Health Manpower Bill: Catch Is Distribution of Doctors

Federal health manpower legislation, which many medical schools are counting on for financial salvation, has been stymied in Congress by problems of funding and policy and by a question of congressional precedence.

Efforts to amend and expand the existing manpower law failed late in the last Congress when conferees seeking to reconcile House and Senate versions of the legislation deadlocked. The major disagreement centered on measures to relieve the shortages of physicians and other health personnel in medically underserved urban and rural areas. Chief protagonists in the piece are Senator Edward M. Kennedy (D-Mass.) and Representative Paul G. Rogers (D-Fla.), chairmen, respec-

tively, of the Senate and House subcommittees which handle health manpower authorization legislation.

The situation in conference was an unusual one. The Senate bill had been amended during the debate which preceded floor passage to exclude provisions which Kennedy strongly backed. In the House, the Rogers-sponsored version breezed through on a 337 to 23 vote but was acted on very late in the session (12 December) and under suspension of the rules, a parliamentary device which encourages a lemminglike avoidance of reflection or debate. There was little time for reconciliation of differences in conference, and Kennedy was more than willing to defer action until the new Congress.

Production of Minority Scientists

Minority groups continue to be heavily underrepresented in the country's Ph.D. work force. Statistics compiled by the Commission on Human Resources of the National Research Council (NRC) show that, of the 208,000 science and engineering Ph.D.'s in the United States, only 0.8 percent are blacks, 0.6 percent are Latins, and less than 0.1 percent are American Indians.*

The commission finds that in 1973, 4000 members of minority groups, including foreign nationals, attained doctoral degrees in all fields of study (Ph.D., Sc.D., Ed.D., but excluding professional degrees such as M.D. and D.V.M.). Of this total, 37 percent were U.S. citizens, including 760 blacks, 148 Indians, 228 Latins, and 320 Orientals. Ph.D. degrees were awarded to 26,400 whites.

Of the blacks obtaining Ph.D.'s in 1973, some 60 percent gained their degree in education; 9 percent in the humanities; 9 percent in life sciences; 9 percent in engineering, mathematics, and physical sciences; 7 percent in social sciences; 4 percent in psychology; and 3 percent in professions. The country thus produced about 210 black scientists and engineers in 1973, compared with 14,500 whites from its own citizens.

This represents an improvement on past production in absolute numbers, less so in proportional terms. From the figures given in the report, it would seem that the number of blacks graduating with doctorates in science and engineering constituted 0.38 percent of all citizens graduating in the period 1930 to 1934. The proportion rose steadily to 1.42 percent in the period after World War II, declined to 0.83 percent in 1965 to 1969, and climbed again to 1.45 percent in 1973.—N.W.

Implicit in the situation is the question of whether Kennedy or Rogers will call the tune on health legislation on the Hill, but the deadlock in December seemed more a matter of priorities than of personalities. Besides, the choreography is a quadrille rather than a pas de deux, since the Ford Administration and the medical schools are also significantly involved in the search for agreement on legislation.

At issue is the Comprehensive Health Manpower Training Act of 1971, which expired on 1 July last year, but whose provisions remain in force through a continuing resolution passed by Congress. The law provides assistance to schools training physicians, osteopaths, dentists, and other health professionals through programs of construction grants and loans, student assistance, and institutional support. Total appropriations have been running at over half a billion dollars a year, but funding, as with many other health bills, is well below the level authorized—in this case just about half the \$1.1 billion authorized.

The 1971 bill included a form of institutional support—capitation payments based on the number of students enrolled—which the medical schools regarded as a federal commitment to assume a significant share of increasingly costly medical education. The current authorized grant per student is \$2500, but appropriations provide only \$1790 per student.

While, in the 1960's, Congress had tended to see the problems of health manpower primarily as a shortage in terms of aggregate numbers of physicians and other professionals, perceptions have changed in the last few years. Concern is now focused on geographical maldistribution of physicians, and particularly on the unavailability of specialists in inner city and rural areas.

Uneasiness has also grown about the increasing reliance on foreign medical graduates, especially to fill the unmet demand for physicians on hospital staffs.

Medical schools generally have pointed to the large and continuing increase in their enrollments and their expanded efforts to improve health care delivery. The medical schools' main appeal to Congress has been for help in meeting cost increases caused by inflation, by the greater sophistication of training necessary, and, in many cases, by requirements imposed by federal programs.

Kennedy has seized on the geographical distribution problem as a key issue

342 SCIENCE, VOL. 188

^{*} Minority Groups among United States Doctoral-Level Scientists, Engineers and Scholars, 1973 (National Academy of Sciences, Washington, D.C., 1974).

in health care delivery. The version of the health manpower legislation reported out by his subcommittee and the full Committee on Labor and Public Welfare last year provided for a cutoff of basic federal aid to medical schools whose students did not agree to serve in medically underserved areas if requested by the federal government. Opponents in the Senate objected that this amounted to a doctor draft without adequate public debate, and amendments sponsored by Senator J. Glenn Beall, Jr. (R-Md.), toned down this and other provisions of the bill.

The other most controversial provisions of the committee bill dealt with the distribution of specialties and with licensure. Under these provisions a new federal authority would set limits on the residencies in each medical specialty. And federal standards for licensing and requirements for examinations for license renewal every 6 years would be established.

The rejection of his controversial proposals by Senate colleagues seems to have persuaded Kennedy to opt for a tactical delay which would enable him to make a fresh attempt in the new Congress. In a 2 December speech at the Yale University Medical Center he wrote off the manpower bill for the expiring Congress and laid out his views on the proper relationship between the federal government and academic medicine. Kennedy declared himself solidly in favor of stable funding for both biomedical research and health manpower training but observed that "Because the health care crisis has been intensifying in the past decade, the Federal Government has begun to use its ever increasing investments in you to exert some leverage for reform and innovation. As you are all acutely aware, the Federal lever on the academic medical center is substantial and its size is increasing.'

In a chiding tone, Kennedy made it clear he thought academic medicine should assume more responsibility for health care delivery problems and cited several "challenges and pressures" bearing on the National Institutes of Health, concluding with the following remarks:

Finally, the pressure for change comes indirectly from you, the academic medical community, because of your past unwillingness to engage in fundamental examinations and evaluations of some of your most sacred cows—biomedical research programs, research fellowship and training programs, and health manpower programs. Too often the lobbying effort by the national academic medical centers

is indistinguishable from that of any other vested interest groups—that is, for the status quo and vigorously opposed even to serious discussion of potential reforms. In the absence of a constructive dialogue

between Congress and academic medicine we in the Congress, with the best of intentions, may do the wrong things; or we may enact incomplete and inadequate measures. When that happens and when we are

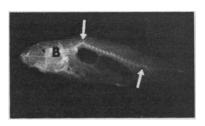
Some Bad News about Toxaphene

The domino theory may no longer be a viable formulation for Asian policy, but it may be a realistic way of viewing the current situation with regard to pesticides. The banning of DDT led to immediate increases in the use of other pesticides whose effects on the environment were even less well understood. One by one, these other chemicals have begun to totter as investigators have shown that they possess their own hazards. The latest pesticide that seems on the verge of toppling is toxaphene, perhaps the most commonly used pesticide in the United States.

Toxaphene is a complex mixture of at least 12 different compounds formed by the chlorination of camphene obtained from the southern pine. Nearly 18,000 kilograms of it are applied to U.S. fields each year. About 70 percent of the total is used on cotton fields in the South; the rest is used on cattle, vegetables, and certain fruits. The principal U.S. manufacturer is Hercules Inc.

Some scientists have suggested that toxaphene is more toxic to birds than DDT is and that it is more persistent than DDT in the environment, but the evidence for these proposals has never been conclusive. Earlier this month, however, two scientists from the U.S. Department of the Interior's Fish-Pesticide Research Laboratory in Columbia, Missouri, revealed that toxaphene produces serious damage to fish exposed to it in concentrations known to occur in ponds and streams.

Paul M. Mehrle and Foster L. Mayer told the Philadelphia national meeting of the American Chemical Society that at least three common species of fish hatched and raised in the presence of low concentrations of toxaphene exhibit stunted growth (as much as 30 percent below normal) and a skeletal fragility most often manifested in the form of



broken backs. The effects appear to be attributable to a vitamin C deficiency. All the vitamin C that is naturally in the diet of the fish appears to be used for the detoxification of toxaphene and other toxic chemicals, so there is little left over for bone development and growth.

The phenomenon observed by

Mehrle and Mayer is patently not a laboratory curiosity. As long ago as 1969, investigators from the U.S. Fish and Wildlife Service observed the "broken back syndrome" in fish collected in the wild. At the same time, biologists with the National Pesticide Monitoring Program observed that fish from many sites in the South contained toxaphene in concentrations comparable to those obtained by Mehrle and Mayer in their experimental species. But the recent results of the two investigators are the first evidence of a firm link between the observations.

Toxaphene use is relatively unrestricted legally. A few states have banned its use, but none of them are apparently in cotton-growing regions. The Environmental Protection Agency is conducting a continuing review of toxaphene; the Mehrle and Mayer results were, in fact, obtained under a contract from that agency. The EPA review confirms that toxaphene does have some of the problems, especially persistence, associated with other chlorinated pesticides, but the bulk of the evidence indicates that there is not the cancer threat associated with DDT, dieldrin, and perhaps chlordane. EPA's view so far is that toxaphene is an effective compound when used according to label directions and that proper application should minimize water pollution.—T.H.M.

25 APRIL 1975 343

aware of it, we are disturbed by it. At least in the health area we try to be aware of our limitations. I wish you would help us to do things better. I wish you would be more aware of your own limitations and let us help you more effectively.

Four Kennedy Bills

Kennedy's intentions apparently are to continue to seek stiff sanctions to attack the distribution problem, but his strategy seems to be more flexible. On 6 March he introduced four health manpower bills which pretty well box the congressional compass on the matter. Teaming with Senator Jacob J. Javits (R-N.Y.) and other senators, he introduced S. 989, which in form is substantially the same bill that emerged from committee last year before the Senate amended it. A second bill, S. 990, Kennedy introduced at the request of the Association of American Medical Colleges (AAMC), the Washington-based, national organization of medical schools and academic medicine's rough equivalent of the American Council on Education. The other two bills introduced were S. 991, the measure introduced in the House last year by Representative William R. Roy (D-Kans.), which would combat maldistribution by increasing scholarship aid for those who serve in shortage areas and by phasing out capitation grants, and S. 992, the Rogers bill passed by the House in the last Congress.

The AAMC bill was based on the recommendations of a task force set up at the behest of the worried membership. The AAMC's major priority is guaranteed capitation support at a higher level and with as few conditions as possible. As for the issue of geographic distribution, AAMC opts essentially for a policy of voluntarism, favoring the kind of financial incentives offered by the armed services in recruiting physicians and dentists and existing student assistance programs, such as National Health Service Corps Scholarships.

The AAMC found its task force proposals were getting little attention, so it was decided to translate the recommendations into a draft bill, the form which is most readily assimilable on Capitol Hill

The Administration line on federal aid to medical schools under Presidents Nixon and Ford has, in general, been to oppose institutional support. On 20 February, Health, Education, and Welfare Secretary Caspar W. Weinberger appeared before the Rogers Interstate and Foreign Commerce subcommittee on health and environment and, for the

most part, reiterated past Administration positions. He argued that medical students could afford to pay a larger proportion of the costs of their education through higher tuition because of their expectations of high earnings. He asked that capitation payments be reduced and be ultimately phased out and expressed the view that government support of continued expansion of medical schools would result in a surplus of health personnel in the 1980's. On the issue of maldistribution he repeated the Administration preference for scholarship aid to students who agreed to serve in shortage areas and for a plan that would give financial incentives to those choosing primary care specialties (general practice, internal medicine, pediatrics).

The points now being argued have not changed very much since 1963, when the Health Professions Assistance Act was first passed, but perceptions and priorities have altered markedly. The first law was limited essentially to providing construction grants for educational facilities primarily because the American Medical Association feared that other forms of aid would open the way to federal meddling in medical education. In 1965, the law was expanded to provide institutional support in the form of project grants intended to finance expansion and innovation and also scholarship aid. The next year, an Allied Health Professions bill extended aid to technicians and other health personnel. The multiplication of categorical programs designed to accomplish special ends began to make the manpower legislation unwieldly, and in 1968 there was an attempt at consolidation and rationalization in a new Health Manpower Act. Medical school officials welcomed increasing federal funds, but many felt they were losing the power to plan and budget for their own programs. The compromise that produced the capitation grants in 1971 went some way toward satisfying the demand for institutional support, but the intense pressure on medical school budgets caused by inflation in recent years has made some feel that they perhaps got too little too soon.

At present funding levels, the largest subtotal of support goes to capitation payments—\$194 million a year (authorization, \$294 million). Funds for construction total \$101 million (authorization, \$299 million). Support for special projects, such as training of allied health personnel gets \$101 million (authorization, \$242 million). Total funding is

\$541 million (authorization, \$1.1 billion), for all programs.

This year, medical school budgets have been seriously affected by the rise in energy costs and other shocks of double-digit inflation. The almost universal reaction—in both private and public schools—has been to raise tuitions substantially, in a few cases by record sums, and there has even been talk of \$10,000-a-year tuition as a possibility if a major infusion of new federal aid is not forthcoming.

Muddled Prospects

What is the prognosis for legislation? Rogers appears to be standing pat with the bill that passed the House, modified this year so that the quid pro quo's required of the medical schools—the requirement that enrollments be increased, physicians' assistants trained, and a stipulated portion of capitation grants spent on "remote site" training—are moderated.

Rogers has no plans for further hearings on the health manpower bill and the assumption is that it will again sail through the House.

Kennedy asked his colleagues in the Senate for statements expressing their views on health manpower issues, saying these would be taken into account when the committee takes up the matter again. He plans more hearings on the legislation, but has not yet set a date.

Both Kennedy and Rogers appear to be in somewhat stronger positions than during the last Congress. Kennedy suffered his reversal on the health manpower bill immediately after he had announced he would not be a candidate for President, and some observers think the rebuff was part of a negative reaction to the announcement.

Rogers came out of a minirebellion in the Commerce Committee at the start of the Congress with his subcommittee's jurisdiction secure and his personal prestige augmented.

Everyone connected with the health manpower legislation is vowing that a new, strengthened law will soon be enacted, but at the moment there is certainly no consensus on when that will happen or what will be contained in a Kennedy-Rogers bill, or a Rogers-Kennedy bill, or . . . —JOHN WALSH

Erratum. In the Appointments column (28 Mar., page 1216), Donald R. Bennett was cited as chairman, neurology department, University of Utah. Bennett is chairman of the neurology departments at the University of Nebraska and Creighton University.