematics, Purdue University; 13 October.

Gilbert E. Doan, 73; former head, metallurgy department, Lehigh University; 27 October.

Edward R. Durgin, 70; former dean of students, Brown University; 9 November.

H. Walter Evans, 80; professor emeritus of osteopathy, Philadelphia College of Osteopathic Medicine; 9 November.

Frederick Geist, 85; former professor of anatomy, University of Wisconsin; 18 October.

George O. Gey, 71; director, cancer research laboratory, Johns Hopkins Hospital, and associate professor emeritus of surgery, Johns Hopkins University; 9 November.

Netta E. Gray, 58; instructor of botany, Agnes Scott College; 24 August.

Jesse E. Hobson, 59; former director, Stanford Research Institute; 5 November.

Joseph F. Hodgson, 41; research soil scientist, U.S. Plant, Soil, and Nutrition Laboratory, Cornell University; 5 October.

Ruth B. Howland, 83; professor emeritus of biology, Sweet Briar College; 24 October.

Otto Kress, 86; first technical director, The Institute of Paper Chemistry; 7 October.

Alexander Levitt, 67; former president, New York State Osteopathic Society; 27 October.

Winston W. Little, 78; former dean, University College, University of Florida; 15 November.

Frederic P. Lord, 94; former professor of anatomy, Dartmouth College; 1 November.

Robert S. Lynd, 78; professor emeritus of sociology, Columbia University; 1 November.

Ralph H. Major, 86; professor emeritus of medicine and the history of medicine, University of Kansas; 15 October.

Robert J. Masters, 76; former professor of ophthalmology, Indiana University; 30 October.

Herman W. Ostrum, 77; professor emeritus of radiology, University of Pennsylvania; 22 October.

Judson A. Rudd, 67; president emeritus, Bryan College; 6 October.

Padubidri S. Sarma, 52; professor of biochemistry, Indian Institute of Science, India; 8 September.

Ben B. Seligman, 57; professor of economics, University of Massachusetts; 23 October.

Thomas J. C. Smyth, 51; dean of students, University of North Carolina, Greensboro; 10 November.

Norman H. Stewart, 85; professor emeritus of zoology, Bucknell University; 16 October.

Thomas S. Taylor, 87; retired physicist, Fairleigh Dickinson University; 9 September.

Raymond G. Walters, 85; former president; University of Cincinnati; 25 October.

Chavus M. Womack, Jr., 37; professor of chemistry, Texas Southern University; 1 November.

Quincy Wright, 79; professor emeritus of political science, University of Chicago and University of Virginia; 17 October.

Elizabeth R. Zetzel, 63; associate clinical professor of psychiatry, Harvard Medical School; 22 November.