ADVISORY REPORT ON POLICY FROM THE BOARD OF REGENTS TO THE SURGEON GENERAL

AND

MINUTES OF 25TH MEETING OF THE BOARD OF REGENTS, NOVEMBER 14-15, 1966
GENERAL POLICIES

1. The National Library of Medicine should be responsible for collecting, organizing, processing and distributing recorded information relevant to human health, serving as the primary national resource for these functions.

2. The National Library of Medicine should be the central repository and the coordinating agent for the multiple specialized information centers designed to meet categorical information needs related to human health.

3. The National Library of Medicine should be the heart of a national biomedical information system which is designed to function as a component of a future national science information network.

4. The National Library of Medicine should be responsible for the research, organization, development and coordination necessary to the evolution of a more effective decentralized national system for the dissemination of information in medicine and related fields.

These general policies are consistent with the characteristics of the National Library of Medicine:

1. The greatest repository of medically related information in the world is contained in the National Library of Medicine and its capacity to disseminate this information is unequalled.

2. The National Library of Medicine functions as the capstone of our present system of medical libraries and has well established interlibrary relationships for exchange and sharing of its collections.
3. The National Library of Medicine has been in the forefront internationally in placing into operation advanced systems of information processing suited to serve students, investigators and practitioners in the broad fields of knowledge related to human health.

4. The mission orientation of improving human health gives unique quality to the National Library of Medicine, setting it apart from information systems concerned entirely with physical events or with general knowledge.

5. The rising expectations of the American people for greater access to comprehensive health service gives pressing urgency to the need for the National Library of Medicine to respond more effectively to the rapidly increasing demands placed upon it by both public and governmental agencies.

OPERATING POLICY

There are six areas of operating policy, within the context of general policy, which deserve specific statement:

I. Service

II. Technical Standards

III. Research and Development

IV. Education and Training for Library Personnel

V. Library Resources for Education in the Health Professions

VI. Medical Information Network of a National Science Information System

I. Service

The National Library of Medicine has functioned by giving its services in the public interest to governmental and non-profit agencies, organizations and institutions or alternatively upon a loan, exchange or charge basis.
Medical libraries throughout the country, historically structured in the "free public library" pattern, because of increased demands and under-support in recent years, have been compelled to make charges for library loan and reference services. Assuming no legal impediments, the following service policies should be given effect:

1. **Access to the Information in the National Library of Medicine should be available to all qualified users** without charge as a public service.

2. **The National Library of Medicine's services should be viewed as part of the total responsibility of the Federal Government for the health of the people.**

3. **All cooperative service programs between the National Library of Medicine and other agencies, institutions or organizations should reflect these service policies.** As such a national resource, it can and should play a major role in supporting and improving both basic and continuing education of the health professions by providing information and communication resources essential to the educational process.

II. **Technical Standards**

Multiple subsystems will compose the ultimate national science information system. The concern with human health identifies the national subsystem which should have the National Library of Medicine as its center. Technical standards must give primary attention to the real functions of the subsystem while assuring that it will have effective linkages to and be an integral part of a national science information network. The

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*All elements of the educational research and professional communities concerned with the national health effort.*
following policies for establishment of technical standards should be given effect:

1. The National Library of Medicine should be the representative and agent for the biomedical information system in all efforts to standardize communication modalities on a national or international scale.

2. The National Library of Medicine, with appropriate technical advice, should have the responsibility for determining the communication modalities and technologies most suitable for the subsystem serving students, researchers and practitioners concerned with human health.

3. The National Library of Medicine should have the responsibility for assuring that to the fullest extent consistent with serving the needs of the health related workers, its information system will be compatible and/or convertible with the modalities and technologies selected for federally supported information subsystems in other fields of science and library practice.

III. Research and Development

The National Library of Medicine has demonstrated its effective concern with introducing new and improved means of information processing. Current demands by users of biomedical information are heavily moderated by their preconceptions of the difficulty of locating and retrieving an item, thus even the heavy current demands do not reflect the actual need for information. The present system, however, is not without value and is a suitable substrate for the evolution of a system designed to meet actual needs rather than simply react to current demands. The objective of research and development
under the aegis of the National Library of Medicine should be:

1. To develop models of advanced systems for acquiring, codifying, indexing, cataloging, abstracting, storing and disseminating recorded information.

2. To accelerate and guide the adaptation of these models to a decentralized national system which utilizes the existing biomedical libraries as its framework.

3. To determine the nature and extent of user needs and the acceptability of new modalities and technologies to the students, researchers and practitioners whose informational requirements are peculiar to their respective roles.

To this end the following policy should be given effect:

1. The National Library of Medicine should support experimental programs, both intramural and extramural, to test multiple approaches to meeting the needs for biomedical information.

2. The National Library of Medicine should be a national resource for information systems research and development relevant to human health.

3. The National Library of Medicine should serve as a clearinghouse and coordinating agency for information systems R and D within the Public Health Service.

IV. Education and Training for Library Personnel

There is an urgent need for manpower which will require re-training of existing library staffs, revision of educational programs in schools of library science and the introduction of communications technologists and specialists. Because of its central role in developing and decentralizing models of improved
information processing, the National Library of Medicine will be an important resource for the educational and training programs that will be essential for staffing. In order to give operating reality to its developmental efforts, the following policies guiding education and training should be given effect:

1. The National Library of Medicine should support intramural and extramural educational and training programs relevant to improving biomedical communication systems.

2. Internships, fellowships and exchange of personnel should be available to support the intramural training programs of the National Library of Medicine, with preference given to staffs of decentralized units of the subsystem of which the National Library of Medicine is the center.

3. The National Library of Medicine should make institutional grants to those academic organizations capable of offering sophisticated educational programs to those who will be the new generation of biomedical communications specialists as well as to present librarians who seek re-training.

V. Library Resources for Education in the Health Professions

As a primary national resource for biomedical communications, the National Library of Medicine can and should utilize fully its intramural and extramural programs to foster the optimum utilization and application by the individual health worker of the vast store of existing knowledge in all forms. To achieve this end, the National Library of Medicine should develop and support, directly and through regional and local biomedical libraries, research, experiments, and demonstrations to improve educational techniques enhancing such application and extend new modalities effective in the continuing education of health workers. The Library's educational
mission should, however, not be conceived narrowly. Modalities of education developed for purposes of continuing education are applicable as well to its basic educational mission directed toward students and teachers of medicine, as well as toward researchers.

VI. Medical Information Network of a National Science Information System

The larger extension of communications systems concepts have focused attention on the desirability of creating a National Science Information System. Other government agencies are currently supporting studies relating to the design of such systems in various areas of science and engineering. In this process, the relationships between federal interests, and the interests of the industrial and academic communities are being explored. The fundamental purpose appears to be so to organize information resources and their inter-communication facilities that the results of government-sponsored research and development in the sciences and engineering can be made more readily available for the advance of the economy and the welfare of the people.

While many of these studies are still on the drafting board, the field of health has such a national communication system in being. Historically-evolved, the existing medical library network is in fact a communications system with traditional linkages and long operating experience. In relation to this system the National Library of Medicine has developed a central role through providing the bibliographic apparatus on which the system functions, and guaranteeing the ultimate availability of resources the system requires.

The following policies should be given effect in developing the medical library network of a national science information system:

1. The Federal Government should improve, supplement and strengthen
the existing national medical library system as the basis of a medical
information network.

2. The National Library of Medicine's role in development of the
medical information network should be to cooperate with the public and private
institutions which constitute active nodes in the system, giving special
attention to the development of compatible and synergistic relationships
between existing and developing modalities and technologies.

3. The National Library of Medicine should assure that new systems will
guarantee improved access to health related information by all citizens who
have use for it—students, researchers, teachers, practitioners and the
general public.

The Board of Regents would, finally, advise the Surgeon General of their
concern that the organizational position of the National Library of Medicine
within the Public Health Service be such that it can fulfill its mission.
The coordinating functions, the role of a clearinghouse and the responsibility
for development of technical standards suggest a need for a position in the
Public Health Service that involves it directly and continuously in policy
decision making.

The present and future responsibilities of the National Library of
Medicine imply such major increments in budget, staff and facilities that
it would be useful for the National Library of Medicine to be authorized to
exercise coordinating and control functions over the activities for which it
is responsible. The difference between the mission of the National Library
of Medicine at the time it came under the responsibility of the Surgeon
General of the United States Public Health Service and the mission which the Board of Regents has recommended in this advisory statement is so vast that a reassessment of the organizational relationships to other operating units of the Public Health Service seems reasonable. The name National Library of Medicine itself conjures up an archaic and restricted image of the true mission and consideration might be given to establishing a Center for Biomedical Communications within the National Library of Medicine. Such a center would provide the broader base upon which to build the new programs recommended by the Regents.*

* The Board is aware that the National Library of Medicine has been concerned for several years with broader communications concepts and potential program responsibilities than those contemplated by traditional research libraries. The following studies and papers serve to illustrate the Library's changing role in relation to the broad problems of biomedical communication:


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The Board of Regents is sensitive to the fact that administrative matters such as the Library's organizational placement fall outside its proper purview and refers to them only to illustrate the nature of its concern for the capacity of the National Library of Medicine to fulfill its mission. In this context the Board of Regents wishes to reaffirm its belief that the National Library of Medicine should be closely linked to the principal national health effort which serves the research, teaching and practicing medical communities.


THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 25TH MEETING

November 14-15, 1966 - Bethesda, Maryland

MEMBERS PRESENT: BEAN, BOHANNON, BROWN, CARLSON, DIXON, FUSSLER HUBBARD, MUMFORD, TAGER, WOLF, WOODHALL

MEMBERS ABSENT: ENGLE, HEATON, MCDERMOTT, STEWART

ALTERNATES: Brig. General George J. Hayes represented Lt. General Heaton

Captain W. F. Pierce represented Admiral Brown during afternoon of first day and all of second day

Dr. Leo J. Gehrig represented Dr. William H. Stewart during the morning of the first day

Dr. F. W. Hartman represented Lt. General Bohannon during the afternoon of the first day and all of second day

GUESTS: Dr. F. Ellis Kelsey, Special Assistant to the Surgeon General for Scientific Information, PHS

Mr. Foster Mohrhardt, Director, National Agricultural Library

Mr. Joseph Becker, Director of Library Research, EDUCOM

Dr. James Lieberman, Director, PHS Audiovisual Facility, Communicable Disease Center

Mr. Robert Wallace, Vice President, Professional Services, Auerbach Corporation

Dr. Jack Minker, Director of Technical Staff of the Washington Office, Auerbach Corporation

Mr. James A. Dugan, Member of Technical Staff of Auerbach Corporation

Mr. Norman H. Hardwick, Member of Technical Staff of Auerbach Corporation

Mrs. Ilene Stewart, Associate Program Director for Research and Studies, National Science Foundation
Dr. Merlin K. DuVal, Dean, The University of Arizona, College of Medicine

Dr. James A. McA'Nulty, Head, Liaison Section, Development and Assistance Branch, Division of Regional Medical Programs, NIH

NLM STAFF: Dr. Martin M. Cummings, Mr. Scott Adams, Dr. Clifford Bachrach, Miss Alice Billingsley, Dr. John B. Blake, Miss Mary E. Corning, Dr. Carl D. Douglass, Mr. Herbert H. Fockler, Mr. Joseph Foley, Dr. Louis S. Gerber, Dr. Fritz P. Gluckstein, Mrs. Maxine K. Hanke, Mr. James G. Hill, Mr. James D. Isbister, Dr. Ellis A. Johnson, Dr. Leonard Karel, Mr. David F. Kefauver, Mr. Gerald N. Kurtz, Mr. James D. Lawrence, Dr. Joseph Leiter, Mrs. Louise H. Miller, Miss Marilyn D. Miller, Mrs. M. K. Nichols, Dr. Peter D. Olch, Mrs. Marguerite L. Pusey, Mr. Paul C. Redmer, Mr. James P. Riley, Miss E. Winifred Sewell, Dr. Andrew M. Sherrington, Dr. Norman P. Shumway, Mr. John P. Spain, Dr. Kenneth Surrey, Mr. John A. Timour, Mr. Robert Walkington, Mr. Samuel Waters, Dr. Marjorie P. Wilson
Dr. Hubbard opened the 25th meeting of the Board of Regents by welcoming the following new staff members: Mr. Donald Dutzel, Personnel Officer; Mr. Herbert Fockler, Training Grants Officer; Dr. Ellis Johnson, Assistant to the Director for Program Analysis; Mrs. M. Kathleen Nichols, Committee Management Assistant; Mr. John Timour, Training Officer; and Mr. Robert Walkington, Construction Program Officer.

REMARKS BY THE DEPUTY SURGEON GENERAL

Dr. Gehrig related the reorganization of the Public Health Service to its historical development. Under proposals currently being implemented, the organizational position of NLM remains unchanged. There are to be five bureaus, in place of the existing three. The National Institute of Mental Health will form a separate bureau. The National Institutes of Health will remain unchanged except for the removal of NIMH, and the addition of a Division of Environmental Health Sciences, to be located in the research triangle in North Carolina. The three other bureaus are: the Bureau of Health Services, the Bureau of Health Manpower, and the Bureau of Disease Prevention and Environmental Control. Reorganization in this pattern would be completed by around January 1, 1967.

JUNE 1966 MINUTES APPROVED, FORTHCOMING MEETINGS SCHEDULED

The minutes of the June 23-24, 1966 meeting were approved. The dates of March 16-17, and June 15-16, 1967 were reaffirmed. The dates of November 16-17, 1967 were confirmed.

REPORT OF THE DIRECTOR

Dr. Cummings noted that this was the tenth anniversary of NLM's organizational position within the PHS. As specified by the NLM Act, a report from the Surgeon General on the Board and Library's activities has been prepared for the Senate and House of Representatives. The Library has also issued its annual report for FY 1965.

The Director expressed his concern at the constraints on filling vacancies and acquiring new manpower. For FY 1967, NLM had originally an authorization for 393 positions. These had been effectively pared down to 321. As the current on-duty strength was 311, NLM was faced with the prospect of mounting a number of new programs with a maximum of only 10 new staff members.

The reduced allocations for overtime have posed a serious threat to maintaining the 72-hour service provided on site by the Library to local users. The Surgeon General, however, was anxious not to have the Library operate only on a 40-hour basis, and had given an assurance that he would find the money to restore this cut.

In the intramural budget for FY 1968, increased funds were projected for a second generation MEDLARS system.
The Assistant Secretary for Health and Scientific Affairs had requested the Director to represent DHEW on the Committee on Scientific and Technical Information (COSATI). Dr. Ellis Johnson as Coordinator of Science Communication Activities had been the previous representative. Dr. Cummings stressed the heavy commitment of time and energy involved and estimated that he had spent 45 hours on COSATI business in his first month as representative. William Knox, in his final report to the Federal Council on Science and Technology, had presented a national information systems plan. This plan clearly identifies NLM as the agent for constructing a national medical library network.

Dr. Cummings next drew attention to the Report of the Special Subcommittee on Investigation of the Department of Health, Education, and Welfare, (the Rogers Subcommittee), issued by the House of Representatives Committee on Interstate and Foreign Commerce. The report identifies NLM as the primary central focus for biomedical communications activities, both within the Public Health Service and within the Department of Health, Education, and Welfare. It also states that NLM should be given responsibility for coordinating the health information activities of the Department with related activities of other Federal agencies and institutions.

Four recommendations were made by the Subcommittee:

1. The establishment of a research center in biomedical communications.

2. The establishment of a national biomedical information clearinghouse and referral service, with NLM as the central switching unit.

3. The transfer of the medical audio-visual branch of the Communicable Disease Center to NLM control.

4. The coordination of all health communications activities in the Public Health Service.

Two alternative ways of implementing (4) were proposed: either NLM remains in status quo organizationally, acquiring however the audio-visual center and the biomedical communications center, or a new Bureau of Health Communications would be set up within the PHS to which NLM, the audio-visual center, and the biomedical communications center would report.

The Director then presented the revised conceptual framework for the development of a medical library network. As a result of discussions between members of NLM staff, the Bureau of the Budget, and the Office of Science and Technology, a modified plan incorporating details from both NLM's plan and the Herner report had been evolved, closely paralleling the framework of the regional medical programs being set up within PHS. Under the new plan, fewer local medical libraries (some 500 to 600) will be funded, but they will be backed up by a larger number of regional libraries (25 to 30) and about 100 academic libraries. NLM would:

1. attempt to guarantee the provision of one comprehensive collection of the world's medical literature in the nation;
(2) fully mechanize bibliographic control and reference services;

(3) continue to provide centralized indexing and cataloging;

(4) introduce concepts of operations research and systems analysis;

(5) provide guidelines and standards for participating libraries.

Mr. Joseph Becker, of EDUCOM, was carrying out a study for NLM to clarify some of the resulting functions. The Association of American Medical Colleges had also done a study on the functions and physical requirements of medical school libraries, which he expected to be of great assistance to NLM planning.

Dr. Cummings stressed the close relationships maintained by NLM with other Federal libraries through the Federal Library Committee, and with the National Science Foundation and the Office of Education.

THE PRESIDENT'S NATIONAL ADVISORY COMMISSION ON LIBRARIES

Dr. Hubbard reported that he and Dr. Fussler were members and that the Commission was to hold its first meeting in Washington on November 30.

POLICY FOR MEDLARS TAPE DISSEMINATION

Mr. Adams discussed principles for implementation of MEDLARS tape use policies in the light of previous considerations by the Board and two sets of guidelines issued by COSATI for the domestic and international use of U.S. Federally owned machine-stored indexes. One item in the domestic policy guidelines held the Federal Government free of liability, including any deriving from systems changes, and placed full responsibility on the user for the effective utilization of the machine-stored indexes, and for the quality of products derived from the indexes.

NLM must accept a measure of responsibility for systems performance at other locations. The rate of systems change at NLM necessitated close technical liaison with users, so that file maintenance and vocabulary changes could be made. An adequate training program to insure the close familiarity with indexing practices, MeSH terminology, and search formulation procedures needed for optimum use of the system was essential for success. Other requirements of agreements established with MEDLARS tape users were

(1) technical competence at the institution concerned,

(2) agreement to maintain files and programs as modified by NLM;

(3) to submit any proposed changes in files or programs to NLM;

(4) to combine, consolidate, or relate files or programs only after NLM approval;

(5) to make sample products available to NLM;
(6) to withhold files and programs from third parties not approved by NLM;

(7) to provide quid pro quo to NLM such as indexing, searches, program revisions, etc., in exchange for NLM's investment.

Because of the limitations imposed on the expansion of these decentralized services by the capabilities of NLM to provide training facilities, NLM has established the following priorities in negotiating agreements:

(1) MEDLARS search centers and regional libraries.

(2) Centers operating under existing PHS or other government grants.

(3) Nonprofit institutions.

(4) Profit-making institutions (not for resale).

BUILDING PLANS

Mr. Isbister reported that after discussions with the PHS and DHEW finance officers, it had been decided to combine the projected annex and the Center for Biomedical Communications in one building on the NIH campus. 78,000 square feet of usable space would be available. 43,000 square feet would be available for research and development activities; and the remaining space would house the Information Systems Division, the Extramural Program, and additional conference rooms. No provision could be made within these space limitations for the needed auditorium, for TV and FM radio production facilities or for new cafeteria facilities. The original architects of NLM, O'Connor and Kilham, were to make a study on the use of space in NLM itself and in the Blackwell Building, and make projections for space requirements for five and twenty years ahead. In the light of these, they would make recommendations on the new building, on the allotment of space as between the two buildings, and on further expansion potential to meet the needs of the future.

SPECIFICATIONS FOR A NEW MEDLARS

Mr. Wallace, Mr. Dugan, and Mr. Hardwick outlined the AUERBACH Corporation's activities in drafting specifications to be used by the Library in soliciting proposals for developing a second generation MEDLARS and in developing guidelines for evaluating these proposals. The main aims were:

(1) to improve the overall performance of NLM;

(2) to provide systems specifications which could be modified to add new services.

THE PHS AUDIOVISUAL FACILITY

Dr. Lieberman described the PHS Audio-visual Facility at Atlanta, Ga., which serves as an international clearinghouse for information on the subject of biomedical audio-visual communication. Over twenty-four years, the facility has become the central point within PHS for the acquisition, development,
production, and distribution of audio-visual materials. The facility maintains an international index of audio-visual data, containing more than 20,000 film titles. Films loaned in 1948 totaled 2,400, in 1966, 51,000.

An audio-visual systems planning program has resulted in 15 site visits to date to professional schools and other institutions contemplating new audio-visual facilities. This would include not only information on equipment, but also modifications of curriculum content to adapt it to TV and so on. To provide urgently needed personnel in this field, a joint degree program for Master of Medical Science (Biomedical Communication) is being planned to begin in September 1967.

A community Tele-Med system will be tried out experimentally in Atlanta. There will be two TV broadcast points, and two-way audio linkup of the other six participating organizations. This prototype could be the model for many such community resources throughout the United States.

**EXECUTIVE SESSION**

In the Executive Session, the Board discussed the implications of the Rogers Subcommittee report, and the report of the President’s Science Advisory Committee recommending the development of a Toxicological Information System.

**EXTRAMURAL PROGRAMS**

**OPENING REMARKS**

Dr. Wilson welcomed Dr. Merlin K. DuVal, Dean, College of Medicine, University of Arizona; and Mrs. Ilane Stewart, Associate Program Director for Research and Studies, National Science Foundation. New Extramural Programs staff were introduced: Mr. Herbert Fockler, Dr. Louis Gerber, Mrs. Louise Miller, Miss Marilyn Miller, Dr. Kenneth Surrey, Grants Associate from the National Institutes of Health, and Mr. Robert Walkington.

The Board was reminded of the confidentiality of the proceedings and the necessity for a Board member to absent himself from the meeting room when an application is discussed in which he or his institution has an interest.

1/ Proceedings of meetings are restricted unless cleared by the Office of the Surgeon General. The restriction relates to all material submitted for discussion at the meetings, the agenda for the meetings, the supplemental material, and all other official documents.

2/ For the record, it is noted that members absent themselves from the meeting room when the Committee has under individual discussion applications (a) from their respective institutions or (b) in which a conflict of interest might occur.

3/ The Board of Regents, when considering the Extramural Programs of the NLM, also consists of the Board of Regents Advisory Council for Extramural Programs and National Medical Libraries Assistance Advisory Board and concurrently discharges the responsibilities of all three bodies.
Attention was called to the summary of pending legislation in the health field which was provided each member.

Dr. Wilson also pointed out various items of interest in the Division of Research Grants Administrative Report and discussed the minimal effect the PHS reorganization will have on the Extramural Programs operating relationship with the Division of Research Grants.

**REPORT ON GUIDELINES FOR CONSTRUCTION OF HEALTH SCIENCE LIBRARIES**

After welcoming Dr. Merlin K. DuVal, Dean of the University of Arizona College of Medicine, Dr. Marjorie P. Wilson explained some of the background which led to the appointment by the Association of American Medical Colleges of a special study group under Dr. DuVal's leadership, to develop guidelines for planning the construction of medical school libraries. The study group was asked to pay particular attention to the potential of the medical library of the future, so that when new facilities are constructed, they are useful not only for today but truly represent the library of tomorrow. The AAMC study group was not asked for rigid specifications, but rather general guidelines which would establish the most advanced thinking on the function of the medical library in education for the health professions. In requesting this advice, it was hoped that the study would go beyond the traditional view of the library and address itself to what the expert Committee perceived as the role of the library in the education of the medical student or the graduate student, the investigator, and the practicing physician as a means of pursuing his continuing education.

The Committee was advised that the NLM prescribed no boundaries on their thinking on this point, but asked only that it provide concrete advice, after investigating the function as to what type of facilities could best provide a framework for the function as envisioned. The concept of improving the learning environment has been considered of sufficient importance to be identified as one of the major objectives of the Extramural Programs effort. Attention will be directed not only to updating techniques and mechanics of information handling, but to so influence and enhance the library function that a fundamental change may be brought about in the learning environment which the library can present to the educator, student, investigator, and practitioner.

Dr. DuVal presented a thorough and very interesting account of the activities of the AAMC team over the past year. In addition to Dr. DuVal, the other person most directly involved is Dr. Seymour Alpert, Professor of Anesthesiology at George Washington University. They have had the counsel and advice of an advisory committee of nine persons as follows: Dr. Maurice Hickey, Dean of the College of Dentistry, University of Washington; Dr. Stafford Warren, Vice Chancellor, Health Sciences, Emeritus, Department of Biophysics and Nuclear Medicine, University of California Medical Center; Dr. Hugh Hussey, of the American Medical Association; Dr. John Cooper, Dean of Sciences at Northwestern University; Dr. Vern Pings, Medical Librarian, Wayne State University; Dr. Donald G. Anderson, Dean, School of Medicine and Dentistry, University of Rochester; Dr. Carleton Chapman, Dean, Dartmouth Medical School;
Dr. George Perera, Associate Dean of Columbia University; and Dr. Ivan Bennett, former Chairman of the Department of Pathology at Johns Hopkins, and now Deputy Director, Office of Science and Technology.

First, the study team reviewed extensively the world's literature on architecture for libraries and studies having to do with library users. A bibliography of this material constitutes one of the appendices of the report. Many architects, medical library planners, and representatives of universities and industry were consulted. In the course of over twenty visits to medical libraries, they conferred with medical center planners in communities which have planned and developed libraries since World War II.

The report, now in a draft form, will consist of five parts and an appendix. Part I will discuss the problems posed by the information explosion, the Federal investment in research, and the knowledge gap that has been created as a result of these. It will interpret the meaning of this gap to the individual scientist and student in the health sciences, and will describe the role of the library in this setting. Part II will define specifically the health sciences library, which is the major subject of the report, and will concentrate on the library in a medical school setting. Part III, the longest chapter in the report, will be entitled "Planning for the Health Sciences Library." It will concentrate on the situational and policy considerations that have to be considered by a medical center planner before he begins planning or developing a program for a library and will address itself to the translation of the policy and situational considerations into appropriate and functional spaces. A full presentation and discussion on the planning process is proposed: the planning team, and the situational and policy considerations with which the team must be concerned, such as the community size, urban or rural setting, and potential inhouse load on the facilities. Other considerations include external professional clientele, the proximity of the facility to other resources from the point of view of libraries that might call upon the library, or which could serve as extensions of the health sciences library being planned.

Other items to be discussed include the philosophy of access, the philosophy of conservation versus dissemination, the lending versus non-lending concepts, calling attention especially to the change which is taking place on the national scene as it relates to the opportunity to make material available by photocopy, with examples of experiences where photocopy is provided free or through the imposition of token charges. Consideration will also be given to the phenomenon of decentralization as opposed to centralization in order to suggest that the planner give consideration to this before developing the program for the library. There will be discussion on such subjects as the "90 percent library," culling and weeding a collection, and the problems and expenses associated with storing infrequently used materials.

A complete section will be devoted to what the team calls "preparations for change." This will emphasize the multi-media approach in a movement away from the concept that all knowledge is stored in printed words. This calls for philosophic preparations later to be translated into space considerations for housing and storing materials in media other than in books. The discussion on new technology and certain of its applications at this time in
the library field will emphasize microforms particularly and computer operations secondarily. The suggestion will be made that librarians should begin to plan to broaden the manner of presentation of material through the use of historical exhibits to export and disseminate what is available in the collections.

The preferred location of a health sciences library in the medical center will be discussed along with the question of whether or not it should be separately housed in a separate building, how it should be handled from the viewpoint of security, and its relationship to the auditorium. Two important elements will concern flexibility of the interior of the library and its expansibility. Valuable lessons have been learned as to how libraries may quickly become locked in as a result of deficient planning for expansion. A key element in planning is the functional relationship of the various elements of the library, one to the other.

Considerable discussion will come forth on the optimal size for the active working collection. A formula will be proposed for determining the number of seats to be allowed in the library and the arrangement of facilities within the reading and study areas. A case will be made for the inclusion of appropriate meeting and/or lecture-type rooms inside the library premises.

Other items to be discussed include the reserve collection, a current events room, the archival and historical function and related space requirements, storage space for materials of an audio-visual character, space for use of audio-visual materials by a single individual--teaching machines, loop-type film projectors, etc., the philosophy and design of smoking space, the allocation of space for the management of the problem of paging, the space required to house and to store exhibited material, and staff space for those who must work in the library.

Part IV of the report will be a philosophic discussion of the library as an instrument in education in the health sciences. A very vigorous posture will be taken in this regard, since the advisory committee believes that the knowledge gap is becoming extremely serious between what is new knowledge and its application in the field.

Part V will be devoted to conclusions and recommendations. In two appendices will be found the bibliography referred to earlier and certain structural and technical data of interest to health science library planners.

At the conclusion of Dr. DuVal's presentation, there was a very lively discussion on the question of the function of the library in the synthesis of information. At its conclusion, a consensus had developed that it is not a function of the librarian to synthesize the scientific and medical information, but rather the function of the library to create the environment in which the subject matter specialist may perform this function.

**REVIEW OF APPLICATIONS NEEDING SPECIAL CONSIDERATION BY THE BOARD OF REGENTS SUBCOMMITTEE FOR EXTRAMURAL PROGRAMS**

The Subcommittee met with Extramural Staff on November 13, 1966, to review applications that presented special problems or had special significance
for NLM program interests in the various developing areas. This included a
detailed discussion of the resources grant program, as well as research and
training grant applications pending review by the full Board on November 15.

CONSIDERATION OF PENDING APPLICATIONS

EXPANDING AND IMPROVING MEDICAL LIBRARY RESOURCES

Dr. Douglass announced the membership of the newly formed Facilities and
Resources Committee, which serves as the initial review group for these
applications, and the recent activities of that Committee. The Resources
Grant application review procedure was described and there was a full dis-
cussion of the special requirements imposed on such grants by the Medical
Library Assistance Act.

The formula used to compute tentative entitlement was explained and dis-
cussed in relation to the policy on "resource sharing," especially from
the standpoint of possible inequities involving large institutions pro-
viding service to many other institutions but without formal "resource
sharing" agreements. Alternative formulae for establishing entitlement
were considered for application to institutions with annual operating
costs in excess of $175,000 and/or participating in resource sharing
agreements with other institutions. By unanimous decision, the Board
approved making awards utilizing the present formula up to a ceiling of
$26,875 to any grantee; and a tentative award of that ceiling amount for
those institutions whose tentative entitlement comes up to or exceeds
that amount with the matter of a supplemental award based on some other
possible formula to be considered at the next meeting.

The Board approved a delegation of authority to staff, to extend committed
support to resource grantee institutions without bringing a continuation
application to the Board, i.e. to pay subsequent year awards on the con-
ditions that:

1) the award is within the limitations of the Medical Library
   Assistance Act;

2) the grantee shall submit annually a statement of their intent
   with respect to the use of funds awarded;

3) the award seems generally consistent with the original grant
   application.

Except as noted above, the Board concurred in the recommendations of the
Facilities and Resources Committee, approving 197 applications, dis-
approving 13, and deferring 12.
RESEARCH

Individual discussion took place on all applications over $50,000, and on one request for support of a scientific publication, and on one application recommended for disapproval by the initial review group, since it appeared appropriate that the required funds should come from other sources. By unanimous vote, the latter application was returned to the study section for reconsideration along with the advice and sentiments of the Board. With this exception, the recommendations of the study sections were approved. The review covered 21 research grant applications totaling $1,067,411, approving 9 for a total of $355,256.

TRAINING

Mr. Kefauver announced the membership of the newly formed Manpower and Training Committee, which serves as the initial review group for training grant applications assigned to the National Library of Medicine, and the recent activities of that Committee.

Nine training grant applications totaling $390,974 were reviewed and 3 were approved for a total of $138,412.

REVIEW OF INTERIM ACTIONS

In conformance with the operating guidelines, attention was called to one salary increase made by staff and the transfer of one grant from the National Institute of General Medical Sciences to the NLM.

Summaries of Board actions on Research, Training, and Medical Library Resource Grant applications for this meeting are appended.

Respectfully submitted,

Martin M. Cummings, M. D.
Secretary to the Board of Regents
National Library of Medicine