

MINUTES OF MEETINGS
of the
BOARD OF REGENTS
NATIONAL LIBRARY OF MEDICINE

First meeting, FY 1963 (Fifteenth)	November 5, 1962
Second meeting, FY 1963 (Sixteenth)	March 29, 1963
First meeting, FY 1964 (Seventeenth)	December 13, 1963
Second meeting, FY 1964 (Eighteenth)	March 20, 1964
Nineteenth meeting	November 6, 1964
Twentieth meeting	March 18-19, 1965
Twenty-first meeting	June 17-18, 1965
Twenty-second meeting	November 15-16, 1965
Twenty-third meeting	March 21-22, 1966
Twenty-fourth meeting	June 23-24, 1966

C O N T E N T S

2-

List of Members of the Board of Regents September 1964	1 p.
List of Members of the Board of Regents June 1966	1 p.
Agenda and Minutes Meeting of November 5, 1962 (Fifteenth Meeting)	8 p.
Agenda and Minutes Meeting of March 29, 1963 (Sixteenth Meeting)	12 p.
Budget Resume	1 p.
Costs of Making MEDLARS System Operational	1 p.
MEDLARS Procurement Cost Comparison	1 p.
Agenda and Minutes Meeting of December 13, 1963 (Seventeenth Meeting)	10 p.
Agenda and Minutes Meeting of March 20, 1964 (Eighteenth Meeting)	8 p.
Agenda and Minutes Meeting of November 6, 1964 (Nineteenth Meeting)	13 p.
Resolution of the National Advisory Health Council	3 p.
Agenda and Minutes Meeting of March 18-19, 1965 (Twentieth Meeting)	20 p.
Agenda and Minutes Meeting of June 17-18, 1965 (Twenty-first Meeting)	8 p.
Agenda and Minutes Meeting of November 15-16, 1965 (Twenty-second Meeting)	11 p.
Report of Executive Committee Meeting October 6, 1965	4 p.
Appendix I - Appropriation Authorizations	1 p.
Appendix II - Budget Chart	1 p.
National Library of Medicine Act (P.L. 941, 84th Congress)	4 p.
Agenda and Minutes Meeting of March 21-22, 1966 (Twenty-third Meeting)	11 p.
Agenda and Minutes Meeting of June 23-24, 1966 (Twenty-fourth Meeting)	9 p.

BOARD OF REGENTS, NATIONAL LIBRARY OF MEDICINE

- | | |
|---|---|
| Brill, Norman Q., M.D. (1965)
Professor and Chairman
Department of Psychiatry
Univ. of California Med. Center
Los Angeles, California (90024) | Woodhall, Barnes, M.D. (1968)
Vice Provost
Duke University Medical Center
Durham, North Carolina |
| Dixon, Russell A., M.S.D. (1967)
Dean, College of Dentistry
Howard University
Washington, D.C. (20001) | <u>Ex Officio Members</u> |
| Fussler, Herman H., Ph.D. (1967)
Director
University of Chicago Library
Chicago, Illinois | Bohannon, R. L., Maj. General, M.C.
The Surgeon General
Department of the Air Force
Washington, D. C. (20333) |
| Gellhorn, Alfred A., M.D. (1966)
Professor of Internal Medicine
College of Physicians & Surgeons
Columbia University
New York, New York (10032) | Carlson, Harve J., D.P.H.
Assistant Director for Biol.
and Medical Sciences
National Science Foundation
Washington, D. C. (20550) |
| Harkins, Henry N., M.D. (1966)
Professor and Chairman
Department of Surgery
University of Washington
Seattle, Washington (98105) | Heaton, L. D., Lieut. General, M.C.
The Surgeon General
Department of the Army
Washington, D. C. (20315) |
| Hubbard, W. N., Jr., M.D. (1967)
Dean, Univ. of Michigan Med. School
M 7324 Medical Science Building
Ann Arbor, Michigan | Kenney, E. C., Rear Admiral, M.C.
The Surgeon General
Department of the Navy
Washington, D.C. (20420) |
| Jarcho, Saul W., M.D. (1965)
35 East 85th Street
New York, New York (10028) | Mumford, L. Quincy, LL.D.
The Librarian of Congress
Washington, D. C. (20540) |
| McDermott, Walsh, M.D. (1968)
Professor and Chairman
Department of Public Health &
Preventive Medicine
Cornell Univ. Medical Center
New York, New York | Terry, Luther L., M.D.
The Surgeon General
U. S. Public Health Service
Washington, D. C. (20201) |
| Tager, Morris, M.D. (1968)
Professor and Chairman
Department of Bacteriology & Immunology
Emory University
Atlanta, Georgia | <u>Executive Secretary</u>
Cummings, Martin M., M.D.
Director
National Library of Medicine
Bethesda, Maryland (20014) |

BOARD OF REGENTS, NATIONAL LIBRARY OF MEDICINE

Bean, William B., M.D. (1969)
 Professor and Chairman
 Department of Internal Medicine
 State University of Iowa
 College of Medicine
 Iowa City, Iowa 52241

Woodhall, Barnes, M.D. (1968)
 Vice Provost
 Duke University Medical Center
 Durham, North Carolina 27706

Ex officio members

Dixon, Russell A., M.S.D. (1967)
 Dean, College of Dentistry
 Howard University
 Washington, D. C. 20001

Bohannon, R.L., Lt. General, M.C.
 The Surgeon General
 Department of Air Force
 Washington, D. C. 20333

Fussler, Herman H., Ph.D. (1967)
 Director
 University of Chicago Library
 Chicago, Illinois 60637

Brown, Robert B., Vice Admiral, M.C.
 The Surgeon General
 Department of Navy
 Washington, D. C. 20390

Gellhorn, Alfred A., M.D. (1966)
 Professor of Internal Medicine
 College of Physicians & Surgeons
 Columbia University
 New York, New York 10032

Carlson, Harve J., D.P.H.
 Division Director for Biological
 and Medical Sciences
 National Science Foundation
 Washington, D. C. 20550

Harkins, Henry N., M.D. (1966)
 Professor and Chairman
 Department of Surgery
 University of Washington
 Seattle, Washington 98105

Engle, H. Martin, M.D.
 Chief Medical Director
 The Veterans Administration
 Washington, D. C. 20420

Hubbard, William N., Jr., M.D. (1967)
 (Chairman)
 Dean, Univ. of Michigan Med. School
 M 7324 Medical Science Building
 Ann Arbor, Michigan 48104

Heaton, L.D., Lt. General, M.C.
 The Surgeon General
 Department of Army
 Washington, D.C. 20315

McDermott, Walsh, M.D. (1968)
 Professor and Chairman
 Department of Public Health &
 Preventive Medicine
 Cornell Univ. Medical Center
 New York, New York 10021

Mumford, L. Quincy, LL.D.
 The Librarian of Congress
 Washington, D. C. 20540

Tager, Morris, M.D. (1968)
 Professor and Chairman
 Department of Microbiology
 Emory University
 Atlanta, Georgia 30322

Stewart, William H., M.D.
 The Surgeon General
 U.S. Public Health Service
 Department of Health, Education
 and Welfare
 9000 Rockville Pike
 Bethesda, Maryland 20014

Executive Secretary

Wolf, Stewart G., Jr., M.D. (1969)
 Professor and Chairman
 Department of Medicine
 University of Oklahoma
 School of Medicine
 Oklahoma City, Oklahoma 73104

Cummings, Martin M., M.D.
 Director
 National Library of Medicine

June 1966

BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

Meeting of November 5, 1962
Bethesda, Maryland
9:30 a.m.

A G E N D A

1. Review of Fiscal Year 1962 activities
2. The prospect for Fiscal Year 1963
 - a. MEDLARS status and progress
 - b. Space reallocations
3. Extramural programs
 - a. What NLM is doing in the Translation and Publications area
 - b. Pressures and trends on the Washington scene in the field of "communications"
 - c. Why the communications problem is complicated; or, some ways of cutting the communications pie
 - d. Discussion of the issues to be raised at the Surgeon General's Conference on Communication

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE FIRST MEETING, FY 1963

Bethesda, Maryland - November 5, 1962

Members present: BRILL, CARLSON, GELLHORN, HARKINS, HINE, JARCHO, KENNEY,
MIDDLETON, MUMFORD, STECHER, TERRY, VALK, VAN DELLEN, WELLS

Members absent: HEATON, HUSSEY, NIESS

The Chairman, DR. WELLS, called the meeting to order at 9:30 a.m. and welcomed DRS. GELLHORN and HARKINS as new members of the Board.

REVIEW OF LIBRARY ACTIVITIES

Building. The Director of the Library commented on the moving of the collections and the planting of the Hippocrates plane tree, and mentioned that 377 omissions and deficiencies in the construction of the new building had been reduced to 37 in six months. Two major deficiencies remain to be corrected - the non-functioning of the system of fire protection for the History of Medicine area, and installation of the ceramic mural in the Public Catalog area.

Publications. An important publication recently issued is Biomedical Serials, 1950-1960. Mr. Kurth's Survey of the Interlibrary Loan Operation of the National Library of Medicine contains useful data for all medical libraries. The Library's Annual Report for FY 1962 was published and its statistics show an increase in all service functions; this increase has continued in the four months of FY 1963.

Personnel. Since the Library is now open to the public until 9 p.m. each weekday and until 5 p.m. on Saturday, with four hours of public service on Sunday (2-6 p.m.), the reader load is increasing and causing severe staffing problems. From an all-time low of 198 on duty in March, the staff has grown to 225, of which about 30% are persons who were appointed since the move to Bethesda in April. In the current fiscal year 250 positions are authorized, with 244 as the maximum end-of-year strength.

The increase in pay for Federal Civil Service employees became effective in October, with another pay raise scheduled to become effective in January 1964. Although the pay increase is welcome and desirable, it has complicated the staffing problem because the additional money for salaries must be found within the current year budget, and the President has directed that the pay increase be absorbed by a 3% cut in the level of employment. The amount required to meet the increase in salaries is about \$55,000 in the current year, of which \$40,000 will be available through lapses. The Library has requested exemption from the 3% cut in personnel strength; in the event the request is not granted the Library will apply the 3% cut against end-of-year strength, reducing it to 237. Meanwhile, the authorized strength of

each of the operating divisions of the Library and the Office of the Director has been reduced, except for the Bibliographic Services Division, which is responsible for production of Index Medicus and for the MEDLARS program. Here the demands of these important programs cannot tolerate the reduction of more than two positions below the projected end-of-year strength for this division.

MEDLARS STATUS AND PROGRESS

The MEDLARS project is coming along well and is now far advanced. Bids for construction of the site for the project will be opened in November and the successful contractor should begin the modification in December and complete it in March, in time to receive the machines. Reallocation of space will be required to accommodate the MEDLARS project and its personnel.

A data-processing manager has been employed and the chief programmer is on duty. Some of the programs have been written and are being tested on a computer at the Army Map Service. Two members of the staff have been trained as programmers and are working full-time on the programming and testing.

Conversion to the MEDLARS system of indexing began today for the January issue of Index Medicus. The year 1963 will be a year of transition to the full MEDLARS system scheduled to begin in 1964. Three conversion typewriters are being purchased to convert this year's store of data for MEDLARS to the form acceptable to the computer.

The contract for Phase III, scheduled for September, has not been completed and is awaiting a statement of findings and determination now in the Secretary's office for signature. When this is released, negotiations will begin with the General Electric Company. The delay is causing some difficulties, the major one being that a firm order for the Honeywell-800 computer cannot be placed, although it is now under construction and being held for MEDLARS.

Meanwhile, Phase II is in progress and the provisions of this contract, signed last June, are being carried out on schedule. Photon, a subcontractor, is building GRACE, the special-purpose graphic arts composing equipment.

The General Electric Company has been asked to study and report on the secondary objectives of MEDLARS. These were in the original specifications as something to be considered at a later time, but pressures have continued to mount, and it is particularly important to explore further the possibility of decentralized search centers using MEDLARS tapes. More information on this is needed, and it would be helpful to set up several demonstration centers to receive MEDLARS tapes and conduct searches on demand. Conversion of the tapes to make them compatible with other machines might cost \$125 per tape, in addition to the reprogramming required.

The compilation of the record is the most expensive part of the MEDLARS system; this task can be done most efficiently on a centralized basis. NLM will compile the record, and from it will run off recurring bibliographies covering the special interests of broad user groups. The tapes could be replicated and sent to other libraries, where they would be processed so as to check off those items in the local collections. These libraries could store in machine memory a record of the individual interests of members of the

medical center staff; when tapes are received from MEDLARS they could be run against those interests, printed out (with a mark to indicate what is locally available), and turned over to the individual scientists concerned. It is estimated that five years will be needed to develop full use of the MEDLARS system by other libraries.

The depth of indexing in the new system is about five times greater than in the old, and two types of assigned "tags" are designated. One type will print in Index Medicus; the other type will not print in Index Medicus but will be stored in the machine and available as additional access points for demand searches. Criteria will be developed for determining the extent of these demand searches as to time period, languages, etc.

The massive job of overhauling the subject heading system in preparation for MEDLARS has been completed and the indexers are now being oriented in the new system. Subheadings have been eliminated in the 1963 Index Medicus.

The General Electric Company has prepared "The MEDLARS Story" which will be available in early spring, and copies will be distributed. A two-day symposium on MEDLARS will be held sometime in the spring for about 100 persons, including the librarians of the country's medical schools, to explain what the system may mean to them and their operations. All machines except GRACE should be in place at the time of the symposium; GRACE is expected in May.

(At this point Dr. Terry was excused and left the meeting.)

In reply to a question from DR. GELLHORN, Dr. Rogers explained that replication of tapes could begin about two years from now and probably could be farmed out on a service basis. An entire year's store of the compressed citation file can be filed on six or eight tapes, or about one tape for every two months. The centralized search locations cannot wait two months for the filled tape; it must be sent to them each week, and since the magnetic tape cannot be spliced, the whole tape must be sent out. An alternative would be the transmission of the compressed citation file to the local centers by Dataphone. To DR. CARLSON's question about duplicating and storing the tapes, Dr. Rogers answered that two sets will be made - one for use and one as "insurance" in event of damage or loss of the working set.

DR. KENNEY inquired if MEDLARS had been accepted by the Department of Health, Education, and Welfare as a long-range project and would not be in jeopardy from year to year. Dr. Rogers replied that when negotiations for the Phase II contract were in progress it was pointed out that Phase II would be useless unless the project was continued into Phase III.

EXTRAMURAL PROGRAM

Mr. Scott Adams explained the reasons for abandonment of support for cover-to-cover translation of journals, and announced that on June 20 a contract was signed with the Federation of American Societies for Experimental Biology for the screening of abstracts and the publication of selected translated articles in a supplement to Federation Proceedings, a publication which is distributed to about 7,000 members of the federated societies and 4,500 non-members, including libraries.

The Extramural Program is supporting the distribution of the medical report series from Fordham University's Institute for Contemporary Russian Studies (ICRS). There are plans to revise the directory of Soviet biological research institutes, but the program for publication support is moving slowly. The Surgeon General has approved the establishment of an advisory committee on scientific publication, which will be a group of about fifteen people, including four librarians. Public Health Service will be represented on the Committee by ex-officio members. Invitations will be sent out to the prospective members soon, and the committee should be prepared to review those applications for publication support submitted by March 1, 1963, and make recommendations to the Councils concerned before their June meetings.

The categories of publication support grants managed by NLM are likely to be in the direction of secondary publication devices (indexing and abstracting services) and experimental types and forms of publication.

The delay in getting the Extramural Program into full operation stems from the lack of statutory authority. It was originally assumed that Section 301 of the Public Health Service Act constituted adequate authority; it was cited in the appropriation language as authority to make grants in the area of translations. The General Counsel of the Department of Health, Education, and Welfare has questioned the Surgeon General's authority to give grants in support of publication under the Act; at the same time the National Institutes of Health have been overhauling all their grant-making mechanisms and regulations. The question of authority is under adjudication. It may become necessary to apply for new legislative authority which the Service needs to provide support for scientific publication.

In reply to a question from DR. BRILL about the demand for support for primary publication, Mr. Adams stated that the National Institutes of Health are currently supporting about 131 grants, a large number of which are for monographic material. There is no common policy or agreement among the several Institutes as to what they should, or should not, support.

PRESSURES AND TRENDS IN "COMMUNICATIONS"

The Director described the development of interest in Washington in the field of communications and the pressure from members of the Congress, from the President's Office of Science and Technology, and from other directions to provide and promote communications in the dissemination of scientific knowledge. The Crawford Panel of the Office of Science and Technology has prepared a report on its study of communications, but the report has not been publicly released. Another group, the Weinberg Committee, has been studying centralized vs. decentralized systems of communication and will make its report to the same office.

The National Science Foundation has contracted with Arthur D. Little and Company for a study of the organization of communications services in the United States and has submitted a preliminary report. The National Federation of Science Abstracting and Indexing Services has a contract with Robert Heller Associates of Cleveland for a study limited to members of the Federation on how the member organizations might be better interdigitated. This report is expected in the spring.

For some years the Subcommittee on Reorganization and International Organizations of the Senate Committee on Government Operations, under Senator Humphrey, has been interested in the field of communication of scientific information. Lately this interest has centered on biomedical information and, stimulated by the thalidomide incident of last summer, particularly on drug information aspects of the communication problem. Beginning in August a series of hearings were held; the Director was asked to be present at the first of these. At a large hearing in September Chairman WELLS was present and DRS. TERRY and MUMFORD were asked to state what they propose to do about the Subcommittee's earlier suggestions. DR. MUMFORD made a statement to the Subcommittee regarding cooperation between the Library of Congress, the National Agricultural Library, and the National Library of Medicine. DR. TERRY stated that last spring he had called for a conference on medical communications and had appointed Dr. F. Ellis Kelsey as coordinator of plans.

The Conference on Health Communications begins today at Airlie Farms in Warrenton, Virginia, and will attempt to establish the posture of the Public Health Service on health communications based on proposals from within the Service. A special report for the Surgeon General was prepared by the Library for this Conference and several documents have been supplied, including the report of the survey of NLM's interlibrary loan operations and the report of a study on the state of medical school libraries in the United States, prepared by Harold Bloomquist of Harvard Medical Library. Copies of a paper by Mr. Adams on the state of medical school libraries, presented at this year's meeting of the Association of American Medical Colleges, were also furnished for the Conference.

DR. MUMFORD reported that a survey group headed by Dr. Gilbert King of IBM is studying the possibilities of automation at the Library of Congress, and stated that the Washington atmosphere is charged with the problem of rapid communication of information and its storage and retrieval. The Library of Congress will establish a National Science Referral Center as a link in the information system, where questions will be received and referred to the precise source of the information requested.

In the discussion DR. BRILL asked if there is danger of "input overload" on people who request information which would have a negative effect on the effort to provide scientific data. DR. JARCHO commented that physicians have little time to read and many scientists may face the same shortage of time for their reading. Dr. Rogers explained that the effort is directed more toward sharpening the aim of bibliographical effort, and pinpointing those segments of scientific information which are pertinent to particular problems, rather than to increasing the amount of information in communication channels.

To express the semantic confusion underlying the use of the word "communication," Mr. Adams compared it to a three-ring circus with "performances" going on simultaneously in each of them, in which the ends and the means of communication are continually being confused. The "rings" and the separate "acts" might be labeled as follows:

Ring No. 1. SCIENTIST TO SCIENTIST

Conferences and Symposia
 "Invisible Colleges"
 Journals, Indexes, Abstracts
 Libraries
 Machine Storage and Retrieval
 Machine Translation
 Technical Report Systems
 Science Information Evaluation Centers
 International Communication, Translations
 Reviews

Ring No. 2. SCIENTIST TO PRACTITIONER

Medical Television
 Government Communication Program
 Continuing Education
 Universities
 Hospitals
 Programmed Texts
 Medical Radio System
 Journals and Abstracts
 Voluntary Agency Programs
 Libraries

Ring No. 3. SCIENTIST TO PUBLIC

Medical Writers
 Science Writers
 Voluntary Agency Programs
 Government Communication Programs
 Educational Television
 Radio

The background paper for the Surgeon General's Conference on Health Communications contains 21 proposals from various elements of the Public Health Service, six of which came from the Library; they are the proposals for the same extramural program which the Library has been trying to establish for three years, except for the proposal for an experiment with MEDLARS research centers. The others emphasize: 1) education and training of medical librarians and medical documentalists; 2) development of resources of medical libraries generally; 3) international communications (scientific translation program); 4) publication support; 5) library fellowships for senior scientists. The Conference will not be concerned with organizational responsibilities for these programs and others; its principal concern will be the determination of needs and what part the Public Health Service should play in meeting the needs.

DR. JARCHO commented that the local hospital is a place where the practicing physician can most easily find the books and journals for his professional reading; perhaps subsidies to the libraries of community hospitals would be feasible, as well as improvement of medical school libraries.

Another possibility would be the subsidizing of Index Medicus and Annual Reviews to make their cost to the consumer less. Dr. Rogers mentioned that the extension services to practitioners which some medical school libraries are providing might be developed more widely.

DR. BRILL inquired as to the source of the pressure for more and better communications services. DR. WELLS expressed his view that it was generated by the psychological effect of Sputnik some years ago and a belief in some circles that America is somehow deficient. DR. VAN DELLEN observed that general practitioners have probably less than an hour a week for reading; in his view the medical and science writers exert pressure for more to write about. DR. KENNEY stated that practitioners need opportunities to evaluate scientific and laboratory reports and bring the information into their own practices. They have some knowledge of improvements in diagnosis and treatment and the public also is aware of them, and popular demand requires the practitioner to apply these improvements to his own practice, not considering the fact that some research findings do not have an immediate application. DR. VALK expressed his hope that the Conference would recognize the need for adequately trained personnel in medical libraries.

DR. WELLS closed the discussion by saying, "If we can guard against dilution and dissipation and abortion of the central purpose of this national central medical library, it will be one of the most important accomplishments we can bring off."

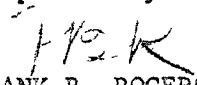
NEXT MEETING OF THE BOARD

It was voted that the next meeting of the Board, primarily to discuss the proposed budget for 1965, would be held on Friday, March 29, 1963.

- - - - -

The meeting of the Board of Regents was declared adjourned by the Chairman at 12:40 p.m.

Respectfully submitted,


FRANK B. ROGERS, M.D.
Secretary to the Board of Regents
National Library of Medicine

BOARD OF REGENTS
NATIONAL LIBRARY OF MEDICINE

A G E N D A
Meeting of March 29, 1963
Bethesda, Maryland - 9:30 a.m.

1. Review of the NLM budget for Fiscal Year 1965
 - 9:30 - a. Comparison with FY 1963 and FY 1964
 - 11:30 b. Detail on increases
 - (1) Personnel
 - (2) Equipment
 - c. Related: rundown on cost of developing MEDLARS

- 11:30 - 2. Visit to the MEDLARS site
- 12:30 (The H-800 computer is in place)

- 12:30 - 1:00 Sandwich LUNCH in Board Room

- 1:00 - 3:30 3. Short term and long term NLM support program prospects
(As background for discussion, members of the Board are referred to the Surgeon General's letter and enclosure of January 15, 1963, to Dr. Wells, Chairman of the Board, and to the following materials which are attached hereto:
 1. Copy of National Advisory Health Council recommendations (sent as enclosure to the Surgeon General's letter to Chairman Wells)
 2. Summary of the Surgeon General's Conference on Health Communications of November 5-8, 1962 (already distributed)
 3. The Weinberg Report, under the title "Science, Communication, and Government")

4. Miscellaneous announcements
 - 3:30 - a. Advisory Committee on Scientific Publications
 - 4:00 b. Second International Congress on Medical Librarianship
 - c. MEDLARS Symposium, April 4-5
 - d. Other

Adjournment by 4 p.m. anticipated

Attachments

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE SECOND MEETING, FY 1963

Bethesda, Maryland
March 29, 1963

Members present: BRILL, CARLSON, GELLHORN, HARKINS, HINE, HUSSEY,
JARCHO, MUMFORD, VALK, WELLS

Members absent: HEATON, NIESS, STECHER, VAN DELLEN

(Dr. Donald V. BROWN represented the Veterans Administration; Dr. Malcolm W. ARNOLD represented Admiral KENNEY; Dr. James M. HUNDLEY represented Dr. TERRY at the afternoon session. Dr. MUMFORD was present only at the morning session. Dr. ROGERS and Mr. ADAMS of the NLM staff were present.)

The Chairman, Dr. WELLS, convened the meeting at 9:30 a.m.

Review of Recent Publications

Copies of the 1962 Cumulated Index Medicus were exhibited, along with the first three issues of Index Medicus for 1963. Copies of The MEDLARS Story and the new Library brochure were distributed. Attention was called to the new NLM Bibliography of Medical Translations and to the new Translation Supplement to Federation Proceedings, sponsored and underwritten by NLM in lieu of the former cover-to-cover translation of six Russian journals. NLM hopes to expand Translation Supplement to include material from other languages.

Pre-print copies of "The Nature and Magnitude of the Drug Literature," produced by NLM for Senator Humphrey's Subcommittee on Reorganization and International Organizations of the Senate Committee on Government Operations, were also made available.

A mimeographed publication entitled "The National Library of Medicine and the Library Component in Communication," produced by NLM as background material for the forthcoming hearings before the House Committee on Interstate and Foreign Commerce (Harris-Roberts), was also distributed. It was noted that for the present this publication must be regarded as a privileged communication.

Building Matters

The MEDLARS computer site is now completed, and the H-800 computer has been installed and is in operation. New blocks of offices on the mezzanine, a reverberation from the computer installation, are now being erected.

The ceramic tile mural by Frans Wildenhain has been delivered to the Library; a contract for its installation will now be let. Representative Gross of Iowa has made inquiry concerning the cost and authorization for the mural; presumably he is disturbed about its non-representational character.

Cutting of the Library access road into the NIH road network should be resumed next week.

The hazardous condition of the ceiling in the History of Medicine Division reading room has been corrected.

The contractor has entered some claims for extra payments, and these are still to be processed. At the present time the best cost figure for total construction, architect's fees, furnishings, etc. is \$6,800,000.

Maintenance of the building - char force, guards, electricity, upkeep of grounds, elevator repairs, etc. - is now running at a rate of about \$380,000 per year. It is estimated that it would cost about \$1 million to rent space of comparable quality in this area.

Budget

Charts on budget plans were distributed (attached). The Library has had its House hearings and will have its Senate hearings next week on the FY 1964 appropriation (year beginning 1 July 1963). The main topic to be discussed at this meeting is the FY 1965 budget for NLM, which must be submitted to the Surgeon General next week.

The tables show the distribution of personnel and dollars for FY 1963 (current year), FY 1964, and FY 1965. The budget for FY 1965 is especially significant, in that it represents a year which is likely to be more of a "base-line" year, without extraordinary one-time expenses, than any previous year.

On the chart entitled "Comparison of Program Costs" it will be seen that the large area of decrease was due to the purchase of the computer with FY 1964 funds. At the same time the staff of the Bibliographic Services Division, which is responsible for the operation of MEDLARS, is being increased from 46 (1963) to 72 (1964) to 80 (1965).

The largest increase is accounted for in the Extramural Program; this consists mainly of two items: \$420,000 for MEDLARS demonstration centers, and \$60,000 for a fellowship program.

MEDLARS Centers

There was extended discussion of the MEDLARS centers to be set up on a demonstration basis. Two centers are contemplated, to be brought into being by January 1, 1965. The purpose of these demonstrations is twofold: to bring to the attention of the medical world the enormous potential inherent in a decentralized MEDLARS operation, and to gain for the Library some practical experience in dealing with the complexities of conversion problems, reprogramming needs, and the economics of local computer operations. It is thought that one of the demonstrations might be mounted in a locale which has Honeywell equipment (either H-400 or H-800) available, but that one demonstration must be mounted in a situation in which equipment of another manufacturer is utilized, and where computer time is available from an existing university computer center. Only with some diversity in the nature of these field trials can NLM hope to obtain the kind of data needed before wider dispersion of MEDLARS can be adequately planned.

Fellowships

The purpose of the fellowship program is to assist qualified senior scientists and scholars in research in the published literature through exploitation of the unparalleled richness of the NLM collections, thereby encouraging the preparation and publication of analyses, critical reviews, treatises, and bibliographies of significance to the national research effort. The essential feature of the NLM fellowship program is that the Fellows would work at the National Library of Medicine. The amount of money asked for would allow four man-years of fellowship activity, although this would undoubtedly be distributed into a larger number of smaller parcels.

Internships

A discussion of the personnel pattern in the Office of the Director brought out the fact that plans were being made to bring three more interns to NLM during FY 1964 (they will report on September 1, 1963), but that for FY 1965 the ~~intern~~ships were to be dropped and the slots redistributed to other functions. The Library had never been able to justify and budget for the internships, but had taken these positions out of its own hide.

The Director stated that the coming intern group would be the seventh since the program was begun in 1956. At that time the NLM was the only institution in which medical library internships were being offered; since then two other programs have begun, at UCLA and at Emory, and these programs are continuing, supported by PHS funds. If the extramural programs of NLM could get off the ground, it would be reasonable for NLM to take over the support of the existing intern programs and to encourage additional programs, perhaps along somewhat different and experimental lines, such as that recently proposed by the University of Tennessee.

The NLM must also devote increased attention to training in the MEDLARS area if decentralization is to proceed expeditiously.

In this situation, the management of the Library believes that the NLM internship program (intramural) should be brought to an end at the conclusion of FY 1964.

Dr. MUMFORD discussed the operation of the recruitment program at the Library of Congress, and its similar problems. LC has long since discontinued calling its program an internship and now operates on the basis of initial rotating assignments for new library school graduates recruited for the LC staff.

Dr. CARLSON felt that the door should be left open, at least, for allowing selected individuals to come to NLM for periods of a few weeks to observe and participate in NLM operations. This kind of liaison with practicing medical librarians is very important. Dr. ROGERS said that this sort of activity has been going on at NLM, and there is no reason why it should not be continued.

On a motion by Dr. HUSSEY, seconded by Dr. HINE, the Board voted to endorse the NLM position on discontinuance of internships at NLM beginning in FY 1965.

Further on the FY 1965 Budget

The Director pointed out that with the Library now open 75 hours each week, the number of people who use the Library in person is up 80% over one year ago, the number of requests they make is up 20%, and the number of interlibrary loan requests is also up 20%. With these increases in the service load, and with the mounting pressures of the MEDLARS program, it is evident that increases in staff must be made. It is interesting to note that at no time during the last thirteen years has the Library enjoyed a staffing level as high as that which obtained during 1950, at the beginning of the present Director's term. The Library has pursued the course of "micromanagement" for as long as it has been useful; there is now no question but that the vastly increased activities and services of the Library demand an increase in personnel. The level of 285 projected for FY 1965 seems essentially modest, compared to the level of 237 which is today's ceiling, and the 268 anticipated in FY 1964.

Charts (attached) were distributed showing the cost of procurement of the computer system for MEDLARS, and the cost of making the MEDLARS system operational - in round figures, about \$3 million.

The Director pointed out that in FY 1965 the NLM Extramural Program would have \$577,000 available for programming in the translation support area. If we add all the EMP areas together:

Program staff costs	ca. \$100,000
Translation support	577,000
MEDLARS demonstrations	420,000
Fellowships	60,000
Foreign currencies	831,000

we have an Extramural Program approaching \$2 million in FY 1965. The staff of 12 persons allotted to manage this program is barely sufficient.

Dr. BRILL moved, and Dr. HARKINS seconded the motion, to approve the FY 1965 budget plan. Following additional discussion and clarification of some points, the Board unanimously voted approval.

* * * * *

At 11:45 a.m. the meeting was recessed for an inspection visit to MEDLARS, followed by lunch in the Board Room. The meeting reconvened at 1:10 p.m.

* * * * *

In opening the afternoon session the CHAIRMAN introduced Dr. James M. HUNDLEY, Assistant Surgeon General of the Public Health Service.

After some preliminary remarks, Dr. HUNDLEY announced to the Board that Dr. ROGERS was planning to retire from the Library and from the Public Health Service at the end of August. He spoke of "the feeling of loss that the development brings."

Dr. ROGERS mentioned briefly some family problems which had precipitated this move.

After discussion, the Board approved a resolution stating its "very great sense of loss at Dr. Rogers' impending departure, and its very deep gratitude for what he has accomplished."

Dr. HUNDLEY raised the question of whether the new Director of the Library should be a commissioned officer and/or a physician. The CHAIRMAN, Dr. JARCHO, Dr. BRILL, Dr. HARKINS, Dr. HINE, Dr. VALK, and Dr. ROGERS joined in the discussion. The consensus emerged that while it was not necessary for the Director to be a commissioned officer, it was almost certainly a requirement that he be a physician. There was a discussion of the "bookman vs. administrator" issue. While it is desirable to have somebody with interests in both fields, Dr. HINE and Dr. ROGERS emphasized the desirability of choosing someone with known managerial talents.

Dr. HUNDLEY suggested that the CHAIRMAN might wish to appoint a small committee of the Board to assist the Surgeon General in evaluating candidates. /The CHAIRMAN subsequently appointed a committee consisting of Dr. VALK (Chairman), Dr. BRILL, and Dr. JARCHO, with Dr. WELLS serving ex-officio./

NLM Support Program Prospects

The CHAIRMAN then asked Dr. HUNDLEY to address himself to the third item on the agenda.

Dr. HUNDLEY: "We have been attempting to identify and to separate out and then to specifically assign to the different organizational units within the Public Health Service those aspects of the overall communications problem for which they should take immediate responsibility. The mechanism that we were using to achieve this was a more or less standard one in Government of defining an organization in management terms. Perhaps I might just read to you the proposed assignment to the National Library of Medicine and its Extramural Program. It is not too long a paragraph, and it reads as follows:

"The NLM in its Extramural Program will be responsible for planning, directing, and implementing, through contracts, grants, and fellowships, Library-based national extramural programs for the appraisal, improvement, and support of communication of medical, health, and related scientific information to biomedical researchers and health practitioners; developing and supporting methods and facilities for the collection, organization, and dissemination of printed-word communications; strengthening and servicing the collections, services, and staffs of biomedical and related research libraries as primary information sources; developing regional and local library resources, utilizing conventional and machine retrieval systems; supporting and developing and facilitating better coordination of systems of primary and secondary publication forms; encouraging productive scholarship through library fellowships; improving international scientific communications through translations and related activities; supporting related education, training, research, and development of medical communications.

"This includes provision of technical advice and assistance to PHS programs, including cooperation in a common technical review function for publication grant proposals. In carrying out these functions, the staff works closely with the National Institutes of Health and other concerned bureaus and offices to facilitate awareness of their medical communication needs and interests, and coordination of related and parallel activities throughout the Service.

"There were at the same time comparable descriptions of program area responsibilities, particularly in NIH, which is the closest interface and area of possible duplication and overlap.

"These were developed, and at this point our legal staff told us that not all but a good part - perhaps most - of what we were proposing to assign to NIM was not legal; that we just did not have a legal base for a lot of this. Some of this, of course, we were fully aware of. What we were not aware of were what appeared to be the really wide gaps in our legal authorities.

"The second line that we have been following is the legislative line. ... In view of the somewhat unexpected developments as to the adequacy of our legal base, and the fact that this inadequacy is not just with respect to what the National Library wants to do but with respect to many things the National Institutes of Health is doing or wants to do, and other parts of the Service want to do, this of course raised the necessity for legislation on a much broader base than we had been considering, and not just in connection with the NIM Extramural Program.

"What we are doing right at the precise moment is collecting from the Library, from NIH, from all parts of the Service the things that they want to do within their programs in the whole scientific communications field, whether it is research, development, technical assistance, or whatever it may be. These are now in the hands of our General Counsel, and he is in process, item by item, of identifying where we do have authority, where we don't have authority, or where our authority is not clear. And he is doing this with respect to direct operations, contract operations, and grant operations.

"The fundamental difficulty here is that the Service, under the legislative acts that govern and authorize what it does, has extremely broad authority to do most anything in the health and biomedical field, so long as it does it itself. Our basic authorities are authorities for the Service to do things. This we call our intramural operations, to characterize it roughly.

"The other major way we do business, of course, is through grants, through the making of money available to outside groups and organizations to do certain types of work. Here our authority is much, much more restrictive.

"And as far as publications or communications are concerned, so long as whatever we were doing was to communicate those results that were coming out of the program that was being supported, again we can do almost anything through grants, or intramurally, or what not.

"I am making a distinction between a categorical authority, disease-related, and simply health-related. When it is simply health-related, if we do it ourselves, fine; but through grants it is very restricted.

"When you come to contracts, which can be used to support things outside the Service, you are in what we think of as a grey area. We can and do use contracts to support outside activities that we cannot support through grants. But this is based not on clear legal authority, because I don't think the use of contracts is mentioned specifically in any legislative authority that we have; it is simply based on a legal interpretation that a contract mechanism constitutes an extension of what we do ourselves.

"In any event, our general plan is that we will send up, hopefully at this session of Congress, a comprehensive scientific communications package which will include the NLM Extramural Program and perhaps some things they did not have in the NLM Extramural Program, because we want to go for as broad a legislative base as we can, anticipating the fact that you can't see today all of the things that you are going to want to do tomorrow, nor all of the ways in which you are going to have to do them.

"You may have noticed that the President, in his Health Message, did take note of the fact that our legislative authority may not be adequate to do what we need to do, and that, if this was the case, a proposal would be forthcoming. If we get a bill introduced at this session of Congress, then I would be quite optimistic that at the next session of Congress we would get favorable action."

Dr. HUNDLEY added that, in another area, concerned mainly with matters of PHS reorganization, the Harris-Roberts Committee (House Committee on Interstate and Foreign Commerce) was planning to hold hearings on April 23-26.

Dr. HUNDLEY said that "so far as the Surgeon General and the Service is concerned, we are fully committed to the Library having an extramural program; it has our full and complete endorsement. But when you come to the problem of what should be in that program, you begin to run into difficulties. Many things that the Library proposes to do are perfectly clear and non-controversial; there are some other things that are not so clear. One of these is what the Library or other parts of the Service should do with respect to providing Federal funds for the construction and renovation of library facilities. We already have two programs through which some of this need could be met... the Health Research Facilities Construction Program that NIH runs ... and the Hill-Burton Program. ... A third, now before the Congress, is H.R. 12, the Health Professions Educational Assistance Act...

"Another aspect of this that bothers us a good deal is whether we should have a program of providing operational support to medical libraries. We have had some rather strong recommendations on this subject in the National Advisory Health Council... But we have considerable doubt as to how these needs can best be met."

Dr. HUSSEY commented that he felt that library support needs had to be considered in an entirely separate category from the needs for animal care facilities, instrument shops, and the like, which can be revenue-producing and largely self-supporting. "No matter how you look at the

medical center environment, the library sticks out like a sore thumb; there is something unique about it."

Dr. GELLHORN, Dr. CARLSON, and Dr. HUNDLEY spoke to the question of the use of indirect costs in research grants for library purposes. Dr. HUSSEY spoke of the desirability of getting the Liaison Committee which accredits medical schools to take a new hard look at the question of medical library support. Mention was made of the provisions in H.R. 3000, the Aid to Education bill, for direct support of research libraries on a matching basis.

Dr. HUNDLEY: "The elements of the proposed NLM extramural program are well known to this group. I don't myself know of any other aspects of it that are still controversial or unresolved in our own minds as these two items are on operating subsidies and construction."

Dr. ROGERS: "Let me make some summary observations on this situation. As to the construction of library facilities, my own position, which I have tried to forward in all the councils of the Public Health Service, has been that we must have funds for the construction of library facilities, but that I do not consider that this is a program which the National Library of Medicine must manage, or that it is a program which should be ours.

"It seems to me I have gone along with the idea from the beginning that if you have a health research facilities construction program, if you have a Hill-Burton construction program, if you have an educational facilities construction program, then it doesn't make sense managerially to ask for a fourth program that deals specifically with the construction of libraries. You ought to be able to do, within those programs, what needs to be done in the construction of library facilities.

"The function of this Library should be to see that the necessity of support for library facility construction is not lost sight of. And it should be to lend its advice and help to these other programs as library facility construction activities may be undertaken. That is my feeling there.

"This morning when we went over the 1965 budget, which won't hit the Surgeon General's desk until next week, there are two items included in our 1965 budget proposal which have a connection to the extramural programs, and which we have been proposing for a long time. Both of these are very closely library-related, and for at least one of them, there is no controversy, I don't believe, as to whether authority exists for its prosecution.

"This one is the one that has the largest amount of money in it - the MEDLARS demonstration projects in the field, the first attempt to try to gain information from field pilot projects to show us what sort of problem is going to come up as we try to move further. This is something that we conceive of as an extramural project. It could be done by contract. I think that the authorization for it in the National Library of Medicine Act is clear. I don't think that there would be any problem about that.

"The other area that we went over in the 1965 budget is the area of library fellowships. Now, the authority for this is equivocal. I wouldn't say that it is absolutely one way or another; I would say it is equivocal.

"We have put in the budget \$60,000 for a modest beginning in library fellowships. In this area we have tried to remember that when we speak of fellowships there is one very large and significant difference between the kind of fellowships we are talking about and the kind that are ordinarily talked about, which other elements of the Service are now supporting. The difference is that when we are talking about our fellowships we are talking about bringing people to this institution to work here and to exploit the collections of this institution, rather than supporting them here, there, and everywhere to do this sort or that sort of job. Here the authority is perhaps grey in the area of Art. 301 of the Public Health Service Act, and to implement this it might be necessary, at the least, if the new legislation that you talk about is not available in time, to try to change our appropriation language by deleting the one phrase that now exists there.

"So here are encompassed three elements of the extramural program we are proposing. What are the other areas?

"We have proposed programs of library support, which is the thing we have spent most of our time talking about this afternoon.

"Once we put these MEDLARS centers in the field, once these things really get going, the demands on the local libraries are going to be tremendous. Nothing that they have seen so far is going to prepare them for the kinds of demands that are going to be made on them then; somebody must try to get these libraries and their collections in shape to meet these demands.

"It doesn't make any sense to have a magnificent system like MEDLARS available and then to have little inadequate collections of materials on which to draw. It is like building a great 300-foot high concrete hydro-electric dam and then having a little fellow with a wooden plow down on the other side of the dam plowing his field. Or it is like having a xerography machine for interlibrary loans that turns out marvelous black-and-white copy at the rate of 20 feet a minute, and then having as the next process a little girl who sits there with a hand chopper and chops these pages off one by one.

"If we put MEDLARS out into the field and it is used the way it should be used and the demands start to pour into these libraries, they are going to be up against it. They have got to have better collections and more people and better trained people in order to handle these collections, or it doesn't make any sense. As Mr. Adams likes to describe it, it is like having a turbo-fan motor in a Model-T chassis. Something's got to be done about that chassis; it won't carry that turbo-fan motor. The whole machine will go to pieces within a couple of miles if you try to make it carry that turbo-fan motor. So what we are talking about is this area of library support - support for making decent collections of material out there and of getting it taken care of properly.

"The second remaining area is the area of education and training. If this job is going to be done, there are going to have to be more people and there have to be better people. The Bloomquist report of last fall, which this Library contracted for, shows that there are a total today of 326 professionally trained librarians for the entire university medical school complex of the United States. Now, there isn't much

you will be able to do unless you can increase these 326 people - unless you can offer training opportunities to bring more people into this field, and unless you can update the talents of the people who are already in the field.

"Think of the problems that we face now, just trying to get medical librarians familiar with what this central MEDLARS establishment means to them and what they can ask of it and how they are going to have to ask it. There is a wide-open field here for education and training of medical librarians and medical documentalists. They are auxiliary workers in the medical vineyard, and physicians ought to understand that they are medical auxiliaries and just as important to their work as the nurses are and the medical technicians are, and they ought to try to raise these people up so they can do their jobs better and help them more.

"The third area is the area of research into all the mechanisms and methodologies that might be used to improve these very complicated processes and the handling of these millions of pieces of paper. We ought to be supporting inquiries into the possibilities that exist here.

"The only remaining area that the Library is talking about in the extramural support program is the one that is now active in part. We are talking about a program of publication support, and the only area in that in which we are now working is the area of translations. We want to extend that program to support of publications generally; and generally here we are talking about secondary publications, abstracting and indexing tools, review mechanisms, bibliographies - that sort of thing.

"Now that is the program which this Library is recommending and trying to forward in this extramural field. We think that the Library facilities construction business can be dealt with under the three existing or about-to-exist programs in this area. What we need is something in the field of library support and something in the field of library education and training, and something in the field of research into medical documentation practices. If we had these as a package, believe me, a giant step forward would have been taken in trying to improve the medical library situation in the United States."

In the ensuing discussion of these matters, reference was made to the referral of the statement of the National Advisory Health Council to the Board. Dr. GELLHORN felt strongly that the Board should formally communicate its position on these questions to the Surgeon General.

Dr. JARCHO and Dr. HUSSEY spoke of the deficiencies in hospital libraries, of both the teaching and the community type. Dr. HINE spoke up in the interest of dental libraries. It was generally agreed that the National Advisory Health Council was using "medical library" in a generic sense.

Dr. GELLHORN moved that a small committee of the Board be created to formulate a statement that would express the position of the Board in support of the extramural program concepts presented by the Library management, and which would be transmitted formally to the Surgeon General. After seconding by Dr. HARKINS, the motion was carried. The CHAIRMAN subsequently appointed a committee consisting of Dr. GELLHORN (Chairman), Dr. HARKINS, Dr. HUSSEY, and Dr. WELLS (ex-officio) to carry out this mandate. 7

Advisory Committee on Scientific Publications

Mr. ADAMS discussed the role of the NLM Advisory Committee on Publications, which is intended as a sort of study section for the purpose of reviewing contextual or technical aspects of proposals made to any part of the PHS for the support of publications. The Committee held its first meeting at the Library on February 11, and the Chairman of the Board of Regents was present.

Other Items

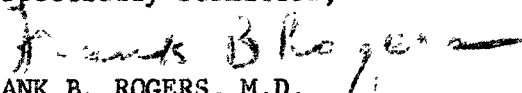
Dr. ROGERS described briefly the plans for the Second International Congress on Medical Librarianship, to be held in Washington, June 16-22, 1963, under the auspices of the Medical Library Association. He also described the forthcoming MEDLARS Symposium, to be held at the Library on April 4-5 for 100 librarians coming chiefly from the medical schools.

The group decided to leave the date for the fall meeting of the Board open.

Dr. HUNDLEY extended to Dr. WELLS, Dr. HINE, and Dr. VAN DELLEN, who will be retiring from the Board this summer, the Surgeon General's "heartfelt thanks for the devotion and the effort and the wisdom you have brought to the Library." Dr. HINE and Dr. WELLS responded.

The meeting was adjourned at 3:45 p.m.

Respectfully submitted,


FRANK B. ROGERS, M.D.
Secretary to the Board of Regents
National Library of Medicine

Attachments

NATIONAL LIBRARY OF MEDICINE

	<u>Pos.</u>	<u>M.Y.</u>	<u>Amount</u>
1963 operating budget.....	243	230	\$3,335,000
1964 budget estimate.....	268	252	4,074,000
1965 preliminary estimate.....	285	269	4,032,000

Major items of increase, FY 65

Deductions:

One less day's pay in 1965.....	-\$ 7,000
Non-recurring MEDLARS equipment costs.....	- 889,000
Total deductions.....	-\$ 896,000

Increases:

Increase in salaries of base positions.....	\$ 63,700
Utilities and other costs of maintaining NLM building...	5,000
Expansion of bibliographic and reference services through MEDLARS.....	90,600
Research fellowship program.....	79,300
Publication support.....	90,900
Decentralized MEDLARS search centers.....	420,000
Graphic image storage and retrieval system.....	40,000
History of Medicine Division.....	15,800
Literature procurement.....	6,000
NLM Catalog, 1960-1964.....	9,800
Public services and preservation of the collections.....	<u>32,900</u>
Total increases.....	+\$854,000
Net change, 1965.....	- 42,000

Comparison of Program Costs, FY 1964 and 1965

	1964	1965	
	Estimate	Estimate	+ or -
Office of the Director.....	\$308,600	\$317,550	+\$8,950
Utilities and Building Maintenance	386,000	391,000	+ 5,000
Extramural Program.....	592,600	1,168,300	+575,700
Technical Services.....	517,800	536,800	+19,000
History of Medicine.....	104,100	135,800	+31,700
Bibliographic Services.....	1,547,700	780,650	- 767,050
Reference Services.....	<u>617,200</u>	<u>701,900</u>	+84,700
Totals.....	\$4,074,000	\$4,032,000	-\$42,000

Foreign currency program

1963 operating budget	\$ 456,000
1964 budget estimate	397,000
1965 preliminary estimate	<u>831,000</u>

Costs of making MEDLARS System Operational

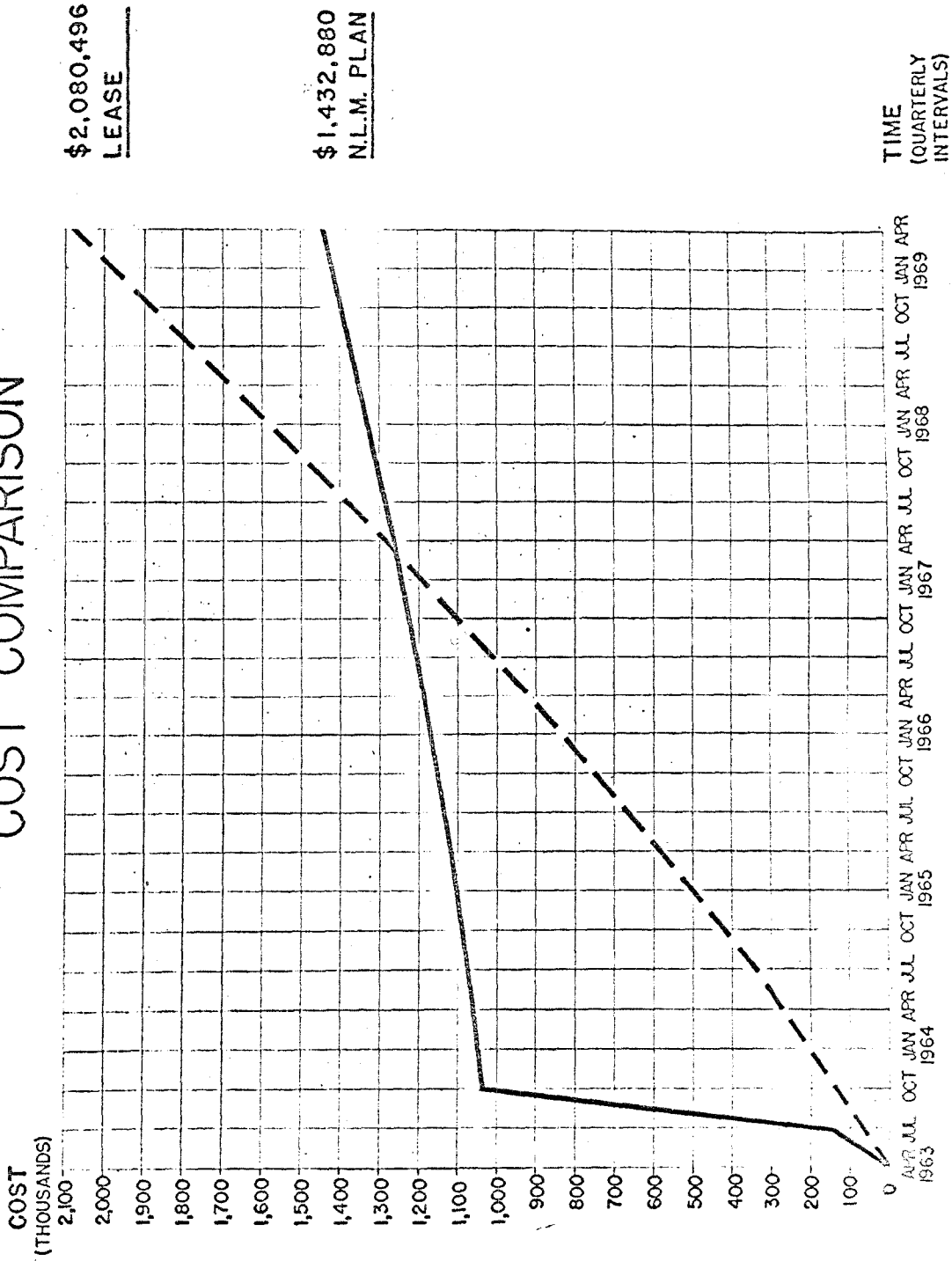
	<u>FY 1962</u>	<u>FY 1963</u>	<u>Total</u>
<u>GE system design</u>	\$ 763,155	\$ 450,996	\$1,214,151
<u>Equipment:</u>	(275,874)	(288,206)	(564,080)
Photon	260,350	74,294	334,644
Frieden (3)	15,524	(10) 38,000	53,524
Film Processor		25,000	25,000
Two Tape Units		86,400	86,400
Maintenance		930	930
Three months' rental	_____	<u>63,582</u>	<u>63,582</u>
	\$1,039,029	\$ 739,202	\$1,778,231
<u>Site preparation</u>			<u>238,000</u>
Total			\$2,016,231
<u>1964 net equipment costs</u>			929,226
<u>1964 supplies</u>			<u>4,000</u>
		Total	\$ 2,949,457

MEDLARS

Application of funds in General Electric Contract

	<u>Total</u>	<u>Photon</u>	<u>Frieden</u>	<u>Film Proceesor</u>	<u>Net to GE</u>
Phase I (Aug. 1961)	\$ 85,000	\$ 85,000
Phase II (June 1962)	954,029	\$260,350	\$15,524	678,155
Phase III (Jan. 1963)	<u>550,290</u>	<u>74,294</u>	<u>-----</u>	<u>\$ 25,000</u>	<u>450,996</u>
Totals	\$1,589,319	\$334,644	\$15,524	\$ 25,000	\$1,214,151

MEDLARS PROCUREMENT COST COMPARISON



\$2,080,496
LEASE

\$1,432,880
N.L.M. PLAN

TIME
(QUARTERLY
INTERVALS)

BOARD OF REGENTS
NATIONAL LIBRARY OF MEDICINE

A G E N D A

Meeting of Friday, December 13, 1963
Bethesda, Maryland - 9:00 a.m.

- 9:00 a.m. - Call to order. Opening remarks
Dr. Luther L. Terry, Surgeon General,
presiding
- Introduction of new Director
 - Election of Chairman
- 10:00 a.m. - Report on MEDLARS
Seymour I. Taine
Chief, Bibliographic Services Division
- 10:20 a.m. - Coffee break
- 10:40 a.m. - MEDLARS demonstration
- 11:15 a.m. - MEDLARS Use Policies*
Scott Adams, Deputy Director
- 12:30 p.m. - Lunch
- 2:00 p.m. - New business
- 2:45 p.m. - Scope and Coverage Review*
Scott Adams, Deputy Director
- 4:00 p.m. - Target for adjournment

*Background paper for this discussion will be mailed
on or about December 1, 1963

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE FIRST MEETING, FY 1964

Bethesda Maryland - December 13, 1963

MORNING SESSION 9 a.m.

Members present: BOHANNON, BRILL, CARLSON, DIXON, FUSSLER, HUBBARD, HUSSEY
JARCHO, KENNEY, McNINCH, MUMFORD, STECHER, TERRY, VALK

Members absent: GELLHORN, HARKINS, HEATON

Guests present: Brig. General C. L. Milburn, Jr., Deputy Surgeon General of
the Army, representing General Heaton; Dr. James M. Hundley,
Assistant Surgeon General for Operations, PHS; members of
the NLM staff: Mr. Scott Adams Mr. Daniel Bailey Dr John
B. Blake, Mr. Leslie K. Falk, Mr. Ray W. Grim Mr. Samuel
Lazerow, Mr. Edward A. Miller, Mr. Seymour I. Taine

Dr. TERRY, chairman pro tempore, called the meeting of the Board of Regents
to order at 9 a.m. He introduced and welcomed General MILBURN and the new
members of the Board, Major General Richard L. BOHANNON, Dr. Russell A. DIXON,
Dr. Herman H. FUSSLER, Dr. William N. HUBBARD Dr. Joseph H. McNINCH.
Dr. HUNDLEY and members of the NLM staff were also introduced.

OPENING REMARKS

Dr. TERRY stated that although the National Library of Medicine has made
much progress during the last few years, its role and responsibility in the
growing problem of medical communication and dissemination of scientific
information has not yet been exactly defined. Particularly needed now is a
determination of how MEDLARS will function to meet national needs. Plans for
decentralization of MEDLARS output have been made and funds for beginning this
activity are included in the FY 1965 budget now being considered by the Bureau
of the Budget. He stressed his interest in the Library's Extramural Program.
Although Congress has now passed the legislation giving aid to higher education,
which includes grants for construction of university and college libraries, this
is not likely to meet the needs of medical libraries. He indicated that the
Extramural Program of NLM must provide medical library support, including
resources for education and training of medical librarians through fellowships.
The Library is also concerned with translation and other international communi-
cation activities, and the support of publication in the biomedical science
field. For most of these activities there is a need for funds. For some
extramural activities legislative authority is lacking or open to several
interpretations. The Secretary of HEW has requested from the Comptroller General
specific interpretations of PHS authorities in the area of the Library's
Extramural Program. Legislative proposals must await this determination. He
mentioned that the assignment of responsibilities for the communication of
scientific information is extremely complicated within the Public Health Service
and among various groups outside of Government. Any Public Health Service
solution should reflect awareness of the needs and activities of all the
scientific components of the country.

INTRODUCTION OF NEW DIRECTOR

Dr. TERRY introduced Dr. Martin M. Cummings as the new Director of the National Library of Medicine, and thanked the subcommittee of the Board (Drs. BRILL, JARCHO, VALK) for assisting Dr. Hundley and himself in selecting Dr. Cummings from among some 28 candidates (9 from within the PHS and 19 from outside the Service). Dr. Cummings comes to NLM from the National Institutes of Health, where he has been Chief of the Office of International Research and Associate Director for Research Grants. He will begin his new duties in the Library on January 1, 1964.

Dr. Cummings responded to the introduction, expressing his enthusiasm for service as Director of the Library and his conviction that "the Library has an unmatched opportunity to serve national and international needs in the health communications area." He expressed his belief that through this resource we must serve medical practice and medical education as well as medical research. "It will be my responsibility... to maintain the very high standards of this Library. At the same time I recognize a need to broaden our interests to provide a creative, imaginative contribution to the increasing complexities of communications." He asked the continuing advice and counsel of the Board, not only at formal meetings but also from individual members of the Board at intervals between meetings.

ELECTION OF CHAIRMAN

Dr. JARCHO nominated Dr. VALK to be Chairman of the Board of Regents for the current year. The nomination was seconded by Dr. BRILL and on a motion by Dr. HUSSEY and seconded by General BOHANNON, Dr. VALK was elected by acclamation.

Dr. VALK thanked the members for their confidence and assumed the chairmanship of the meeting.

APPROVAL OF MINUTES

Dr. BRILL moved approval of the minutes of the meeting of March 29, 1963, as presented to the members, and Dr. JARCHO seconded the motion, which was unanimously voted.

(At this point Dr. TERRY excused himself and left the meeting)

STATUS OF MEDLARS

Mr. Seymour I. Taine, Project Officer for MEDLARS and Chief of the Bibliographic Services Division of the Library, reported that MEDLARS was entering its operational phase. He reviewed the history of the project through Phase I (preliminary design), Phase II (detailed design), Phase III (implementation), each of which required separate contract negotiations with the General Electric Company. At the present time Phases II and III are concurrent. Camera copy for the January 1964 issue of Index Medicus was delivered to the printer on December 12. Sample pages were distributed, showing the printout from the computer printer used in lieu of the special graphic arts composing equipment (GRACE) which is scheduled for delivery in the Spring.

Input. Problems have been encountered in indexing for MEDLARS due to the greater depth of indexing and the need to extract additional information from the books and articles. Medical Subject Headings has been revised and is published annually with the January issue of Index Medicus. All material for the 1963 Cumulated Index Medicus will be shipped to the American Medical Association within two weeks, an accomplishment marking the end of the Listomatic system in the Library. During the past year the typing and proof-reading had to be accomplished for both the Listomatic and the MEDLARS systems; the operation of two systems concurrently created certain difficulties in the input area.

There are now approximately 50,000 citations in the computer store and they are being used for test purposes.

Processing. The manipulative aspect, involving work on seven programming modules, is now nearly complete. Testing and debugging of the programs has been accomplished. The MH-800 computer, delivered last spring, has been used about 200 hours a month since July and its performance has been excellent. The Library has purchased the main frame, the central processor, seven tape units and a control, all for approximately \$885,000. Other items of equipment are being rented at a monthly fee of \$4,500.

Output. The photocomposing device known as GRACE is now in operation at the subcontractor's laboratory. Mr. Taine circulated a photograph of the equipment along with a page of film produced by the MEDLARS programs. Although the print on the sample is not yet acceptable, progress has been made and only two technical problems remain: optical density and horizontal and vertical alignment of characters.

Testing of the retrieval aspect of MEDLARS to provide demand searches and recurring bibliographies has been accomplished and an early date has been established for beginning formal operation of the retrieval aspect of MEDLARS. Work is proceeding with prospective clients who will receive recurring bibliographies. Some 35 recurring bibliographies are in the system now for test purposes and experience in their handling. About 308 demand searches have been entered into the computer and printed.

A final and comprehensive report of the entire MEDLARS project will be written.

The CHAIRMAN thanked Mr. Taine for his report and announced a short recess, after which the group assembled at 10:40 a.m. in the MEDLARS area for a demonstration of the system's handling of demand searches.

(The members were seated in the viewing area of MEDLARS, where Mr. Charles J. Austin, Head of Data Processing, presented in chart form the steps through which the specific questions would pass in providing printout for the requester. The group then entered the computer room and observed the manipulation of information stored on tapes by the computer and the resultant printout on three searches.)

MEDLARS USE POLICIES

Mr. Scott Adams, Deputy Director and Acting Director of the Library, discussed policies for consumer use of MEDLARS products, based on a paper distributed to members of the Board in advance of the meeting. In view of the readiness of MEDLARS for operation soon, there is some urgency in developing

policy guidelines for the services which the Library may offer through the system. A staff committee of the Library studied the problems and drafted a policy statement which became the basis for Mr. Adams' paper. He presented a list of consumer groups which have applied for or inquired about recurring bibliographies on such subjects as mental retardation, dentistry, drugs and drug information, diabetes, bioengineering, human genetics, aging.

Since this is a new kind of service which will require time and effort to develop into an efficient and satisfactory service for all users, only a limited number of requests for recurring bibliographies will be accepted in the first year.

Demand searches. Mr. Adams believed that the general principle should be to provide demand searches to qualified responsible applicants without charge, when it is consistent with statutory authority and the Library's traditional service functions. Requests for bibliographic information are likely to fall into one of three classes:

1. Complex, compound questions for literature 1963 to date. These would be MEDLARS-type questions exclusively.
2. Complex, compound questions involving literature prior to and including 1963 and later. This requires two kinds of service - MEDLARS combined with the human search or bibliographic activity.
3. Conventional type questions for literature published prior to 1963. This requires exclusively human response from the Library's reference services.

The Library will reserve the right to determine the method used to perform the search. Problems in dealing with demand search requests are recognized but the mechanism and organization for dealing with them have not been worked out.

The Library's efficiency in handling questions will be greater if questions are carefully framed and the parameters specified. Consultation with a well-informed librarian or other skilled human intermediary in structuring the MEDLARS search request is important, and the transmission of the request through a library will add to the efficiency of the service. A brochure is planned to assist in the training of librarians who will use the system. The Library also intends to sponsor and conduct training courses.

Recurring bibliographies. Cooperation with national research groups is planned in providing recurring bibliographies, with an understanding that the recipient group will undertake to provide additional services to its members or research audience, such as an abstract service or series of critical review papers, or simply a reproduction and distribution of the list of citations from MEDLARS as a type of "current awareness" service. This should help other groups to resolve their information problems. Some formal agreement would be established between NLM and the responsible group for whom the bibliography is made, stipulating the Library's responsibilities in producing the listing and the recipient organization's responsibilities for utilizing and further disseminating it, and how the costs are to be shared. The recipient organization would designate individuals who are subject experts to advise NLM on the subject parameters of the bibliography, serving as continuing liaison with the Library to provide information on the effectiveness of the system and suggest improvements.

Mr. Adams pointed out that the planned capacity of MEDLARS is for 50 recurring bibliographies; the fact that 35 groups have already indicated their interest in having such a service makes it important to have criteria for the selection of the organizations, institutions, groups, or societies with which

NLM will enter into cooperative agreements. Criteria suggested:

1. Magnitude and importance of the health problem involved.
2. The plan for dissemination and the technical ability of the requesting agency.
3. Adequacy of the existing information services within the specified subject area.
4. Capability and standing of the user organization.

In the discussion which followed Mr. Adams explained that the limitation on the demand search capability assumes an eight-hour day. This could be multiplied by two or three if additional shifts were used.

Dr. Hundley commented that a fee for the recurring bibliography service would accrue to the benefit of the Government, but would not extend the capability of the Library to expand the service. He asked whether the user organization would be permitted to sell the service to others if it was obtained free or on a share-the-cost basis. Mr. Adams replied that the Library intends to enter into agreements only with nonprofit organizations and groups. The agreement can be a flexible mechanism; if justified, resale of the MEDLARS output can be a part of the agreement. Reimbursement by other parts of the Public Health Service or by other Government agencies, such as the Department of Defense agencies, might be arranged in exchange for the Library's services, thereby adding to its resources. Mr. Adams commented that this had occurred in the case of the National Heart Institute, whose funds were used to begin the MEDLARS project.

Dr. Cummings alluded to plans for establishing specialized information centers and stated that it would be logical and appropriate for NLM to make its services available through a coordinated effort with NIH. This would achieve a standardized central supply of information through recurring bibliographies which could be provided as basic material for a number of information centers. Eventually perhaps about half of the capacity for recurring bibliographies may go to Federal agencies with a deep involvement in biomedical research and education, and the other half to the nation's private medical sector and the university system, thus balancing the Government's investment in research and training with the investment from private sources.

Dr. Hundley referred to the "delegated agency" concept promulgated by the Federal Council of Science and Technology. Under this concept the Public Health Service would become the agency within the Federal Government responsible for all information services related to its program interests. Thus, the Public Health Service could authorize its Division of Air Pollution to develop its own bibliographic resources and provide information to all components of the Federal Government without reimbursement, or it could use the National Library of Medicine as a central resource for this category. This might involve a change in the scope and coverage of NLM's collections, particularly in physics, chemistry, and engineering.

Dr. HUBBARD asked how the individual investigator's relationship to NLM will be changed with the advent of MEDLARS. Mr. Adams replied that it is preferable for him to send his request through his own library, but screening of the request by another library is not a requirement. When it is received at NLM, the nature of the request will determine whether it goes through MEDLARS. Under the plan for decentralization of MEDLARS tapes, many university schools of medicine will have tapes available for local search by people trained in the techniques of the system. Ultimately (five or ten years) the individual

investigator's request can be filled locally.

Dr. McNINCH asked what proportion of reference questions now come through libraries. Mr. Adams estimated that 20% come through other libraries and institutions, with 80% coming direct from the individual concerned. Dr. BRILL asked for clarification of the individual-to-NLM routing of requests under MEDLARS and Mr. Adams replied that such requests will be accepted and processed, but in the interest of efficiency the question should come to NLM on a form which will be distributed to libraries, and which will aid in formulating the question for speedier handling. Dr. CARLSON predicted that within a year most of the requests will come through libraries because of the sophistication of MEDLARS itself.

Dr. JARCHO asked how the follow-up information would be gathered on the effectiveness of recurring bibliographies, and Mr. Adams replied that the liaison person designated by the user organization would provide this. He mentioned the proposal to establish a MESH user group to work with NLM in evaluating the effectiveness of its subject headings, a controlled vocabulary which is the base of the MEDLARS system.

Admiral KENNEY mentioned the tendency to have a single management agent budget for all services to other government agencies, thus eliminating reimbursements; this would give the Library the responsibility for budgeting for all recurring bibliographies which the Armed Forces might require. This viewpoint was seconded by Generals BOHANNON and MILBURN.

General BOHANNON referred to Mr. Adams' statement on the availability of MEDLARS tapes, and asked how much of the hardware other libraries would need to be able to use the tapes. Mr. Adams replied that many university campuses now have computer facilities, most of which are not compatible with the Honeywell-based computer used in MEDLARS. The universities also have the resources in books and journals and skilled manpower. An objective of the MEDLARS project is the decentralization of the system so that it can be shared with these centers of scientific activity. Duplication of MEDLARS tapes, including the program tapes and the dictionary tapes, and their conversion into forms acceptable by other computers, and reprogramming are involved in this objective. The Library has requested funds in the 1965 budget for first steps in this direction.

Dr. FUSSLER referred to the establishment of specialized information centers mentioned by Dr. Cummings, and suggested that having each one producing its own bibliographical apparatus and collecting its own literature is not an efficient system, nor is complete centralization necessarily the most efficient system. Dr. Cummings replied that the important element is coordination so that information on a particular subject provided for one group will be available to all others concerned with the subject. There is need for a national policy rather than NLM policy, and he expressed the hope that the Board of Regents will suggest the position that NLM should take in dealing with other Federal and private agencies.

Dr. STECHER stated his opinion that there must be a central effort to get information together, but dissemination should be at the local level.

Dr. BRILL moved approval of the policies and recommendations contained in Mr. Adams' paper "MEDLARS Use Policies," and General BOHANNON seconded. The motion was voted unanimously.

(The meeting of the Board of Regents then adjourned for lunch)

AFTERNOON SESSION - 2 p.m.

The CHAIRMAN introduced Colonel Frederic J. Hughes, Director of Professional Service in the Army Surgeon General's Office. Gen. MILBURN and Adm. KENNEY were not present for the afternoon session.

DATE OF NEXT MEETING

March 20, 1964, was selected as the date for the next meeting of the Board of Regents.

GILLMORE BEQUEST

The bequest of Dr. Emma Wheat Gillmore to the then Army Medical Library, now approximately \$24,000 invested in short-term Government bonds, is under the trusteeship of the Surgeon General of the Army. Dr. Gillmore's will specified that the trustee shall purchase "whatever personal property the said trustee or successor trustee shall, in his judgment, determine to be useful or beneficial to the Army Medical Library, also known as the Library of the Surgeon General's Office, Washington, D.C." Necessary legal steps have been taken to insure that the National Library of Medicine is the named beneficiary of the will.

The Surgeon General of the Army would like to have the fund used for some purpose in the new building which would be helpful and beneficial to the Library and in accordance with the terms and general intent of the donor. He would like to have several recommendations from the Board of Regents as to the uses to which this money might be put, with an order of priority.

In the discussion of suitable uses for the bequest, it was pointed out that the use of any income from the money must be compatible with the terms of the will, and the trustee desires that the account be liquidated as early as convenient after an appropriate use has been found.

Mr. Adams advanced the Library's proposals: furnishing of a conference room in the Library; the purchase of portraits of former Directors; purchase of books or other items in the history of medicine; a publication fund for Library contributions to scholarship.

The disposition of the Gillmore Bequest will be placed on the agenda for the next meeting of the Board.

SCOPE AND COVERAGE OF THE COLLECTION

Mr. Adams introduced the problem of redefining the Library's policy on scope and coverage of the collections as stated in Library Manual B-5 and B 5a, copies of which had been distributed to the members in advance of the meeting. This policy and guide for the acquisition function of the Library was adopted in 1950. In the light of changing requirements and characteristics of medical research, education, and practice, should the Library's policies be reconsidered?

Since the National Library of Medicine Act requires the Library to collect and service the literature "pertinent to medicine," the definition of "medicine" is relevant to a consideration of policy changes.

In reviewing the history of the acquisitions policy of the Library, he questioned whether the provisions in such fields as organic chemistry, the behavioral sciences, general biology and zoology, adequately represented the dependence of the medical sciences on related fields. The scope statement

adopted in 1950 appears to be strongly oriented toward the practice of medicine and does not adequately equip the Library to respond to multiple needs in biomedical research. Increased grant funds in support of biomedical research have had an impact on the character of demands for library service nationally.

If the Library were to accept a "delegated agency" responsibility for information services in specific subject areas of concern to the Federal Government, this function would certainly change the scope for the collections. In referring to the specialized science information centers and their demands on the Library Mr. Adams said, "The repackaging of scientific knowledge for interdisciplinary, mission-oriented purposes is causing stress on such institutions as the National Library of Medicine. Information centers proposed as units of the Mental Health Clearinghouse would exist for repackaging of knowledge in broad areas of the behavioral and social sciences, evaluating progress in the field, producing reports, critical reviews, the state of the art, and so on." The Neurological Institute is concerned with specialized science information centers for such fields as Parkinsonism and brain research. Other information centers on primatology, bioengineering, drug toxicity, pesticides, air pollution have been proposed. Several of these have parameters which exceed the present definitions in the Library's scope and coverage statement. There will also be pressures to increase the scope of indexing for MEDLARS.

Mr. Adams stated that research libraries generally and the National Library of Medicine in particular are at the crossroads, with society placing demands on them which are new and complex. He asked if there is need to re-examine the policy statement on scope and coverage to see if it represents the character and the needs of the medical sciences today in their broadest context. If so, what weights should be assigned to 1) needs of the specialized information centers; 2) duplication of materials in the other national libraries; 3) indexing of literature of fields "pertinent to medicine" in the MEDLARS system.

There followed discussion of the percentage of requests unfilled because the material is not collected by NLM, and the overlap among abstracting and indexing services. Dr. FUSSLER commented that the statement on scope and policy is one of the best ever developed for a research library, but it must be kept updated and current. Dr. FUSSLER distinguished among three policy questions: first, NLM's obligations for bibliographic production in relation to the assumption of bibliographic responsibilities by others; second, the requirements of the research library's "constituency" for physical access to the Library's materials; and third, the Library's obligation to the scientific and medical community as a whole.

Mr. Adams suggested that the Library's bibliographic scope might be broadened to include peripheral materials for which the Library would not have archival and service responsibility, in the pattern of Chemical Abstracts, where there is no assurance of physical access to the abstracted material.

Dr. HUBBARD commented that the suggestion is an important one and that medicine has lost its traditional definition and medical libraries provide information not only to those who have direct responsibility for the care of the ill but also to an entirely different group. If a limit is set or a definition made, it is an arbitrary one and the burden of proof is on the person who describes the parameters of medicine. He expressed doubt that any acquisition policy might be comprehensively responsible to this change. He suggested establishment of a system between the NLM, the Library of Congress, and other agencies to provide bibliographic services for the physician and all others who support him -- the biochemist, the bioengineer, etc. Such comprehensive bibliographic representation needs compatibility in itself, but is not dependent on the acquisition policy of the Library.

Mr. MUMFORD indicated that some additional duplication between the Library of Congress and the NLM was inevitable, but that it did not constitute so serious a problem as duplication of bibliographic control.

Further discussion, in which Drs. McNINCH and JARCHO participated, emphasized the changing character of the medical sciences. Messrs. Lazerow, Paine, Miller, Falk and Dr. Blake of the Library staff added comments, with Mr. Falk pointing out flexibility in the administration of the Library's scope and coverage policy. Mr. MUMFORD raised two questions: (1) "To what extent should the physician or medical research person expect to find a favorable response to his question in this one library, and to what extent should he use other libraries?" (2) "To what extent will MEDLARS be unique, or will there be other devices for indexing and performing perhaps the same functions or better in time?"

He suggested that it might be inadvisable to broaden the Library acquisition policy simply because the Library had an existing facility for indexing. He questioned whether any research library could become a completely general library.

Dr. Cummings attributed the development of specialized information centers to the lack of a broadly based central depository capable of delivering basic materials for multiple specialized services. He referred to discussions in some elements of government concerning the need for a National Library of Science. The needs might be met by a consortium of existing resources, such as the Library of Congress, the National Agricultural Library, and the National Library of Medicine. Referring to the Rockefeller Foundation's sponsorship of a survey of the Army Medical Library in 1943, he suggested that the time might be appropriate to request an objective reappraisal of the scope and coverage policy. Dr. JARCHO favored continuing review by the Library staff over the use of an external survey committee. Dr. McNINCH pointed out that the circumstances which elicited the 1943 survey were generally critical, whereas the proposed study touched on one aspect of the Library's problems only. He conceded, however, that the problem of scope and coverage in relation to the rapidly changing needs of the medical community was serious and urgent. On the motion of Dr. BRILL the Board concurred in the Library staff's recommendation that it "take preliminary steps in the development of mechanisms to help it achieve a re-definition of its scope and coverage." In this process, the Library would anticipate using advisory groups, including the Board, and would re evaluate not only its responsibilities for the collection of published literature, but also its responsibilities for indexing. The Library would submit its recommendations to a later meeting of the Board.

Dr. McNINCH announced that the Veterans Administration had established a MEDLARS liaison committee to enable it to participate effectively in MEDLARS decentralization.

The meeting adjourned at 3:40 p.m.

Respectfully submitted,

Scott Adams

Scott Adams
Executive Secretary to the
Board of Regents(Acting)
National Library of Medicine

BOARD OF REGENTS
NATIONAL LIBRARY OF MEDICINE

A G E N D A

(Revised)

Meeting of Friday, March 20, 1964
Bethesda, Maryland 9:00 a.m.

1. Status Review of NLM Activities. Dr. Cummings
 - a. Report on organizational and personnel changes
 - b. Budgetary comparison, Fiscal Years 1964, 1965, and 1966
 - c. Research in history of medicine
 1. Congressional hearings
 2. Proposal from Institute of General Medical Sciences
2. Planning for the Support of Medical Libraries. . Mr. Adams
 - a. Comptroller General's decision re PHS authorities
 - b. Review of legislative specifications and budget proposal
3. Report of Billings Study Group. Dr. Blake
 - a. Plans to celebrate 100th anniversary of Billings' directorship of the Library
 - b. Plans for loan of Billings collection residing in New York Public Library
 - c. Gift of John Shaw Billings III
4. Resolution of Gillmore Bequest (Recommendations) Dr. Jarcho
 - a. Use of some of the funds for establishment of a Billings Room
 - b. Exhibit of the history and evolution of the NLM
 - c. Paintings of two Army Directors of the Library
 - d. Uses for publication of scholarly works and additions to History of Medicine Collection
5. Request for NLM Memorial to Dr. Joseph Smadel
6. Report on Advisory Committee on Scientific Publications Mr. Bailey
7. Report on Project Site Visit to Israel (Abstracting of Foreign Drug Literature) Dr. Brill
8. Selection of Date for Next Meeting; New Business

Target for adjournment 6:00 p m.

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE SECOND MEETING, FY 1964

March 20, 1964 - Bethesda, Maryland

- Members present: BOHANNON, BRILL, CARLSON, DIXON, FUSSLER, HARKINS,
HUSSEY, JARCHO, McNINCH, MUMFORD, STECHER, VALK
- Members absent: GELLHORN, HEATON, HUBBARD, KENNEY, TERRY
- Alternates: Dr. M. W. Arnold, Director of Publications Division,
Bureau of Medicine and Surgery, U. S. Navy,
representing Admiral Kenney
Colonel Frederic J. Hughes, Jr., Director of
Professional Service, Office of the Surgeon
General, U. S. Army, representing General Heaton
Dr. James M. Hundley, Assistant Surgeon General for
Operations, U. S. Public Health Service,
representing Dr. Terry
- Guests: Dr. James A. Shannon, Director of the National
Institutes of Health
Dr. Thomas J. Kennedy, Jr., Special Assistant to the
Director for Scientific Communications,
National Institutes of Health
Dr. Peter D. Olch, Clinical Pathology Department,
Clinical Center, National Institutes of Health
Lt. Colonel Jerome Rudberg, Chief of the Information
Section, Historical Unit of the U. S. Army
Medical Service
Mr. Joseph S. Murtaugh, Chief of the Office of Program
Planning, National Institutes of Health
- NLM Staff: Mr. Scott Adams; Mr. Charles J. Austin; Mr. M. Daniel
Bailey; Dr. John B. Blake; Miss Mary E. Corning;
Mr. Samuel Lazerow; Dr. Joseph H. Roe, Jr.;
Mr. Seymour I. Taine; Dr. Marjorie P. Wilson

MORNING SESSION, 9 a.m.

Dr. VALK, Chairman of the Board of Regents, called the meeting to order at 9 a.m. The meeting was turned over to Dr. Cummings for a report on recent Library developments and a review of the preliminary FY 1966 budget.

In opening his remarks, Dr. Cummings presented to the Chairman a gavel made by Dr. John Christian Nunemaker of the A.M.A. Council on Medical Education. He suggested that this gavel be passed to each new Chairman of the Board.

Several significant events have occurred since the first of January:

- 1) The Library was successful in the restoration of \$250,000 which had been cut from the FY 1965 budget. This amount will enable the Library to take the first steps in the decentralization of MEDLARS.
- 2) The Library has reached understandings with the National Institutes of Health on basic divisions of program interests; with the Food and Drug Administration on cooperation and mutual assistance in the area of drug literature; with the Veterans Administration relating to the provision of bibliographic services from MEDLARS, and with the American Dental Association relating to the publication of an index to dental literature as a by-product of the expanded MEDLARS system.
- 3) The Office of the Surgeon General has approved a new organization plan and functional statement for the Library which broadens the Library's mission for extramural support of library-related communications needs.

Dr. Cummings then introduced Dr. Marjorie P. Wilson, the Library's new Associate Director for Extramural Programs; Miss Mary E. Corning, the new Head of the Division of Publications and Translations in the Extramural Programs, and Dr. Peter D. Olch, who will become Special Assistant to the Director to develop improvements of medical subject headings used for Index Medicus and MEDLARS.

In reviewing the Library's programs and functions, Dr. Cummings called attention to the sharp increases in the services rendered by the Library. Since moving to Bethesda, reference requests have increased from 9,000 in 1962 to an estimated 19,000 for 1964. Total number of loan requests received will approximate 250,000 this year. Reader use of the Library is increasing sharply. In FY 1963 the number of readers assisted went up to 5,082 from 3,342 in the preceding fiscal year.

Dr. Cummings next turned his attention to a major problem in the classification of indexing personnel, where the average beginning salary is \$5,800. A major manpower shortage exists in the Search Unit, where the MEDLARS system has a daily capacity ten times in excess of the manpower available to formulate the searches. The Library has 62 employees with advanced degrees whose job classifications do not reflect their specialized training in science and foreign languages. For example, three physicians are employed at a GS-11 level, or approximately \$8,500. Dr. Cummings identified the problem of attaining a grade structure to enable the Library to recruit highly-trained scientific personnel as critical.

The number of journals indexed for Index Medicus has increased to 2,244, and approximately 150,000 articles are analyzed and indexed for the MEDLARS system this year. Some 200 demand searches have been accomplished with the MEDLARS system under test conditions. Acquisitions for 1963 totaled 84,000 books and serial items. Dr. Cummings next reviewed considerations underlying the Library's budgetary request for Fiscal Year 1966, which includes funding of the extramural programs.

Dr. Cummings next introduced Dr. Carl R. Brewer, Chief of the Research Grants Branch of the National Institute of General Medical Sciences. Dr. Brewer discussed an agreement achieved between the Institute and the Library for the transfer to the latter of research and training grants in the history of the life sciences. At present NIGMS supports 21 grants at an annual cost of approximately \$180,000. Dr. JARCHO reported on his study of this proposal. He pointed out that the primary review of applications would remain with the Life Sciences Study Section, while the Board of Regents would assume the secondary review and the recommendation function. Study Section standards have been high and its rejection rate is indicative of its sound judgment. Dr. JARCHO moved that the Board recommend that the function of secondary review of such applications, and recommendation to the Surgeon General, be taken over by the Board of Regents. In the ensuing discussion Dr. Cummings pointed out that the review of categorically oriented applications would remain with the Advisory Councils of categorical Institutes. Dr. HUSSEY requested, and Dr. JARCHO supplied, detailed information on the function of the Study Section. Dr. HARKINS raised questions about the character of the categorical grants and their review. Dr. Cummings stated that only the non-categorical grants currently supported by the National Institute of General Medical Sciences were under discussion. Following an itemization of the currently supported grants, Dr. BRILL inquired into the proposed review procedure. Dr. Cummings suggested that the review burden could be lightened by having individual members of the Board review in advance specific proposals for presentation to the Board. The CHAIRMAN then called for a vote on Dr. JARCHO's proposal, which was unanimously passed.

The CHAIRMAN then appointed a Nominating Committee consisting of Dr. McNINCH, Dr. HUSSEY, and Dr. STECHER.

The CHAIRMAN next introduced Dr. James A. Shannon, Director of the National Institutes of Health, who discussed the role of the National Library of Medicine and the possibilities of gaining support for a medical library assistance program.

Dr. Shannon opened his comments with an expression of satisfaction at seeing the Library undertaking a vigorous program expansion under Dr. Cummings' leadership. In his considered judgment, however, circumstances are such that it would take at least three, and probably four, years to establish and develop a broad extramural program.

Involved are the difficulties of getting new legislation through in an election year. Other desirable new programs will cry for priority after the election and in Dr. Shannon's judgment, while it may be possible to get new authorities in 1966, a program could not be adequately funded before Fiscal Year 1968. Dr. Shannon conceded that it would be possible, with heroic efforts, to reduce his estimate by two years. In his opinion, nothing short of a broad general national medical library assistance act would satisfy the needs. Such an act would include authority for construction of libraries. The support of operating expenses, while a controversial issue, would probably have to be provided. Society must take the realistic attitude that "medical libraries are an essential part of medical education, pre- and post-doctoral, an essential part of medical research, and an essential part of the practice of good medicine." Dr. Shannon also emphasized the need not only to train more librarians but, more importantly, to train broadly for new types of skills. Finally he expressed his belief that to exercise leadership the Library will have to acquire funds for the support of a broad research program. Dr. Shannon also expressed his skepticism of large-scale, expensive international centers servicing narrow areas of science, and of claims that the "publication explosion" is overwhelming the country. Increase of publication is related to increase of manpower, and may increase by a factor of two in ten years. On the other hand, he is convinced that published information is not now being adequately used nor adequately packaged. This latter need stems from the increase of multidisciplinary research.

After Dr. Shannon's remarks Mr. Scott Adams, the Library's Deputy Director, discussed the present status of planning for NLM support of medical libraries. Repeated resolutions of the National Advisory Health Council and of the Board of Regents have urged the Public Health Service to undertake such a support program. In 1963 Delegation of Authority No. 40 and an agreement between the Director of the National Institutes of Health and the National Library of Medicine clarified areas of responsibility. In November 1963 the Department submitted a request to the Comptroller General asking for clarification of the Service's authority under Section 301 to support functions related to medical research communication. The Comptroller General's decision, received on March 4, 1964, was favorable. Acting on this, the Library has prepared its preliminary budget submission for Fiscal Year 1966 and has revised its functional statement to reflect the establishment of an extramural program under an Associate Director for Extramural Programs and consisting of two divisions: a Research and Training Division and a Publications and Translations Division. All of these actions indicate that the Library is in a better position to seek funds for its proposed extramural program.

In commenting on Mr. Adams' presentation, Dr. Shannon expressed his opinion that the authorities under Section 301 were quite limited and he was skeptical of the Library's proposal to base a broad program on the specific points included in the Comptroller General's ruling.

He called for broader legislative authorities to meet these needs. Dr. Hundley referred to probable delays in acquiring basic new authorities and suggested that some new programs be undertaken under present authorities

Dr. FUSSLER inquired into the characteristics of the related programs to be established by the Scientific and Technical Information Resources Branch of the Division of Research Facilities & Resources, NIH. National Institutes of Health would support fundamental research and related activities in the field of information and communication of biomedical and related sciences, including research and training for research in new technology and development of scientific reference centers dealing with specialized fields of biomedical knowledge. The National Library of Medicine would support improved management of recorded information in the field of biomedical and related sciences, program facility utilization of recorded information by research scientists and health practitioners, language translations, research into the improved management of the biomedical literature, and training in librarianship and related information-processing technologies.

Dr. Cummings mentioned the basic understandings achieved with the Director of the National Institutes of Health in defining these program areas. The question of the language in the appropriation bill which restricts the Library's access to funds under Section 301 to "translation of foreign scientific documents" was discussed, and the Board unanimously adopted a resolution supporting the deletion of this restrictive phrase.

AFTERNOON SESSION

After the luncheon recess Dr. Norman Q. BRILL reported on the project site visit which he and Dr. F. Ellis Kelsey made to Israel to investigate the capability of the Israelis in supplying abstracts of foreign-language articles relating to drug toxicity. Dr. BRILL's conclusions were that the Israeli team, to be headed by Professor Leo Wislicki, had full capability of providing abstracts of high scientific quality, that more work needed to be done by the Library in determining specifications, and in relating the proposed abstracting service to other services. Ensuing discussion confirmed Dr. Wislicki's high reputation. Dr. HUSSEY recommended specifying U. S. adopted names for all drugs cited.

The CHAIRMAN next called on Dr. JARCHO to summarize the proposed uses by the Library of the Emma Wheat Gillmore bequest. Dr. Gillmore's will named the Surgeon General of the Army as Trustee for a legacy to be used for the acquisition of personal property useful or beneficial to the Army Medical Library. With interest, the legacy now totals \$24,000. Dr. JARCHO itemized proposals which had been agreed on by the Library and the Army Surgeon General:

- 1) Furnish and decorate a John Shaw Billings Memorial Room.
- 2) Procure an exhibit of the history and evolution of the Library for placement in the lobby.
- 3) Procure paintings of two distinguished former Library Directors.
- 4) Procure scholarly works for the Library's History of Medicine collection.

Lieutenant Colonel Jerome Rudberg of the Historical Unit of the U.S Army Medical Service demonstrated a proposed lobby exhibit. Dr. HARKINS moved that the Board approve the expenditure of the Gillmore bequest as proposed, and the motion was unanimously carried.

The CHAIRMAN next invited Dr. John B. Blake to report on the Library's plans to honor the 100th anniversary of the coming of John Shaw Billings to the Library. A ceremony with invited guests is planned for the fall of 1965. At that time the Billings Memorial Room would be dedicated and the Library would feature a Billings exhibit. On the motion of Dr. BRILL, the report and its recommendations were unanimously approved.

Dr. Cummings next introduced a request for a memorial room in the Library honoring the late Dr. Joseph Smadel. After discussion, in which Dr. Smadel's distinguished career was noted, it was agreed that the precedent of honoring individuals by the dedication of permanent Library space was inadvisable, and that another institution with which Dr. Smadel had been more closely associated during his career would be more appropriate. On Dr. DIXON's motion the Board voted to instruct the Director to communicate this decision to Dr. Theodore Woodward of the University of Maryland.

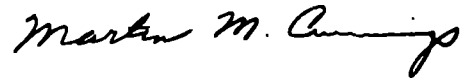
The CHAIRMAN next announced the appointment of a Subcommittee of the Board to review applications for research grants in the history of medicine. He appointed Dr. Saul JARCHO as Chairman, with Dr. Henry N. HARKINS and Dr. Herman H. FUSSLER the additional members.

Mr. M. Daniel Bailey, Assistant to the Director of NLM, next reported on the activities and functions of the Advisory Committee on Scientific Publications. Mr. Bailey reviewed the origin of the Committee, dating to the interest of the Division of Research Grants in providing an informal "contextual" review of applications for support of scientific publications. This contextual review is intended to supplement the scientific review provided by the Division of Research Grants Study Section. The Committee was established in April 1962 with the dual mission of advising the Surgeon General on policies and practices relating to the support of scientific publication. In its three meetings to date it has reviewed eight applications for grant support, recommending two for approval. It has also approved eight contract proposals. It has sponsored a survey of all projects related to published literature supported by grants and contracts in the Public Health Service. Prepared by Dr. John H. Schneider, this report analyzes a total expenditure of \$7,655,000 for 215 grants and 49 contracts.

Dr. HUSSEY, Chairman of the Nominating Committee, then reported the nomination of Dr. Norman Q. BRILL as Chairman of the Board of Regents for the next year. Dr. BRILL was unanimously elected.

The next meeting of the Board of Regents was set for Friday, November 6, 1964.

Respectfully submitted,

A handwritten signature in cursive script that reads "Martin M. Cummings".

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

NATIONAL LIBRARY OF MEDICINE

AGENDA

Nineteenth Meeting of the
BOARD OR REGENTS

Board Room

9:00 a.m., November 6, 1964

- | | |
|---|------------------|
| I. CALL TO ORDER AND INTRODUCTORY REMARKS | Dr. Brill |
| II. CONSIDERATION OF MINUTES OF LAST MEETING | Dr. Brill |
| Tab I | |
| III. CONSIDERATION OF FUTURE MEETING DATES | Dr. Brill |
| Tab II | |
| IV. REMARKS BY SPECIAL ASSISTANT FOR HEALTH & MEDICAL AFFAIRS | Dr. Dempsey |
| V. REPORT OF THE SURGEON GENERAL | Dr. Terry |
| VI. REPORT OF THE DIRECTOR | Dr. Cummings |
| VII. NATIONAL LIBRARY OF SCIENCE PROPOSAL | Dr. Hubbard |
| Tab III | |
| VIII. HISTORY OF MEDICAL BIBLIOGRAPHY | Mr. Durling |
| IX. INDEX MEDICUS SUBSCRIPTIONS | General Bohannon |
| Tab IV | |

X. MEDLARS

Mr. Adams

Tab V

EXECUTIVE SESSION OF THE BOARD OF REGENTS ADVISORY COMMITTEE FOR
EXTRAMURAL PROGRAMS

XI. REVIEW OF EXTRAMURAL PROGRAM

Dr. Wilson

DRG Administrative Report Tab VI

XII. CONSIDERATION OF PENDING APPLICATIONS

Dr. Douglass

A. Research Tab VII

B. Training Tab VIII

C. Fellowships Tab IX

D. Priority List Tab X

OTHER BUSINESS

ADJOURNMENT

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 19TH MEETING

November 6, 1964 - Bethesda, Maryland

Members present: BOHANNON, BRILL, DIXON, FUSSLER, GELLHORN, HARKINS,
HUBBARD, JARCHO, KENNEY, McNINCH, MUMFORD, TAGER,
TERRY, WOODHALL

Members absent: CARLSON, HEATON, McDERMOTT

Alternate: Dr. Burton W. Adkinson, Head of Science Information
Service, National Science Foundation,
representing Dr. Carlson

Guests: Dr. Edward W. Dempsey, Special Assistant to the
Secretary (Health and Medical Affairs),
Department of Health, Education, and Welfare

Dr. Thomas J. Kennedy, Jr., Special Assistant to
the Director for Scientific Communications,
National Institutes of Health

Dr. Eugene A. Confrey, Chief of the Division of
Research Grants, National Institutes of Health

Dr. James H. Cassedy, History of Life Sciences
Study Section, Division of Research Grants,
National Institutes of Health

NLM Staff: Dr. Martin M. Cummings; Mr. Scott Adams; Dr. Marjorie P.
Wilson; Dr. Peter D. Olch; Dr. Charles L. Bernier;
Mr. M. Daniel Bailey; Mr. Ray W. Grim; Mrs. Maxine
Hanke; Mr. Charles J. Austin; Dr. John B. Blake;
Miss Mary E. Corning; Dr. Carl D. Douglass; Dr.
Leonard Karel; Dr. David A. Kronick; Mr. Samuel Lazerow

INTRODUCTIONS

Dr. BRILL, Chairman of the Board of Regents, called the meeting to order at 9 a.m. and introduced Drs. TAGER and WOODHALL as new members. He announced that Dr. McDERMOTT, the third new member, is in Malaya and could not be present. Dr. Adkinson, representing Dr. CARLSON, was welcomed to the meeting.

Dr. Cummings introduced new Library staff members: Dr. David A. Kronick, Chief of Reference Services Division; Dr. Charles L. Bernier, Science Information Specialist; Dr. Leonard Karel, Chief of Bibliographic Services Division; Dr. Carl D. Douglass, Chief of Research and Training Division.

APPROVAL OF MINUTES

The Minutes of the 18th meeting of the Board, March 20, 1964, were approved as submitted.

The CHAIRMAN reported on the meeting of a subcommittee of the Board which had been appointed since the previous meeting to consider and act on several pressing matters. The meeting was held on August 12, 1964, to consider a publication and distribution problem in connection with Index Medicus, and certain research grant applications.

The Minutes of the subcommittee meeting were approved as submitted.

SURGEON GENERAL'S REMARKS

The CHAIRMAN invited Dr. Terry to speak. After welcoming the new members of the Board, the Surgeon General referred to the Comptroller General's opinion of March 4, 1964, which concurred with PHS interpretation of statutory authority for the use of grants to support activities relating to the communication of research results. The PHS has delegated authority to the National Library of Medicine for research fellowships, traineeships, and grants in-aid related to Library-based programs in health communications.

There are, however, certain activities which the Library would like to undertake for which there is no clear authority. Work on proposed legislation to provide the basis for these developing activities of the Library has been proceeding at the initiation of Senator Hill and his staff, and the Senator expects to introduce a bill early in the next session of Congress. Dr. Terry indicated that there will be PHS support of such new legislation.

BUDGET AND APPROPRIATIONS

Dr. TERRY read excerpts from the Reports of the House Committee on Appropriations, the Senate Appropriations Committee, and the Conference Committee with regard to the Library's appropriation for Fiscal Year 1965. These excerpts pertained to an increase allowed by the House above the amount requested and a change in the appropriation language which removes the restriction that funds used under the authority of Section 301 of the Public Health Service Act could be used only for the translation of foreign documents. The removal of this restriction will permit the Library to broaden the base of its support programs. The increase of \$180,000 was made for a program of research on the history of medicine. The Senate Committee added \$200,000 and seven positions to carry forward the Library's plans for MEDLARS and additional extramural activities with a view toward strengthening the nation's medical library functions.

The amount of \$3,992,000 was approved in the final Conference Report, thereby concurring in the House and Senate increases for specific purposes, and indicating a mandate from the Congress to proceed in these directions.

In the appropriation bill the Congress placed a specific limitation on the Department of HEW with regard to reprogramming of funds. Heretofore reassignment of funds

REMARKS BY DR. DEMPSEY

The CHAIRMAN next introduced Dr. Edward D. Dempsey, recently appointed Special Assistant to the Secretary (Health and Medical Affairs) DHEW. Dr. Dempsey commented on his interest in the National Library of Medicine and in medical libraries generally, and stated his belief that our nation, if not the world, faces a crisis of major proportions in the area of communication. "Man's ability to communicate widely and over space and over time is the very basis of the civilization that we have; advances in communication have permitted the development of a higher civilization. The ability to write conferred upon mankind the ability to communicate over wider distances and particularly over time. The Middle Ages was the period during which the reproduction of records and manuscripts failed to a very large degree, so that the loss of stored information that occurred during this four or five hundred years is greater than that which occurred in a few other cataclysms in history, such as the burning of libraries, just because of inattention and destruction of time. ...

"It seems to me there is a great deal of comparability about what happened then and what is happening now. Libraries -- and the medical libraries I will speak of specifically -- are failing in the United States because of lack of attention, lack of support, and lack of funds. We are not even preserving the collections that we have. We are not maintaining the number of librarians that we have had in the past. We are not even managing to keep abreast of what we have had, in spite of the fact that we are facing larger and larger loads upon the libraries through the expansion of scientific and teaching activities ...

"... with the possibilities of improvements in automation and of providing support and funding of a magnitude that we have not previously brought to bear on libraries, there is an opportunity to improve communication in the medical field, and there is, even more importantly, ... the possibility that the field of medicine may be used as a kind of pilot project to point the way to science at large, and then science at large has the opportunity to be the pilot study for communications involving the entire civilization. You have here in the Library an activity which is not only terribly exciting, but one that is essential for all of us, and for the future development of the world we live in."

The CHAIRMAN invited Dr. Dempsey to attend future meetings of the Board.

REMARKS OF DR. CUMMINGS

Referring to the increased visibility of the National Library of Medicine and its relationship to other Federal and private interests, Dr. Cummings said "I recognize the fact that communications have become a major national issue, which is the principal reason for the growing visibility that I referred to, but also I believe that there has been a genuine reawakened interest in the Library as an asset and instrument -- a modality, if you wish -- for use by the teacher, the student, and the scientist."

Federal agencies which have indicated their interest in the Library and its functions and activities by visitations and inquiries during the past four months are the President's Office of Science and Technology; a subcommittee of the President's Commission on Heart Disease, Cancer, and Stroke; the Office of the Secretary of DHEW;

staff representatives of the House and Senate; the Bureau of the Budget; the National Science Foundation; the Veterans Administration. There has been continuing liaison with the Library of Congress and the National Agricultural Library. Within the Department of HEW there has been liaison with the National Institutes of Health, the Bureau of State Services, the Food and Drug Administration.

The NLM staff and members of the American Medical Association staff are working together towards the development of common medical terminology. The American Dental Association has sent two members of its professional staff to help NLM develop a comprehensive list of subject headings including the important interests of the dental profession. With the capability of MEDLARS to produce recurring bibliographies along with demand searches, agreements have been made with the American Diabetes Association to use MEDLARS tapes for deriving citations to be published by the Association, and with the American Rheumatology Association for a recurring bibliography. In return for MEDLARS services these professional societies will critically examine the subject headings pertinent to their fields and assist in making the product relate to their educational or research needs and the list of medical subject headings a sound and comprehensive one. The American Psychiatric Association has indicated its interest in assisting NLM develop terminology and subject headings in the field of psychiatry.

These relationships with the private sector of the economy are an indication of how the National Library of Medicine is cooperating with its consumer groups.

Dr. Cummings exhibited charts showing the increases in the use of the National Library of Medicine as a source of information in the past eight years. It is his view that the only way to meet the increasing demands is to increase the support of local and regional library resources, so that requests for common materials may be filled locally. The alternative is to expand the National Library of Medicine so that it can meet all needs centrally.

A chart presenting the budgets for 1964-66 was exhibited. Dr. Cummings called attention to the Library's effort to develop its extramural program to support research fellowships, training, and publications. A new item for a drug information program relates to the Department's plans for establishing a cooperative program addressed to the problems of handling information in the field of drugs and chemicals. The Food and Drug Administration, the National Institutes of Health, and the National Library of Medicine are to be assigned functions, with the Library component related to the handling of the published literature. The budget item for 1966 would be used to develop a second input track into MEDLARS, with comprehensive journal coverage and deeper indexing of the articles pertaining to drugs and chemicals.

Dr. Cummings explained the elements of the program for extramural activities, which includes research and development in the handling of published materials and a study of the development of the regional medical library network.

Referring to the intramural program of the Library Dr. Cummings mentioned that the 1966 budget, if approved, will provide only modest increases for the acquisition and cataloging of literature, for reference services, and for decentralization of MEDLARS to several universities which have computer facilities and strong medical

libraries. The new program of support of research in the history of medicine will be concerned with the sociologic, cultural, and other general aspects of the development of medicine as an art and science.

One-third of the services of the National Library of Medicine goes to educational institutions (medical schools and teaching hospitals). One-third goes to industry, particularly to the pharmaceutical and drug industries, and the balance goes to other elements of the Federal Government which have medical and hospital programs.

Dr. Cummings reported that evaluation of the performance of MEDLARS is difficult because there is no accepted or uniformly applied methodology for evaluation of operational computer systems. Preliminary data suggest that more than 50% of the citations retrieved are relevant to the user's inquiry. He believes that the performance of MEDLARS is good and he hopes that further adjustments and refinements will make it a first-class reference retrieval system. The issues of Index Medicus for August-November have been produced by GRACE, the computer-driven phototypesetter installed this summer. The November issue required 12 hours of throughput time. GRACE has been used also for preparing the 1965 edition of Medical Subject Headings.

A NATIONAL LIBRARY OF SCIENCE SYSTEM

The Board of Regents listened to Dr. Stafford Warren at a dinner meeting the previous night. The CHAIRMAN called for a discussion of the proposal of Dr. Warren for a national library of science system, noting that the Board is not required to make a decision or recommendation on the proposal. Dr. HUBBARD noted that Dr. Stafford Warren's proposal was not a static document, and could best be evaluated in terms of its underlying propositions: (1) that a national resource be developed for the preparation of computer tapes to handle citations to and abstracts of the journal literature; (2) that a network of regional and local stations be set up to process these tapes; (3) that a national organization be established to share the input requirements of this national resource and to develop uniform standards for purposes of compatibility.

There appears to be a duality of purpose: the establishment of an idealized library system, and satisfaction of the continuum of information needs with some reference to the new biology. Dr. HUBBARD stated several questions arising from his observations:

1. Is the problem that of range and speed of access to information, or one of more accurate identification of relevant information within the range?
2. What is the cost/effectiveness ratio of the proposed system, with relevance to elements of existing systems such as the present library network, union list locating devices, abstracting and indexing services?

In the absence of answers to such questions, research is needed before a decision can be made. What selectivity devices can be developed to protect users against being overwhelmed as the volume of information in the system increases? Comprehensive studies of the utilization of library materials are lacking. No efforts have

been made to identify sets and sub-sets of information related to probabilities of use. Do we know the present ratios of library uses to library resources?

Multiple lines of independent investigation would be desirable to formulate answers. Problems of compatibility, network characteristics, and especially switching devices among the forms of information to be stored need investigation. The very basis of question formulation and asking needs study from the scientific as opposed to the technical point of view.

While agreeing with Dr. Warren that the central concept of switching mechanisms for information in the sciences is strategically desirable, Dr. HUBBARD called attention to some tactical deficiencies. Among these were the exclusion of monographic literature from the system, the realistic possibilities of achieving cooperation among independent agencies, and the problem of local access points.

In conclusion, Dr. HUBBARD noted that if a major national investment is to be made in this area, it must be compatible with the established systems created by and in universities for educational purposes.

Dr. FUSSLER expressed the view that the scheme described by Dr. Warren has a variety of intermingled objectives which, while commendable and desirable, are not sharply separated from one another, making it difficult to evaluate the proposal.

In response to a question from Dr. GELLHORN as to whether it is planned to begin some of the investigative work on elements of the Warren proposal that are of compelling importance and urgency using funds which are expected to be available to the Library with proposed legislative authorities, Dr. Cummings explained that the new NLM legislation would be confined to the effort to upgrade medical libraries and is in no way related to the Warren proposal for a broad approach to the enormous communications problem. On the other hand, if the Library has the opportunity to test the feasibility of the linkages suggested by Dr. Warren in the field of biomedicine, this might become a prototype for other scientific and non-scientific disciplines. While the Warren proposal is being studied, debated, and revised, the Library should not be impeded from meeting the urgent needs that face our nation's medical libraries.

Dr. BRILL suggested that the broadened scope of medicine as a discipline and the need for medical scientists and physicians to know electronics, chemistry, mathematics, etc. was implicit in the Warren proposal, and this might indicate a need for a review of the scope of the Library's collecting policy. Mr. Adams responded that the Board had approved the Library's taking steps to broaden the base of its collection, and that steps to do so have been taken. The Library is now procuring more material in the behavioral and physical sciences, and has undertaken a systematic investigation of related areas and the literature that should be acquired to service its public.

Dr. MUMFORD stated that the Library of Congress is giving much time and attention to automation of bibliographic procedures and exploration of ways by which such automation can be tied into a national system, making information in the Library of Congress easily available to other libraries, and vice versa.

Dr. Adkinson referred to the Task Force established by the Committee on Scientific and Technical Information (COSATI), Federal Council for Science and Technology, which has been assigned the task of considering the Warren proposal as it concerns scientific journals and recommending immediate steps to improve the availability of the journal literature. The Task Force has developed a proposal for an inventory of journal literature in the United States and its location and accessibility to users. There are twelve national systems proposed by different groups, of which the Warren proposal is one. Dr. Adkinson described the problems related to a proposal by Chemical Abstracts for the establishment of a national system.

Similar thinking is being done in engineering, physics, and mathematics. Except for the bibliographical apparatus and the physical location of materials, where standardization of practices is now feasible, we do not know enough about scientific information and its uses to consider standardization of mechanized practices at this time.

Finally, while the technical problems related to proposals for national systems are large, the administrative and political problems to be resolved before such systems can be established are even larger.

Dr. WOODHALL commented on the relationship of the Warren proposal to university policy, as the universities respond to requirements for new systems approaches to their traditional instructional and research functions. Pilot studies must be initiated by and at universities.

Dr. HUBBARD underlined the role of the university, "that social institution whose business is the synthesis of knowledge, in studying and planning solutions for the information problem." He pointed out two urgent requirements: research and experience, and avoidance of premature conclusions and standardization. In concurring, Dr. FUSSLER added a third: development of working applications of computer techniques which are adaptable to changes.

Dr. Cummings described the Library's explorations "beyond MEDLARS" in the automation of accessions and cataloging, and intention to support research by any group investigating devices for quick access to full text of information rather than abstracts. Dr. Adkinson reminded the group that research needs to determine information requirements for the practitioner and the medical researcher or scientist are different, and several systems might be more suitable than one with a common approach for everybody.

HISTORY OF MEDICAL BIBLIOGRAPHY - A CASE STUDY

Mr. Richard J. Durling of the Library's History of Medicine Division presented a scholarly and witty case study in the history of medical bibliography, using James Lind's classic monograph on scurvy published in Edinburgh in 1753.

The Board complimented Mr. Durling and expressed its desire to have a similar presentation at future meetings if the agenda will accommodate it.

INDEX MEDICUS PUBLICATION AND DISTRIBUTION

General BOHANNON reported as a member of the special ad hoc Subcommittee of the Board on the unexpected supplemental charge by the Superintendent of Documents

of \$40,000 to cover an estimated deficit in this fiscal year for printing Index Medicus and the Superintendent's intent to increase subscription rates, effective January 1, 1965, from \$26 to \$45 for subscriptions from domestic addressees, and from \$32 to \$54 for foreign addressees. Since the time of the Subcommittee's meeting on August 13, 1964, the Library has agreed to absorb the additional cost of printing; the GPO and the Library have re-evaluated the printing cost and agreed that the rates should be changed to \$40 and \$49 for Index Medicus beginning in January 1965. No subsidization of GPO printing cost will be made after FY 1965, and free copies distributed by the Library will be reduced from 1,800 to 1,000 by having those government agencies which received a substantial number of copies pay the pro-rata cost of printing such copies or buy them direct from the Government Printing Office. Cost-sharing has been accepted by Navy, Veterans Administration, and Community Health in the PHS Bureau of State Services; the Air Force and Army will subscribe directly from the Government Printing Office.

The Library had been concerned about the length of time required for printing Index Medicus, especially since composing time on GRACE is extremely fast and delay is encountered when the master film is being processed by a contract printer. The new printing contract to be let by the Government Printing Office will specify 10 working days for printing Index Medicus instead of 15 as formerly, and NLM hopes that GPO's main plant will do the printing on its high-speed printing press when requirements become large enough to make this economically sound.

Dr. Cummings stated that the solution to the cost problems of Index Medicus which loomed during the summer had been found with the good will and joint effort of the Federal agencies which agreed to help the Library by sharing the cost or by direct subscription, for which the Library is grateful.

CUMULATED INDEX MEDICUS

At the request of Dr. Cummings, Mr. Grim reviewed the arrangement between the Library and the American Medical Association relating to the publication of the Cumulated Index Medicus since 1960. The Library provides the copy for this publication in the form of film positives from the GRACE equipment, and the AMA then publishes and distributes the volumes, retaining all the proceeds from the sale of the publication. The volumes for 1960, 1961, and 1962 are now out of print and will be reprinted by a publisher who has announced a price of \$125 for the volumes in one set originally sold by the AMA for \$35.

The American Medical Association has given assurance to the Library that the print order for Volume 5, 1964, will cover expected sales plus a sufficient reserve stock for future orders. They have 400 copies of 1963 volumes in stock.

In reassessing the Library's publication and distribution policies, the arrangement with the AMA was reviewed. In discussions with AMA it would appear that their interest lies in something more related to their needs, such as an abridged Index Medicus rather than the Cumulated Index Medicus. An abridged Index Medicus could be prepared as a recurring bibliography and issued at stated intervals, indexing by subject approximately 200 of the most important current

medical periodicals. It is estimated that 1,500 articles would appear monthly, or 18,000 annually.

The Board was asked for an expression of opinion as guidance on the desirability of pursuing an alternative arrangement with the AMA with a view toward bringing the management of Cumulated Index Medicus back to the Library.

After discussion a motion was carried calling for a review and report on the arrangement with the AMA with alternate plans or proposals or recommendations for the publication of Cumulated Index Medicus by the Library as a library instrument rather than as a working practitioner's instrument.

MEDLARS DECENTRALIZATION

The long-range objectives of MEDLARS were presented by Mr. Scott Adams as three-fold: (1) a national decentralized medical bibliographic system; (2) a system for graphic image storage and retrieval; (3) mechanization and automation of procurement and cataloging and recordkeeping functions of libraries.

The Library has developed the concept of decentralization and would like to have the Board review its plans as well as the proposed criteria for selection of sites for decentralized MEDLARS centers. Mr. Adams gave details of the Library's reasons for wishing to distribute tapes to selected institutions, reporting that the first contract has been signed with the University of California at Los Angeles for reprogramming of MEDLARS for use by IBM 7090 series equipment. A contract with the University of Colorado is in process for use of MEDLARS tapes by compatible equipment. These pilot studies are being undertaken in this fiscal year to gain experience and data relating to reprogramming, training, maintenance, cost of normal operations, user evaluation of the search function, all of which can be used in improving the system. Next year the Library hopes to provide support for the development of seven or fewer additional centers to make a network of regional service centers, each of which would be supplied with data tapes and programs from the Library.

The Board was asked to advise the Library on the criteria for selecting sites and the procedures related to selection. Mr. Adams stated that the Library has received inquiries from more than 90 different institutions and agencies as to the availability of MEDLARS tapes for search purposes; 28 have filed "letters of intent," and Mr. Adams identified them on a map. If money for the support of a limited number of centers is forthcoming in next year's budget, it is obvious that a difficult task of selection faces the Library and the Board. Choice must be made in the national interest and based on certain factors: (1) service potential of the institution; (2) equipment potential; (3) library resources; (4) research potential; (5) network potential. The Library has developed a discussion guide for site visits for the purpose of collecting data and for conducting interviews at the interested institutions. Completion of the program of site visits will be attempted by March, at which time recommendations will be made based on a study of the collected data,

The Board will be asked at its next meeting to review the Library's recommendations and approve the selection of specific institutions with whom contracts will be negotiated for establishment of a MEDLARS station and for systematic feedback of information.

The Board discussed the report of Mr. Adams and then passed a motion that the Library should proceed with its decentralization plans, acting on the basis of the criteria outlined, with the addition of a criterion on training capacity as suggested by Dr. HUBBARD, and report again at the Board's June meeting.

The meeting of November 6, 1964, of the Board of Regents of the National Library of Medicine was adjourned by the Chairman at 3:33 p.m.

Respectfully submitted,



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

RESOLUTION

of the

NATIONAL ADVISORY HEALTH COUNCIL

The National Advisory Health Council reiterates the concern which it has expressed on previous occasions with reference to the deteriorating conditions of the medical libraries of this country. The conditions referred to in our previous recommendations have become increasingly acute.

The magnitude and complexity of medical literature generated by the research of recent years and necessary for the maintenance of excellence in teaching and practice have overwhelmed existing processes and organizations for handling biomedical information.

The broadening base of medical research and practice, calling for literature from numerous ancillary fields, has added to the complexity of the problems faced.

The actual physical deterioration of that portion of the medical literature which has been published on inferior paper is threatening the libraries with a loss of important medical information.

The lack of personnel adequately trained to deal with the problems of medical libraries becomes increasingly evident.

The inadequate space and facilities to house the multiplying volume of literature and to provide work areas to utilize effectively the library resources seriously hamper the research, training and service efforts of the medical community.

The relative support of medical libraries has been steadily diminishing under the pressures of the rapid development of other programs and activities of medical institutions, most of which make increasing demands upon the library.

These factors have added to the critical character of the problem. Since the medical library is -- and will continue to be -- the principal mechanism for collecting, managing, and disseminating medical literature, the deficiencies of our medical libraries constitute, in our judgment, a critical situation which requires immediate remedy.

The Federal Government has long given significant support to medical research and training. It is our conviction that the vital functions of the medical libraries will not be adequately performed without substantial assistance from the Federal Government.

The Federal Government has established the National Library of Medicine which constitutes the largest collection of medical literature in the world and which is developing new systems and methods for the organization, handling, and dissemination of medical information. This institution must play a leading role in the endeavor to meet these problems.

Therefore, be it resolved that the Surgeon General be urged to utilize existing authority and to seek such additional legislative authority as may be needed to accomplish the following as effectively and as rapidly as possible:

(a) To provide for the establishment and maintenance of a limited number of regional libraries linked to the National Library of Medicine to provide and develop an effective instrument for regional service.

(b) To enable the National Library of Medicine to provide a program of education and training for medical librarians and information specialists (including retraining programs) in order to increase the number of qualified personnel.

(c) To enable the Public Health Service to support library facility construction, including new facilities as well as expansion, alteration, renovation, and equipping of existing facilities.

(d) To provide for the central library (National Library of Medicine) the funds and personnel necessary for effective leadership in this national program and for improving and making available more adequately its unique resources and services to the medical community.

(e) To enable the National Library of Medicine to conduct and support a program of research designed to improve systems and methods of handling medical literature, including new techniques of indexing, coordinating, abstracting, translating and reviewing biomedical literature.

April 3, 1964

NATIONAL LIBRARY OF MEDICINE

AGENDA

Twentieth Meeting of the
BOARD OF REGENTS

Board Room

9:00 a.m., March 18-19, 1965

- | | | | |
|-------|---|---------|-----------------------|
| I. | CALL TO ORDER AND INTRODUCTORY REMARKS | | Dr. Norman Brill |
| II. | CONSIDERATION OF MINUTES OF LAST MEETING | Tab I | |
| III. | DATES OF FUTURE MEETINGS | Tab II | |
| IV. | REMARKS BY THE SURGEON GENERAL | | Dr. Luther Terry |
| V. | REPORT OF THE DIRECTOR | Tab III | Dr. Martin Cummings |
| VI. | NLM PLAN FOR AUTOMATING THE CATALOG | Tab IV | Mr. Charles Austin |
| VII. | HOW THE NLM IS USED FOR SUPPORT OF SCHOLARLY RESEARCH | | Dr. Robert Livingston |
| VIII. | THE NLM-NBS STUDY ON GRAPHIC IMAGE STORAGE-RETRIEVAL | | Mr. Edward Forbes |
| IX. | NLM ROLE IN DRUG INFORMATION CENTER | Tab V | Miss Winifred Sewell |
| X. | FURTHER PLANS FOR MEDLARS DECENTRALIZATION | | Mr. Scott Adams |
| XI. | ABRIDGED INDEX MEDICUS | | Dr. Leonard Karel |
| XII. | MESH STATUS REPORT | Tab VI | Dr. Peter Olch |

ADJOURNMENT

DUTCH TREAT DINNER - Governor's House

RECONVENE - 9:00 a.m., March 19

- | | | | |
|-------|---|--|------------------------|
| XIII. | REPORT ON COSATI | | General William J. Ely |
| XIV. | RELATIONSHIP - DHEW and COSATI | | Dr. Ellis Kelsey |
| XV. | NATIONAL AGRICULTURAL LIBRARY DEVELOPMENTS AND PESTICIDE INFORMATION CENTER | | Mr. Foster Mohrhardt |
| XVI. | THE BILLINGS CENTENNIAL | | Mr. Dan Bailey |

LUNCH

THE BOARD OF REGENTS ADVISORY COMMITTEE FOR EXTRAMURAL PROGRAMS WILL MEET FOR THE AFTERNOON SESSION.

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 20TH MEETING

March 18-19, 1965 - Bethesda, Maryland

Members present: BOHANNON, BRILL, BROWN, DIXON, GELLHORN, HARKINS, HUBBARD,
JARCHO, McDERMOTT, MUMFORD, TAGER, TERRY, WOODHALL

Members absent: CARLSON, FUSSLER, McNINCH

Alternates: Captain Curtis Cummings, represented Admiral Brown at the
afternoon session, March 18, and morning session,
March 19

Brigadier General C. L. Milburn, Jr., Deputy Surgeon General
of the Army, represented Lieut. General Heaton

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

Dr. Ernest M. Allen, Grants Policy Officer, Office of the
Surgeon General, PHS, DHEW

Mr. Samuel N. Alexander, Mr. Thomas Bagg, Mr. Edward J. Forbes,
Bureau of Standards representatives

Lieut. General William J. Ely, National Chairman, COSATI

Mr. Foster E. Mohrhardt, Director of the National Agricultural
Library, Department of Agriculture

Mr. William T. Knox, Technical Assistant, Office of Science
and Technology

Dr. Thomas J. Kennedy, Jr., Special Assistant to the Director
for Scientific Communications, National Institutes of Health

Mr. William R. Herman, Scientific Information Program Analyst,
National Institutes of Health

Mr. J. W. Scotton, represented the Office of the Bureau Chief,
Bureau of State Services

Dr. Robert B. Livingston, Associate Chief for Program Development,
Division of Research Facilities and Resources, National
Institutes of Health

NLM Staff: Dr. Martin M. Cummings; Mr. Scott Adams; Dr. Marjorie P. Wilson;
Dr. Peter D. Olch; Dr. Charles L. Bernier; Mr. M. Daniel Bailey;

NLM Staff:

Mr. Ray W. Grim; Mrs. Maxine Hanke; Mr. Charles J. Austin;
 Mr. Robert M. Wilson; Miss Winifred E. Sewell; Dr. John B. Blake;
 Miss Mary E. Corning; Dr. Carl D. Douglass; Dr. Leonard Karel;
 Dr. David A. Kronick; Mr. Samuel Lazerow; Mr. Joseph Foley;
 Miss Alice M. Laskey; Miss Anne McCann; Mr. Edward A. Miller;
 Mr. Paul C. Redmer; Mr. Irvin J. Weiss

INTRODUCTIONS

Dr. BRILL, in convening the Board of Regents at 9 o'clock, welcomed Dr. McDERMOTT who was attending his first meeting; and introduced as guests of the Board: Dr. Ernest M. Allen, Grants Policy Officer, Office of the Surgeon General, PHS; Dr. F. Ellis Kelsey, Special Assistant to the Surgeon General for Scientific Information, PHS; Mr. Foster E. Mohrhardt, Director of the National Agricultural Library; and Mr. Edward Forbes of the Institute of Applied Technology, National Bureau of Standards.

APPROVAL OF MINUTES

The Minutes of the Board meeting of November 6, 1964 were unanimously approved, and June 17 and 18 were confirmed as the dates for the next meeting; March 21-22, 1966 were tentatively agreed upon for the spring session.

SURGEON GENERAL'S REMARKS

Dr. Terry, at the CHAIRMAN'S invitation, commented on progress of the appropriation hearings, and Congressional admonitions to the Service against obligating funds for newly authorized programs lacking in appropriations. Major pending legislation is S. 595 incorporating the recommendations of the President's Commission on Heart Disease, Cancer and Stroke. Related to this are the Library recommendations of the Commission's report and S. 597.

Dr. Terry then asked Dr. Ernest Allen to report on developments in the grant administration area. Dr. Allen discussed problems in implementation of Bureau of Budget Circular A-21 relating to grants administration, including reporting requirements, indirect costs, and related matters. Departmental

implementation of the Civil Rights Act of 1964 has been vigorous, but despite problems, the record of grantee institutional compliance is good.

LEGISLATIVE PROGRESS

Dr. BRILL then called upon Dr. Cummings for a report on legislative progress. Following several Resolutions of the National Advisory Health Council and the Library's Board of Regents, the Library in January 1964 drafted specifications for the new legislation. These were transmitted to the Public Health Service and the Department in June 1964. Senator Hill requested assistance from the Service in drafting legislation, and in December 1964 informed the Service of his intention to introduce legislation. Also in December 1964, the report of the President's Commission on Heart Disease, Cancer and Stroke, with its recommendations for upgrading medical libraries, appeared. In January 1965, Senator Hill introduced S. 597 and Representative Oren Harris of Arkansas introduced a parallel Bill, H.R. 3124. Subsequently Representative John Fogarty introduced an identical Bill in the House, H.R. 6001.

SUBCOMMITTEE ON LEGISLATION

In February 1965, the CHAIRMAN of the Board of Regents appointed a subcommittee under the chairmanship of Dr. HUBBARD to review the pending legislation, and the appointed members of the Board transmitted a strong endorsement to the Surgeon General and to the White House. A complication arose in January when the Administration, in submitting its proposal for support of higher education, included language in the Bill which provided certain duplicative features with S. 597. Analysis of the Higher Education Act (S. 600) has shown a number of points of inadequacy for upgrading medical libraries; first, the absence of provision for medical library construction; second, narrower provision of training; third, absence of

provision for library fellowships; fourth, limitation of resource support to libraries of educational institutions and inadequate formulas for financial provisions benefitting medical libraries; fifth, absence of provision for regional library development; sixth, absence of provisions for library-related publication support.

Dr. Cummings expressed his gratitude at the strong support of the Medical Library Assistance Act provided by the Service and the Department, as well as a multiplicity of scientific and professional societies in medicine and librarianship.

GILLMORE BEQUEST EXHIBIT

Following Dr. Cummings report the Board recessed to the lobby where General Milburn, representing Surgeon General of the Army L. D. HEATON, made a formal presentation to Dr. Terry of an exhibit on the historical evolution of the NLM, procured with funds from the Gillmore bequest.

After the recess Dr. Saul JARCHIO presented the NLM with a copy of Selecta Controversiarum Medicorum Centuria, Basel, 1611, which Dr. Cummings received with thanks.

BUDGET AND APPROPRIATIONS

Resuming his report, Dr. Cummings reviewed the state of the 1965, 1966, Library budgets and preliminary estimates for 1967. The \$3,958,000 budget for 1965 represented no program increases over 1964, and development has suffered from inadequate funding. The President's budget for 1966 contains no substantial increases for program development, with the single exception of the addition of \$1 million for the Library's component of a Departmental Drug Information Program. Of this addition, approximately \$650,000 will be spent intramurally; \$350,000 under grants and contracts. The Library's proposed

1966 budget was submitted to a series of reductions, resulting in a major cutback to the MEDLARS decentralization program. The fiscal year 1967 preliminary budget had just been submitted for Departmental and BOB review.

Dr. Cummings then analyzed two versions of a fiscal year 1967 budget, the one showing the increases requested under existing authorities, and a second showing the increases requested assuming passage of the Medical Library Assistance Act.

AUTOMATION OF NLM FUNCTIONS

The CHAIRMAN next introduced Mr. Charles J. Austin, Chief of the Library's Data Processing Division, who reported on the state of the Library's plans for automating its acquisitions and cataloging functions. The Library's technical processes present three areas for possible automation: procurement, serial record maintenance, and cataloging. A preliminary systems analysis was performed from March through September 1964, and a systems design phase continued through December. Priority was then assigned to programming for an interim cataloging module for MEDLARS. It is expected that this interim module will be operational by the end of 1965. The Library intends to publish a computer produced bi-weekly list of its cataloged acquisitions, distributing this widely for the use of other libraries. In addition to this cataloging service the Library will use the system to compile annual catalogs of books and a five-year cumulation, to produce catalog card sets for its present catalog, and to input selected monographs into MEDLARS for searching. The bi-weekly cataloging service will start in January 1966. Efforts are being made to coordinate this development with those about to be undertaken in the Library of Congress and the National Agricultural Library.

MEDLARS DEVELOPMENT

Mr. Austin discussed further MEDLARS development, ideas relating to computer-aided indexing interfaced with a graphic image storage system, application to analyses of interlibrary loan requests, and preliminary ideas relating to a second generation MEDLARS system.

LIBRARY OF CONGRESS LIAISON

In commenting on Mr. Austin's presentation, Dr. Mumford expressed his commendation and the interests of the Library of Congress in keeping close liaison with the NIM. The Board of Regents encouraged implementation of these activities. Dr. DIXON expressed concern for the closer coordination of ongoing activities. Dr. Mumford and Dr. Cummings mentioned the existing informal coordination and the establishment of a new Federal Library Committee under the joint sponsorship of the BOB and the Library of Congress. He hoped that this might prove to be an informational and coordinating mechanism.

FEDERAL LIBRARY COMMITTEE

The CHAIRMAN introduced Mr. William T. Knox of the Office of Science and Technology, who commended the Library on its development and its philosophy of centralization of processing.

Mr. Knox stated that his assignment was to concern himself with the conceptual basis and the design of a framework for a national network of information systems undergirding science and technology. The Committee on Scientific and Technical Information of the Federal Council on Science and Technology (COSATI) has a task group actively working on national systems planning. The President's Science Advisory Committee is

deeply concerned with broad policy aspects of the same problem.

In response to a question from Dr. BRILL about the relation between NLM's cataloging plans and the national systems concept, Mr. Knox stated in his opinion it would be difficult to conceive of a national biomedical information network not firmly grounded in the NLM.

The Library's activity in cataloging is a necessary library systems improvement, but the revolution in information technology may require instruments beyond the Library's card catalog. He expressed his belief in a need for large-scale experimentation with new technologies before final resolutions could be made of the problems.

NLM VISITING SCHOLARS

In proceeding to the afternoon session, Dr. BRILL introduced Dr. Robert B. Livingston, Associate Chief for Program Development, Division of Research Facilities and Resources, NIH, who has spent the best part of the last year as a visiting scholar in NLM. Dr. Livingston discussed the work of his fellow scholars, Mrs. Bess Furman Armstrong engaged in writing a history of the Public Health Service; Dr. Stanhope Bayne-Jones, working on the evolution of preventive medicine from 1775-1939; Dr. Jeanne Brand, NIMH, who has been working on the historical relationships of the British Medical Profession and the state in public health, and Professor Jerzy Konorski, head of the Ninski Institute in Warsaw, who is completing a book on "Integrative Action of the Brain." Dr. Livingston discussed further the opportunities for harboring creative thought in the Library and the Library's role in encouraging critical reviews.

MEDLARS DECENTRALIZATION

The Director then called on Mr. Adams for a review of the draft policies governing the decentralization of MEDLARS. Visits have been made to 15 of the

35 universities applying for MEDLARS tapes, and recommendations for search centers to be supported will be placed before the Board at its June meeting,

Mr. Adams distributed draft policy statements relating to the provision of MEDLARS demand search services, recurring bibliographies, tape distribution to MEDLARS demonstration centers receiving federal support, and tape distribution to private nonprofit, educational, and scientific institutions, and to industry. In summary, the Library recommends (1) that demand search services be made available to qualified requesters without charge, and within limits imposed by the Library's resources; (2) that recurring bibliographies be developed as cooperative efforts with government agencies and nonprofit scientific and professional societies and institutions which will undertake to provide national distribution of the products to be published normally at their expense; (3) that MEDLARS tapes be made available at the costs of reproduction for purposes of research, development, and study; (4) that MEDLARS tapes be available without charge to the demonstration and testing centers established with federal funds; (5) that MEDLARS tapes be available to other federal agencies, nonprofit educational or scientific institutions, and to industrial users at the costs of reproduction for purposes of servicing their research personnel.

In the Library's opinion authority for the above policies is provided by section 372 of the NLM Act. Omitted in this discussion was draft policy relating to the availability of MEDLARS tapes to commercial enterprises intending to use them for the purpose of manufacturing products for sale. Availability of MEDLARS tapes internationally would be subject to clearances to insure conformity with the foreign policy of the U.S. A MEDLARS User

Group would be established to provide for continuing communication between the Library and the users of MEDLARS tapes.

Mr. Adams discussed the problems raised by commercial use of tapes. Two considerations weigh against such distribution of MEDLARS tapes: It is inappropriate to introduce a private profit between a system created as a public service and taxpayers who would benefit by it; the loss of quality control of products published by others might jeopardize total systems performance and evaluation.

SUBCOMMITTEE-MEDLARS TAPES DISTRIBUTION

Calling attention to the Board's statutory responsibility for advising the Surgeon General, Dr. BRILL appointed a subcommittee consisting of Dr. Barnes WOODHALL, Chairman, Dr. Walsh McDERMOTT, and General R. L. BOHANNON, to review these policies and make recommendations to the Board at its June meeting.

GOVERNMENT POLICY ON PUBLIC SERVICE

Dr. BRILL then called upon Mr. Knox for comment. Mr. Knox pointed out the need to coordinate government agency policies relating to services to the general public. He cited the COSATI Task Force's exploration of national library functions in other areas of science, and pointed out that NLM's concept of public service differs in a number of particulars from those of other agencies. Adding that the maintenance of a servicing staff at the Library would place the government in the position of an entrepreneur, Mr. Knox expressed his reservations about government agencies undertaking such a role. He urged care in defining the limits of free services, and suggested that in the interface with the general public it might be a more consistent federal policy for commercial interests to be involved in the distribution of

information services. He expressed a hope that the NLM practices could be decided in the context of the larger issue of consistent federal policy.

In the discussion which followed, Dr. McDERMOTT deemed it appropriate for commercial publishers to use MEDLARS tapes to improve their products. Dr. Kennedy noted Presidential support for providing private industry with benefits from federal research and development. Mr. Alexander noted that the Index Medicus could be sold commercially with advertising at a reduced price.

BOARD RESPONSIBILITIES

Dr. WOODHALL commented on the role of the Board and the role of the Office of Science and Technology in recommending NLM policy. He clearly referred to the Board's responsibilities to the USPIS for advising the NLM in these areas. D. Cummings cited the Library's statutory authority authorizing the provision of services without charge.

In answer to Mr. Adams' question concerning Mr. Knox's reaction to the draft policies before the Board, exclusive of distribution to commercial publishers, Mr. Knox replied that he had some suggestions for changes of wording. It was clearly indicated that discussion relating to the provision of tapes to commercial interests was preliminary.

NBS TEAM

Dr. BRILL then introduced Mr. Edward Forbes of the Institute of Applied Technology, National Bureau of Standards, the leader of a project team working jointly with NLM staff on problems related to graphic image systems. Mr. Forbes divided his presentation into three sections. The first related to the development of new photographic techniques and procedures for the large-scale filming of a deteriorating collection. The filming of approximately One-hundred million pages would be contemplated by the end of fiscal year 1969.

This filming would be on 16 mm. film and would require the development and production of an improved micro-photographic camera and holder. Copies of the film would be made available for resource development in new medical libraries assuming that satisfactory copyright arrangements can be made. A second major development proposal involves a display device for a machine-aided vocabulary control system to be utilized by both indexers in the Library and individuals wishing to search the literature through consoles at remote locations. This would require the development of a display of MeSH terms through a new type of microfilm projector-viewer, providing the ability to demonstrate terminology and definitions, and to select for search terms appropriate to the question. A third element would be a new form of reader-printer through which cartridges of film could be rapidly scanned and reproductions of required articles made.

Dr. Cummings expressed his thanks to the National Bureau of Standards for their technical assistance, and the accomplishments to date.

In answer to Dr. HUBBARD'S question, Mr. Forbes indicated that the costs of the selector device to be developed would depend on the number sold, but that the costs of a reader-printer would be close to those of one currently on the market at \$2,000. Mr. Alexander, in response to Dr. GELLHORN'S question relating to the pooling of governmental resources for such development, pointed out that unfortunately federal budget mechanisms provided an inadequate base for pooled activities, but that it was an objective he hoped to work toward. A case in point is the current federal effort to develop an adequate chemical information system.

NLM DRUG LITERATURE PROGRAM

Dr. BRILL then called upon Miss Winifred Sewell, who described the Library's participation in the Departmental Drug Information System. The fiscal year 1966 budget contains \$1 million for the Library to develop the literature aspects of the Departmental program. The Library intends to add 24 staff members, 13 of whom will be scientific personnel concerned with the analysis and servicing of literature in areas of pharmacology, medicinal chemistry, biochemistry, toxicology, pharmacy and clinical investigation. The Library plans to broaden the base of its literature procurement; to index this literature at greater depth, including details of therapeutic use, pharmacologic action, chemical composition, and dosage forms; to develop specialized vocabularies and to develop a special subsystem of MEDLARS for the purpose of handling drug information. Increased services to the biomedical community based on the foregoing analysis will be provided, as well as support for specialized abstracting, bibliographies, and for research and training. The Library has been exploring common interests with the American Association of Hospital Pharmacists. Miss Sewell pointed out that the Drug Literature Program at the Library would be the first oriented toward a subject rather than a function. In answer to Dr. GELLHORN's question about difficulties of hiring personnel, Miss Sewell and Dr. Cummings expressed the Library's intention to seek expert consultation from such groups as the Drug Research Board of the National Research Council, and its Committee on Modern Methods of Handling Chemical Information.

Dr. Cummings pointed out that the Library limited its participation in the Departmental program to the management of the published literature. Dr.

Kelsey added that the National Institutes of Health were developing plans for long-range research and development, while the Food and Drug Administration would be concerned with the management of unpublished information.

ABRIDGED INDEX MEDICUS

Dr. BRILL then called upon Dr. Karel to report on the status of the abridged Index Medicus. Dr. Karel described the effort in producing the sample issue. On the basis of three proposed lists, 216 titles were selected, 210 of them in English. All but 12 of the 216 represent clinical literature. This resulted in 3,666 citations which took 146 subject pages and 88 author entry pages.

Mr. Adams reported on discussions at AMA headquarters regarding their sponsorship. While AMA could not agree that the sample Abridged Index Medicus represented the optimum solution, it is extremely interested in cooperating with the Library to provide an index for general practitioners under specifications to be developed by an AMA committee on information needs of the practicing physicians. AMA agreed informally to return the Cumulated Index Medicus for publication by the Library in exchange for this new publication. Dr. BRILL and Dr. GELLHORN expressed their satisfaction on behalf of the Board with this solution.

Dr. GELLHORN called for special consideration to be given to the academic community, including university and research institute clinicians and basic scientists.

Dr. Cummings pointed out that MEDLARS was capable of providing both services. Dr. HUBBARD commented on the highly complex and interesting problem the AMA would face in attempting to design a sophisticated index for

medical practitioners.

ADJOURNMENT

Dr. BRILL then adjourned the meeting at 5:45 p.m.

SECOND DAY SESSIONCOSATI

In opening the second day's session, Dr. BRILL introduced General William J. Ely, Chairman of the Committee on Scientific and Technical Information of the Federal Council for Science and Technology. General Ely introduced his description of COSATI activities by quoting Dr. Kingman Brewster of Yale:

"The next decade of our trusteeship must cope with three revolutions; the explosion of knowledge, the burgeoning population, and the uncanny development of automated machines and mechanized intelligence."

COSATI is an Interagency Committee concerned with coordination of Federal programs for the handling of scientific and technical information. Over the last three years it has dealt with such matters as the assessment of specialized technical information centers, the funding of the Science Information Exchange, the promulgation of Federal agency standards for descriptive cataloging of Technical Reports, microfiches for the storage and dissemination of reports, and standardized terminology for their indexing. It has sponsored the creation of a Clearinghouse for Federal Scientific and Technical Information in the Department of Commerce, and the inventorying of national information resources through the programs of the National Referral Center at the Library of Congress.

COSATI task groups are currently working on problems of technical vocabulary compatibility, on a governmental depository library system, on problems of resources of the scientific journal literature, and on the

outlines of national science information systems, in which national library functions are closely involved.

The CHAIRMAN next invited Dr. F. Ellis Kelsey, the deputy representative of the Department of HEW on COSATI, and advisor to the Surgeon General for Science Information, to comment. Dr. Kelsey stated that the totality of science information activities in the 22 Divisions of the PHS results in the expenditure of \$50-100 million annually. The bulk of these are mission-oriented, such as the Mental Health Clearinghouse, and the Air Pollution Information Center. The National Library of Medicine is atypical in that it is concerned with the totality of health missions. Problems of functional coordination within the PHS reflect the problems at Federal Agency levels, in which appropriations for programs are the resultant of interplay between the Executive and Congressional branches.

In answer to a question from Dr. HUBBARD, Dr. Kelsey stated in his opinion that COSATI was necessarily concerned primarily with the problems of improved dissemination of the report literature generated by the Department of Defense, NASA, and AEC, and that less attention had been paid to the non-governmental scientific community, including the functions of universities and of national libraries. The concept of national science information systems must necessarily involve private agencies such as the American Chemical societies and the universities.

UNIVERSITY FUNCTIONS

Dr. HUBBARD expressed his concern over the lack of adequate recognition of university functions. Dr. Kennedy related this to the distribution of the total national budget for research and development. Of approximately \$15 billion, AEC, NASA, and DOD account for some \$14 billion, of which less than \$1 billion is spent in universities. Of the Public Health Service's billion-dollar

budget, approximately 90% is spent in the university community. This imbalance is reflected in COSATI thinking about the national science information problem.

Dr. HUBBARD underscored the role of universities in creating new knowledge, the need for calculated feedback to the university community, and the recognition of the university community's primary responsibility for the generation and integration of new knowledge.

NATIONAL AGRICULTURAL LIBRARY

The CHAIRMAN then welcomed Mr. Foster Mohrhardt, Director of the National Agricultural Library, who has been invited to attend future meetings of the Board as an observer. Mr. Mohrhardt complimented Dr. Cummings on progress made in the NIM, and commented on his own participation in COSATI. As a member of the Task Force on National Science Information Systems, he has insisted on the importance of research library contribution.

In discussing the National Agricultural Library's activities, Mr. Mohrhardt reported on the construction of a new building at Beltsville, on the successful accomplishment of a comprehensive systems analysis of the Department Library as a necessary preliminary to automation, and on activities he has initiated in response to a mission to function as a clearinghouse for agricultural information. The NAL has developed close working relationships with the libraries of land grant institutions, comparable to that existing in the medical field. The Bibliography of Agriculture now uses an optical scanning device and computer to prepare its author index.

NAL intends to cooperate closely with NLM in the development of mechanized library procedures. The Department of Agriculture has undertaken

the development of a Pesticides Information Center. This is being coordinated with information activities relating to the effect of pesticides on human health being established within the PHS. In the ensuing discussion Dr. Cummings mentioned understandings achieved with the NAL where fields of interest overlap, as in the area of veterinary medicine. Both institutions agree that duplication of resources is essential to their programs.

MESH

Dr. BRILL then introduced Dr. Peter Olch for a discussion of problems relating to the improvement of the medical terminology used in MeSH. Dr. Olch described the interests of some 20 national groups and specialized information activities working on problems of medical terminology, and the coordination necessary to relate these activities to the further development of MeSH. MeSH must be developed with extreme care and high technical competence in view of the important functions it serves as the control not only of MEDLARS, but of library cataloging. Broad areas of weakness have been identified in the behavioral sciences, congenital diseases, and in such new fields as biophysics, biomathematics, and biomedical instrumentation. Four staff members have been concentrating on its improvement over the past year, concerning themselves not only with the inclusion and correction of terminology, but also with a complex of technical problems relating to the structure of MeSH. Inadequacies detected from analyses of search results are brought to the attention of the MeSH group. Provisional headings suggested by the indexers are regularly reviewed. The Library has adopted a procedure of approaching scientific groups for technical assistance. For example, the American Public Health Association has appointed a committee to assist the

Library in the development of headings in the field of epidemiology. Three specialized information centers in neurology are also cooperating in an effort to standardize terminology in this area.

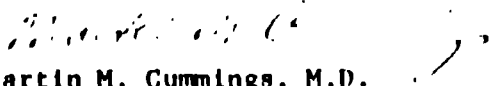
579 new terms were added for the 1965 edition; the group intends to add approximately 1,000 in the 1966 edition. An outstanding example of cooperation was in the development of specialized terminology for the field of rheumatology sponsored by NIAMD as evidenced in its publication of a Thesaurus of Rheumatology fully coordinated with MeSH terminology.

Mr. Adams commented on the relationship of the Library's program for standardizing terminology in fields of bioscience with the efforts to achieve a standardized government vocabulary for technical reports through COSATI. The Library will cooperate with the COSATI group, but believes that its primary responsibility is toward the scientific groups in the biomedical community.

BILLINGS CENTENNIAL

The CHAIRMAN then asked Mr. Daniel Bailey to report on plans for the Billings Centennial. A public ceremony to which government leaders will be invited will be held at 2 o'clock on the afternoon of June 17. A scientific session at which papers will be presented will be held in the Library at 8 o'clock that evening. The Library has prepared exhibits illustrative of Billings' career for the occasion. The Board will hold a business meeting in the morning, will attend the Billings Centennial in the afternoon and evening, and will return for a continuation session the morning of the 18th.

Respectfully submitted,


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

NATIONAL LIBRARY OF MEDICINE

AGENDA

Twenty-first Meeting of the
BOARD OF REGENTS

Board Room

9:00 a.m., June 17-18, 1965

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. Brill
- II. CONSIDERATION OF MINUTES OF LAST MEETING TAB I Dr. Brill
- III. DATES OF FUTURE MEETINGS TAB II Dr. Brill
- Confirmation of November 15-16, 1965
" " March 21-22, 1966
Consideration of meeting date - June 1966
Possible Dates: June 13-14
June 16-17
June 20-21
June 23-24
- IV. REMARKS BY THE SURGEON GENERAL Dr. Terry
- V. REPORT OF THE DIRECTOR Dr. Cummings
- VI. STANDARDS FOR MEDICAL LIBRARY SERVICE (Based on Dr. Orr
"Communication Problems in Biomedical Research";
NAS-NRC, in cooperation with FASEB)
TAB III
- VII. PROPOSAL FOR THE EVALUATION OF MEDLARS TAB IV Mr. Austin
- BILLINGS CENTENNIAL - program begins at 2 p.m. today
BOARD OF REGENTS MEETING - adjourned until 9 a.m. tomorrow
- RECONVENE - 9:00 a.m., June 18, 1965
- VIII. TRANSFER OF REGENCY
- IX. REPORT ON MEDLARS DECENTRALIZATION SITE VISITS TAB V Mr. Adams
- X. REPORT OF SUBCOMMITTEE ON MEDLARS TAPE UTILIZATION Dr. Woodhall

BOARD OF REGENTS ADVISORY COMMITTEE MEETS FOLLOWING LUNCH

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 21ST MEETING

June 17-18, 1965 - Bethesda, Maryland

Members present: BRILL, CARLSON, DIXON, FUSSLER, GELLHORN, HARKINS,
HUBBARD, JARCHO, McNINCH, TAGER, TERRY, WOODHALL
(McDermott for second day only)

Members absent: BOHANNON, BROWN, HEATON, McDERMOTT, MUMFORD

Alternates: Captain Curtis Cummings represented Admiral Brown

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

Mr. Foster E. Mohrhardt, Director of the National
Agricultural Library, Department of Agriculture

Mr. William R. Herman, Scientific Information
Program Analyst, National Institutes of Health

Dr. Richard H. Orr, Director, Institute for Advancement
of Medical Communications

NLM Staff: Dr. Martin M. Cummings, Mr. Scott Adams, Dr. Peter D. Olch,
Dr. Charles L. Bernier, Mr. John Spain, Mrs. Maxine Hanke,
Dr. Louis S. Gerber, Mr. Robert M. Wilson, Mr. Charles J.
Austin, Dr. John B. Blake, Miss Mary E. Corning, Dr. Carl
D. Douglass, Dr. Leonard Karel, Dr. David A. Kronick,
Mr. Samuel Lazerow, Mr. Paul C. Redmer.

INTRODUCTIONS
and
APPROVAL OF MINUTES

Dr. BRILL called the meeting to order at 9:00 a.m. The minutes of the meeting of March 18th were approved. The CHAIRMAN then introduced the Surgeon General who reported briefly on a series of items of interest.

MEDICAL LIBRARY ASSISTANCE ACT

Hearings on S. 597 before Senator Hill on June 14-15 were highly satisfactory. Hearings on H.R. 3124 before the House Interstate and Foreign Commerce Committee have yet to be held. There is indication of strong House support although some modifications may be expected on the House side.

The Bureau of the Budget has requested the Office of Science and Technology in the Executive Office of the President to advise them on appropriate funding for the legislation, particularly that the appropriation for the construction sections be deferred pending a study to be undertaken by OST. The Surgeon General requested the Board's advice in relating the planning of a medical library network to the proposed Heart Disease, Cancer and Stroke University-centered complexes. He was particularly concerned with the synthesis of planning for medical library and communications support as it relates to the multiplicity of new health programs. He formally requested the Board's advice on broad policy questions relating to the planning and distribution of medical information through a national network of medical libraries.

WORLD HEALTH ORGANIZATION

Dr. Terry then referred to the interest expressed in communication at the World Health Organization Assembly in May. The American delegation had offered the facilities of the National Library of Medicine to assist the World Health Organization in the development of an international communications system. The Assembly adopted a resolution instructing the Director General of the World Health Organization to initiate planning in the area of research and research communications.

OST

In commenting on Dr. Terry's remarks, Dr. HUBBARD described his impressions on the meeting called to assist OST in the formulation of a study to answer the Bureau of the Budget requirements. It was clear at the meeting that the medical library was the instrument of choice for medical communication but nonetheless required modification. Dr. Terry expressed his interest in receiving a report on NLM policy and program developments from the Board early in the fall.

NLM REPORT

Dr. BRILL then called upon the Director for a report on developments at the National Library of Medicine.

The Presidential Budget for F. Y. 1966 included an increase of \$1,000,000 for the development and implementation of a Drug Literature Program as an

element of a Department-wide program for drug information. Otherwise, there are no significant changes in the Library's F. Y. 1966 budget over F. Y. 1965. Dr. Cummings then reviewed the preliminary budget for F. Y. 1967, with a five-year projection, as approved by the Departmental Budget Review Committee. Assuming the passage of legislation the Department would authorize the submission of a supplemental appropriation request of \$5.9 million in F. Y. 1966. In F. Y. 1967, the allowance would reflect an increase of \$19.6 million for a total of \$25.5 million, again assuming passage of legislation. Regrettably, the Department did not allow a half-million dollars increase for intramural research and development and efforts are being made to appeal this decision. The HEW budget review suggested that books might be replaced by microfilms. The total of new expenditures related to the Medical Library Assistance Act for five years would be \$117 million.

Dr. FUSSLER questioned whether the ongoing needs of the Library's intramural programs were adequately recognized by this budget, and stated that increased space requirements would not be affected materially by conversion of significant portions of the Library's collections to microforms. Both Dr. HARKINS and Dr. HUBBARD expressed concern with the HEW concept of displacement of books by film, with Dr. HUBBARD indicating that paper deterioration might limit choices. Dr. FUSSLER emphasized difficulties of space planning in the absence of definitive storage cost formulae. In the discussion which followed there was general agreement that the future of libraries constituted a social as well as a technological problem.

MEDLARS SEARCH COSTS

Dr. Cummings then reviewed some current operating problems of MEDLARS. Preliminary cost analysis, assuming a level of 3900 demand searches in F. Y. 1966, and operating costs of \$588,000, including a five-year amortization of machine equipment, indicating that MEDLARS searches will cost approximately \$150 each. This compares favorably to the estimated costs when human search is performed and has the great advantage of speed.

RECURRING BIBLIOGRAPHIES

Recurring bibliographies are now being published as follows. The Index to Dental Literature, for the American Dental Association; Fibrinolysis, Thrombosis and Blood Clotting for the National Heart Institute; Index of Rheumatology for the American Rheumatism Association; and Cerebrovascular Bibliography for the National Institute of Neurological Diseases and Blindness. The American Medical Association has agreed to return the Cumulated Index Medicus to the Library for publication; the Library is attempting to find the funds for printing. Policies related to its distribution and price are being studied. Doctors GELLHORN, HARKINS and HUBBARD questioned whether 4,000 copies would be adequate.

FUTURE MEETINGS

The Board then confirmed November 15 and 16 for its next meeting, March 21 and 22, 1966 for its spring meeting, and June 23 and 24 for its third meeting.

COMMUNICATION OF BIOMEDICAL RESEARCH REPORT

Dr. BRILL welcomed Dr. Richard Orr, Director of the Institute for the Advancement of Medical Communication. Dr. Orr referred to the report of the National Academy of Science Advisory Committee on the Communication of Biomedical Research. He emphasized one of its conclusions, that present standards for medical libraries are not defined in terms of the needs of the users, being rather in arbitrary terms of numbers of volumes. Present available statistics bear no necessary relationship to the quality of library services. The present standard of 100,000 volumes is not only apocryphal but useless. Dr. Orr proposed the development of measures for the performance of services; such measurements should be objective, reliable and independent of the library's procedures. Measurements to be developed would be tested on sample libraries to determine the range of performance and then submitted to a review board for the purpose of establishing minimal performance standards.

Dr. FUSSLER, speaking as a library administrator, expressed his approval of efforts to establish new measuring devices. Dr. Orr stated that most standard-setting bodies concerned with medical libraries are unhappy with the subjective standards now in use. Dr. HUBBARD expressed concern about measurements which did not reflect the totality of information transfer within an educational institution. Dr. FUSSLER stressed the need for information on the intellectual consequences of information systems.

MEDLARS

The CHAIRMAN then introduced Mr. Charles J. Austin, Chief of the Library's Data Processing Division. In presenting the Library's proposals for the development of effective methodology to evaluate MEDLARS, Mr. Austin reviewed the present status of systems performance evaluation. Six broad considerations are pertinent: coverage, recall, precision or relevance, response time, output format and user effort. The principal problem area is that of measuring recall and precision. A 2 x 2 contingency table has been developed to express relationships between recall and precision, and various scales to quantify what is basically subjective determination, have been developed. Difficulties have been experienced in establishing statistical controls for any of the six procedures developed to determine precision. NLM plans to support a two-phased project. In the first phase the objective would be to develop an experimental test design. In the second, the intent is to apply the test and to analyze resulting data

carefully with specific reference to any system failures. Time and great attention will be devoted to the experimental test design.

MEDLARS EVALUATION

The National Library of Medicine has proposed joint sponsorship for MEDLARS evaluation to the National Science Foundation, involving the assistance of Mr. Cyril Cleverdon, Librarian, The College of Aeronautics Library, Cranfield, Bedford, England, who has been deeply involved in systems evaluation. Six months will be devoted to the design of the text; approximately 12-15 months of testing, tabulation and preliminary analysis; and the balance of the two-year period will be devoted to detailed formal analysis of results.

Following a brief discussion the morning session adjourned at 12:30 p.m.

SECOND SESSION

MEDLARS DECENTRALIZATION

In opening the Board's second session, Dr. BRILL introduced Mr. Scott Adams, the Deputy Director, who with Mr. Austin, reported on the site visits made to applicants for MEDLARS Decentralized Search Centers. Mr. Adams stressed the nature of the decisions the Board was called on to make. Future opportunities for an over-all review of MEDLARS decentralization would be available. The Board was asked first, to select a single institution for support in accordance with resources available in the Library's budget for F. Y. 1966, and second, to indicate its preference for further institutions in the event that original funding estimates were restored by Congressional action. Mr. Adams then reviewed the criteria approved by the Board at its meeting in November; service potential, Library resources potential, research interests and administrative support.

Visits were made to 19 institutions out of 21 applicants for the purpose of collecting data and information in both quantitative and qualitative categories. Mr. Adams proposed that the Board be guided geographically by the existence of established time zones, that a preference be stated for a specified time zone, and that the institutions in that time zone be evaluated in accordance with the criteria. Since MEDLARS centers exist in the Far West and the Rocky Mountain Area, staff proposed priority attention to the Central Time Zone. Mr. Austin presented data related to the qualifications of three leading contenders within the Central Time Zone: The University of Chicago, Indiana University and Washington University at St. Louis. Mr. Adams amplified Mr. Austin's data with information relating to the Library's resources.

Both Dr. WOODHALL and Dr. HUBBARD expressed concern about the amount of service and activity a university could support from its own resources. Dr. FUSSLER expressed his reservations about the significance of statistical and organizational information relating to libraries and suggested adding criteria related to the availability of photocopying services.

Dr. Cummings suggested that a preferable procedure for the future might be for some Board members to become involved in making site visits, since the Board shared the responsibility of decision. Dr. DIXON endorsed this principle but Dr. JARCHO demurred stating that the decisions to be made would not have ultimate historic finality. Dr. GELLHORN concurred with Dr. JARCHO.

Dr. HUBBARD distinguished between the MEDLARS decentralization and the establishment of regional libraries, and suggested that the Board confine its attention on the former.

Dr. HARKINS expressed concern over the number of project site visits to be made.

Dr. GELLHORN suggested that the government state clearly what services it wished to procure from a university. Dr. Cummings stated that the Library was looking for institutions to share with NLM the burden of mechanized search requests through the provision of demand search services and current awareness services on a regional basis.

MEDLARS SEARCH CENTERS

Dr. DIXON suggested that the origin of requests now being serviced might provide guidance to the Board in making selections. The Board then discussed geographic areas presented by staff, and on Dr. HUBBARD'S motion, voted that the Board in its determination would not be bound by geographic boundaries identified in the advance materials. There was then discussion of the voting procedure to be followed by the Board, and on Dr. HUBBARD'S motion the Board voted to limit its determination to establishing a rank order for the three institutions considered qualified by the staff in the Central Time Zone area. Dr. WOODHALL, however, demurred, pointing out that other qualified institutions should be considered.

Dr. FUSSLER absented himself prior to the vote. The Board then voted to authorize the staff to negotiate the most favorable contract with the advice of the Board on priorities. The Board then proceeded to ballot secretly providing such rank order, with the University of Chicago receiving first choice, Washington University, second, and Indiana, third. On the motion of Dr. DIXON this was converted to a unanimous vote. The action was then clarified showing the Board's intention to authorize staff to negotiate along the lines of service provision as suggested by the criteria. Dr. FUSSLER returned following the vote.

The Board then discussed the desirability of proceeding to make further selections. Dr. JARCHO expressed concern that cities such as New York and Philadelphia were not represented. Dr. GELLHORN suggested that it would be reasonable to defer further action until funds were actually available and possible further applicants might be considered. Dr. BRILL suggested that the incoming Chairman appoint a committee to work with staff to provide the Board with recommendations concerning priorities for subsequent Centers, and on Dr. DIXON'S motion it was so voted.

MEDLARS TAPE UTILIZATION

The CHAIRMAN then called on Dr. Barnes WOODHALL, Chairman of the Board's Subcommittee on MEDLARS Tape Utilization. (The complete report has been distributed to members of the Board). In summary, Dr. WOODHALL'S Subcommittee recommended approval by the Board of Regents of the following MEDLARS Tape Utilization policies: (1) further research and development as approved by the Library; (2) local search services in universities and similar library resources; (3) the recommended deferral of a policy statement relating to international usage pending further information; (4) disapproval of the sale of MEDLARS tapes for a profit.

NEW CHAIRMAN

Dr. BRILL, in concluding the session, transferred the gavel to Dr. W. N. HUBBARD, JR., who took the chair.

CERTIFICATES OF APPRECIATION

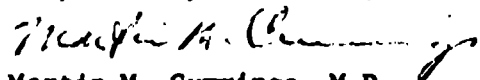
Dr. Cummings expressed the Library's appreciation for the services of Dr. BRILL as CHAIRMAN, and presented certificates of appreciation to Drs. JARCHO and BRILL from the Secretary of the Department and the Surgeon General. Drs. JARCHO and BRILL both made appropriate responses.

FUTURE PROBLEMS FOR BOARD

Dr. HUBBARD then presented a preview of problems to face the Board this next year, including a prompt response to the request of the Surgeon General for advice.

The meeting of the Board was adjourned at 12:40 p.m.

Respectfully submitted,



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

AGENDA
Twenty-second Meeting of the
BOARD OF REGENTS
Board Room
9:00 a.m., November 15-16, 1965

- | | | | |
|--|--|----------|--------------|
| I. | CALL TO ORDER AND INTRODUCTORY REMARKS | | Dr. Hubbard |
| II. | CONSIDERATION OF MINUTES OF LAST MEETING | TAB I | Dr. Hubbard |
| III. | DATES OF FUTURE MEETINGS | | Dr. Hubbard |
| | 1966 Calendar | TAB II | |
| | Confirmation of March 21-22, 1966 | | |
| | Selection of new meeting date - June 1966 | | |
| | Possible dates: June 9-10, 13-14, 16-17, 20-21 | | |
| | Consideration of meeting date - November 1966 | | |
| | Possible dates: November 14-15, 17-18, 21-22 | | |
| IV. | REPORT OF THE DIRECTOR | | Dr. Cummings |
| V. | BOARD OF REGENTS ADVISORY REPORT ON POLICY | TAB III | Dr. Hubbard |
| VI. | NLM FIVE-YEAR PROGRAM DESIGN | TAB IV | Mr. Adams |
| VII. | REPORT ON GRAPHIC IMAGE PROGRAM | | Dr. Leiter |
| VIII. | NLM SPACE NEEDS | TAB V | Mr. Isbister |
| IX. | JOURNAL SELECTION FOR INDEX MEDICUS | TAB VI | Dr. Karel |
| ADJOURNMENT - DINNER AT GOVERNOR'S HOUSE - FOLLOWED BY EXECUTIVE SESSION | | | |
| X. | ORGANIZATIONAL STUDY OF NLM | TAB VII | Mr. Isbister |
| | RECONVENE AT 9:00 a.m., NOVEMBER 16 | | |
| XI. | MEDLARS EVALUATION | | Mr. Austin |
| XII. | SELECTION OF MEDLARS SEARCH CENTERS | TAB VIII | Dr. Gellhorn |

ADVISORY COMMITTEE MEETING AT 1:30 p.m.

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 22ND MEETING

November 15-16, 1965 - Bethesda, Maryland

Members present: BEAN, CARLSON, DIXON, FUSSLER, GELLHORN, HARKINS, HUBBARD,
McDERMOTT, MUMFORD, TAGER, WOODHALL, WOLF

Members absent: BOHANNON, BROWN, HEATON, McNINCH, STEWART

Alternates: Captain Curtis Cummings represented Admiral Brown
Brig. Gen. F. J. Hughes represented General Heaton

Guests: Dr. James M. Hundley, Assistant Surgeon General for
Operations, PHS, DHEW

Dr. Ellis Johnson, Coordinator of Science Communication
Activities, DHEW

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

Mr. Jonathan Sloat, Chief Counsel, Special Subcommittee
on HEW Investigation, Committee on Interstate and Foreign
Commerce, House of Representatives

Colonel James R. Connor, Special Subcommittee Staff Member

NLM Staff: Dr. Martin M. Cummings, Mr. Scott Adams, Mr. Charles Austin,
Dr. John B. Blake, Miss Mary Corning, Dr. Burnet M. Davis,
Dr. Carl D. Douglass, Dr. Louis S. Gerber, Mrs. Maxine Hanke,
Mr. James Isbister, Dr. Leonard Karel, Mr. David Kefauver,
Dr. David A. Kronick, Dr. Joseph Leiter, Dr. Kenneth C. Lynn,
Dr. Peter D. Olch, Mr. Paul C. Redmer, Mr. James Riley,
Miss Winifred Sewell, Dr. Andrew Sherrington,
Dr. Norman P. Shumway, Dr. A. R. Valle, Dr. Marjorie P. Wilson

In convening the meeting, Dr. HUBBARD introduced two new members of the Board whose interim appointments were signed by the President on November 14: Dr. William B. BEAN, Chairman of the Department of Internal Medicine, Iowa State University, and Dr. Stewart G. WOLF, Jr., Chairman of the Department of Medicine, University of Oklahoma. Dr. BEAN was a member of the Board from 1957-1961, serving as its Chairman in 1961.

GREETINGS FROM SURGEON GENERAL

In response to the CHAIRMAN's invitation, Dr. James M. Hundley, Assistant Surgeon General for Operations, conveyed the greetings of the Surgeon General, who was detained, together with General BOHANNON, Admiral BROWN, General HEATON and Dr. McNINCH, at a session of the Association of Military Surgeons. Dr. Hundley reviewed the reorganization survey of the Public Health Service currently conducted by the Corson Committee. The organizational location of NIH, the Service's environmental health missions, and personnel systems were representative of the level of the Committee's interest. A new division was being organized in the Bureau of State Services to serve as a focal point for carrying out responsibilities in the area of education for the health professions. NIH was in the process of organizing for the implementation of the Heart Disease, Cancer and Stroke Program. Dr. Hundley expressed his disappointment at the initial failure to acquire supplemental funds for the Medical Library Assistance Act. He stressed the Surgeon General's interest in the Board's forthcoming report advising on the Library's mission and policies.

INTRODUCTIONS

The CHAIRMAN next introduced Dr. Ellis Johnson, Coordinator for Science Communication Activities for DHEW, and Dr. F. Ellis Kelsey, Special Assistant to the Surgeon General for Scientific Information, together with Mr. Jonathan Sloat, Chief Counsel of the Special Subcommittee on HEW Investigation, House Committee on Interstate and Foreign Commerce, and Colonel James R. Connor of the Committee's staff. Mr. Sloat, in response to the Chairman's invitation, discussed briefly the goals of the Rogers Special Subcommittee in studying the organization and function of HEW. Dr. Cummings then introduced new Library staff members: Dr. Burnet M. Davis, who would be concerned with program development in Continuing Medical Education; Mr. James Isbister, succeeding Mr. Grim, the Library's Executive Officer; Mr. David Kefauver who had joined the Extramural Program as Science Administrator; Dr. Joseph Leiter, the Associate Director for Intramural Programs; Dr. Kenneth C. Lynn, the Coordinator for Dental Affairs; Dr. Norman P. Shumway, who had succeeded Dr. Peter Olch as Head of the Medical Subject Headings Group; Dr. A. Roberto Valle, the Senior Scientific Editor for the Library's publications; Mr. James Riley who had succeeded Mr. Lazerow as Chief of the Technical Services Division; and Dr. Andrew Sherrington who, as a Special Assistant to the Deputy Director,

with the status of visiting scientist, would be studying functions and activities in the area of international biomedical communications.

DATES OF FORTHCOMING MEETINGS

The minutes of the Board's meeting of June 17-18, 1965 were approved without objection. The dates of March 21-22, June 23-24, and November 14-15, 1966, were confirmed for the Board's next meetings.

ADVISORY REPORT ON POLICY

Dr. HUBBARD opened a discussion of the Board of Regents' Advisory Report on Policy. This report, prepared in response to a specific request of the Surgeon General, had been reviewed by the Board's Executive Committee in October. On Dr. GELLHORN's motion, the minutes of the Executive Committee meeting were received by the Board (Attachment A). Dr. WOODHALL expressed his understanding that the statement "access to information in the National Library of Medicine should be available to all qualified users without charge as a public service" was intended to exclude the possibility of the Library selling service. This assumption was confirmed by the CHAIRMAN, providing there were no legal impediments. Dr. Cummings confirmed that the law gave the Surgeon General authority to provide services without charge. Dr. BEAN raised the question of budgetary restrictions on the amount of free services. In conceding this point, the CHAIRMAN stated that also at issue was the policy confirming the traditional free library concept. In view of the interest of the Office of Science and Technology in user charges for government information services, Dr. Kelsey suggested an Appendix to the report demonstrating the effect of charges for services. Dr. WOODHALL preferred to see summarized policy statements. The CHAIRMAN indicated that the transmittal letter gave the Surgeon General the opportunity to request further information from the Board. Dr. Hundley asked for a definition of "qualified users" in relation to the phrase "non-profit organization" contained in the report. The CHAIRMAN, speaking for the Executive Committee, stated that it was most interested in the freest possible transfer of information to all users. If profit-making organizations impeded this transfer, this would have to be looked into. Dr. Cummings cited the Library's basic act (Attachment B) on this point. Mr. Adams pointed out that the Library interpreted the phrase "qualified users" very broadly.

Dr. WOODHALL then discussed the section on Technical Standards. The CHAIRMAN stated his conviction that an information subsystem should have a degree of freedom to accommodate its practices to the requirements of the population growth it served. With the inclusion of the phrase, "with appropriate technical advice", the Board concurred.

Dr. Hundley then indicated some of the types of questions the Surgeon General might wish to investigate upon receiving the report and urged an early discussion between the Surgeon General and the Board to take these up. Dr. WOODHALL restated his conviction that the National Library of Medicine, by intent of Congress and of the Public Health Service, was essentially a communications organization for information relating to human health. He urged that NLM concern itself with the handling of many forms of medical information. The CHAIRMAN stated his misgivings over the archaic image of the Library's mission implied by its name. Dr. Johnson commented that library functions needed broadening to accommodate non-document-oriented systems, and commended the Library for taking a pioneering concern in departmental attitude.

Discussions followed about the relationship of the Library to medical information systems not based on published documents, and the CHAIRMAN suggested that the Library constitute a point of entry to information contained in other systems. Under discussion was whether the Board wished to interpret the mandate under Section 372 of PL-941 to collect "other materials pertinent to medicine" to include unpublished data. Should the Library operate such systems or should it serve as a clearinghouse and referral center? The CHAIRMAN understood that, while the Library was legally established within the Public Health Service, it served there as an administrative device for conducting a larger function in health communications undertaken by the Federal Government in support of the public health.

Dr. TAGER then moved that the report be forwarded to the Surgeon General on behalf of the Board of Regents with the understanding that further discussions and supporting documentation would be implicit in the translation. The motion was unanimously carried.

DIRECTOR'S REPORT

The CHAIRMAN then invited Dr. Cummings to review highlights of the Library's activities with the Board. Dr. Cummings reported on the following items:

1. President Johnson signed the Medical Library Assistance Act (PL-89-291) on October 22.
2. MEDLARS operations were successful, with 3500 demand searches performed in 1965. Five new recurring bibliographies have been produced and printed for wide distribution.
3. Cost of MEDLARS operations at the University of Colorado had been satisfactorily low. The relevance of MEDLARS searches for selected dissemination of information has been high.
4. The Library's Billings' Centennial, Gesner Exhibit, and showing of advance models for the film, "Fantastic Voyage" had all resulted in successful public attractions.

The Library was currently participating in a department-wide drug information clearinghouse activity; its most difficult intellectual problem was the continuing improvement of the medical subject headings list, an activity in which the American Dental Association, the American Public Health Association and, most recently, the Division of Medical Sciences, National Research Council, had provided assistance.

Service loads continued to increase with an anticipated 280,000 transactions by the end of 1965. Transactions in Reference Services were projected at 31,000.

The 1965 actual appropriations totalled \$3.9 million with \$3.2 million supporting intramural operations and \$738,000 extramural. In Fiscal Year 1966, the Library's budget was \$5,510,000, with Congressional increments of \$220,000 for the development of a preservation filming program and \$250,000 for the further decentralization of MEDLARS. The full supplemental appropriation requested for F.Y. 1966 to implement the Medical Library Assistance Act was disallowed by the Bureau of the Budget. Dr. Cummings then reviewed the basis of budgetary planning for F.Y. 1967. The Library's preliminary budget, as submitted, included funds for the support of all sections of the Act with the exception of a branch library. Dr. Cummings indicated strong departmental support for the Library's budgetary planning.

In answer to a question from Dr. CARLSON, concerning the relationship of the Medical Library Assistance Act to Title 2 of the Higher Education Act, Dr. Cummings said this would provide support for college and university libraries. Dr. Cummings also remarked on the close understanding he had reached with the Commissioner of Education. The two Acts were complimentary and not duplicative, and the two agencies intend close coordination.

Drs. HUBBARD and WOODHALL called attention to problems of definition at the university level where clear-cut divisions between medical and general university libraries did not exist. In a "global" statement, Dr. HUBBARD then summarized his personal fascination at the position of the Library as a multi-purpose information system required simultaneously to make adjustments to the educational, research, and service components of the national health effort.

In opening the afternoon session, Dr. HUBBARD raised the question of length and frequency of the Board's meetings. Dr. McDERMOTT preferred two-day meetings, supplemented by meetings of the Board's Subcommittees; Dr. WOODHALL proposed more frequent sessions of limited duration, also supplemented by Subcommittee meetings. The CHAIRMAN summarized Board

opinion in accordance with Dr. WOODHALL's suggestion.

NLM FIVE-YEAR PROGRAM DESIGN

The CHAIRMAN then called upon Mr. Adams for preliminary discussion of a five-year program design being prepared by Library staff in response to a request by the Deputy Surgeon General. Mr. Adams emphasized that the report in preparation was limited to a document-oriented subsystem and was being prepared in the context of five-year budgetary projection figures already submitted to the Department. The program design was based on a network of medical libraries to provide for geographic dissemination and information centers to provide for specialized dissemination to national audiences. Inputs and processing into the system would centralize in the National Library of Medicine.

Dr. WOODHALL, in opening the discussion, called attention to a discrepancy between the breadth of recommendations in the Board's report to the Surgeon General and the Library's limitation of its planning to a document-oriented subsystem. Dr. HUBBARD was also concerned with the absence of provision for information processing and dissemination based on unpublished information and data. Mr. Adams stated that expansion was technically possible, but that the assignment of responsibilities for developing and operating non-documentary systems was a matter of service or departmental decision. Dr. WOODHALL emphasized the data requirements of such programs as Heart Disease, Cancer and Stroke; the broader concept of information transfer underlying continuing education. Dr. Cummings pointed out that the Library's systems planning was based on responsibilities currently assigned, but that it would be amenable to change.

Dr. McDERMOTT raised a question about the adaptability of a subsystem to total systems which might be designed later; Dr. Johnson agreed that the design of subsystems potentially incompatible with generalized systems presented difficulties. Mr. Adams pointed out that two components of the subsystem in fact existed: libraries providing regional service and specialized information centers. Dr. FUSLER challenged the assumption that regional libraries might necessarily be an optimal pattern for geographic dissemination and urged investigation of alternatives to improve access. Dr. Cummings informed the Board that the Library had under consideration a contract study to examine traffic patterns and work loads. Dr. McDERMOTT urged a comprehensive systems analysis of document dissemination, a type of investigation to which Dr. Johnson gave the name "systems research". Dr. HUBBARD and Dr. FUSLER concurred. In summarizing the discussion, Dr. HUBBARD made two points:

1. That the program design be accompanied by a statement that it was subject to further development;

2. That the subsystem proposed be involved in the further analysis and research and development of information processing systems forecast for the future.

Dr. WOODHALL queried the Library's interest in participating in the planning for the Heart Disease, Cancer and Stroke Program. Dr. Cummings affirmed the Library's willingness to do so and indicated that he has had informal discussions with the Director of NIH to work toward a compatible development for regional planning.

In further discussion about the relationship of the Library's program design to the Board's Advisory Report, it was agreed to rename the program design, expressing its limitation. It was then moved and carried that the Board's Executive Committee review the plan before it was submitted.

GRAPHIC IMAGE SYSTEM

The CHAIRMAN then called upon Dr. Leiter for a progress report on the Library's development of the Graphic Image Program. Dr. Leiter reviewed the Library's objectives:

1. To provide a capability for preservation of deteriorating publications;
2. To provide the basis of a micro-image storage and retrieval system parallel to MEDLARS.

The Library would sponsor a technical conference in December to review a technical report prepared by the National Bureau of Standards relating to specifications for micro-image. The Library had been exploring all commercial sources for microfilming with success. Material for filming divided into three groups:

1. Materials already available through commercial channels;
2. Materials capable of commercial exploitation;
3. Archival material of low commercial interest.

Generally, the Library would concentrate its in-house activities in this latter area and encourage commercial interests to develop further film availability.

SPACE NEEDS

The CHAIRMAN then called upon Mr. Isbister for a report on the Library's space needs. Initial planning did not make provision for MEDLARS, the Extramural Program, Intramural research and development, and study space

for scholars. Space for 250 staff members was initially provided-- there were currently 280, with 352 authorized by the end of the fiscal year. The Library had already converted to office use, 27,000 feet of space previously earmarked for books. Lunchroom facilities were grossly inadequate. The Library needed a vault to house magnetic tapes and microfilms.

Efforts to acquire funds to construct an annex or an international conference building, in which NLM would share space with NIH, had to date been unsuccessful. The Board expressed keen interest, and on Dr. DIXON's motion, requested the staff to draw up a statement for facility needs for its endorsement.

JOURNAL SELECTION FOR INDEX MEDICUS

Dr. Karel then discussed the problem of journal selection for the Index Medicus. An ad hoc advisory committee had met four times over the last year.

Problems had been experience both in establishing clear-cut criteria for selection and in collecting the necessary data about the publications. Dr. Cummings confirmed the Library's policy of preparing the Index Medicus for use internationally, and reviewed the Library's previous selection practices. An adequate mechanism which could simultaneously evaluate the "quality" of journals and maintain familiarity with some 40 languages had been difficult to achieve. On the basis of committee review, 865 titles of some 2,440 had been identified for depth indexing. BSD was currently reviewing the 17,000 titles received by the Library to identify candidates missed in the past.

As an example of the dimensions of the problem, Dr. Karel stated that of 1,300 Japanese serial titles, the Library now included 97 in the Index Medicus and had identified 230 more candidates.

Dr. Cummings raised the question of cost allocation involved in covering gaps by independent groups and the potentials represented by author indexing and contract indexing. Drs. Olch and WOODHALL advised against lowering quality standards in the interests of broader coverage. The Board made no decision on this matter.

SECOND SESSION

In opening the second day's session, Dr. HUBBARD invited Dr. Ellis Johnson to report on COSATI activities. COSATI had contracted with the Systems Development Corporation for the preparation of a report on National Document Handling Systems in Science and Technology, and had prepared a report calling for the establishment of a central control mechanism in the Office of Science and Technology. This report had been approved and adopted by the Federal Council for Science and Technology.

HEW had adopted the position that the assumption of the existence of an information crisis, on which the COSATI recommendations were based, was not valid, also that lack of resources were a major inhibiting factor.

Dr. Mumford commented on the COSATI assumption that the Federal Government had responsibility to see that there was one accessible copy of every significant document in the world literature available in the U.S.

After discussion about the relation of the COSATI report to the Board of Regents policy formulation, Mr. Adams undertook to make copies of the report available to the Board.

The CHAIRMAN stated his conviction that the Library as an institution should not be discarded in the rush to develop novel information systems, but that it should serve as a base for evolutionary development. The Library's function, which was to service simultaneously the information needs of research, education, and medical service, created special problems when library programs were viewed in the context of specialized single purpose systems.

The CHAIRMAN then called upon Mr. Austin to review efforts to date to analyze and evaluate MEDLARS operations. Informal evaluation of demand searches, based on answers to questionnaire forms mailed out with each bibliography, gave an estimate of 63% relevance. Only 68 citations were reported missed, compared to 11,000 retrieved. The average calendar day throughput time for MEDLARS searches was 11.4. Delays are primarily due to limited manpower rather than machine system capabilities.

The Library was planning a formal systems evaluation of MEDLARS to start early in 1966. Among systems changes anticipated, starting in January, were the reintroduction of topical subheadings, the printing of subject tracings through GRACE, and the publication of selected demand searches.

Mr. Austin discussed the costing accomplished by the Library on the basis of amortizing all capital expense over five years and charging all direct costs. The cost per page of the Index Medicus was \$59, or 48¢ per citation. This year each search cost \$200. These unit costs showed a steady decrease.

Mr. Austin cautioned against publishing these data without full explanation of the base of costing.

The Library intended to publish a comprehensive and detailed report of its evaluation effort.

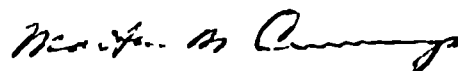
Dr. Cummings stated his wish to see a comparison of data from the MEDLARS cost system with those of other systems within and outside the Public Health Service. Drs. Mumford and FUSSELLER urged the publication in the public interest of evaluation and cost information.

The CHAIRMAN then asked Dr. GELLHORN, representing a Subcommittee of the Executive Committee, to report on the selection of the next candidates for MEDLARS search centers. The Subcommittee had met on November 1 and considered 30 applications. It had determined that the quantitative rather than the qualitative aspects of the criteria previously established by the Board were pertinent to its review. The Subcommittee had developed and applied a point rating scale to computer resources and personnel resources. It had considered 13 institutions in the mid-west, and it now recommended Indiana, Michigan, and Ohio State as leading candidates. Chicago had been excluded on the basis of their need to recruit additional personnel. In the New England area the Subcommittee recommended Harvard, and in the south, Alabama, Texas Medical Center, and Tulane. The Subcommittee invited the Board's attention to other criteria for future consideration: the volume of medical research, the extent of library circulation, the number of interlibrary loans, and the administrative competence of the "principal investigator".

On Dr. DIXON's motion, the Board voted to approve Michigan in the mid-west, on Dr. HARKINS' motion, Harvard for New England, and on another motion of Dr. DIXON's, Alabama for the south. All three motions were unanimously carried.

The next meeting of the Board will be held on March 21-22.

Respectfully submitted,



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

EXECUTIVE COMMITTEE
BOARD OF REGENTS
NATIONAL LIBRARY OF MEDICINE
October 6, 1965

The meeting was convened by the Chairman, Dr. William N. Hubbard, Jr., at 11:30 a.m., in the Extramural Conference Room, in the National Library of Medicine. Dr. Martin Cummings served as Executive Secretary. Members of the Board of Regents present were Dr. Russell A. Dixon, Dr. Alfred A. Gellhorn, and Dr. Barnes Woodhall. Staff members present were Mr. Scott Adams, Mr. Charles Austin, Dr. Carl Douglass, Mr. James Isbister, and Mr. Paul Redmer.

I. Reason for Meeting

Dr. Cummings welcomed the Board members and explained the necessity for an executive planning meeting in view of recent developments in the Medical Library Assistance Act, the complexity of administrative and technical problems facing the Library, and the fact that Board advice and recommendations would be required during the interim between the three Board meetings.

Dr. Hubbard commented that the Library was facing a problem in the redefinition of its public image. The Regents have a responsibility in interpreting the change in the role of the institution from an Alexandrian kind of library to an active information center.

Dr. Cummings told the Committee that the Library had been unable to make certain contributions due to lack of effective internal PHS communication. He cited the President's Smithsonian address which included a five-point program for international education. Agencies have been asked to describe their program potential. It was pointed out that this request was received only one day before a considered response was called for.

Dr. Cummings told the Committee that the Library is concerned about the duplication of information efforts within the PHS, using as an example the NIH Mental Health Clearinghouse. He also discussed the outside relationships, citing COSATI's report on the National Systems plan as well as the Office of Science and Technology contract for a study of medical library networks. The Committee learned of the pending organizational changes in the PHS, and the scheduled visit of the new Surgeon General to the NLM.

Also reported was the delay in clearance by the Civil Service Commission for the appointment of an Associate Director for Intramural Programs. The position was classified as Librarian, while the man to fill the position has a science background which is needed for the position.

Dr. Cummings expressed the hope that the Board of Regents would be a powerful voice for the Library, the Public Health Service, and the Surgeon General.

II. A. Recent Legislative Developments

Dr. Douglass reported on the favorable action by the House and Senate Committees following recent hearings on the Medical Library Assistance Act. He outlined the basic differences in the legislation as reported by House and Senate Committees. The Senate changed the distribution of construction appropriation (\$50 million) but not the amount; the Senate version grouped funds for Training, Special Scientific Projects, Research and Development, Resources, and Publications and lumped authorizations for Regional Libraries and Branches of NLM into another large pool, to be escalated over a five-year period. The House reduced construction appropriation to \$40 million and deleted the first-year authorization, also deleting \$2.5 million for publications.

Dr. Hubbard suggested that if \$40 million did not meet construction needs for health libraries, an extension might be requested. Dr. Douglass explained that the House extended the requirement to use a facility constructed with Federal funds for library purposes for a twenty-year period instead of ten years. It was explained that the Senate must now agree with the language of the House, or in the case of disagreement, call for a conference to negotiate the differences. A chart (Appendix I), showing the appropriation authorizations contained in the House and Senate versions, was distributed to the Committee.

II. B. Budgetary Plans

Mr. Isbister presented in chart form (Appendix II) an overview of NLM budgets for FY '66, FY '67, and FY '68. He pointed out that the principal increases for FY '66 were the addition of \$500,000 and nine positions. \$250,000 of this amount and two positions would be added for the decentralization of the MEDLARS program, and \$220,000 and seven positions for preservation of the collection and the development of a graphic image storage and retrieval system. Funds will be used for recording deteriorating materials in the Library, investigating new photographic methods, and recruiting new people. The third increase was the restoration of \$30,000 previously cut from the '65 funding for History of Medicine training grants.

Mr. Isbister explained that a revision of the FY '67 budget had been prepared in expectation of the new legislation and outlined increases and their purposes: funds for drug literature, \$200,000 for transfer over to NIH for the provision of administrative processing, fiscal services, etc., in the grants program. It is intended that in '66 and '67 plans will be initiated for the development of specifications and requirements for a total new computer processing system. The specifications will be developed at the Library, then go out for bids for contractors to supply the equipment.

Dr. Hubbard was concerned about getting broad-based technical advice on a second generation computer system. In developing specifications, it might be useful to involve the Directors of some of the larger computer centers. He pointed out that information transfer is part of education research. Next to question of Library's identity, the evolution of its computer capacity is its most important undertaking.

Mr. Isbister briefed the Committee on the increase for funding new legislation to bring it up to new level authorized in Senate bill - \$20 million: \$7 million for training, special scientific projects, etc., \$3 million for regional libraries, and \$10 million for construction. The Committee was told that the Department allowance as shown for '68, '69, and '70 was based on holding our internal funding at the '67 level and could change.

Dr. Cummings told the Committee that the Library has a serious space problem. Space will have to be rented while the Library attempts to get approval for an annex. He hoped that the Board would examine this need and make appropriate recommendations. The Committee was informed, in response to Dr. Woodhall's question, that the present building was not designed for expansion for manpower but only for books. Dr. Hubbard asked that the staff prepare a background document for the Board's understanding of the nature of the space problem for presentation at the November Board meeting. He outlined suggestions for the document -- (1) a discussion of not only the arithmetic of the issue, but an elaboration of the differences in program concepts to contemporary and future concepts; (2) what is involved in extramural programs (personnel, space, etc.). Dr. Hubbard recommended that a formal position be expressed at the November meeting.

III. Response of the Board of Regents to the Surgeon General

Dr. Hubbard presented his draft report calling attention to the proposed major shifts in Library program orientation. Drs. Gellhorn and Dixon queried the inclusion of alternative recommendations on the Library's position within the PHS organization. Dr. Hubbard stated that, in his opinion, the Board was responsible for initiating policy and examining whether the administration was achieving the goals of that policy and that recommendations for reorganization were not inappropriate. It was agreed to retain the final three paragraphs of the draft report, and to make revisions suggested by Dr. Fussler and other Board members on Page 4 and Page 9 of the draft. Dr. Cummings received permission to share the preliminary draft with the Surgeon General.

IV. Management Survey Report on Library Reorganization

Mr. Adams reviewed the principal recommendations of the Donald Report with the Executive Committee. Dr. Cummings stated that he had requested this study in order to streamline the Library's organization, including the reduction of the number of individuals reporting to the Director.

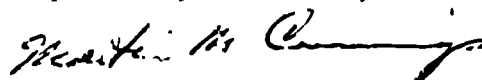
Dr. Hubbard and Dr. Woodhall expressed keen interest in identifying MEDIARS as an organizational entity of the Library. Dr. Hubbard also expressed a desire that the Library staff review its reaction to the Donald Report in the light of the broad implications of the draft for report to the Surgeon General. The Committee believes the plan is adequate for the present but not for the future.

V. Procedure for Selection of MEDIARS Centers

Mr. Adams asked the Executive Committee to state their preferences for procedures to be followed by the Board of Regents in making recommendations for the selection of future decentralized MEDIARS centers. Some 30 institutions have expressed interest; 22 have been site visited. Dr. Jarcho represented the Board in the Harvard site visit and Board members will be represented in the future. Mr. Austin reported on preliminary contract negotiations with the University of Chicago, and Dr. Fussler's letter stating the University's present position was reviewed. After discussion, the following procedure was agreed on: The Library staff, in conjunction with a small subcommittee of the Board of Regents would reduce the 30 applicants to 9, presenting data on 2 or 3 from each of the 3 principal geographic regions to be considered. The question of delimiting the geographic regions would be left to this composite group. The University of Chicago would be included along with 3 other institutions from the Midwest, broadly defined, and the Board would review its earlier decision. The Board will state its priority selections among the 3 in each region, and will participate in site visits made to these institutions following the Board's meeting.

A meeting for the preliminary selection, to include Drs. Dixon and Gellhorn, was scheduled for November 1. Arrangements were made for Board representation on site visits to the Medical Library Center of New York and the University of Pittsburgh prior to the Board's meeting.

Respectfully submitted,



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

APPENDIX I

APPROPRIATION AUTHORIZATIONS CONTAINED IN "HEALTH SCIENCES LIBRARY ASSISTANCE ACT"
(in millions of \$)

<u>As Introduced</u>	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5th Year</u>	<u>Totals</u>
Construction	10.0	10.0	10.0	10.0	10.0	50.0
Training	1.0	1.0	1.0	1.0	1.0	5.0
Sp. Sci. Proj.	0.5	0.5	0.5	0.5	0.5	2.5
Research & Dev.	3.0	3.0	3.0	3.0	3.0	15.0
Resources	3.0	3.0	3.0	3.0	3.0	15.0
Publications	1.5	1.5	1.5	1.5	1.5	7.5
Regional Libraries	2.5	2.5	2.5	2.5	2.5	12.5
Branches of NLM	2.0	2.0	2.0	2.0	2.0	10.0
Totals	23.5	23.5	23.5	23.5	23.5	117.5
<u>Senate</u>	↔ 50.0 ↔					
Construction						50.0
Training						
Sp. Sci. Proj.						
Research & Dev.	4.0	7.0	10.0	12.0	12.0	45.0
Resources						
Publications						
Regional Libraries	1.5	3.0	5.5	6.0	6.5	22.5
Branches of NLM						
Total						117.5
<u>House</u>						
Construction		10.0	10.0	10.0	10.0	40.0
Training	1.0	1.0	1.0	1.0	1.0	5.0
Sp. Sci. Proj.	0.5	0.5	0.5	0.5	0.5	2.5
Research & Dev.	3.0	3.0	3.0	3.0	3.0	15.0
Resources	3.0	3.0	3.0	3.0	3.0	15.0
Publications	1.0	1.0	1.0	1.0	1.0	5.0
Regional Libraries	2.5	2.5	2.5	2.5	2.5	12.5
Branches of NLM	2.0	2.0	2.0	2.0	2.0	10.0
Totals	13.0	23.0	23.0	23.0	23.0	105.0

APPENDIX II

	Without New Legislation	With New Legislation
1965 Appropriation	\$3,958 291	
1966 President's Budget	5,010 327	
Congressional Increase	500 9	
Revised 1966 Budget	5,510 336	
1966 Supplemental		\$ 5,700 16
1966 Total		11,210 352
1967 Preliminary Estimate	6,688 387	
Restoration	154 1	
Revised Preliminary Estimate	6,842 388	
Proposed for Legislation		13,906 17
Total Proposed for 1967		26,448 421
—1968 DHEW Allowance		30,900 441
—1969 DHEW Allowance		32,900 452
—1970 DHEW Allowance		32,600 454

ARMED FORCES MEDICAL LIBRARY

VOL. XI, No. 9

NEWS

SEPTEMBER 1956

ISSUED FROM THE OFFICE OF THE DIRECTOR

National Library of Medicine Act

(PUBLIC LAW 941, 84TH CONGRESS, 70 STAT. 960)

AN ACT To amend Title III of the Public Health Service Act, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title III of the Public Health Service Act. (42 U.S.C., chapter 6A, subchapter II) is amended by adding at the end thereof the following new part:

"PART H--NATIONAL LIBRARY OF MEDICINE

"PURPOSE AND ESTABLISHMENT OF LIBRARY

"SEC. 371. In order to assist the advancement of medical and related sciences, and to aid the dissemination and exchange of scientific and other information important to the progress of medicine and to the public health, there is hereby established in the Public Health Service a National Library of Medicine (hereinafter referred to in this part as the 'Library').

"FUNCTIONS OF THE LIBRARY

"SEC. 372. (a) The Surgeon General, through the Library and subject to the provisions of subsection (c), shall---

"(1) acquire and preserve books, periodicals, prints, films, recordings, and other library materials pertinent to medicine;

"(2) organize the materials specified in clause (1) by appropriate cataloging, indexing, and bibliographical listing;

"(3) publish and make available the catalogs, indexes, and bibliographies referred to in clause (2);

"(4) make available, through loans, photographic or other copying procedures or otherwise, such materials in the Library as he deems appropriate;

"(5) provide reference and research assistance; and

"(6) engage in such other activities in furtherance of the purposes of this part as he deems appropriate and the Library's resources permit.

Printing cost borne by the FRIENDS of the Armed Forces Medical Library.

()

"(b) The Surgeon General may exchange, destroy, or otherwise dispose of any books, periodicals, films, and other library materials not needed for the permanent use of the Library.

"(c) The Surgeon General is authorized, after obtaining the advice and recommendations of the Board (established under section 373), to prescribe rules under which the Library will provide copies of its publications or materials, or will make available its facilities for research or its bibliographic, reference, or other services, to public and private agencies and organizations, institutions, and individuals. Such rules may provide for making available such publications, materials, facilities, or services (1) without charge as a public service, or (2) upon a loan, exchange, or charge basis, or (3) in appropriate circumstances, under contract arrangements made with a public or other nonprofit agency, organization, or institution.

"BOARD OF REGENTS

"SEC. 373. (a) There is hereby established in the Public Health Service a Board of Regents of the National Library of Medicine (referred to in this part as the 'Board') consisting of the Surgeons General of the Public Health Service, the Army, the Navy, and the Air Force, the Chief Medical Director of the Department of Medicine and Surgery of the Veterans' Administration, the Assistant Director for Biological and Medical Sciences of the National Science Foundation, and the Librarian of Congress, all of whom shall be ex officio members, and ten members appointed by the President, by and with the advice and consent of the Senate. The ten appointed members shall be selected from among leaders in the various fields of the fundamental sciences, medicine, dentistry, public health, hospital administration, pharmacology, or scientific or medical library work, or in public affairs. At least six of the appointed members shall be selected from among leaders in the fields of medical, dental, or public health research or education. The Board shall annually elect one of the appointed members to serve as Chairman until the next election. The Surgeon General shall designate a member of the Library staff to act as executive secretary of the Board.

"(b) It shall be the duty of the Board to advise, consult with, and make recommendations to the Surgeon General on important matters of policy in regard to the Library, including such matters as the acquisition of materials for the Library, the scope, content, and organization of the Library's services, and the rules under which its materials, publications, facilities, and services shall be made available to various kinds of users, and the Surgeon General shall include in his annual report to the Congress a statement covering the recommendations made by the Board and the disposition thereof. The Surgeon General is authorized to use the services of any member or members of the Board in

connection with matters related to the work of the Library, for such periods, in addition to conference periods, as he may determine.

"(c) Each appointed member of the Board shall hold office for a term of four years, except that (A) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (B) the terms of the members first taking office after the date of enactment of this part shall expire as follows: three at the end of four years after such date, three at the end of three years after such date, two at the end of two years after such date, and two at the end of one year after such date, as designated by the President at the time of appointment. None of the appointed members shall be eligible for reappointment within one year after the end of his preceding term.

"(d) Appointed members of the Board who are not otherwise in the employ of the United States, while attending conferences of the Board or otherwise serving at the request of the Surgeon General, shall be entitled to receive compensation at a rate to be fixed by the Secretary of Health, Education, and Welfare, but not exceeding \$50 per diem, including travel time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

"GIFTS TO LIBRARY

"SEC. 374. The provisions of section 501 shall be applicable to the acceptance and administration of gifts made for the benefit of the Library or for carrying out any of its functions, and the Surgeon General shall make recommendations to the Secretary of Health, Education, and Welfare relating to establishment within the Library of suitable memorials to the donors.

"DEFINITIONS

"SEC. 375. For purposes of this part the terms 'medicine' and 'medical' shall, except when used in section 373, be understood to include preventive and therapeutic medicine, dentistry, pharmacy, hospitalization, nursing, public health, and the fundamental sciences related thereto, and other related fields of study, research, or activity.

"LIBRARY FACILITIES

"SEC. 376. There are hereby authorized to be appropriated sums sufficient for the erection and equipment of suitable and adequate buildings and facilities for use of the Library in carrying out the provisions of this part. The Administrator of General Services is authorized to acquire, by purchase, condemnation, donation, or otherwise, a suitable site or sites, selected by the Surgeon General in accordance with the

direction of the Board, for such buildings and facilities and to erect thereon, furnish, and equip such buildings and facilities. The sums herein authorized to be appropriated shall include the cost of preparation of drawings and specifications, supervision of construction, and other administrative expenses incident to the work. The Administrator of General Services shall prepare the plans and specifications, make all necessary contracts, and supervise construction.

"TRANSFER OF ARMED FORCES MEDICAL LIBRARY

"SEC. 377. All civilian personnel, equipment, library collections, other personal property, records, and unexpended balances of appropriations, allocations, and other funds (available or to be made available), which the Director of the Bureau of the Budget shall determine to relate primarily to the functions of the Armed Forces Medical Library, are hereby transferred to the Service for use in the administration and operation of this part. Such transfer of property, funds, and personnel, and the other provisions of this part, shall become effective on the first day, occurring not less than thirty days after the date of enactment of this part, which the Director of the Bureau of the Budget determines to be practicable."

SEC. 2. This Act may be cited as the "National Library of Medicine Act."

Approved August 3, 1956.

SIGNING OF THE BILL

President Eisenhower signed S.3430 into Public Law 941 on 3 August 1956. Dr. Howard McC. Snyder, the White House Physician, presented the pen with which the bill was signed to Colonel Rogers.

TENTATIVE TRANSFER DATE

Representatives of the Bureau of the Budget, the Department of the Army, the Office of The Surgeon General of the Army, the Public Health Service, and the Armed Forces Medical Library have reached agreement in selecting 1 October 1956 (the beginning of the Second Quarter, Fiscal Year 1957) as the target date for transfer of the Armed Forces Medical Library to the National Library of Medicine.

BUILDING PLANNING RESUMED

On 13 August 1956 Mr. Robert W. Severance, formerly librarian of Baylor University, and more recently Deputy Director of the Army Library, joined the staff of the Armed Forces Medical Library. Mr. Severance will serve as Special Assistant to the Director, and will be wholly concerned with the development of plans for the new building, for liaison work with architect and contractor, for drawing up lists of equipment needs, and for planning and executing the movement of the collections.

R E V I S E D

AGENDA
Twenty-third Meeting of the
BOARD OF REGENTS
Board Room
9:00 a.m., March 21-22, 1966

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. William Hubbard
- II. REMARKS BY THE DEPUTY SURGEON GENERAL Dr. Leo J. Gehrig
- III. CONSIDERATION OF MINUTES OF LAST MEETING TAB I Dr. William Hubbard
- IV. DATES OF FUTURE MEETINGS Dr. William Hubbard
1966-67 Calendars in all books under TAB II
Confirmation of June 23-24, 1966
Confirmation of November 14-15, 1966
Consideration of Meeting Date for March 1967
Possible Dates: March 23-24, 20-21, 16-17
Consideration of Meeting Date for June 1967
Possible Dates: June 15-16, 12-13, 22-23
- V. REPORT OF THE DIRECTOR Dr. Martin Cummings
- VI. REPORT OF CONFERENCE ON GRAPHIC IMAGE STORAGE AND RETRIEVAL TAB III Dr. David Wolf
- VII. A FIVE-YEAR PROGRAM DESIGN FOR THE NATIONAL LIBRARY OF MEDICINE (separate booklet) Mr. Scott Adams
(not under Tab IV)

ADJOURNMENT

Exhibit beginning at 7:00 p.m., in the Billings Auditorium, on "Leonardo da Vinci and Medicine", followed by a lecture at 8:00 p.m., by Dr. Elmer Belt of Los Angeles, on the "Anatomical Drawings of Leonardo da Vinci".

RECONVENE AT 9:00 a.m., March 22, 1966

- VIII. REPORT OF THE AD HOC CONSULTANT GROUP ON CONTINUING EDUCATION TAB V Dr. Barnes Woodhall
- IX. REPORT ON VISIT TO POLAND AND YUGOSLAVIA TAB VI Dr. William Hubbard
Dr. Morris Tager

- X. REVIEW OF DRAFT REGULATIONS AND POLICIES UNDER THE
MEDICAL LIBRARY ASSISTANCE ACT BLACK BOOK Dr. Morris Tager

- XI. CONSIDERATION OF MINUTES OF PREVIOUS BOARD OF REGENTS ADVISORY
COMMITTEE FOR EXTRAMURAL PROGRAMS MEETING Dr. Marjorie Wilson
 - TAB I
(gray book)

- XII. REPORT OF THE ASSOCIATE DIRECTOR TAB II Dr. Marjorie Wilson
 - (gray book)

- XIII. CONSIDERATION OF PENDING APPLICATIONS Mr. David Kefauver
 - (gray book)
 - TAB III
 - TAB IV
 - TAB V

- OTHER BUSINESS

- ADJOURNMENT

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 23RD MEETING

March 21-22, 1966 - Bethesda, Maryland

Members present: BOHANNON, BROWN, CARLSON, DIXON, FUSSLER, GELLHORN,
HUBBARD, McDERMOTT, TAGER, WOODHALL

Members absent: BEAN, ENGLE, HARKINS, HEATON, MUMFORD, STEWART, WOLF

Alternates: Dr. Leo J. Gehrig, Deputy Surgeon General, PHS,
represented Dr. Stewart

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

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

Dr. Frank Hartman represented Lt. General Bohannon during
the second morning

Guests: The Honorable Billie S. Farnum, U.S. Representative from
Michigan, and
Mr. Frank I. Moore (staff assistant)

Dr. Subhadra Chitale, Librarian, Central Medical Library
of India, Directorate General of Health Services,
New Delhi

Mr. Verner W. Clapp, President, Council on Library Resources

Miss Joan M. Fulton, Office of General Counsel, DHEW

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

Mr. Ralph Mueller, Budget Examiner, Bureau of Budget

Mr. Foster E. Mohrhardt, Director, National Agricultural
Library

Mr. Edward J. Rourke, Office of General Counsel, DHEW

Dr. David R. Wolf, Manager, Systems Development, 3-M Company

NLM Staff: Dr. Martin Cummings, Mr. Scott Adams, Dr. Joseph Leiter,
Dr. Marjorie Wilson, and other members of the NLM Staff.

In convening the 23rd meeting of the Board of Regents, Dr. HUBBARD recognized a new member, Dr. H. Martin ENGLE, Chief Medical Director, Veterans Administration. The CHAIRMAN announced that Doctors BEAN and HARKINS were out of the country and that Dr. WOLF was at Princeton.

INTRODUCTIONS

The CHAIRMAN next recognized Dr. Subhadra Chitale, Director of the National Library of Medicine in New Delhi, and introduced: Dr. David R. Wolf, who has been helpful in the area of graphic image studies; Mr. Verner W. Clapp, President of the Council on Library Resources; Mr. Ralph Mueller, representative of the Bureau of the Budget; Mr. Foster E. Mohrhardt, Director of the National Agricultural Library; Dr. F. Ellis Kelsey, Special Assistant to the Surgeon General for Scientific Information. Two new staff members were introduced: Mr. Gerald Kurtz, Assistant to the Director, and Dr. Fritz Gluckstein, Coordinator for Veterinary Affairs.

GREETINGS FROM SURGEON GENERAL

In response to the CHAIRMAN's invitation, Deputy Surgeon General, Leo. J. Gehrig, conveyed the greetings of the Surgeon General who was on a Presidential Mission in Viet Nam. Dr. Gehrig described the planned reorganization of the Public Health Service, indicating that decisions on the recommendations by the Board's Advisory Committee to the Surgeon General and the Secretary would probably be taken before the next Board meeting. Dr. Gehrig noted that he did not believe that the Library's organizational location or the Board's policy statement would be affected by the reorganization.

Dr. Gehrig announced that the personnel systems of the Public Health Service are undergoing review. A new system which would present the most responsive modes of action for the recruitment, development, and retention of health personnel may be expected.

Dr. Gehrig mentioned a number of items of legislation proposed by the Administration: an international health bill which would provide support to schools of public health and medicine for the training of individuals for activities in international health, as well as for associate and fellowship programs within the Public Health Service for the development of a cadre of individuals trained and experienced in international health. The partnership in health legislation (Comprehensive Health Planning and Public Health Service Amendments of 1966; S-3008, HR-13197) is an important bill in which, joining with state and local communities, the Public Health Service would have the opportunity for health planning and support of public health services without the impediments of the present system of categorical grants. Legislation for increased and improved facilities and increased health manpower is also pending.

Regarding the Board's policy statement, Dr. Gehrig was not able to provide an official reaction, but he did say that Dr. Stewart was fully in accord with the principle of the policy statement.

NOVEMBER 1965 MINUTES APPROVED, FORTHCOMING
MEETINGS SCHEDULED

The minutes of the November 15-16, 1965 meeting were approved. The CHAIRMAN noted their significance since they include the Board's policy statement and discussion of the 5-year plan, and constitute an agenda for this meeting. The dates, June 23-24, were confirmed for the next meeting, as were November 14 and 15 for the fall meeting. March 16-17 were suggested for the next spring meeting, subject to confirmation by mail, and June 15-16, 1967 were selected for the succeeding meeting, also subject to mail confirmation.

DIRECTOR'S REPORT

Dr. Cummings expressed appreciation for the Board's time and efforts both at meetings and on ad hoc committee activities.

Federal Relationships - The Director discussed the Library's participation at meetings of The Committee on Scientific and Technical Information (COSATI) on an observer basis. In view of recent COSATI deliberations involving NLM, the opportunity was most welcome. The Director commented on what he believes has been a "very fine job" by the Office of Science Information Services of the National Science Foundation (NSF) in defining its program objectives and of informing the public at large of its program efforts. Dr. Cummings expressed the hope that there will be stronger resources for the NSF in the next year for support of research in information science.

Members of the NLM staff have been active on task forces of the Federal Library Committee. The Director expressed pleasure with the Committee's actions relating to upgrading salaries and positions in the Federal library structure, but was dismayed by lack of consideration of such larger issues as Federal library network design, and overall national program planning.

Dr. Cummings reported that the National Research Council/National Academy of Sciences has appointed a committee to be concerned with scientific communications.

The Library's relationships with the other national libraries are excellent, according to the Director, who expressed hope that the resources of the National Agricultural Library will be expanded to allow for computer applications.

The Director reported excellent relationships with NIH in the areas of continuing medical education and NIH planning for the regional medical programs.

Dr. Cummings announced a new relationship with NASA. The Library has been able to make available time on GRACE (the Library's phototypesetter) for NASA's production of Scientific and Technical Aerospace Reports (STAR) the principal index in aerospace medicine. The results have been extremely satisfactory. The AEC has also expressed interest in using GRACE, and the Library has indicated a willingness to reach a working relationship.

Dr. Cummings acknowledged the fine relationship with the Office of the Surgeon General and with the Office of the Secretary through the fine efforts of Drs. F. Ellis Kelsey and Ellis A. Johnson.

INTERNATIONAL RELATIONSHIPS

The Director expressed disappointment that the World Health Organization had not yet accepted the Surgeon General's offer of MEDLARS tapes and programs.

A recent visit to the NLM by a high-level delegation of Russian information scientists resulted in a description of NLM by the Russians as the "jewel of the information systems" they had observed. The visit was characterized by a free exchange of ideas.

Participating on an international panel of COSATI, members of the Library staff helped draft the national policy with regard to international distribution of machine readable information. However, approval of the policy is being impeded by lack of program resolution between the Federal Clearinghouse for Scientific and Technical Information of the Department of Commerce and the mission-oriented agencies which prefer not to deal abroad through an intermediary. The Board's earlier discussions, constituting a base for Public Health Service policy (now being reviewed by the Department), served as a model for this inter-agency effort.

OPERATIONAL ACCOMPLISHMENTS

Most significant of the Library's efforts, in the view of the Director, has been the work of the Information Systems Division and the Technical Services Division in mechanization of the Library's catalog. This project has led to three major benefits: (1) a computer-generated catalog card, used by the Library; (2) a biweekly listing of all books and monographs entered into the Library in this format, published as the NLM Current Catalog. This publication is available by subscription through the Government Publishing Office. It provides an acquisitions tool as well as a cataloging instrument for local medical libraries (as much as \$4 million may be saved if the nation's medical libraries accept this central cataloging); (3) a quarterly cumulation and an annual book catalog produced from the same unit records.

OPERATIONAL PROBLEMS

Manpower is a problem facing the entire Federal government. Our inability to recruit relates to the grades and salaries we can offer - these too often are not competitive with non-Federal institutions.

The Director reported that Mr. Paul Redmer, Deputy Chief of Information Systems Division, will be promoted to fill the vacancy created by Mr. Charles Austin, who is assuming a new position in the Office of the Secretary. Dr. Cummings paid tribute to the abilities and contributions of Mr. Austin.

THE HERNER REPORT

Another problem occasioned by the Herner Report, "A Recommended Design for the United States Medical Library and Information System," was described by the Director. Dr. Cummings related the history of the report, identified areas of the report with which the Library was in agreement, and pointed out where the Library takes issue with the report's recommendations. Dr. Cummings cited major errors of fact and major assumptions in the Herner Report.

In response to Dr. TAGER's question as to the correctness of his impression that the Herner Report had misrepresented the posture of the NLM with respect to regional libraries and MEDLARS and confused the two, Dr. Cummings replied that Dr. TAGER's statement was "absolutely right."

Dr. HUBBARD advised the Board that the Herner Report had been discussed at a meeting called by the Office of Science and Technology, where a group of consultants, including the Board chairman, presented the objections recited by Dr. Cummings and additional objections including that one referred to by Dr. TAGER.

The CHAIRMAN described the peculiar situation of the Board in having central responsibility for matters concerned in the report, yet having been ignored in its text. At the same time, members of the Board were incidentally included in both its generation and evaluation. Dr. HUBBARD urged the Board to make a formal declaration of policy which, while indicating the Board's recognition of the existence of the report, would also record its reaction.

Dr. TAGER offered a motion to the effect that the Board of Regents had the opportunity to study the Herner Report and that it found it unacceptable for the following specific reasons:

- (1) That the report does not reflect accurately NLM programs, plans, and activities;
- (2) That it does not reflect national needs for biomedical information accurately;

(3) That it is not sound conceptually. For example, the "detail men" are unrealistically conceived;

(4) That the regulation of university libraries^{is} alien to Federal-private partnerships and relations developed by the Public Health Service;

(5) That its projection of a five year budget is unrealistic in the following respects: (a) it is too small a budget for NLM itself; it is based on FY 1964 and not FY 1966; (b) it is too large a budget for the total network requirement; and (c) it defers construction for a period of four years, whereas current construction needs are too critical and urgent to accept this conclusion.

The CHAIRMAN interrupted Dr. TAGER's reading of the list of objections to recognize and introduce the Honorable Billie Farnum, Member of Congress from Michigan, member of the House Appropriations Committee and of the Subcommittee that deals with HEW and Labor appropriations. Dr. TAGER then completed his motion which was supported by Dr. DIXON. A lengthy discussion ensued which disclosed that the distribution of the Herner Report included at least one computer manufacturer, and did not include sufficient copies for the Board. It was also pointed out that the report has not been approved by the Office of Science and Technology or any other agency. The Board urged strengthening the wording of Dr. TAGER's motion by its Executive Committee and voted that the motion be transmitted by an official communication from the Board to the Surgeon General. Dr. TAGER's motion was passed unanimously.

CONFERENCE ON GRAPHIC IMAGE STORAGE AND RETRIEVAL

Dr. HUBBARD welcomed Captain W. F. Pierce, alternate to Admiral Brown who asked to be excused, and then turned the meeting over to Dr. Wolf to introduce the report of the Conference on Graphic Image Storage and Retrieval.

Approving the organization and productivity of the meeting, Dr. Wolf addressed himself to two documents: (1) the National Bureau of Standards report to the NLM relating to technical standards for photoduplication*; (2) a "challenge paper" prepared by the Library. This became the foundation for conference panel discussions.

Dr. Wolf reviewed the NBS report (which had previously been distributed to the Board).

The CHAIRMAN then interrupted Dr. Wolf's presentation and invited Congressman Farnum to speak. Mr. Farnum spoke of his interest in systems

* NBS Technical Note 268, "A Study of Requirements and Specifications for Serial and Monography Microrecording."

and efficient government operations. He talked of his tour of NLM, and of his experience in helping to develop similar systems for recording, storage, and reproduction when he was in the Michigan State government. Mr. Farnum urged the Library to develop new technologies and systems to improve its information services.

Following a brief recess, Dr. Wolf continued his presentation. Drs. GELLHORN, McDERMOTT, TAGER, AND CARLSON questioned Dr. Wolf on the scope of the preservation problem (10% of the existing 300 million pages are in bad shape), and on the percentage of the NLM collection most heavily used (about 10% of the collection provides 90% of the use).

A question on life-expectancy of microfilm prompted Dr. Wolf to continue his presentation which dealt largely with various recording media. The conference was in agreement on the need for standardization in both medium and techniques, and on the principle that distribution of information in unit record microfilms was not only desirable but necessary. There was also accord that in the immediate future two files (citation file, document image files); two media (magnetic tape, microfilm) and two processing machines (computer, reader printer) will be required.

The consensus of the conference panelists was that the NBS recommendations should be implemented immediately, and that present efforts in preservation microfilming must be accelerated. All panelists felt that more information on user requirements must be obtained.

A discussion of Dr. Wolf's presentation followed which was terminated with a request by Dr. WOODHALL that copies of the stenographer's report of Dr. Wolf's presentation and the discussion be transmitted to Board members. The meeting was then recessed for lunch.

AFTERNOON SESSION

Dr. HUBBARD opened the afternoon session by commenting on the five-year program for the Library, the topic for the afternoon meeting. The CHAIRMAN complimented the staff "on an excellent job of handling an extremely complicated task very well indeed." He then turned the meeting over to the Deputy Director.

Mr. Adams' presentation of the Library's Five-Year Plan began with a history of its inception. He stated that the plan is really the child of a marriage of an administrative planning requirement within the Department with the Board's Advisory Report on Policy that was discussed at the last meeting of the Board and accepted in principle by the Surgeon General. Copies of the Five-Year Plan were distributed for the Board's review.

The Deputy Director then proceeded to go through the document summarizing the sections, amplifying where necessary, and attempting to give insight into what the report intends to accomplish.

Mr. Adams stressed that the plan has not been constructed as a rigid effort but rather as a broad program outline capable of accommodating technological advance. He also stated that the plan was designed to be feasible in terms of those elements which are possible today and which, in the immediate future, could be introduced with economic feasibility. Mr. Adams emphasized that the plan was conceived with the concept of Federal-private cooperation in achieving its objectives. There is ample opportunity for cooperation, as well as self-determination on the part of private institutions.

At the request of the CHAIRMAN, Mr. Adams reviewed the Board's policy statement which provided guidelines for the development of the plan. He then discussed the legal base for the plan and the Library's fundamental assumptions.

Dr. WOODHALL suggested that the policy statement of the Board be appended to the plan when submitted to the Surgeon General, and urged positive wording in the Plan's final version.

Mr. Adams then reviewed plans for network development, and detailed the new NLM programs and expanded traditional programs which have been designed to accelerate the dissemination of biomedical information throughout the network.

Of particular interest were the Center for Biomedical Communication, NLM plans for acquisition of other learning resources, further decentralization of MEDLARS, the development of a second-generation MEDLARS, and the proposed annex to the NLM Bethesda facility.

Throughout Mr. Adams' presentation the Board interrupted with questions, comments, and suggestions which were discussed and evaluated and recommended for incorporation into the final version of the Five-Year Plan.

The meeting recessed at 5:00 p.m. and was scheduled to reconvene at 9:00 a.m. the following day.

SECOND SESSION

REPORT OF THE AD HOC CONSULTANT GROUP ON CONTINUING EDUCATION

Dr. WOODHALL presented a summary of the deliberations and conclusions of an Ad Hoc Consultant Group on Continuing Education, which had met for two days in January to advise the NLM. The group concluded, and the Board of Regents

concurred, that the NLM can and should play an important role in such areas as: (1) Stimulating improved use of library and related learning resources by medical and other professional groups; (2) Supporting studies of the functioning and effectiveness of hospital libraries in meeting needs of practitioners; (3) Supporting improvements in hospital libraries to provide effective service to practitioners; (4) Encouraging and supporting use by libraries of a variety of learning modalities in addition to published materials, such as oral essays, audiovisual materials, and selected and evaluated information on new developments; (5) Establishment of a research and development center for testing various modalities for provision of library and related services for continuing education of the practitioners; and (6) The training of a variety of personnel capable of transforming the traditional library into a learning resource which can effectively serve continuing education. Dr. WOODHALL reported that the recommendations of the Ad Hoc Consultant Group on Continuing Education were a reaffirmation of the general policy of the Board of Regents, which had been expressed to the Surgeon General, and were in full accord with the Board of Regents policy statement relating to the NLM.

REVIEW OF DRAFT REGULATIONS AND POLICIES UNDER THE MEDICAL LIBRARY ASSISTANCE ACT (P.L. 89-291)

Dr. Wilson explained that the new legislation required the Board to advise the Surgeon General on the development of regulations and policies relating to certain provisions of the Act. The Board Subcommittee for Extramural Programs met on February 18, 1966, with the Extramural Programs staff to review draft regulations and policy statements for implementation of all sections of the Act. Subsequently, revised drafts were prepared, incorporating the recommendations of the Subcommittee, as well as those of the General Counsel's office, and were distributed to the Board for review at this meeting. Following a presentation by Dr. TAGER of the Subcommittee's recommendations, the Board carefully reviewed the revised drafts on each section of the Act. The Board unanimously recommended to the Surgeon General the regulations and policies as presented by the Board Subcommittee.

The next meeting of the Board will be held on June 23-24.

Respectfully submitted,



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

AGENDA
Twenty-fourth Meeting of the
BOARD OF REGENTS
Board Room
9:00 a.m., June 23-24, 1966

- | | | | |
|-------|--|----------------------|--|
| I. | CALL TO ORDER AND INTRODUCTORY REMARKS | | Dr. William Hubbard |
| II. | REMARKS BY THE SURGEON GENERAL | | Dr. William Stewart |
| III. | REPORT ON COSATI AND OST AFFAIRS OF INTEREST TO NLM | | Mr. William Knox |
| IV. | CONSIDERATION OF MINUTES OF LAST MEETING | TAB I | Dr. William Hubbard |
| V. | DATES OF FUTURE MEETINGS | TAB II | Dr. William Hubbard |
| VI. | REPORT OF THE DIRECTOR | TAB III | Dr. Martin Cummings |
| VII. | DISCUSSION ON THE FUNCTIONS OF THE COMMITTEE ON
SCIENTIFIC AND TECHNICAL COMMUNICATION, NAS | TAB IV | Dr. Joachim Weyl |
| VIII. | PRELIMINARY PLANS FOR ESTABLISHMENT OF NLM
CENTER FOR BIOMEDICAL COMMUNICATIONS | | Dr. Martin Cummings |
| IX. | REVIEW OF MEDLARS | | Dr. Joseph Leiter |
| X. | MEDLARS DEMAND SEARCH EVALUATION PROJECT
(separate booklet) | | Mr. F. Wilfrid Lancaster |
| XI. | REPORT ON JOURNAL SELECTIONS FOR INDEX MEDICUS AND
MEDLARS | | Dr. Joseph Leiter |
| | ADJOURNMENT - DUTCH TREAT DINNER - 6:30 p.m. - Navy Club | | |
| | RECONVENE - 9:00 a.m., June 24, 1966 | | |
| XII. | REPORT ON VISIT TO ISRAEL, INDIA, AND KOREA | TAB V | Dr. Alfred Gellhorn
Dr. William Hubbard |
| XIII. | CONSIDERATION OF MINUTES OF PREVIOUS MEETING OF THE BOARD OF REGENTS
ADVISORY COMMITTEE FOR EXTRAMURAL PROGRAMS | TAB I
(gray book) | Dr. Marjorie Wilson |
| XIV. | REPORT OF THE ASSOCIATE DIRECTOR | TAB II | Dr. Marjorie Wilson |

THE BOARD OF REGENTS
of the
NATIONAL LIBRARY OF MEDICINE

MINUTES OF THE 24TH MEETING

June 23-24, 1966 - Bethesda, Maryland

MEMBERS PRESENT: BEAN, BOHANNON, BROWN, DIXON, ENGLE, GELLHORN, HARKINS,
HUBBARD, STEWART, TAGER, WOLF, WOODHALL

MEMBERS ABSENT: CARLSON, FUSSLER, HEATON, MCDERMOTT, MUMFORD

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. Burton W. Adkinson represented Dr. Carlson

GUESTS: Dr. Joachim Weyl, Executive Secretary, Committee on
Scientific and Technical Communication,
National Academy of Sciences

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

Mrs. Barbara Murray represented Mr. Ezra Glaser,
Special Assistant to Dr. Shannon, NIH, for Scientific
Communication

NLM STAFF: Dr. Martin Cummings, Dr. Joseph Leiter, Dr. Marjorie
Wilson, and other members of the NLM Staff

In convening the 24th meeting of the Board of Regents, Dr. HUBBARD announced the Doctors FUSSLER and MCDERMOTT were on other missions and unable to attend this meeting; Mr. William Knox, Technical Assistant, Office of Science and Technology, who was to report on COSATI and OST Affairs, also was unable to attend.

REMARKS BY THE SURGEON GENERAL

Dr. Stewart highlighted current activities of his office. During the past month he had devoted most of his time to civil rights connected with the implementation of Medicare effective July 1. Approximately 83% of 7,600 hospitals were in compliance with Title VI of the Civil Rights Act. Further information was being collected on the rest, some of which were not in compliance. Non-compliance reports were added to an inter-agency list, and if upheld by the courts, resulted in the deferment of all federal support to the institution concerned.

The SURGEON GENERAL discussed PHS Reorganization Plan No. 3 which would go into effect June 25, barring contrary resolutions by either House. NLM would not be affected by the proposed changes.

NLM's five year plan was praised by Dr. Stewart who observed that through the implementation of the plan and the Medical Library Assistance Act, NLM could become a major health communications center.

The SURGEON GENERAL noted NLM's role in South Vietnam in assisting the development of the library of the Medical School in Saigon. Finally, Dr. Stewart described changes in the International Health Program under which PHS became truly operational rather than advisory, e. g., the world-wide malaria eradication program, smallpox eradication program in West Africa, and the community water supply program in South America.

MARCH 1966 MINUTES APPROVED, FORTHCOMING MEETINGS SCHEDULED

The minutes of the March 21-22, 1966 meeting were approved. The dates of November 14-15, 1966 were reaffirmed for the next meeting. The dates of March 16-17, 1967 and June 15-16, 1967 were confirmed for the subsequent meetings. It was noted that a majority of Board members had selected these dates by mail ballot.

REPORT OF THE DIRECTOR

Dr. Cummings introduced two new members of the staff, Dr. Clifford Bachrach, Chief, Bibliographic Services Division, and Mr. Samuel Waters, Chief, Reference Services Division. Dr. Russell Dixon, who retired as Dean of the Howard University School of Dentistry, had been appointed a dental consultant-in-residence at NLM.

The Director called attention to certain statements of importance to the Library in the report of the President's Science Advisory Committee entitled, "Handling of Toxicological Information". Certain responsibilities were clearly laid upon the Library. Library services might come under new scrutiny as a result of a Presidential Memorandum dated May 17, 1966, in which federal agencies were exhorted to reexamine their policies with respect to charges for services.

Interim guidelines with respect to international distribution of federally supported or federally generated machine-readable information had been developed by COSATI. Work was proceeding on guidelines for domestic distribution. OST expected shortly to receive a revised version of the Herner report.

The American Medical Association had relinquished the Cumulated Index Medicus, and it had been published this year by NLM. Dr. Cummings invited the Board to examine this and other publications which were displayed in the Board Room.

Dr. Cummings reviewed the current status of the work load and budget of the Library. Highlights of the fiscal year just ending included the following:

More than 250,000 interlibrary loans were processed, a figure which emphasized local needs and indicated that local and regional libraries must be improved;

More than 3,000,000 pages of deteriorated Library materials had been photographed for preservation;

The number of MEDLARS demand searches doubled during the past fiscal year, and totaled 3,100.

Concerning the budget, a significant event was the passage of the supplemental budget of \$4,000,000 by the House and Senate Appropriations Committees to implement the Medical Library Assistance Act. Also of importance was an increase of \$861,000 provided by the House Appropriations Committee over the President's allowance. These funds are to be used for the development of a graphic image storage and retrieval system, for assistance in developing the application of advanced technology to biomedical communications, and for the development of the Library's role as a center for biomedical communication. Funds voted also by the House would permit the Library to begin plans for the development of a regional medical library network. With respect to the 1968 budget, PHS had allowed essentially the full amount requested by the Library. Projected in the 1971 budget was a Center for Biomedical Communications, part of the five year plan, with fifty technically qualified staff and a budget of \$3,000,000 to begin operations.

The Extramural Program has been housed temporarily in rented space in the Blackwell Building, about half a mile from the Library.

Dr. Cummings announced the award of an honorary M.D. degree by the University of Connecticut to Dr. John Blake, Chief, History of Medicine Division.

Dr. Cummings also announced that Dr. Paul Dudley White would present his portrait to the Public Health Service at a ceremony to be held in NLM on Friday, June 24.

THE COMMITTEE ON SCIENTIFIC AND TECHNICAL COMMUNICATION, NATIONAL ACADEMY OF SCIENCES

Dr. Joachim Weyl, Executive Secretary of the Committee (SATCOM), reviewed its history, the forces which nourished it and fought it, and its proposed operations. The Committee came into being on February 1, 1966, as a result of the realization by COSATI, after a series of reports concerning the management of scientific and technical information had been published, that it was essential to create "a committee to investigate the present status and future requirements of the scientific and engineering communities with respect to the flow and transfer of information." SATCOM was to take "hard looks" at the interrelationships among non-governmental activities in scientific and technical information and to determine how these interfaced with the information activities of the government.

EXECUTIVE SESSION

Criteria for selecting a site for the NLM Center for Biomedical Communications were discussed. The site should be:

1. Near a medical school or medical complex.
2. Near an industrial research complex utilizing computer and electronic technology with concern for data processing and information handling.
3. Near a school or institute of engineering.
4. In an area served by an active regional medical service program.
5. In a region with underdeveloped medical library resources.

REVIEW OF MEDLARS

After a brief discussion of how MEDLARS worked, Dr. Leiter indicated that its design underestimated the complexity of biomedical information retrieved by the computer. Ingenuity of searchers had made possible more complex search formulations, a situation which had necessitated a reduction in the number of searches per batch from 70-80 to about 10, and had increased the search time proportionately. At present, MEDLARS search time was approaching the total real time available, i.e., approximately 720 hours per month. The number of

requests for demand searches had now reached over 3,000 per year. In recent months there had been a sharp rise in the search time due to the introduction of subheadings. However, new search strategy had reduced search time to its previous level. Presearch editing which had involved punch paper tape input would be done after July 1 by punch cards which should cut down the number of errors considerably.

The need for adjustments of intellectual inputs as well as computer operations was emphasized. Of particular importance were those which the searchers had imposed on the system by using it in a more sophisticated fashion than originally intended, as well as the necessity for adjusting search strategy to changes in MeSH. Rigid rules imposed by the computer and by vocabulary reduced the efficiency of the searchers.

Dr. Leiter mentioned the excellent backgrounds of searchers in biomedical subject matter as well as their ability to understand indexing problems, vocabulary, and machine processing. These were all reasons why MEDLARS searches had turned out so well.

The importance of developing regional MEDLARS centers related to the opportunity for direct dialogue between searcher and user.

Concerning the MEDLARS decentralization program, two decisions had been made earlier that NLM would prepare programs for computers other than Honeywell, and that translation of existing programs would be written in a common language, COBOL, so that, in the future, the Library's program could be utilized for different computers without major reprogramming. Partial relief for the near maximum utilization of real time would be afforded by the five regional MEDLARS centers which should be able to process approximately 4,000 demand searches per year.

Preliminary reports on the Auerbach contract were given by Mr. Dugan and Mr. Gosden of that firm. The project aimed to produce a preliminary design for a new computer system and a draft RFP (Request for Proposal), as well as guidelines for evaluating manufacturers' responses to the RFP. The steps being taken to implement the project were described.

MEDLARS DEMAND SEARCH EVALUATION PROJECT

Mr. F. W. Lancaster, Information Systems Evaluator, summarized the principal objectives of the test program: these included a study of demand search requirements of MEDLARS users, a determination of the efficiency of the present MEDLARS service in meeting these requirements, the factors adversely affecting the performance of the system, methods for the most efficient and/or economic satisfaction of the user's requirements, and means for the most effective use of new generations of equipment and programs.

The methodology was described in detail. Recall and precision figures for 400 representative searches submitted by 20 carefully selected organizations would be established which would give a true picture of how MEDLARS was behaving in relation to representative requests. The data should allow the Library to determine the most efficient and economical ways of interaction between user and system. The test program would also describe instances in which a large number of irrelevant citations were retrieved. The causes would be analyzed, and methods developed for correcting such errors.

REPORT OF JOURNAL SELECTIONS FOR INDEX MEDICUS AND MEDLARS

Dr. Leiter indicated that the number of citations in Index Medicus would exceed the maximum feasible level of 200,000 annually by 1968. Because the number of journal articles was reaching a point where it would exceed the Library's indexing capabilities, a Journal Selection Committee was formed about two years ago to review the journals being indexed. A substantial number of changes had been made, which although resulting in the selection of journals of greater significance, also had resulted in an increase in the number of articles to be indexed, because of the increased frequency of appearance of the better journals and their tendency to publish a larger number of brief articles.

The most important feature of Index Medicus was its timeliness, and the most justifiable criticism was that it was becoming increasingly less timely. Thus an optimum ceiling on the size of Index Medicus was necessary. Dr. Leiter cited Dr. Cummings' figure of a maximum 200,000 citations per year. Also mentioned was Dr. Cummings' suggestion that editors and scientists from specialized medical subject areas be called upon to assist the Library in journal selection in such areas. These editors would supplement the present members of the Journal Selection Committee. The Board approved the following statement:

"The Board of Regents recognizes the problems facing the Library in indexing the growing mass of original publications of significance in the field of biomedicine. Since the NLM does not have resources to index everything which is published the Board recommends that the Library continue its policy of selective indexing from the world's biomedical literature. To insure that such selectivity provides maximum range and usefulness in the indexing of biomedical publications, the Board suggests that the NLM Ad Hoc Panel on Journal Selection be broadened by the addition of physicians, scientists, and medical editors. The Board also recommends that the Library continue to supplement its capacity for indexing publications in non-English languages, such as the oriental and Slavic, by appropriate contracts."

REPORT ON VISIT TO ISRAEL, INDIA AND KOREA

Dr. Gellhorn observed that NLM's objectives were well realized in Israel with regard to additional indexing, translations in the history of medicine, and such projects as the production of Drug Digests.

In Korea, discussion related to the role of the medical library in medical education. To meet Dr. Hubbard and his group, all the deans of medical schools had been gathered together by the Ministry of Education, the first time this had ever happened.

Dr. Hubbard spoke of the observations and concerns of the visiting group in India. In the area of history of medicine these included a serious lack of cataloging data for important historical manuscripts and documents, the problem of deterioration of manuscripts, and the need to develop color microphotography so that collections could be preserved on film. Another problem in this area had to do with the adequacy of translations which varied greatly depending on the background of the translator. The acquisition of books and journals, or equipment, support of individuals, funds for access to MEDLARS - all these had to be supported before the medical potential of these countries could be realized fully.

NOMINATION OF CHAIRMAN OF THE BOARD OF REGENTS

The Nominating Committee, unanimously feeling that the present leadership had been distinguished and tireless and uncommonly effective, and further, that this leadership had well served the Library as an institution, the Federal Government, and the Board of Regents with its particular responsibilities, proposed the nomination of Dr. William N. Hubbard, Jr. for a second term as Chairman. Dr. Hubbard was elected by acclamation.

CERTIFICATES OF APPRECIATION

At a dinner meeting, Certificates of Appreciation were presented by Dr. Cummings to two retiring Board members, Dr. Gellhorn and Dr. Harkins.

Respectfully submitted,



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