

Medical Research: NIH Wants Divorce from PHS

Lack of money and independence has not been a problem for the National Institutes of Health during most of the postwar years, for NIH usually has had plenty of both. But now that this 30-year-old agency has reached maturity, it has begun to worry about its income and about the higher-level bureaucrats who have begun, increasingly, to look over its shoulder. NIH is concerned that its budget and its ability to pursue its mission in medical research and education will suffer unless it finds, somewhere in the still evolving governmental health structure, a more congenial home than its present niche in the Public Health Service.

Part of the explanation for the uneasiness at NIH seems to lie in the otherwise fortunate circumstance that the national political consensus supporting federal programs in the health field recently has been broadened. Medical research and a few other activities, such as hospital construction, have had strong political appeal throughout the postwar years. On the other hand, proposals for such things as health protection for the aged and the poor, aid for medical education, and support for neighborhood health centers were either bogged down in controversy or considered too far out even to be controversial. In recent years, however, public demand for greater federal intervention in the health field has been rising, and politicians are now boasting about their support of medicare, medicaid, scholarships for medical students, and a variety of other health programs.

The new spirit of munificence in health matters runs up against budgetary limits, especially while the Viet Nam war goes on. Competition for appropriations among the old and new health functions is growing. Moreover, the new national commitment to improving the quality and availability of health services has vastly increased the responsibilities of the Public Health Service, of which NIH is a part. The Surgeon General has recently reorganized PHS (*Science*, 17 June 1966) and

has been trying to assert greater authority over his domain.

In the past, NIH, whose budget climbed above the \$1-billion mark 3 years ago, has operated as a semiautonomous agency. Its independence reflected its size, its prestige, and its support in Congress and in the medical community. It was the strong, growing, innovative unit in an agency which, for the most part, was regarded as passive and weak.

The Public Health Service has not by any means overcome all of its problems and past deficiencies, but it is trying. Its fiscal-1968 budget reflects the rapid growth of new programs. Although the increase of \$75.6 million for NIH was the largest absolute increase for any PHS bureau, it was the smallest in terms of growth from the previous year—only 7.5 percent. The Bureau of Health Manpower and the Bureau of Disease Prevention and Environmental Control each were allowed increases of 21 percent. The NIH leadership has known that the large percentage gains of its years of greatest growth could not continue. It is nevertheless apprehensive that, in the future, the legitimate and necessary needs of its research programs may not be met. It is worried lest the long-term goals of research be neglected in an agency in which research must compete for attention and resources with programs concerned with the delivery of health services.

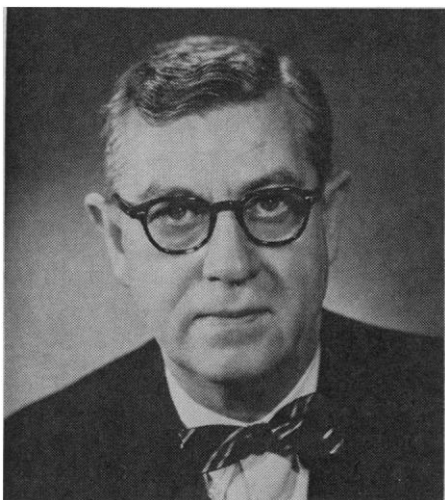
Contributing to the uneasiness at NIH are two other new circumstances—the loss of the agency's angel on Capitol Hill, Congressman John E. Fogarty of Rhode Island, who suffered a fatal heart attack in January, and the coming retirement of James A. Shannon, NIH's director during its period of rapid growth. As chairman of the subcommittee handling NIH appropriations, Fogarty usually managed to increase the NIH budget above the administration's request. Not only is Fogarty now gone but, since the last Congress, the NIH subcommittee has

lost several other liberal Democratic members, who have been replaced by conservatives. Shannon, who is regarded as an excellent "Irish politician" as well as a distinguished scientist, plans to leave NIH by mid-1968. Several other high NIH officials will also be leaving the agency within the next few years.

Thus, NIH is concerned that its fortunes may wane, through departure of much of its mature and proven leadership, loss of its chief advocate on Capitol Hill, and the inevitable decline in its relative importance in a health field becoming crowded with other agencies on the make. However, Shannon believes NIH can find relief from some of its problems in Secretary John W. Gardner's proposal to reorganize the Department of Health, Education, and Welfare by creating three subcabinet departments—for health, for education, and for individual and family services.

Gardner's plan, revealed by the secretary at a press conference at the LBJ ranch in November, has not been developed in detail, but it appears to represent an administration intention to restructure HEW somewhat along Pentagon lines. Shannon and Surgeon General William H. Stewart both assume that establishment of a Department of Health would mean the dissolution of the Office of the Surgeon General. In that case, the Surgeon General and some of his assistants might make up part of the staff of the new Secretary of Health, although Shannon assumes that the leadership of the new department would be provided largely by political appointees. NIH and other bureaus formerly a part of PHS would be, as Shannon and Stewart envision the new structure, directly responsible to the office of the Secretary of Health.

In Shannon's judgment, NIH would gain substantially from such an arrangement. He believes the agency would then be answerable to policymakers whose decisions would be arrived at through a more or less unadulterated political awareness of public needs and demands. Shannon regards this as preferable to being answerable to a Surgeon General's office run largely by members of the PHS commissioned-officer corps. These officers, he believes, cannot possibly keep their judgments on essentially political questions, such as the adoption of goals and allocation of resources, from being influenced by their professional orientation and bias.



James A. Shannon

By law, the Surgeon General must be a member of the officer corps, and, by tradition, he has always been an officer who has come up through the ranks. The professional training and experience of many senior officers has been largely in areas of traditional PHS activity, such as providing health services for federal beneficiaries (merchant seamen, Indians, and others), aiding in the improvement of state and local public health services, and controlling the spread of communicable diseases. While most never have been deeply immersed in a research environment, PHS officers would contend that this is not necessary to an understanding of research.

Officers often have tours of duty with NIH (out of the 11,330 present staff members of NIH, 1080 are PHS officers), and Stewart, the incumbent Surgeon General, has had several assignments with the National Heart Institute. But, rightly or wrongly, the feeling at NIH has been that comparatively few members of the commissioned corps understand and appreciate research. In fact, there are those at NIH who believe the more conservative elements of the commissioned corps are narcissistic and tradition-ridden to a point where they lack the flexibility and imagination to respond effectively to any of the new challenges facing the Public Health Service.

The commissioned corps eventually may be absorbed by a new "federal health service," roughly analogous to the State Department's foreign service, for professional health workers throughout the government. Such a service is being planned and has wide support among officials concerned with health matters. However, any one who looks to the

abolition of the commissioned corps as a way of improving relations between NIH and the rest of PHS should bear in mind that the idea of doing away with the corps has been around a long time and nothing yet has happened.

The suspicion is strong among NIH officials that, if their agency remains a part of PHS, it will be diverted increasingly from research and the training of researchers by being given service functions. Shannon hopes that, when major questions affecting NIH's mission and resources are debated in the years ahead, the agency will have direct access to the political and policy level of government. Accordingly, he believes that, on this score, too, NIH would gain significantly from being made a separate agency within a department of health. The Surgeon General is now in the chain of command between NIH and the top policy-makers of HEW. Shannon, because of his personal prestige, his unretiring nature, and the special place NIH has had in PHS, has not bothered too much about staying within formal channels. His successor, however, may well feel under greater restraint.

As recently as last summer NIH officials professed satisfaction with the decision that, under the reorganization plan, NIH would remain a part of PHS. They acknowledged that the political appeal of basic research was enhanced by being identified with PHS's health mission. Shannon's eagerness to throw over the relationship with PHS, once the Department of Health idea was put forward, suggests that his earlier attitude represented acquiescence to a *fait accompli*. However, the desire for separation derives partly from the feeling that NIH's recent experience as a member of the PHS ménage does not support the hope, never fervently entertained, that the two agencies might be compatible.

The symbolic assertion of authority implicit in the move by the Surgeon General and his staff from downtown Washington to NIH's Bethesda campus was pointed up by a skit published recently in the agency house organ, *PHS World*. Stewart's arrival was described as an invasion. "With the arrival of May, the showdown came at last," the skit began. "The long months and years of negotiations around the peace tables, the white papers, the endless diplomatic missions, came to an end. . . . By Sunday the beachhead was secure. And in the early light of Monday morning,



William H. Stewart

May 23, the Commanding Surgeon General, in his familiar fatigue jacket and with the characteristic pipe clenched between his teeth, waded ashore through the pools of Bethesda and uttered the never-to-be-forgotten words: I have returned. People of NIH, rally to me."

"It was all good fun," an NIH official says, "but nevertheless. . . ." While the skit might be dismissed by NIH people as a joke, the speech the Surgeon General gave last April at the Atlantic City meeting of the American Federation for Clinical Research revealed what seems to at least one NIH official a "somewhat frightening set of attitudes." "We have been enjoying a period of great public romance with medical research," said Stewart—"a period characterized by the line in *Science* magazine some months ago: 'As long as you're up, get me a grant.' I think there are several signs which indicate that we need to move from the romantic honeymoon into the stable, mature marriage. One of these is budgetary—funds appropriated for research are still going up, but not at the geometric progressions of a few years ago. Another is subtler but no less important—the fact that the public and the Congress are beginning to ask searching questions about the results of research and about the research process itself."

Shannon's expectation that, in a department of health, NIH would be free to operate on its own, having only to stay within departmental policies, could prove to be illusory. The Surgeon General's vision of what life for NIH should be like within a department of health is quite different from Shannon's. Stewart believes NIH's relationship to the office of the health secretary would

be essentially analogous to its relationship to the Office of the Surgeon General.

Moreover, he is convinced that, whatever the bureaucratic structure, research, medical education, and the delivery of health services should be intimately related. He rejects Shannon's views that, from the standpoint of effective administration, the medical research and education functions are basically incompatible with the delivery of health services. He regards as in keeping with the trend of the times the efforts of a number of university medical centers to bring about greater integration of research, teaching, and service activities.

The advisory committee which recently reported to Secretary Gardner on HEW relationships with state health agencies seems to share Stewart's viewpoint. In recommending the establishment of a department of health, the committee, headed by John J. Corson, a management consultant, said, "Research should be intimately associated with programs for service in a mission-oriented organization."

Stewart and Shannon can each find support for his views in the medical community, although many people know too little about the inner workings of the government's health agencies to hold a strong opinion. "I agree with Jim Shannon 150 percent," says one man who recently left a prestigious position in academic medicine to assume an influential science-policy post in government. But the dean of one of the leading medical schools argues, like Stewart, that research, teaching, and service are inseparable functions. "You don't segregate one to protect it from the other," he said. "That's the flaw in Jim's thinking."

Myron E. Wegman, dean of the University of Michigan's School of Public Health, believes that for the government to separate administratively its medical-research and health-service functions would be a "dreadful mistake." He feels that his opinion is widely shared by his fellow professionals in the public health field. Wegman is chairman of the executive board of the American Public Health Association and past president of the Association of Schools of Public Health.

The great concern of the university medical centers seems to be that government medical programs are run by so many different federal offices, sometimes pursuing inconsistent policies, that

NEWS IN BRIEF

● **OVERSEAS RESEARCH:** In the light of recent disclosures of CIA financing of overseas educational activities, the board of trustees of Education and World Affairs (EWA) has proposed a set of guidelines for U.S. scholars in overseas research. EWA is a nonprofit organization which promotes international cooperation in education. Its board of trustees, chaired by Herman B Wells, chancellor, Indiana University, is composed of leaders in education and political affairs, including Ellsworth Bunker, newly appointed ambassador to South Viet Nam; Grayson Kirk, president, Columbia University; and Frederick Seitz, president, National Academy of Sciences. In issuing the guidelines, the EWA board has asked that the academic community study and debate them in order to arrive at an acceptable code of behavior. The EWA guidelines suggest that universities adopt effective safeguards and standards for the conduct of U.S. overseas research; insist on full disclosure of purposes, sponsorship, and funding; reject covert funding and urge an enlargement in the grant-making capacity of government agencies not a part of military and intelligence complexes; apply appropriate academic quality controls on the projects and the scholars who undertake them; and generate an appreciation of overseas research among graduate and professional school students.

● **LABORATORY MANAGERS:** The laboratory business manager—the one who handles the book work on grants, is in charge of personnel, and does the buying—is getting organized. A meeting has been called for the weekend of 23–24 June at the University of Massachusetts to establish a Society of Research Administrators. A handful of business managers got together at the AAAS annual meeting in Washington last December and discussed the feasibility of beginning an organization for those in their relatively new but rapidly growing field. The forthcoming meeting was the outgrowth of that discussion. Ken Hartford, laboratory business manager, Department of Biology, Yale University, one of the organizers, explains that there are associations for those in the industrial applied research area but none for those specializing in academic research.

Proposed activities of the new society are to disseminate information on techniques, procedures, and employment opportunities; to establish professional standards, and generally to promote mutual assistance among members.

● **COMPUTERS IN HIGHER EDUCATION:** Adequate access to computing services for educational use should be provided in all institutions of higher education by 1971–72, a panel of the President's Science Advisory Committee has recommended. The cost of such a program may reach \$400 million a year within 5 years, and the panel's report recommended that the federal government carry the largest share of the cost. In accomplishing the primary goal, the panel advised expansion of faculty training programs in computer use, establishment of large central educational computing facilities capable of serving several institutions, and expanded federal support of research and education in computer sciences. The report estimates that the average cost per student per year for computing services would be \$60, compared with the \$50 to \$200 per student per year which colleges presently spend on libraries.

● **Ph.D. MATHEMATICS REQUIREMENTS:** The National Study of Mathematics Requirements for Scientists and Engineers (NSMRSE) is conducting a survey of outstanding U.S. scientists to determine what would be realistic mathematics requirements for Ph.D. candidates in various scientific fields. The survey includes a list of 40 courses, and an explanation of their content. The scientists are asked to indicate how long and at what level the course should be offered; their knowledge of its content; and its application to their area of specialization. The data provided by the survey will be used in advising undergraduate and graduate students and in forming realistic curricula based on the consensus of a large number of national authorities in their respective fields. The NSMRSE, with headquarters at the Tennessee Technological University, Cookeville, is concerned with mathematics requirements in the biological sciences, chemistry, engineering and physics.

the universities find it difficult to make coherent, well-coordinated plans of their own. In January, W. N. Hubbard, Jr., dean of the University of Michigan's medical school and president of the Association of American Medical Colleges, wrote Secretary Gardner suggesting that a single entity within HEW should receive applications from universities for their health-related programs and see that the policies under which support is granted are coordinated.

This proposal is consistent with Shannon's desire to have NIH, which has long been supporting training at the post-M.D. level, take over, from the Bureau of Health Manpower, responsibility for supporting the training of candidates for the primary professional degrees in medicine, dentistry, and veterinary medicine. The proposal was not intended, however, as an argument for putting greater distance between the administration of research and education programs, on the one hand, and programs for delivery of health services, on the other.

Shannon feels that, unless the question of where NIH fits in the government health structure is soon resolved,

it will be hard to get a suitable person to replace him as NIH director. The question of how to go about recruiting a successor is, in fact, one of the major points of disagreement between Shannon and Stewart. Shannon thinks that a blue-ribbon committee, made up principally of people from the medical and academic communities, should be given the task of recommending a candidate to Secretary Gardner. Stewart, on the other hand, feels that, while suggestions from NIH, the medical colleges, and other appropriate sources are very much in order, the responsibility for screening the candidates and for recommending one of them to Gardner is his alone.

In an editorial last December, Irvine H. Page, editor of *Modern Medicine*, indicated his support for the Shannon view. The loss of Shannon to the medical community, he said, "will be so great that each of us must take on some of the responsibility of seeing that a worthy successor is appointed. This is no trivial matter and should not be left to concealed maneuvers so often mis-called 'politics.' Let me insist that this job and the man in it are our responsi-

bility if only because, for good or for evil, this person will be spending vast amounts of our tax money. It is none too soon to consider a replacement."

Shannon's hope is that there will be a "substantial overlap" between the appointment of his successor and his own departure. Stewart thinks the overlap should be small, perhaps only a few months. The Surgeon General quite obviously does not want the new man to undergo a long indoctrination at Shannon's knee.

The considerations involved in seeking the best possible relationships for the various elements within the governmental health structure are too subtle and complex to be easily judged. The one certain thing is that great care must be taken to assure NIH's continued effectiveness in support of basic medical research. As the pattern of federal support of scientific research has evolved during the postwar years, NIH has assumed so dominant a role in the medical field that, if it should ever falter, neither the National Science Foundation nor any other agency could readily step into the breach.

—LUTHER J. CARTER

Themis: DOD Plan to Spread the Wealth Raises Questions in Academe

The spectacle of a university rejecting or even contemplating rejection of federal research funds is about as rare as that old newspaper cliché, "man bites dog." But a group of faculty members at the University of Montana is trying to persuade colleagues, both on their campus and across the country, to reject participation in Project Themis, a Defense Department program to spread federal research dollars to relatively underdeveloped academic institutions (*Science*, 3 February 1967). Themis, which is just getting under way, is more the occasion for the unrest than the object. The underlying issue, as the Montana professors see it, is the general phenomenon of heavy military involvement in the nation's universities.

Project Themis is the Defense Department's response to a presidential directive issued in September 1965 calling for federal agencies supporting

research and development to find ways of including the have-not institutions in their benefactions. But geographical distribution is only one of the purposes of Themis, and the Department of Defense (DOD) is not really in the business of giving away something for nothing. A closely related purpose, Donald M. MacArthur, deputy director of the Directorate of Defense Research and Engineering which is running Themis, told a congressional committee last summer, is to develop centers of excellence "capable of improved assistance to the Department of Defense in the years ahead."

DOD's emphasis on practical objectives is to a certain extent contrived to meet the political fact of life that it is easier to get Congressional appropriations for defense-related tasks than for "basic research." But there is no reason to doubt the sincerity of the Depart-

ment's frequent protestations that, in dispensing the \$290 million that annually flows from the Pentagon into colleges and universities, it is interested first in defense-related results, however remote, and only secondarily in supporting science or education.

In Themis, there is a frank fusion of two sets of goals, one having to do with the universities, one having to do with DOD. The Pentagon designed Themis with considerable sensitivity to the universities' problems. It believes that a "critical mass" of 8 to 10 faculty members and 16 to 20 graduate students working in related areas is necessary if a center with any impact on the general quality of the institution is to be developed. It plans to give a small number of large awards rather than a large number of small ones, and it proposes to give each institution a large amount of autonomy in running its projects. Themis will not support research projects that are not already within the long-range goals of the university, and it requires an explicit endorsement to this effect from top university officials.

At the same time, however, a major emphasis is on "coupling" the program to defense problems. According to