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89-23 MEDICAL LIBRARY ASSISTANCE ACT OF 1965

GOVERNMENT

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HEARING
BEFORE THE
COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES

EIGHTY-NINTH CONGRESS

FIRST SESSION

ON

H.R. 3142 and H.R. 6001

BILLS TO AMEND THE PUBLIC HEALTH SERVICE ACT TO
PROVIDE FOR A PROGRAM OF GRANTS TO ASSIST IN
MEETING THE NEED FOR ADEQUATE MEDICAL LIBRARY
SERVICES AND FACILITIES

SEPTEMBER 14, 1965

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MEDICAL LIBRARY ASSISTANCE ACT OF 1965

TUESDAY, SEPTEMBER 14, 1965

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met at 10 a.m., pursuant to call, in room 2125, Rayburn Building, Hon. Harley O. Staggers presiding.

Mr. STAGGERS. The committee will be in order. Hearings this morning are on H.R. 3142, which Chairman Harris introduced, and H.R. 6001, introduced by our colleague from Rhode Island (Mr. Fogarty). These two bills are both identical with S. 597, introduced by Senator Hill, on January 19, this year.

These bills would authorize a program of grants to finance the construction of medical library facilities, the training of biomedical librarians and information specialists; the expansion and improvement of medical library resources; research and development in medical library sciences; the support of biomedical publications; the support of special scholarly scientific projects; the establishment of regional medical libraries; and the establishment of regional branches of the National Library of Medicine.

The needs of medical libraries throughout the United States are critical. Existing libraries are cramped for space, frequently inadequate in resources, deficient in trained manpower, and in need of new methods for handling the growing amounts of medical literature.

A number of persons have expressed their interest in this legislation to the committee and so far as I am aware there is no opposition to the legislation.

Under the circumstances, then, I would like to suggest to the witnesses here today that there should not be any need for prolonged presentations. We hope to be able to complete the hearings on this legislation today.

At this point in the record, we will print the text of the bill and the agency reports thereon.

(The bill and reports referred to follow:)

[H.R. 3142, 89th Cong., 1st sess.]

A BILL To amend the Public Health Service Act to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Medical Library Assistance Act of 1965".

SEC. 2. Title III of the Public Health Service Act is amended by inserting at the end thereof the following new part:

"PART I—ASSISTANCE TO MEDICAL LIBRARIES

"DECLARATION OF POLICY AND STATEMENT OF PURPOSE

"SEC. 390. (a) The Congress hereby finds and declares that (1) the unprecedented expansion of knowledge in the health sciences within the past two decades has brought about a massive growth in the quantity, and major changes in the nature of, biomedical information, materials, and publications, (2) there has not been a corresponding growth in the facilities and techniques necessary adequately to coordinate and disseminate among health scientists and practitioners the ever increasing volume of knowledge and information which has been developed in the health science field; (3) much of the value of the ever increasing volume of knowledge and information which has been, and continues to be, developed in the health science field will be lost unless proper measures are taken in the immediate future to develop facilities and techniques necessary to collect, preserve, store, process, retrieve, and facilitate the dissemination and utilization of, such knowledge and information.

"(b) It is therefore the policy of this part to—

"(1) assist in the construction of new, and the renovation, expansion, or rehabilitation, of existing medical library facilities;

"(2) assist in the training of medical librarians and other information specialists in the health sciences;

"(3) assist, through the awarding of special fellowships to physicians and scientists, in the compilation of existing, and the creation of additional, written matter which will facilitate the distribution and utilization of knowledge and information relating to scientific, social and cultural advancements in sciences related to health;

"(4) assist in the conduct of research and investigations in the field of medical library science and related activities, and in the development of new techniques, systems and equipment for processing, storing, retrieving, and distributing information in the sciences related to health;

"(5) assist in improving and expanding the basic resources of medical libraries and related facilities;

"(6) assist in the development of a national system of regional medical libraries each of which would have facilities of sufficient depth and scope to supplement the services of other medical libraries within the region served by it; and

"(7) provide financial support to biomedical scientific publications.

"DEFINITIONS

"SEC. 391. As used in this part—

"(1) the term 'sciences related to health' includes medicine, osteopathy, dentistry, and public health, and fundamental and applied sciences when related thereto;

"(2) the terms 'National Medical Libraries Assistance Advisory Board' and 'Board' mean the Board of Regents of the National Library of Medicine established under section 373(a) of this Act;

"(3) the terms 'construction' and 'cost of construction', when used with reference to any medical library facility, include (A) the construction of new buildings, and the expansion, remodeling, and alteration of existing buildings, including architects' fees, but not including the cost of acquisition of land or off-site improvements, and (B) equipping new buildings and existing buildings (whether or not expanded, remodeled, or altered) for use as a library (including provision of automatic data processing equipment), but not with books, pamphlets, or related material.

"NATIONAL MEDICAL LIBRARIES ASSISTANCE BOARD

"SEC. 392. (a) The Board of Regents of the National Library of Medicine established pursuant to section 373(a) shall, in addition to its functions prescribed under section 373, constitute and serve as the National Medical Libraries Assistance Advisory Board (hereinafter in this part referred to as the 'Board').

"(b) The Board shall—

"(1) advise and assist the Surgeon General in the preparation of general regulations and with respect to policy matters arising in the administration of this part, and

"(2) consider all applications for construction grants under this part and make to the Surgeon General such recommendations as it deems advisable

with respect to (A) the approval of such applications, and (B) the amount which should be granted to each applicant whose application, in its opinion, should be approved.

"(c) The Surgeon General is authorized to use the services of any member or members of the Board, in connection with matters related to the administration of this part, for such periods, in addition to conference periods, as he may determine.

"(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 in connection with the administration of this part, shall be entitled to receive compensation, per diem in lieu of subsistence, and travel expenses in the same manner and under the same conditions as that prescribed under section 373(d), when attending conferences, traveling, or serving at the request of the Surgeon General in connection with the administration of part H which deals with the National Library of Medicine.

"ASSISTANCE FOR CONSTRUCTION OF FACILITIES

"SEC. 393. (a) In carrying out the purposes of section 390(b)(1), the Surgeon General may, upon application of any public or private nonprofit agency or institution, make grants to such agency or institution toward the cost of construction of any medical library facility to be constructed by such agency or institution.

"(b) A grant under this section may be made only if the application therefor is recommended for approval by the Board and is approved by the Surgeon General upon his determination that—

"(1) the application contains or is supported by reasonable assurances that (A) for not less than ten years after completion of construction, the facility will be used as a medical library facility, (B) subject to subsection (c), sufficient funds will be available to meet the non-Federal share of the cost of constructing the facility, and (C) sufficient funds will be available, when construction is completed, for effective use of the facility for the purpose for which it is being constructed;

"(2) the proposed construction is necessary to meet the demonstrated needs for additional or improved medical library facilities in the community or area in which the proposed construction is to take place;

"(3) the application contains or is supported by adequate assurance that any laborer or mechanic employed by any contractor or subcontractor in the performance of work on the construction of the facility will be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a5). The Secretary of Labor shall have, with respect to the labor standards specified in this paragraph, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c).

"(c) Within such aggregate monetary limit as the Surgeon General may prescribe, after consultation with the Board, applications which (solely by reason of the inability of the applicants to give the assurance required by clause (B) of subsection (b) (1)) fail to meet the requirements for approval set forth in subsection (b) may be approved upon condition that the applicants give the assurance required by such clause (B) within a reasonable time and upon such other reasonable terms and conditions as he may determine after consultation with the Board.

"(d) In acting upon applications for grants under this section, the Board and the Surgeon General shall take into consideration the relative effectiveness of the proposed facilities in meeting demonstrated needs for additional or improved medical library services, and shall give priority to applications for construction of facilities for which the need is greatest.

"(e) The amount of any grant made under this section shall be that recommended by the Board or such lesser amount as the Surgeon General determines to be appropriate; except that in no event may such amount exceed 75 per centum of the necessary cost of the construction of such facility as determined by him.

"(f) Upon approval of any application for a grant under this section, the Surgeon General shall reserve, from any appropriation available therefor, the amount of such grant as determined under subsection (e), and shall pay such amount, in advance or by way of reimbursement, and in such installments consistent with construction progress, as he may determine. Such payments shall be made through the disbursement facilities of the Department of the Treasury.

The Surgeon General's reservation of any amount under this subsection may be amended by him, either upon approval of an amendment of the application or upon revision of the estimated cost of construction of the facility.

"(g) In determining the amount of any grant under this section, there shall be excluded from the cost of construction an amount equal to the sum of (1) the amount of any other Federal grant which the applicant has obtained, or is assured of obtaining, with respect to the construction which is to be financed in part by grants authorized under this section, and (2) the amount of any non-Federal funds required to be expended as a condition of such other Federal grant.

"(h) If, within ten years after completion of any construction for which funds have been paid under this section—

"(1) the applicant or other owner of the facility shall cease to be a public or nonprofit institution, or

"(2) the facility shall cease to be used for medical library purposes, unless the Surgeon General determines, in accordance with regulations prescribed by him after consultation with the Board, that there is good cause for releasing the applicant or other owner from the obligation to do so, the United States shall be entitled to recover from the applicant or other owner of the facility the amount bearing the same ratio to the then value (as determined by agreement of the parties or by action brought in the United States district court for the district in which such facility is situated) of the facility, as the amount of the Federal participation bore to the cost of construction of such facility.

"(i) For the purposes of carrying out the provisions of this section, there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$10,000,000 for any fiscal year, as may be necessary.

"GRANTS FOR TRAINING IN MEDICAL LIBRARY SCIENCES

"SEC. 394. (a) In order to enable the Surgeon General to carry out the purposes of section 390(b)(2), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$1,000,000 for any fiscal year, as may be necessary. Sums made available under this section shall be utilized by the Surgeon General in making grants—

"(1) to individuals to enable them to accept traineeships and fellowships leading to postbaccalaureate academic degrees in the field of medical library science, in related fields pertaining to sciences related to health, or in the field of the communication of information;

"(2) to individuals who are librarians or specialists in information on sciences relating to health, to enable them to undergo intensive training or retraining so as to attain greater competence in their occupations (including competence in the fields of automatic data processing and retrieval);

"(3) to assist appropriate public and private nonprofit institutions in developing, expanding, and improving, training programs in library science and the field of communications of information pertaining to sciences relating to health; and

"(4) to assist in the establishment of internship programs in established medical libraries meeting standards which the Surgeon General shall prescribe.

"(b) Payment pursuant to grants made under this section may be made in advance or by way of reimbursement and in such installments as the Surgeon General shall prescribe by regulations after consultation with the Board.

"ASSISTANCE TO SPECIAL SCIENTIFIC PROJECTS

"SEC. 395. In order to enable the Surgeon General to carry out the purposes of section 390(b)(3), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$500,000 for any fiscal year, as may be necessary. Sums made available under this section shall be utilized by the Surgeon General for the establishment of special fellowships to be awarded to physicians and scientists for the compilation of existing, or writing of original, contributions relating to scientific, social, or cultural, advancements in sciences related to health. In establishing such fellowships, the Surgeon General shall make appropriate arrangements whereby the facilities of the National Library of Medicine and the facilities of libraries of public and private nonprofit institutions of higher learning may be made available in connection with the projects for which such fellowships are established.

"RESEARCH AND DEVELOPMENT IN MEDICAL LIBRARY SCIENCE AND RELATED FIELDS

"SEC. 396. (a) In order to enable the Surgeon General to carry out the purposes of section 390(b)(4), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$3,000,000 for any fiscal year, as may be necessary. Sums made available under this section shall be utilized by the Surgeon General in making grants to appropriate public or private nonprofit institutions and entering into contracts with appropriate persons, for purposes of carrying out projects of research and investigations in the field of medical library science and related activities and for the development of new techniques, systems and equipment, for processing, storing, retrieving, and distributing information pertaining to sciences related to health.

"(b) Payment pursuant to grants made under this section may be in advance or by way of reimbursement and in such installments as the Surgeon General shall prescribe by regulations after consultation with the Board.

"GRANTS FOR IMPROVING AND EXPANDING THE BASIC RESOURCES OF MEDICAL LIBRARIES AND RELATED INSTRUMENTALITIES

"SEC. 397. (a) In order to enable the Surgeon General to carry out the purposes of section 390(b)(5), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$3,000,000 for any fiscal year, as may be necessary.

"(b) Sums made available under this section shall be utilized by the Surgeon General for making grants of money, materials, or both, to public or private nonprofit medical libraries and related scientific communication instrumentalities for the purpose of expanding and improving their basic medical library or related resources. The uses for which grants so made may be employed include, but are not limited to, the following: (A) acquisition of books, journals, photographs, motion picture and other films, and other similar materials, (B) cataloging, binding, and other services and procedures for processing library resource materials for use by those who are served by the library or related instrumentality, and (C) acquisition of duplication devices, facsimile equipment, film projectors, recording equipment, and other equipment to facilitate the use of the resources of the library or related instrumentality by those who are served by it, and (D) introduction of new technologies in medical librarianship.

"(c)(1) The amount of any grant under this section to any medical library or related instrumentality shall be determined by the Surgeon General on the basis of the scope of library or related services provided by such library or instrumentality in relation to the population and purposes served by it. In making a determination of the scope of services served by any medical library or related instrumentality, the Surgeon General shall take into account the following factors—

"(A) the number of graduate and undergraduate students making use of the resources of such library or instrumentality;

"(B) the number of physicians utilizing the resources of such library or instrumentality;

"(C) the type of supportive staffs, if any, available to such library or instrumentality;

"(D) the type, size, and qualifications of the faculty of any school with which such library or instrumentality is affiliated;

"(E) the staff of any hospital or hospitals or of any clinic or clinics with which such library or instrumentality is affiliated; and

"(F) the geographic area served by such library or instrumentality and the availability, within such area, of medical library or related services provided by other libraries or related instrumentalities.

"(2) In no case shall any grant under this section to a medical library or related instrumentality during any fiscal year exceed \$200,000, or, if lesser, an amount equal to—

"(A) 60 per centum of the annual operating expenses of such library or related instrumentality, if such fiscal year is the first fiscal year with respect to which a grant under this section is made to it;

"(B)(i) 50 per centum of the annual operating expenses of such library or related instrumentality, (ii) or, if lesser, five-sixths of the amount of its first year grant under this section, if such year is the second fiscal year with respect to which a grant under this section has been made to it;

"(C)(i) 40 per centum of the annual operating expenses of such library or related instrumentality, (ii) or, if lesser, four-fifths of the amount of the second year grant under this section, if such year is the third fiscal year with respect to which a grant under this section has been made to it;

"(D)(i) 30 per centum of the annual operating expenses of such library or related instrumentality, (ii) or, if lesser, three-fourths of the amount of the third year grant under this section, if such year is the fourth fiscal year with respect to which a grant under this section has been made to it; and

"(E)(i) 20 per centum of the annual operating expenses of such library or related instrumentality, (ii) or, if lesser, two-thirds of the amount of the fourth year grant under this section, if such year is the fifth fiscal year with respect to which a grant under this section has been made to it.

The 'annual operating expense' of a library or related instrumentality shall for purposes of the preceding sentence, be an amount equal (if such annual operating expense is to be determined with respect to the first grant to be made to such library or instrumentality under this section) to the amount of the average of the annual operating expenses of such library or instrumentality over the three fiscal years preceding the year in which such grant is applied for; and if such library or related instrumentality has been operating for less than three years prior to applying for such grant, its 'annual operating expense' shall be an amount determined by the Surgeon General pursuant to regulations prescribed by him. For the second or succeeding fiscal year in which a grant is made to a library or related instrumentality, the 'annual operating expense' of such library or related instrumentality shall, for purposes of such sentence, be equal to its operating expense (exclusive of Federal financial assistance under this part) for the preceding fiscal year.

"GRANTS FOR ESTABLISHMENT OF REGIONAL MEDICAL LIBRARIES

"SEC. 398. (a) In order to enable the Surgeon General to carry out the purposes of section 390(b)(6), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$2,500,000 for any fiscal year, as may be necessary. Sums made available under this section shall be utilized by the Surgeon General, with the advice of the Board, to make grants to existing public or private nonprofit medical libraries so as to enable each of them to serve as the regional medical library for the geographical area in which it is located.

"(b) The uses for which grants made under this section may be employed include, but are not limited to, the following—

"(1) acquisition of books, journals, and other similar materials;

"(2) cataloging, binding, and other procedures for processing library resource materials for use by those who are served by the library;

"(3) acquisition of duplicating devices and other equipment to facilitate the use of the resources of the library by those who are served by it;

"(4) acquisition of mechanisms and employment of personnel for the speedy transmission of materials from the regional library to local libraries in the geographic area served by the regional library; and

"(5) construction, renovation, rehabilitation, or expansion of physical plant considered necessary by such library to carry out its proper functions as a regional library.

"(c)(1) Grants under this section shall be made only to medical libraries which agree (A) to modify and increase their library resources so as to be able to provide supportive services to other libraries in the region as well as individual users of library services, (B) to provide free loan services to qualified users, and make available photoduplicated or facsimile copies of biomedical materials which qualified requesters may retain.

"(2) The Surgeon General, in awarding grants under this section, shall give priority to medical libraries having the greatest potential of fulfilling the needs for regional medical libraries. In determining the priority to be assigned to any medical library, he shall consider—

"(A) the need of such library, as determined by the levels of research, teaching, and medical activities of the library in relations to other existing library and medical communication services in the region;

"(B) the adequacy of the library (in terms of collections, personnel, equipment, and other facilities) as a basis for a regional medical library; and

"(C) the size and nature of the population to be served in the region in which the library is located.

"(d) Grants under this section for construction, renovation, rehabilitation, or expansion of physical plant shall be made in the same manner and subject to the same conditions as are provided for grants made under section 393, except that the eligibility for any such grant would be determined on the basis of the construction requirements of the library so as to be able to serve as a regional medical library. Grants under this section for basic resource materials to a library may not exceed 50 per centum of the library's annual operating expense (exclusive of Federal financial assistance under this part) for the preceding year; or in case of the first year in which the library receives a grant under this section for basic resource materials, 50 per centum of its average annual operating expenses over the past three years (or if it had been in operation for less than three years, its annual operating expenses determined by the Surgeon General in accordance with regulations prescribed by him).

"(e) Payment pursuant to grants made under this section may be made in advance or by way of reimbursement and in such installments as the Surgeon General shall prescribe by regulations after consultation with the Board.

"FINANCIAL SUPPORT OF BIOMEDICAL SCIENTIFIC PUBLICATIONS

"SEC. 399. (a) In order to enable the Surgeon General to carry out the purposes of section 390(b)(7), there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$1,500,000 for any fiscal year, as may be necessary. Sums made available under this section shall be utilized by the Surgeon General, with the advice of the Board, in making grants to, and entering into appropriate contracts, with, public or private nonprofit institutions of higher education and individual scientists for the purpose of supporting biomedical scientific publications of a nonprofit nature and to procure the compilation, writing, editing, and publication of reviews, abstracts, indices, handbooks, bibliographies, and related matter pertaining to scientific works and scientific developments.

"(b) Grants under this section in support of any single periodical publication may not be made for more than three years.

"(c) Payment pursuant to grants made under this section may be made in advance or by way of reimbursement and in such installments as the Surgeon General shall prescribe by regulations after consultation with the Board.

"CONTINUING AVAILABILITY OF APPROPRIATED FUNDS

"SEC. 399a. Funds appropriated to carry out any of the purposes of this part for any fiscal year shall remain available for such purposes for the fiscal year immediately following the fiscal year for which they were appropriated."

REGIONAL BRANCHES OF THE NATIONAL LIBRARY OF MEDICINE

SEC. 3. Part H of title III of the Public Health Service Act which deals with the National Library of Medicine is amended by adding at the end thereof the following new section:

"REGIONAL BRANCHES OF THE NATIONAL LIBRARY OF MEDICINE

"SEC. 378. (a) Whenever the Surgeon General, with the advice of the Board, determines that—

"(1) in any geographic area of the United States, there is no regional medical library adequate to serve such area;

"(2) under the criteria prescribed in section 398, there is a need for a regional medical library to serve such area; and

"(3) because there is located in such area no medical library which, under the provisions of section 398, can feasibly be developed into a regional medical library adequate to serve such area, he is authorized to establish, as a branch of the National Library of Medicine, a regional medical library to serve the needs of such area.

"(b) For the purpose of establishing branches of the National Library of Medicine under this section, there are hereby authorized to be appropriated for each fiscal year, beginning with the fiscal year ending June 30, 1966, and ending with the fiscal year ending June 30, 1970, such sums, not to exceed \$2,000,000 for any fiscal year, as may be necessary. Sums appropriated pursuant to this section for any fiscal year shall remain available until expended."

COMPENSATION OF MEMBERS OF THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

SEC. 4. Part H of title III of the Public Health Service Act which deals with the National Library of Medicine is amended by striking out, in section 373(d) thereof, "\$50" and inserting in lieu thereof "\$75".

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., June 1, 1965.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in reply to your letter of February 15, 1965, requesting the views of the Bureau of the Budget on H.R. 3142, a bill to amend the Public Health Service Act to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities.

The bill would authorize a program of grants to finance the construction of medical library facilities, the training of biomedical librarians and information specialists the expansion and improvement of medical library resources, research and development in medical library science, the support of biomedical publications, the support of special scholarly scientific projects, the establishment of regional medical libraries, and the establishment of regional branches of the National Library of Medicine.

While the Bureau of the Budget recognizes the importance of the objectives of H.R. 3142, we note that there appears to be uncertainty as to the best future course of development of scientific—including biomedical—libraries in view of the rapid advances being made in techniques for the indexing, storage, and retrieval of information. This has led us to the following conclusions:

1. That a study should be undertaken of future biomedical library needs which takes full account of developing techniques for the improved handling of scientific information. The Office of Science and Technology has agreed to undertake such a study.

2. That it would be prudent to defer beginning a program of medical library construction until 1967 in order to allow time for completion of the above study and consideration of its implications on the facilities needs of medical libraries.

3. That the need for regional branches of the National Library of Medicine is not clear at the present time, and hence the provision of H.R. 3142 relating to the establishment of these branches constitutes a contingency authority for something which may or may not ultimately prove desirable. We believe that the optimum allocation of resources between national, regional, and local medical library facilities is a matter deserving close attention under the program of research and development grants authorized in this bill.

The Bureau would further suggest that the separate authorizations for each of the bill's provisions may be unduly restrictive as further studies give a clearer indication of priorities among medical library needs. A combined appropriation ceiling would appear to offer greater latitude to direct funds in accordance with the priority of the objective.

Subject to these considerations, enactment of this legislation would be consistent with the administration's objectives.

Sincerely yours,

PHILLIP S. HUGHES,
Assistant Director for Legislative Reference.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
May 5, 1965.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This letter is in response to your request of February 15, 1965, for a report on H.R. 3142, a bill to amend the Public Health Service Act to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities. The popular title of this bill is Medical Library Assistance Act of 1965.

The bill would provide the basis for a coordinated attack on a number of serious, interrelated problems with which medical libraries are confronted today.

The plight of the Nation's medical libraries is critical. During a period of intensive development of health research institutions, medical schools, and other medical facilities, support for medical libraries has been seriously neglected. The condition of medical libraries has steadily deteriorated under the pressures of rapid development of other programs and activities of medical institutions, most of which make increasing demands upon the medical library. In addition, the broadening base of medical research and practice, calling for literature from many ancillary fields, has added to the magnitude and complexity of medical literature. Medical libraries are cramped for space, critically deficient in trained manpower, deplorably inadequate in resources and desperately in need of new methods for handling the growing medical literature. A large-scale national effort is needed now to rehabilitate medical libraries.

The President's Commission on Heart Disease, Cancer, and Stroke, reacting to this situation, stated "The Commission feels strongly that unless major attention is directed to improvement of our national medical library base, the continued and accelerated generation of scientific knowledge will become increasingly an exercise in futility."

The Commission recommended "That not less than \$30 million per year for 5 years be authorized and appropriated to the National Library of Medicine for a program of grants and contracts to support improved medical library services in the United States—including facilities, resources, training of personnel, secondary publications, and library and communications research" and "that broadly conceived legislation be initiated clearly authorizing the National Library of Medicine to assist medical libraries in the ways recommended." Enactment of this bill would be a major step in carrying out the Commission's recommendations.

Facilities

The bill would authorize the Surgeon General to make grants of up to 75 percent of the costs of constructing, renovating, expanding, or remodeling medical library facilities. In acting upon applications for grants, consideration would be given to the relative effectiveness of the proposed facilities in meeting demonstrated needs for additional or improved medical library services, and priority would be given to projects for construction of facilities for which the need is greatest. For these purposes, the bill would authorize appropriations not to exceed \$10 million a year for a 5-year period beginning with fiscal year 1966.

One of the most critical needs of medical libraries is for space in which to maintain their collections and to carry out their necessary day-to-day operations. The chronic shortage of shelf space precludes the acquisition of essential additional books and materials each year. Crowding obstructs and often completely prevents access to the volumes on hand. Working space for library staffs is so restricted as to be a real barrier to effective operations (many medical libraries are so crowded that there is not even space for desks for the staff), and many libraries lack the space for up-to-date processing and labor-saving equipment. The need for space is desperate and of great magnitude. However, in order to make the most effective use of the funds that will be available for this program, we believe that initiation of the construction program should be preceded by a study of the kinds of facilities which will be most suited for meeting present and future requirements in the light of rapid technological advances. To allow time for such a study, and at the same time achieve the full objective of the construction program envisaged by the bill, we recommend that this provision of the bill be amended to provide for a 4-year construction program, beginning with fiscal year 1967, with annual appropriation authorizations of \$12.5 million.

Training

The bill would authorize the Surgeon General to make grants to assist in the training of medical librarians and other information specialists in the health sciences. Not to exceed \$1 million a year would be authorized for 5 years, beginning with fiscal year 1966. Sums made available under this section shall be used by the Surgeon General to make grants (1) to individuals to enable them to accept traineeships and fellowships leading to postbaccalaureate academic degrees in the field of medical library science, in related fields pertaining to sciences related to health, or in the field of communications; (2) to individuals who are librarians or specialists in information on sciences related to health, to enable them to undergo intensive training or retraining to attain greater competence in their occupations (including competence in the fields of automatic data processing and retrieval); (3) to assist appropriate public and private nonprofit institutions in developing, expanding, and improving training programs in (medical) library

science and the field of communications of information pertaining to sciences relating to health; and (4) to assist in the establishment of internship programs in medical libraries meeting standards prescribed by the Surgeon General.

There is a critical shortage of professional personnel trained to meet the special needs of medical libraries and the medical community they serve. There are approximately 6,300 medical libraries in the country, staffed by only about 3,000 professionals. The annual attrition from this professional group is approximately 150.

There is urgent need for specialized training over and above the general librarianship for professional persons to staff medical libraries. The type of professional needed to deal with the medical science communications problems is not being trained at the present time. Training programs must go beyond the basic, traditional training in library science and provide advanced training, specifically related to the communication needs of the medical community, with a heavy emphasis on the biomedical sciences, the existing patterns of communication in the medical community (including familiarity with the medical library system), and such specialties as systems engineering, linguistics, and the like as they relate particularly to medical communication.

H.R. 3142 would authorize the kinds of training assistance particularly suited to the development of this specialized competence. Postbaccalaureate support of selected trainees and fellows in programs directly related to the problems of medical science is essential. Centers of excellence could be developed in which comprehensive interdisciplinary advanced training could be furnished persons preparing for careers in medical library science. This would require medical direction and leadership.

Many of those presently staffing medical libraries need intensive specialized training in order to increase and update their competence. The training of biological scientists as information specialists and the training of scientists in information techniques in relation to medical problems also constitute important segments of a farsighted effort to upgrade the quality of service of medical libraries to the student, the investigator, and practitioner of the health profession. Internship programs in outstanding medical libraries would assist greatly in training of new librarians and in updating the skills and increasing the competency of persons already in the field.

Resources

The bill would authorize the Surgeon General to make grants of money, materials, or both to public or other nonprofit medical libraries and related scientific communication instrumentalities to expand and improve their basic medical library or related resources. Not to exceed \$3 million a year would be authorized for these purposes for a 5-year period, beginning with fiscal year 1966.

No grant in any year could exceed \$200,000 or, if lesser, 60 percent of the annual operating expense of the library for the first year; 50 percent (or, if lesser, five-sixths of the first year grant) for the second year; 40 percent (or, if lesser, four-fifths of the second year grant) for the third year; 30 percent (or, if lesser three-fourths of the third year grant) for the fourth year, and 20 percent (or, if lesser, two-thirds of the fourth year grant) for the fifth year.

Grants could be used for (but not limited to) acquisition of books, journals, films and other materials; cataloging, binding, and other services and procedures for processing library resource materials for users of the library; acquisition of duplication devices, recording equipment, and other equipment to facilitate the use of the resources of the library by those it serves; and introduction of new technologies in medical librarianship.

The medical library resource need is of great magnitude and so directly related to medical research, to the training of medical manpower, and the information essential to the practicing medical community that it requires special, intense attention immediately if fundamental responsibilities in the health area are to be fulfilled.

Neglect of support of the resources of the Nation's medical libraries has been chronic and cumulative to the point where they now have only about half the books, journals, and other resources they need. In addition to these shortages, a larger majority of the medical libraries have large backlogs of tasks such as cataloging and indexing necessary for the effective use of the literature and are in critical need of new and additional types of equipment (such as photoduplication) to speed the processing of materials. Significant Federal assistance is essential to build up collection to minimum standards and to support necessary bibliographic apparatus. In this connection, it is important to note the vital role to be played by regional medical libraries to be established under another

provision of this bill. These regional libraries will collect materials in depth and make their resources and services available to other medical libraries in a broad geographic area so that the resources of the smaller libraries can be limited to the most-used classes of materials. Even with the efficiency and economy which the regional medical library mechanism will foster, the need for basic resources is tremendous.

The descending scale of Federal grant support for these essential resources would encourage the upward revision of medical library budgets over the 5-year period, and serve to stimulate substantial, continued institutional support for the medical library function in the future.

Regional medical libraries

The bill would add a new section 398 to the Public Health Service Act which would authorize the Surgeon General to make grants to existing public or other nonprofit medical libraries to enable them to serve as regional medical libraries for the geographical areas in which they are located. Not to exceed \$2.5 million a year would be authorized to be appropriated for these purposes for a 5-year period beginning fiscal year 1966.

Grants could be made only to medical libraries which agree to provide supportive services to other medical libraries in the region, provide free loan service to qualified users, and make available photoduplicated or facsimile copies of biomedical materials which qualified requestors may retain. Priority would be given to medical libraries having the greatest potential for fulfilling the needs for regional medical libraries. In determining priorities consideration would be given to such factors as the need for a regional medical library (assessed in terms of the levels of research, teaching, and medical activities of that library in relation to other medical library services in the region); and adequacy of the library (in terms of collections, personnel, equipment, and facilities) as a basis for a regional medical library; and the size and nature of the population to be served in the region in which the library is located.

Grants under this section for basic resource materials could not exceed 50 percent of the library's annual operating expense for the preceding year (exclusive of Federal financial assistance under this bill). Construction, renovation, or expansion of the physical plant necessary for the carrying out of functions as a regional library would be authorized in the same manner and subject to the same terms as other construction grants authorized in the bill. Grants could also be used for equipment, staff, and services necessary for the functions of a regional medical library.

Need for regionalization has become acute with the growth in the magnitude of the medical literature and the speed with which information is required. At present, the National Library of Medicine is serving as the "libraries' library" in meeting the needs for increasing amounts of material which local medical libraries do not have on their shelves. Assistance in meeting the need for basic library resources will help materially in relieving this problem, but it is neither economically feasible nor necessary for each medical library to seek to build its own collection to try to encompass even a sizable proportion of the whole of the medical literature.

The development of a system of regional medical libraries, locally operated and controlled but with Federal assistance in the collection of materials in depth and of the equipment and staff necessary for an effective regional service, would do much to meet the needs of individual medical libraries in the region, and at the same time assure rapid, quality medical library service throughout the Nation. It would also contribute greatly to the effective utilization of scarce, skilled manpower, since the services and knowledge of highly qualified staff would be available throughout the region served.

In some regions of the Nation there may be no medical library adequate to serve such area as a regional medical library. The bill would add a new section (sec. 378) to part H of title III of the Public Health Service Act (relating to the National Library of Medicine) which would authorize the Surgeon General in such cases to establish, as branches of the National Library of Medicine, regional libraries of medicine to serve the needs of such regions. Not to exceed \$2 million annually would be authorized to be appropriated for this purpose for a 5-year period, beginning fiscal year 1966. Sums so appropriated would remain available until expended.

We strongly endorse these complementary authorizations as providing the flexibility necessary for the most rapid and efficient deployment of medical library resources and services throughout the Nation.

Special scientific projects

The bill would add a new section 395 to the Public Health Service Act which would authorize not to exceed \$500,000 a year for a 5-year period beginning with fiscal year 1966, to be used by the Surgeon General to assist, through awards to physicians and scientists, in the compilation of existing, or the writing of original, contributions relating to scientific, social, and cultural advancements in the sciences related to health which will facilitate the distribution and utilization of such knowledge and information. The Surgeon General would be authorized to make appropriate arrangements whereby the facilities of the National Library of Medicine and of other institutions would be made available in connection with the projects for which the awards are made.

With the tremendous increase in the volume and complexity of the literature in the biomedical sciences there is an urgent need for preparation of critical reviews, articles, abstracts, and other compilations or original contributions of a high degree of excellence and reliability to make more readily available to the medical community knowledge of advancements in the medical sciences. Such reviews, by physicians and scientists of stature, can serve as one of the most important keys to the literature, by providing practitioners, teachers, scientists, students, and others with access to, and appropriate perspectives on, significant aspects of scientific developments.

Research and development in medical library science and related fields

The bill would add a new section 396 to the Public Health Service Act which would authorize appropriations of not to exceed \$3 million a year for a 5-year period beginning with fiscal year 1966, for grants or contracts for research or investigations in the field of medical library science and related activities, and for the development of new techniques, systems, and equipment for processing, storing, retrieving, and distributing information pertaining to sciences related to health.

The magnitude and diversity of the requirements of the Nation's corps of healthworkers for the information in the medical literature is tremendous. The information resources of the Nation's biomedical libraries must be made available to its corps of health practitioners, to researchers in the health fields, and to students being trained in the health professions, in ways which are commensurate with their urgency, variety, and volume.

The volume and character of the published biomedical literature are such as to pose peculiar problems of storage, retrieval, and transmission of the information contained therein. The uses to which the information is put are of such vital importance in terms of the health needs of the Nation that the urgency of improving these aspects of its handling cannot be too strongly emphasized. Nearly all aspects of current medical library science need to be reassessed to develop more efficient skills and technologies. In addition, research is needed in related areas such as the uses of information by scientists, teachers, and practitioners and their searching techniques and attitudes; medical terminology and classification; machine indexing; graphic image storage and retrieval, and the like. Such research will not only provide answers to many immediate problems of medical information handling, it will also provide important guidelines for the future.

Support of biomedical publications

The bill would add a new section 399 to the Public Health Service Act which would authorize appropriations of not to exceed \$1.5 million a year for a 5-year period beginning with fiscal year 1966 for grants or contracts with nonprofit institutions of higher education or individual scientists for support of nonprofit biomedical scientific publications and to procure the compilation, writing, editing, and publication of reviews, abstracts, indices, handbooks, bibliographies, and related matter pertaining to scientific works and scientific developments. No grant for support of any periodical publication could be made for more than 3 years.

Effective access to the medical literature requires a variety of secondary publications, including abstracts, indices, handbooks, critical reviews, and the like. This is particularly true as the volume, magnitude, and complexity of the literature increases. The support authorized by this section would be limited in duration and could serve as a stimulus to the initiation and successful maintenance of a few carefully selected publications which have potential for making a special contribution to the biomedical community.

National Medical Libraries Assistance Board

The bill would provide that the Board of Regents of the National Library of Medicine shall constitute and serve as the National Medical Libraries Assist-

ance Board to advise and assist the Surgeon General in the preparation of regulations and with respect to policy matters relating to the administration of the programs which the bill would authorize. The Board would also review a construction applications, and would advise the Surgeon General on support of biomedical scientific publications and on establishment of regional medical libraries. (Note that, in its capacity as Board of Regents of the National Library of Medicine, the Board would also advise the Surgeon General on the establishment of branches of the National Library of Medicine to serve as regional medical libraries.)

We strongly endorse the use of the Board of Regents of the National Library of Medicine as the advisory council for the programs authorized under this bill. This would assure maximum coordination and continuity between the new programs and the ongoing activities and responsibilities of the National Library of Medicine. We would suggest however, that, in line with the advisory role of the Board in the construction program, the introductory phrase in the proposed section 393(b) (p. 6, lines 5-7) be changed to read: "A grant under this section may be made only if the application therefor is reviewed by the Board and is approved by the Surgeon General."

Section 4 of the bill would provide for an increase in the authorized ceiling for per diem pay of members of the Board of Regents of the National Library of Medicine from \$50 to \$75. This would bring the authorized ceiling for the per diem of members of the Board of Regents to the same level as that authorized last year for the Federal Hospital Council and the National Advisory Council on Nurse Training.

In summary: the medical library is an essential instrument in the training of medical personnel, the conduct of medical research, and the practice of medicine. Yet in recent years the Nation's medical libraries have been seriously neglected and today are in critical condition. The difficulties of medical libraries and the effect of their weaknesses on medical training, research, and practice must now be recognized as a problem of national proportions, and one which ultimately could pose a threat to the health of the American people. The needs are extensive and urgent. An intensive, comprehensive program directly related to meeting these needs should be initiated without further delay. H.R. 3142 would provide the basis for such effort.

We would therefore strongly recommend enactment of H.R. 3142. (We suggest, however, that a clarifying amendment, along the lines enclosed herewith, be included in the bill to make clear that nothing in the bill is intended to limit any authority existing under present law. It should also be noted that favorable action on this bill will make unnecessary the references in the proposed Higher Education Act of 1965 to the "biomedical" field. (See S. 600, p. 20, lines 13-14; p. 23, lines 10-11).)

We are advised by the Bureau of the Budget that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely,

WILBUR J. COHEN,
Assistant Secretary.

DRAFT LANGUAGE TO CARRY OUT SUGGESTION IN DEPARTMENT'S REPORT ON H.R. 3142

On page 23, after line 3, insert the following new section:

"OTHER AUTHORITY NOT AFFECTED

"SEC. 5. Nothing in this Act shall be construed as limiting the authorities and responsibilities, under any other provision of the Public Health Service Act or any other law, of the Surgeon General, the Public Health Service, or the Secretary of Health, Education, and Welfare."

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
Washington, D.C., September 13, 1965.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

MY DEAR MR. CHAIRMAN: Your request for comment on H.R. 3142, a bill to amend the Public Health Service Act to provide for a program of grants to assist

in meeting the need for adequate medical library services and facilities, has been assigned to this Department by the Secretary of Defense for the preparation of a report thereon expressing the views of the Department of Defense.

This bill would amend the Public Health Service Act to permit assistance to medical libraries. This assistance would include renovation and construction, training of medical librarians, assistance to medical and other scientific authors and assistance in investigation and research. The bill includes a section authorizing regional branches of the National Library of Medicine. The Surgeon General of the Public Health Service would manage the program with the advice and assistance of the Board of Regents of the National Library of Medicine.

The proposal is considered desirable, not only for the National Library of Medicine, but for medical practice and medical libraries in the Department of Defense. Accordingly, the Department of the Navy, on behalf of the Department of Defense, recommends enactment of legislation to accomplish the purpose of H.R. 3142 but defers to the Department of Health, Education, and Welfare as to the specific provisions of the legislation.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Bureau of the Budget advises that, from the standpoint of the administration's program, there is no objection to the presentation of this report on H.R. 3142 for the consideration of the committee.

For the Secretary of the Navy.

Sincerely yours,

M. K. DISNEY,

Captain, U.S. Navy, Director, Legislative Division.

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SECRETARY,
Washington, September 15, 1965.

Hon. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in further response to your request for our views on H.R. 3142, the Medical Library Assistance Act of 1965.

Since the Department of Labor has no direct responsibility in this area, we prefer to leave comments on the substantive provisions of this bill to the Department of Health, Education, and Welfare, the agency with special competence in this field and most directly concerned with the administration of the program.

From the standpoint of our particular responsibilities, we note with approval that the bill contains provisions to protect the labor standards of laborers and mechanics employed on projects authorized by this legislation. However, since the bill defines "construction" to include "equipping new buildings and existing buildings", we recommend that section 393(b)(3) of the bill be amended to limit the application of the labor standards to the type of construction normally covered by the Davis-Bacon Act, as amended. Suggested draft language is enclosed.

The Bureau of the Budget advises that there is no objection to the submission of this report from the standpoint of the administration's program.

Sincerely,

W. WILLARD WIRTZ,
Secretary of Labor.

PROPOSED LANGUAGE FOR SECTION 393(b)(3) OF H.R. 3142

"No grant for a project of construction under this Act shall be made unless the Secretary finds that the application contains or is supported by reasonable assurance that all laborers and mechanics employed by contractors or subcontractors on projects of the type covered by the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with that Act; and the Secretary of Labor shall have with respect to the labor standards specified in this paragraph the authority and functions set forth in Reorganization Plan No. 14 of 1950 (15 F.R. 3176; 5 U.S.C. 133z-15) and section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c)."

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., March 8, 1965.

B-74254.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. CHAIRMAN: By letter dated February 15, 1965, you requested our comments on H.R. 3142. The stated purpose of this measure is to amend the Public Health Service Act to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities.

While we have no special information that would assist the committee in its consideration of the merits of H.R. 3142, we would like to offer the following comments regarding this measure. No provision is made in H.R. 3142 nor in legislation applicable to other grant programs now authorized by the Public Health Service Act, as amended, 42 U.S.C. 201 et seq.—with the exception of the hospital programs under title VI thereof—to require a grantee to keep adequate cost records of the projects to which the Federal Government makes financial contributions, or specifically authorizing the Secretary of Health, Education, and Welfare or the Comptroller General to have access to the grantee's records for purposes of audit and examination. In view of the increase in grant programs over the last several years, we feel that in order to determine whether grant funds have been expended for the purpose for which the grant was made, the grantee should be required by law to keep records which fully disclose the disposition of such funds. We also feel that the agency as well as the General Accounting Office should be permitted to have access to the grantee's records for the purpose of audit and examination. We therefore suggest that consideration be given to amending the bill to include such requirements with respect to the proposed new grant program, or preferably to an amendment of the Public Health Service Act to cover all grant programs therein authorized. The latter could be accomplished by the following language:

“RECORDS AND AUDIT

“(a) Each recipient of assistance under this Act shall keep such records as the Surgeon General shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such grants, the total cost of the project or undertaking in connection with which such funds are given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

“(b) The Secretary of Health, Education, and Welfare and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act.”

Language similar to that suggested above is contained in section 11 of the Clean Air Act, approved December 17, 1963, Public Law 88-206, 77 Stat. 401, the act of May 31, 1962, Public Law 87-460, 76 Stat. 83, and in section 25 of the Area Redevelopment Act, approved May 1, 1961, Public Law 87-27, 75 Stat. 63, 42 U.S.C. 2522 (supp. V).

Sincerely yours,

JOSEPH CAMPBELL,
Comptroller General of the United States.

MR. STAGGERS. Again, I would like to say that any witness who is here who would like to present his testimony for the record will be considered as giving it and it will be inserted in the record.

At this time we will hear from our colleague, Mr. Fogarty of Rhode Island, who is one of the sponsors of the legislation under consideration.

STATEMENT OF HON. JOHN E. FOGARTY, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF RHODE ISLAND

MR. FOGARTY. Mr. Chairman, early in June I appeared before this committee to urge passage of another vital health measure—the Health Professions Educational Assistance Amendments of 1965. Under your skillful handling on the floor of the House that bill passed

the House and is going to become law. Earlier this month this committee reported out the regional medical plan which has already passed the Senate and which, when it comes before the House, is sure to pass and become law. Today we are considering a related health measure, the Medical Library Assistance Act of 1965, and it—like the other bills—deserves to become a part of the law of this land.

In January I introduced on the House floor three separate measures—H.R. 5999, H.R. 6000, and H.R. 6001—which embodied proposals now incorporated in the health professions educational assistance amendments, the regional medical plan, and the Medical Library Assistance Act we are considering today. Unlike some of the other health bills to come before this Congress, the medical library assistance bill has a striking unanimity of support and I have no doubt that it will pass this Congress and become law. Without a dissenting voice, the health professions and librarians alike are agreed that the need to strengthen the country's medical library system is urgent.

For the medical libraries of this Nation are indeed in shocking state. There are 6,000 libraries in this country, but only 3,000 librarians—one-half a librarian for each library. The needs for additional space to allow libraries to expand to a size sufficient to meet minimum standards runs to millions of additional square feet. The requirements for books and journals to support medical research are massive. And as for training, only 40 additional professional librarians are being added to the field of medicine every year—while the national attrition of medical librarians is 150 every year.

A weak and inefficient medical library system results in a wastage of our medical research effort that is both unnecessary and of such proportions that it can no longer be overlooked. Unplanned and unnecessary duplication of research costs time and money. And research results that are reported but cannot be retrieved might as well never have been reported. Someone else will have to duplicate them and report them again before they can help one other scientist or be used by one practitioner to alleviate the sufferings of patients.

The irony of this is that our success in creating and sustaining a national effort in biomedical research over the past two decades has resulted in a flow of new medical information the like of which has never been seen before in human history. But this flow of information has turned into a flood and swamped the reservoirs—the Nation's medical libraries are the inevitable reservoirs of this new knowledge. The flooding—the information that has seeped away or has been lost down the spillways—is a tragic thing to watch.

I think that it is this spectacle that has brought about the general recognition that we must act quickly to meet this desperate situation. Everyone seems to have suddenly recognized what such organizations as the Association of American Medical Colleges have been saying for a number of years about the worsening plight of this Nation's medical libraries. The President's Commission on Heart Disease, Cancer, and Stroke, as well as the American Medical Association have pointed to the need to improve our Nation's medical libraries.

Everyone seems to be saying with one voice that a large-scale national effort has to be made now to rehabilitate medical school libraries. It is clear to all that no temporary solution is possible, and

no single agency can do the job. Only a cooperative effort by the medical schools, the Federal and State Governments, and private organizations can do the job that has to be done.

Mr. Chairman, in all the years we have worked together on health legislation—in these two decades—I can't recall a health measure that had more unanimous support than is enjoyed by this measure. In part this is a tribute to the care with which this legislation was written. It wisely assumes that private, local, and State resources will continue to carry most of the expense of our Nation's library system. At the same time it assumes that the leadership role of the National Library of Medicine should be recognized, utilized, and strengthened.

I need not review before this group all the details of the Medical Library Assistance Act of 1965. I would like to summarize its major provisions to emphasize in specific terms how this measure would benefit the health of the American people.

First, funds for the construction of facilities.

Second, grants for training in medical library information science.

Third, assistance to special scientific projects, such as studies in the history of medicine.

Fourth, research and development in medical library science and related fields.

Fifth, grants for improving and expanding the basic resources of medical libraries and related instrumentalities.

Sixth, grants for establishment of regional medical libraries.

Seventh, financial support of biomedical scientific publications.

These specific provisions of the bill will enable our health professions to utilize to a higher degree than ever before the fruits of research which are being produced in greater quantity. If I may, I would like to suggest—in order to remove any doubt as to the application of this measure and to clarify the intent of this body—that the term "sciences related to health" (p. 3, line 21, H.R. 6001) be amended to include optometry. This specialty is being increasingly recognized as a vital part of the entire field of professions related to health.

Now, this bill recognizes that the chronic neglect of the Nation's medical libraries has reached the point where significant Federal assistance is needed to build up libraries to a reasonable standard. In addition, it will promote the acquisition of new types of equipment for the processing of materials. In this connection, it is interesting to consider the role to be played by regional libraries to be established under one section of this bill.

These regional libraries will collect materials in depth and make their resources and services available to other medical libraries in broad geographic areas so that resources of the smaller libraries can be limited to the most used class of materials. Even with the efficiency and economy which the regional medical library mechanism will foster, the need for basic resources will be tremendous.

Mr. Chairman, just 2 months ago you and I—along with that great statesman for health, Senator Lister Hill, and others—were honored by taking part in the John Shaw Billings Centennial marking the first century of the existence of the National Library of Medicine. I recall that in your speech presented by the distinguished Representative from New York, Leo O'Brien, you made an excellent reference

to the role the regional libraries will play in fostering American medical education.

You noted that, in addition to the 81,000 medical students, interns, and residents, there are an additional 170,000 students of dentistry, nursing, osteopathy, public health, and other health sciences who need library services. You were making a point which should never be forgotten—which we in Congress have a special duty to remember—that is, that these young people and their institutions are scattered all across this Nation, and all require access to the medical literature for their training and education.

The need for regionalization has become acute with the growth in the magnitude of the medical literature and the speed with which information is required. As you know, the National Library of Medicine is serving as a libraries' library in meeting the needs for increasing amounts of materials which local medical libraries do not have on their shelves. Assistance in meeting the need for local library resources will help relieve this problem.

The development of a system of regional libraries locally operated and controlled but with Federal assistance in the collection of materials and equipment and staff will do much to make for the maximum use of scarce trained medical library manpower while assuring fast, quality library service.

And if in some region of the Nation there is not now some medical library adequate to serve area needs, regional libraries may be established as branches of the National Library of Medicine for that purpose.

The National Library of Medicine has had more experience than any library in the world in providing library services in the medical area, and its splendid reputation is international. The NLM will provide the kind of leadership needed—and is prepared to do so just as quickly as this medical library assistance bill is signed into law.

When this measure comes before the House I think it is important that our colleagues be made aware immediately that medical libraries are the leaky and already flooded reservoirs into which are flowing the many research accomplishments of our increasingly productive national biomedical research effort. Equally important, I think, is that they be made aware of the extraordinary unanimity of support this measure enjoys. It has not only the endorsement of all those directly concerned—the Medical Library Association, the Special Libraries Association, the Association of Research Libraries, the Association of American Medical Colleges—it also has the support of the voluntary health agencies such as the American Heart Association and the professional organizations such as the American Dental Association, American Public Health Association, and the American Medical Association.

Yes; let me emphasize, the American Medical Association joins in the support of this measure. Our colleague, Senator Hill, was informed earlier this year through testimony before the Senate Committee on Labor and Public Welfare that the AMA strongly supports the intent and purposes of this measure.

Enjoying the support of such varied elements—governmental and voluntary, academic, professional organizations—this measure cannot fail to pass this Congress.

As we consider the many humanitarian measures coming out of Congress this session—under the leadership of our health-oriented

President—it is imperative that we improve the flow of new medical information from the Nation's laboratories to this Nation's physicians, who are moving in on the domain of disease. There is only one way to do this, and that is by repairing our medical library system and bringing it up to date. Libraries must be helped to channel the information that is flowing into them at an accelerating rate in such ways that the knowledge they are receiving may pass on to irrigate the vast regions of man's ignorance. When these reservoirs of knowledge are used as they can and should be used, medical research, medical education—and above all, medical practice—will flourish as never before.

Mr. STAGGERS. Thank you for your testimony, Mr. Fogarty.

Mr. FOGARTY. Thank you for the opportunity, Mr. Chairman.

Mr. STAGGERS. Next we will hear from Dr. Luther L. Terry, Surgeon General of the Public Health Service.

Dr. Terry, you may proceed.

**STATEMENT OF DR. LUTHER L. TERRY, SURGEON GENERAL,
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; AC-
COMPANIED BY DR. EDWARD W. DEMPSEY, SPECIAL ASSISTANT
TO THE SECRETARY, HEALTH AND MEDICAL AFFAIRS; AND
WILBUR J. COHEN, ASSISTANT SECRETARY FOR LEGISLATION**

Dr. TERRY. Thank you, Mr. Chairman.

Under Secretary Wilbur Cohen is our principal witness. If we may, we would like to open with his testimony, sir.

Mr. STAGGERS. Yes, sir. You may proceed as you see fit. We would like to identify for the record all the gentlemen you have with you, please.

Mr. COHEN. Mr. Chairman, on my left is Dr. Luther Terry, the Surgeon General, Public Health Service. On my right, Dr. Edward Dempsey, the Acting Assistant Secretary for Health. On my far right, Dr. Martin Cummings, the Director of the National Library of Medicine. On the far left is Mr. Ralph Huitt, the Assistant Secretary for Legislation.

Mr. Chairman, I have a statement, and Dr. Dempsey and Dr. Terry have statements. My suggestion would be that all three of these be printed in the record, in compliance with your request. Then I think each of us will make a brief statement which will summarize our views.

Mr. STAGGERS. That certainly is agreeable with the committee, Mr. Cohen.

Mr. COHEN. I think the basic argument as to why we are strongly in favor of this legislation, Mr. Chairman, is contained in the paragraph in my testimony on the top of page 3. I think by reading this one paragraph I can summarize the whole argument that is in favor of this legislation.

The plight of the Nation's medical libraries is critical. During a period of intensive development of health research institutions, medical schools, and other medical facilities, support for medical libraries has been seriously neglected. The condition of medical libraries has steadily deteriorated under the pressures of rapid development of other programs and activities of medical institutions, most of which make increasing demands upon the medical library. In addition, the

broadening base of medical research and practice, calling for literature from many ancillary fields, has added to the magnitude and complexity of medical literature. Medical libraries are cramped for space, critically deficient in trained manpower, deplorably inadequate in resources and desperately in need of new methods for handling the growing medical literature. A large-scale national effort is needed now to rehabilitate medical libraries.

For that reason, Mr. Chairman, we wholeheartedly support the bill pending before you today and urge its prompt enactment.

(Mr. Cohen's full statement follows:)

STATEMENT BY WILBUR J. COHEN, UNDER SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, before I comment on the legislation before you today, I wish to take this opportunity to thank all the members of this committee, and particularly its distinguished chairman, on behalf of the administration for the leadership and vision which you have shown in the consideration and enactment of very important health legislation during this session of the Congress. I sincerely believe that your efforts will be rewarded by the improved health of the American people. We, in the Department of Health, Education, and Welfare, are grateful for the splendid cooperation we have received from this committee.

I appear before you today in support of H.R. 3142, the Medical Library Assistance Act, introduced by Chairman Harris.

Among the bills which you have considered during this session are those which would:

- Expand the Nation's capacity for education in the health professions,

- Establish regional programs which would serve to further research into the prevention and treatment of the killer diseases—heart disease, cancer, and stroke—and bring the fruits of this research more rapidly to their victims through improved diagnosis and treatment,

- Extend the effectiveness of our health research institutions through the provision of improved research facilities.

These and other programs which have come before you are extremely significant in terms of better health for all of us. These programs may not fully succeed, however, unless there is a very considerable improvement in society's mechanisms for the communication of health information.

In the field of health, the keystone of this communication system is the biomedical library. We are investing large sums of money in programs of research, education, and health services. Unless the research scientist has available complete and up-to-the-minute information in his field, progress in the understanding of disease and disability will be slowed. Unless the physician has the latest and best information on diagnosis, treatment, and rehabilitation, the well-being of the patient may be at stake. Unless our students in the health professions have available to them adequate facilities and resources during their education, the quality of their training may be affected, and the consequences serious and far reaching.

The library has been established as the major learning resource of universities for centuries. I know from my own experience as a teacher that the library is the place where the past and the present meet. It is also the source of ideas for the future for the faculty, students, and researchers. Medicine, as part of society, needs library resources to capitalize upon the technical, cultural, and educational advances which take place everywhere. We must not allow the progress of medicine to be impeded for lack of support of this vital activity.

The plight of the Nation's medical libraries is critical. During a period of intensive development of health research institutions, medical schools, and other medical facilities, support for medical libraries has been seriously neglected. The condition of medical libraries has steadily deteriorated under the pressures of rapid development of other programs and activities of medical institutions, most of which make increasing demands upon the medical library. In addition, the broadening base of medical research and practice, calling for literature from many ancillary fields, has added to the magnitude and complexity of medical literature. Medical libraries are cramped for space, critically deficient in trained manpower, deplorably inadequate in resources and desperately in need of new

methods for handling the growing medical literature. A large-scale national effort is needed now to rehabilitate medical libraries.

The bill would authorize the Surgeon General to make grants of up to 75 percent of the costs of constructing, renovating, expanding, or remodeling medical library facilities. In acting upon applications for grants, consideration would be given to the relative effectiveness of the proposed facilities in meeting demonstrated needs for additional or improved medical library services, and priority would be given to projects for construction of facilities for which the need is greatest. For these purposes, the bill would authorize appropriations not to exceed \$10 million a year for a 5-year period beginning with fiscal year 1966.

One of the most critical needs of medical libraries is for space in which to maintain their collections and to carry out their necessary day-to-day operations. The chronic shortage of shelf space precludes the acquisition of essential additional books and materials each year. Crowding obstructs and often completely prevents access to the volumes on hand. Working space for library staffs is so restricted as to be a real barrier to effective operations (many medical libraries are so crowded that there is not even space for desks for the staff), and many libraries lack the space for up-to-date processing and laborsaving equipment. The need for space is desperate and of great magnitude. However, in order to make the most effective use of the funds that will be available for this program, we believe that initiation of the construction program should be preceded by a study of the kinds of facilities which will be most suited for meeting present and future requirements in the light of rapid technological advances. To allow time for such a study, and at the same time achieve the full objective of the construction program envisaged by the bill, we recommend that this provision of the bill be amended to provide for a 4-year construction program, beginning with fiscal year 1967, with annual appropriation authorizations of \$12.5 million.

The Department believes that the Medical Library Assistance Act now before you would provide a comprehensive and imaginative program for correcting the deficiencies of the biomedical libraries of the Nation and would thereby strengthen our efforts in medical research, education, and practice.

I would like to assure the committee of the enthusiastic support of this bill by the Department with the one or two modifications we have suggested to you in our report. We are convinced that unless such a program to improve our medical libraries is undertaken, other health programs may be seriously imperiled. I urge enactment of this measure so that the very pressing problems of the communication of biomedical information may be met head on and the health of our Nation may be advanced accordingly.

Mr. COHEN. Mr. Dempsey.

Dr. DEMPSEY. Mr. Chairman, like Mr. Cohen, I would like to urge enactment of the bill and to indicate that it has the complete support of the Department, and that it is, in my opinion, greatly needed to assist the libraries in medical institutions in our country to do the job now before them.

There is a very real need for this legislation. The number of librarians who are trained as medical librarians in the United States is totally inadequate to staff the libraries that now exist. There are about 6,000 libraries, there are only 3,000 trained medical librarians, and we are training only at the rate of about 50 medical librarians per year.

The use of the libraries to assist the practicing profession has grown enormously in the past years. The great additional use of interlibrary loans as a mechanism to provide information to medical schools, to hospitals, and to centers of medicine in localities in which their own libraries are inadequate attests to the need for a greatly improved library system than we have now.

There are many other ways in which I could illustrate the plight of libraries and indicate how valuable the assistance that would be provided under this bill would be. But in the interest of time, I would simply like to emphasize again the Department's support of this bill and to indicate that to the best of my knowledge virtually every

professional organization in the health field has endorsed the need for this legislation. There is a wide recognition of the need for and there is confidence in the proposed solution to the problem. We urge the enactment of H.R. 3142.

Thank you.

(Dr. Dempsey's statement follows:)

STATEMENT BY EDWARD W. DEMPSEY, ACTING ASSISTANT SECRETARY,
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, I appear before you today in support of H.R. 3142, the Medical Library Assistance Act, which was introduced by Chairman Harris. The need for the enactment of this legislation is quite apparent when one considers the vital and overwhelming needs for information which are being generated by the expanded health programs of the Nation, both public and private. Before speaking about the provisions of the bill, I must underscore the fact that we in the Department believe that there is real need for this legislation.

The report of the Secretary to the chairman of this committee on H.R. 3142 sets forth in detail the Department's support of the specific provisions of the bill. I should therefore like to outline the provisions for you briefly this morning, and emphasize some of the things the bill would accomplish.

The bill would authorize grants-in-aid of up to 75 percent of the costs of constructing, renovating, expanding, or remodeling biomedical library facilities. We believe that this section of the bill is directed at one of the most serious problems of the libraries. More than 50 percent of all medical school libraries were constructed more than 30 years ago, long before the publication explosion was anticipated or felt. The Association of American Medical Colleges has conducted a survey of the medical libraries of their member schools to determine what their needs might be. They found that at the present time the average medical school library occupies about 18,000 square feet. This is less than one-half the amount of space required to operate a modern medical library. In many libraries there is crowding to the point that routine day-to-day activities are impeded, access to materials is made difficult or impossible, and the utilization of the libraries by scientific and medical personnel and students is inhibited. Construction grants are needed.

However, since the technology of library science has shared in the technological revolution of the last few decades, we feel that the construction program should be preceded by a careful study of the kinds of facilities which will be best suited to meeting present and future requirements in the light of these rapid technological developments. We have, therefore, recommended in our letter to you, Mr. Chairman, that this provision be amended for this purpose.

The contribution that biomedical libraries can make to the advancement of medical knowledge and medical service is directly related to the caliber and number of people who staff them. There is a tremendous deficit of professionally trained manpower in this field. For example, there are more than 6,000 medical libraries in the country today, but only about 3,000 medical librarians with any specialized training or experience are available to staff them. Trained medical librarians are being produced today at a rate of less than 50 per year, a number which replaces only a fraction of those lost by attrition.

The bill would authorize the Surgeon General to make grants to assist in the training of medical librarians and other information specialists in the health sciences. Today it is essential that the personnel responsible for the operation and future planning of the medical libraries have special training in medical librarianship. This training must be related to the specialized communication problems of the medical community. They must be well grounded in the biomedical sciences, and they must be thoroughly familiar with the design of technical information systems. Many of those presently staffing health sciences libraries are in need of intensive specialized training in order to increase and update their competence. The urgency to begin action programs in this area cannot be overstated.

The requirements of health sciences libraries for books, journals, and other resources is of such magnitude and so directly related to medical research, to the training of professional health manpower, and the information essential to the practicing community as to require special, intense attention immediately if our fundamental responsibilities for a healthy nation are to be fulfilled. In a study

made in 1963, it was found that only 14 of the 87 existing medical schools met the standards for number of volumes for medical school libraries. Published information is of little value unless it is available to those who need it when they need it.

Two sections of the bill are directed at aiding in making more and better resources available to local biomedical libraries. One of these would authorize the Public Health Service to make grants on a matching basis to expand and improve basic biomedical library and related resources. These grants would be limited to 5 years for any institution and would decrease each year. The other section of the bill is designed to increase the availability of books, journals, and other informational material to local libraries through the support of regional libraries. Grants under this section would be made to major health science libraries which would agree to provide supportive services to other libraries in the region. These grants would be made to suitable existing biomedical libraries. Where there are areas of the country in which there are no existing health science libraries of sufficient strength to serve a regional community, the bill authorizes the establishment of branches of the National Library of Medicine. The need for this regional service has become acute with the growth in the size of the medical literature and with the need for increased speed of access to it.

Presently the National Library of Medicine is serving as the libraries' library in meeting the requirements for increasing amounts of material which local medical libraries do not have on their shelves. This function of the National Library of Medicine has reached such proportions as to make mandatory the assumption of a part of the responsibility elsewhere. Regional health science resource libraries, in lending such assistance to the local libraries, would help materially in solving this problem, while taking account of the fact that it is neither economically feasible nor necessary for each biomedical library to try to build its collection to encompass the whole of the biomedical literature. Such a program would also serve to prevent the growth of a highly centralized, monolithic system of library service which could not be as responsive to local needs as could a decentralized system.

Many of the tools and methods used today to operate health science libraries are hopelessly inadequate. Research and development is required to devise new and more efficient techniques to deal with biomedical information requirements. The bill would authorize the award of grants and contracts to accomplish this.

The bill would authorize a program of grants and contracts for support of nonprofit publications and to procure the preparation and publication of reviews, abstracts, indexes, handbooks, bibliographies, and other forms of secondary publications. Effective access to the medical literature requires a variety of these forms of publications. This is particularly true now that the biomedical literature is so complex and voluminous.

This increase in complexity and volume of the literature has given rise to the need for a program of support for individual scholars for the preparation of critical reviews and similar compilations of original contributions of a high degree of excellence and reliability. These works are needed to make more readily available to the biomedical community knowledge of advances in the health sciences which have been carefully evaluated and interpreted by experts in the particular field. The bill would authorize a program of grants to scholars in the medical sciences to accomplish these ends.

All sections of H.R. 3142 are interrelated and together constitute a comprehensive plan which can effectively repair the devastation of many years of neglect, maximize the resources, functions, and services which do exist, and bring biomedical library practice and facilities to the frontiers of knowledge and capability, both theoretical and practical in this field.

The existing informal health science library network is a logical base upon which to build our overall effort to improve and perfect a health information system. A well-developed program of assistance is necessary and timely. I am confident the program, as conceived in H.R. 3142, is entirely feasible and practical. I wish to stress the close relationship between this bill and the other health legislation which this committee has considered during this session and to point out that the success of these other programs is dependent on a strong system of health science libraries.

In conclusion, I again emphasize the Department's support of this bill for the strengthening of our Nation's health science libraries and its important relationship to many of our other programs. Virtually every professional organization in the health field has endorsed the need for this legislation. This recognition of need for, and confidence in, the proposed solution of the problem is shared by the Department. We urge enactment of H.R. 3142.

Mr. COHEN. Dr. Terry.

Dr. TERRY. Mr. Chairman, I too would like to urge the enactment of this legislation. I feel that it represents one of the most important parts of our entire developmental program in the health and biomedical sciences today, because this represents the basic underpinning for so many of our other programs in the Public Health Service, virtually all of them, whether they be research training, medical service, or whatever they may be.

The manner in which our other programs develop is going to depend a great deal upon the proper development of an adequate medical library and information system throughout this country. It is for that reason that I am particularly happy that this bill is up for hearings, and I hope that we can get favorable and rapid action.

For several years, my principal advisory council, the National Advisory Health Council; the Board of Regents, which is a Presidentially appointed Board of the National Library of Medicine; and our other important advisory groups, have strongly urged this sort of legislation. So that I feel that we have the background and the support.

And in speaking of background, I would not like to let it pass, Mr. Chairman, without referring to the development of many of the technological aspects of this program which have been developed in the National Library of Medicine. I would refer specifically to the medlars which has been developed and installed and is in operation at the National Library of Medicine.

Medlars (Medical Literature Analysis and Retrieval System) is a system for storage and rapid retrieval of information. This represents an outstanding development, and this can be the core of a national system by feeding out from our National Library of Medicine to medical libraries over the country.

If I may inject one personal note, Mr. Chairman, I think this is probably the last opportunity that I will have to appear before this committee, since I am shortly retiring from the Public Health Service. I couldn't let this occasion pass without expressing to all of the members of this committee my deep appreciation for the work which you have done over the past several years. At no time in the history of our Nation, Mr. Chairman, has so much and such important health legislation been enacted, been heard, recommended, and enacted by a committee and by the Congress than has happened in the past four and a half years. For that reason, I consider it has been a real privilege for me to have played a part in this.

I would like to take this opportunity of saying thank you, and, Mr. Chairman Designate, I can assure you that during your time as chairman of this committee you are going to have a hard time meeting the record that this committee has made during the past 4 years. I am sure you are capable of it, and I would like to extend my thanks and best wishes to all of the members of the committee.

(Dr. Terry's statement follows:)

STATEMENT BY LUTHER L. TERRY, M.D., SURGEON GENERAL, U.S. PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, I am very pleased to appear before you today in support of H.R. 3142, the Medical Library Assistance Act, introduced by the distinguished chairman of this committee. I strongly urge the

enactment of this legislation as essential to the success of all of the programs of the Public Health Service. The programs of the Service encompass health research, professional education, and services, as you know. In order for these programs to function effectively and contribute to the achievement of our national goals in health, a modern national system of biomedical information in an absolute requirement. All elements of the Public Health Service recognize this and join me in enthusiastic support of the Medical Library Assistance Act.

The National Advisory Health Council, the distinguished panel of health scientists and lay citizens which advises me on matters relating to the activities and functions of the entire Service, has for several years recognized the serious condition in which the biomedical libraries of the Nation find themselves. The Health Council and the Board of Regents of the National Library of Medicine have urged that legislation such as that before you now be enacted in order to strengthen biomedical libraries.

In addition, the President's Commission on Heart Disease, Cancer, and Stroke has found serious weaknesses in the libraries serving the health sciences and has strongly recommended that legislative action be taken to rectify these deficiencies as soon as possible.

Our Nation has a considerable capital investment in the health science library. It forms the basis of the development of a medical information and communications system. The medical sciences have a long tradition of concentrating their information resources in libraries. In the present and future planning of health programs and their essential communications capabilities, we must take full advantage of these basic resources and the investments already made in our biomedical libraries. There is a further characteristic in the health science libraries which is almost unique. I refer to the tradition established some 50 or 60 years ago of interdependence and cooperation among these libraries. Interlibrary loan activity is so characteristic in the medical field that an informal but very viable network relationship has long been in existence. (To cite an example of local needs, the National Library of Medicine made more than 200,000 loans of its materials last year.) There is need to formalize and strengthen this network relationship so that consumers may gain access to this information locally.

The Public Health Service is proud of the fact that the first successful use of computers for storage and retrieval of medical information was developed by our National Library of Medicine. This automated system called Medlars (medical literature analysis and retrieval system) contains more than 350,000 citations to the world medical literature which may be retrieved by subject or author within a matter of minutes. In addition it prints monthly Index Medicus, the most comprehensive bibliography of our medical publications, as well as specialized bibliographies of the medical literature of the world. The National Library of Medicine has proven that it can economically decentralize this power of storage and retrieval of medical literature to medical schools, hospitals, and other health-oriented institutions by providing its magnetic tapes to users in various communities throughout the Nation.

Programs are being designed to rehabilitate and maximize the contributions of the existing medical library establishment and at the same time plan for the conversion of the traditional medical library form to serve more efficiently the communication purposes of contemporary health sciences.

The Medical Library Assistance Act of 1965 through the support of construction, resources, research, manpower development, regional and branch libraries, and scientific publications provides a sound and comprehensive legislative base with which to accomplish both the rehabilitation and conversion.

Finally, I should say that the Public Health Service considers the National Library of Medicine, with its Presidentially appointed Board of Regents and already the leader in medical library technology, to be the appropriate organizational element to carry out the programs called for in this bill.

I cannot close without expressing to you my deep appreciation for the fine cooperation which the Public Health Service has always received from this committee and I would like also to extend my own personal thanks to the distinguished chairman for his many outstanding accomplishments over the years in the interest of health.

Mr. COHEN. I think we might hear a word from Dr. Cummings, Director of the National Library of Medicine.

STATEMENT OF DR. MARTIN M. CUMMINGS, DIRECTOR, NATIONAL LIBRARY OF MEDICINE, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dr. CUMMINGS. Mr. Chairman, I, too, share the enthusiasm of the administration in support of H.R. 3142. As Director of the National Library of Medicine, I have confidence that the provisions of this act will go far towards solving the serious, most urgent medical communications problem which exists in our Nation. We are most hopeful that upgrading our Nation's medical library network will prove to serve the interests of medical education, medical research and practice, which is the ultimate response to the health needs of our Nation.

Mr. COHEN. That completes our testimony, Mr. Chairman.

I think you can see the unanimity with which we support this bill. We feel very strongly that it is a very important part of the total legislation that you are considering in this session.

Mr. STAGGERS. Thank you, Mr. Secretary.

I want to thank all of you very kindly and to you, Dr. Terry, I would like to say that I do believe the committee has passed legislation which will affect all America and you are part of it. I know, Dr. Terry, every American who is affected by the health legislation in any way will thank you because I am certain that some of the legislation that you have presented and have come here to testify for will make for a better way of life not only for all Americans but for all civilization. I think you have contributed greatly.

I think that every American owes you a debt and certainly the best wishes of this committee go with you, and we wish you well.

Dr. TERRY. Thank you, sir.

Mr. STAGGERS. I thank all of you for your testimony.

I notice one thing you emphasized, Mr. Cohen, is the word "now." I believe Dr. Dempsey mentioned the fact that we had 6,000 libraries with only 3,000 librarians. Certainly we are in need of those.

Dr. Terry, the thing that I thought you emphasized is the fact that your system is making available to the American medical profession the data that you have in the files so that they can get to them for information.

Dr. Cummings, yours is the fact of communications between the groups. I think all four of the key words are essential now.

Mr. O'Brien.

Mr. O'BRIEN. Mr. Chairman, I have no questions. I would like to join you in what you said to Dr. Terry. I have had the good fortune of sitting on this committee during the 4½ years that Dr. Terry mentioned. I will say quite frankly that many of the things of which you spoke would not have been accomplished had it not been for him. I think all of us will agree that when he retires, he will retire not only as a good Surgeon General but as a great Surgeon General.

I also was impressed by the testimony on the things that are to be done this year in the various fields and the enormous amount of data that will be stored up. It does strike me, Mr. Chairman, that it would be very, very foolish economy to place any barriers in the way of dissemination of knowledge that is going to cost us hundreds of millions of dollars to acquire. There is no use storing up on the

wharves unless we can put it aboard and get it in the hands of the practitioners. In fact, this is an economy proposal.

Thank you, Mr. Chairman.

Mr. STAGGERS. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

I want to join in the remarks made to Dr. Terry. I have always enjoyed your services and your testimony over the years. I have had the pleasure of serving all the time that you have. I wish you well in your new environment, and I know you will enjoy it.

Dr. TERRY. Thank you, sir.

Mr. STAGGERS. Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman.

I would like to join my colleagues on the committee in expressing my gratitude in having been able to work with Dr. Terry. Although not having had the opportunity to have done it as many years as they have had, the short time I have been on the committee I don't think I have found any person in any branch of the Government more willing to make himself available and to assist in the research that we go into in these various problems.

I know Dr. Terry—I think it was the wettest, coldest night of the year last year Dr. Terry and I had gotten together on the Public Health Service hospitals, the largest of which was in my district. He had just come in from a long trip, and I know he was trying to get out, but he stayed late that night just to assist me in the problem we had in the closing of those hospitals this year. I am certain that the Public Health Service hospitals are open and they are going to remain open largely because of Dr. Terry's influence and ability to stress to the President's Commission on Hospitals the need for a Public Health Service.

Doctor, you may leave the Department and the Federal Government, but your imprint is going to be left behind for many years to come.

Thank you.

Dr. TERRY. Thank you, Mr. Murphy.

Mr. STAGGERS. Thank you, gentlemen, very much for your testimony.

Mr. COHEN. Thank you, Mr. Chairman.

Mr. STAGGERS. Our next witness we are going to call out of order, because he has to leave for another meeting, and he will be brief. He will present his testimony for the record and make a brief statement. Dr. George E. Wakerlin, medical director of the American Heart Association.

STATEMENT OF DR. GEORGE E. WAKERLIN, MEDICAL DIRECTOR, AMERICAN HEART ASSOCIATION, NEW YORK, N.Y.

Dr. WAKERLIN. Mr. Chairman and members of the committee, this will be a very brief statement. I am pleased to have the larger statement for the record.

I am Dr. George E. Wakerlin, medical director of the American Heart Association. Our board of directors has instructed me to testify in support of the proposed Medical Library Assistance Act of 1965, H.R. 3142 and H.R. 6001, very enthusiastically and with no

qualifications or reservations. The board did, however, place certain emphases which I shall try to convey.

We have circulated the bills and our reactions to them among our 55 affiliate and 236 chapter heart associations. We have the assurance that the proposal has been brought to the attention of a large proportion of our 70,000 members of whom half are physicians.

We find no one who is opposed. Quite the contrary, support for it throughout our organization has been strong and outspoken.

Now in regard to certain intangible factors. The American Heart Association is primarily concerned with the control of diseases of the heart and blood vessels through research, education, and community program. Since 1948 the association has emphasized basic research in the belief that the most direct route to the attainment of its goals runs by the discovery of fundamental causative factors. This, in turn, involves laboratory research, investigation at the bedside, and field studies.

In the past few years there has been growing up among us a considerable uneasiness that something was missing from our general approach to our goal. We began some time ago to recognize the fact that some of our applicants, often brilliant and capable people, were frequently not sufficiently aware of the background against which they were working. While we see some merit in duplicating work for purposes of checking and cross-checking, we see nothing but disadvantage in encouraging an investigator, young or old, to set out on a piece of research without first becoming something of an authority on what has gone before. This, of course, requires careful and thoughtful study of the relevant literature via adequate library facilities.

Equally intangible, but scarcely less important, is the handicap imposed on imaginative planning and synthesis of research results by incomplete knowledge of the scientific record. These are the processes by means of which the thinking and the discoveries of others are molded and composed to yield new insights and new directions of attack.

The proposed assistance to medical libraries bills would have the effect of converting many of our biomedical libraries from mere warehouses for books to active information centers, receiving, processing, and above all, distributing knowledge of the biomedical field much more widely and freely than has ever been done before.

Now the tangible factors. So much then for the intangibles. We believe they are of paramount importance and resist the usual impression that because they are intangible they are also nebulous and unimportant.

We turn now to the first provision of the proposed bills which provides funds for constructing new facilities and renovating old ones. The abysmal physical plight of the Nation's medical libraries is such common knowledge that it hardly needs elaboration. We share in the general impression that adequately trained library personnel is grossly inadequate—and this was mentioned earlier—to meet the national need. We are especially impressed with the need for library personnel who are conversant with medical subject matter and concepts.

The matter of special fellowships. The proposal to establish special fellowships for creative library work in the biomedical and

social sciences is worthy in itself and should be supported in our opinion provided such fellowships cannot be more logically included in existing programs. The matter of funds for improving and expanding basic researches.

Next the funds for construction. We regard this provision of the bills to be the most fundamental. It would provide in some instances for much needed expansion of holdings, especially of periodicals. Perhaps more important, it would give small libraries the opportunity of building up microfilm or microcard collections covering items that are unprocureable in the original. We also trust that funds under this provision could be used where indicated to bring salary scales of library workers to a reasonable level.

Then the matter of research and development. The proposal to support research and development in medical library science is especially important in view of rapid progress in storage and retrieval techniques, methods made mandatory by the explosive increase in the publication of biomedical material.

Then, financial support of biomedical and scientific publications. The American Heart Association strongly approves the proposal of financial support for appropriate biomedical scientific publications of a nonprofit nature, and lastly, the regional medical libraries provision. The American Heart Association fully supports the provision relating to regional medical libraries, but urges that careful consideration be given in its implementation to existing medical library developments of a regional nature. Special consideration should, we believe, be given to the library and information needs of the practicing physician.

And in conclusion, the American Heart Association puts itself solidly on record as strongly favoring the medical library assistance proposal H.R. 3142 and H.R. 6001 in the belief that it will make a contribution to the health of the Nation out of all proportion to the amount of money requested.

Thank you, Mr. Chairman.

(Dr. Wakerlin's full statement follows:)

STATEMENT OF DR. GEORGE E. WAKERLIN, MEDICAL DIRECTOR, AMERICAN HEART ASSOCIATION

I am Dr. George E. Wakerlin, medical director of the American Heart Association. Our board of directors has instructed me to testify in support of the proposed Medical Library Assistance Act of 1965 (H.R. 3142 and H.R. 6001) very enthusiastically and with no qualifications or reservations. The board did, however, place certain emphases which I shall try to convey.

We are honored and pleased to have the opportunity to offer support for this very fine proposal. As a matter of fact, our first reaction to it was to wonder why it has been so long in coming. We have circulated the bills—and our reaction to it—among our 55 affiliates and 236 chapter heart associations. We have the assurance that the proposal has been brought to the attention of a large proportion of our 70,000 members (of whom half are physicians). We find no one who is opposed; quite the on contrary, support for it throughout our organization has been strong and outspoken.

INTANGIBLE FACTORS

The American Heart Association is primarily concerned with the control of diseases of the heart and blood vessels through research, education, and community program. Since 1948 the association has emphasized basic research in the belief that the most direct route to the attainment of its goals runs via the discovery of fundamental causative factors. This, in turn, involves laboratory research, investigation at the bedside, and field studies. We have supported and

implemented work of this sort to the full extent of our resources, always placing the main emphasis on the support of people rather than on glittering glassware, laboratory chromeplate, and electronic machinery. But, in the past few years, there has been growing up among us a considerable uneasiness that something was missing from our general approach to our goal. We began some time ago to recognize the fact that many of our applicants, often brilliant and capable people, were frequently not sufficiently aware of the background against which they were working.

It was not—and is not—unusual for us to receive requests to support work that has already been done in other regions and in other countries. And while we see some merit in duplicating work for the purposes of checking and cross-checking, we see nothing but disadvantage in encouraging an investigator—young or old—to set out on a piece of research without first becoming something of an authority on what has gone before. We have seen investigators follow lines that have long since been disproved; we have seen them struggle along using inadequate methods despite the fact that a few hours in a good library would have placed much more powerful tools at their disposal; we have seen men work for months designing and perfecting apparatus that was already in highly successful use in other laboratories. And we have sat in scientific audiences listening to brilliant young investigators proudly laying out the results of their studies, only to have someone rise, after the initial applause has died down, and say: "We entirely agree with these results. In fact, we did the same work and came to the same conclusions 10 years ago." There then follows the citing of a published reference to substantiate the claim and the young investigator retires not in triumph, but in hideous embarrassment.

But it is not a young man's discomfort that should concern us at such times. Unfortunately, he receives what he deserves. It is the harsh and troublesome fact that duplication of research in ignorance and without conscious plan is horribly wasteful and expensive. It is expensive not only in dollars, but also in terms of scientific progress and intellectual effort.

We have no figures—no totals in dollars—to substantiate this burden. Records of this sort of investigative mishap are not usually kept; indeed, the people involved are usually ashamed of the fact and have no wish to advertise it. But the intangible cost to our Nation's research effort and progress must be staggering.

Equally intangible, but scarcely less important, is the handicap imposed on imaginative planning and synthesis of research results by incomplete knowledge of the scientific record. These are the processes by means of which the thinking and the discoveries of others are molded and composed, to yield new insights and new directions of attack. And it is always, partly or entirely, through the medium of the written record that men's minds come into effective contact and begin to move off on independent new scientific errands. Many of us in the American Heart Association have begun to realize that we have, in the past, given insufficient weight to the necessity of studying the scientific record in depth as an indispensable forerunner to laboratory, bedside, or field studies. We have begun to appreciate the damage done when a young and inexperienced investigator is allowed, and even urged, to rush blindly into the laboratory without first having carefully and thoughtfully studied the relevant literature. We wish to stress our profound conviction that sound scholarship is neither a luxury nor evidence of weakness. It is rather, an utter necessity and the hallmark of the creative, successful researcher.

We immediately realized, when we began to study the proposed assistance to medical libraries bills (H.R. 3142 and H.R. 6001) that implementation of it would go a long way to correct the dangerous imbalance that has developed in biochemical research; an imbalance created by a disproportionate emphasis on the test tube method of answering questions; a distortion that has the effect of banishing forever any printed contribution that is more than a few months old. It will also have the effect of converting many of our biomedical libraries from mere warehouses for books to active information centers; receiving, processing, and above all distributing knowledge of the biomedical field much more widely and freely than has ever been done before.

But we realize that no matter how freely scientific literature is made available, the effort will be useless unless our researchers are willing to sit down and digest it. Such a willingness is hardly likely to be directly created by passing a law; but it will begin to develop when an appropriate climate is created. Much of this is the responsibility of our universities, and our directors of research, but the proposed bill, if enacted, will be very influential in this direction. Such a move will provide eloquent evidence that our national leaders understand and accept the vital

necessity to read and digest other men's views and results, as well as to labor in the laboratory with vigor and with wisdom.

TANGIBLE FACTORS

So much, then, for the intangibles. We believe they are of paramount importance and resist the usual impression that because they are intangible they are also nebulous and unimportant.

I turn now to the first provision of the proposed bill which provides funds for constructing new facilities and renovating old ones. The abysmal physical plight of the Nation's medical libraries is such common knowledge that it hardly needs further elaboration. But it should be noted that the recent construction of a few very splendid medical libraries is only a small beginning. Our contact with medical schools and their libraries is a close and continuing one; and we have noted with increasing dismay and bewilderment the general neglect of such libraries by the medical schools themselves. They have used funds (their own and Federal funds) for other types of construction imaginatively and aggressively, but the gross inadequacy of library buildings and facilities has usually gone unrelieved as if it were a matter of lowest priority; an item which can safely be ignored indefinitely. Even where we have found efforts to relieve the inadequacies underway, we have often been amazed at the inadequacy of the efforts themselves; at the incredible lack of comprehension of the basic relation of medical libraries to medical research and education, especially at the student level.

Documentation of this long-neglected need is readily available and undoubtedly has been, or will be, presented to this committee by authorities in library planning. But the facts that over half our medical school library buildings are more than 30 years old and that over half of them are filled far beyond their nominal capacities (Adams: *J. Med. Education* 38-20-27, January 1963) are certainly worth noting. It is also of interest that medical schools have for years been devoting about 1.5 percent of their incomes to their medical libraries and that the figure has not quite kept pace with increasing income in recent years. But, in our minds, the figure has been much too low all along, and many of the deficiencies in our medical educational system can logically be attributed in some measure to this fact. I believe I can say with almost universal agreement that medical school libraries are undoubtedly the most neglected of all medical school facilities. This generalization, incidentally, includes their collections and operating budgets as well as their physical plants.

One should certainly note, in passing, that the plight of many medical libraries that are not parts of medical schools is likewise dismal. The American Heart Association depends in some measure on several such libraries and feels strongly that they should share in the use of Federal aid for upgrading facilities and services and for protection of their invaluable collections. We believe, in fact, that a good case can be made for increasing the amount of money to be made available for construction in the first 2 years. And we suggest that consideration be given to a flexible matching policy so that the Federal contribution might vary from 50 to 90 percent of the cost of construction, depending on circumstances. This is in line with our continuing concern that under a rigid 1-to-2 matching policy, the affluent institutions may be able to participate quite easily; but those with inadequate funds of their own, where the need for upgrading of facilities is often quite urgent, may be unable to participate at all.

FUNDS FOR TRAINING

We share in the strong general impression that adequately trained library personnel is grossly inadequate to meet the national need. We are especially impressed with the need for library personnel who are conversant with medical subject matter and concepts. We support the request for training funds as stated and, in addition, hope that some consideration can be given to methods of inducing graduate physicians to consider becoming professional medical librarians. Some such move seems to us to be very much indicated and would, we believe, be an important step toward bringing physicians in both practice and research into more effective contact with the biomedical literature.

SPECIAL FELLOWSHIPS

The proposal to establish special fellowships for creative literary work in the biomedical and social sciences is worthy in itself and should be supported, in our opinion, provided such fellowships cannot be more logically included in existing

programs. They would not, however, meet the specific need for a mechanism to bring trained physicians into medical library work. We find the fellowship proposal of interest primarily in that it may serve as one means of attacking the growing need for better communication between the biomedical professions and the lay public. Such fellowships could, we believe, be made to provide suitable physicians with the necessary time and professional advice to enable them to turn out authoritative reports primarily designed for lay consumption. It might also make it possible for certain physicians to contribute communications in depth in fields, such as medical history, that tend to narrow the gap between medicine and the humanities.

FUNDS FOR IMPROVING AND EXPANDING BASIC RESOURCES

Next to funds for construction, we regard this provision of the bill to be the most fundamental. It would provide in some instances for much needed expansion of holdings, especially of periodicals. Perhaps more important, it would give small libraries the opportunity of building up microfilm or microcard collections covering items that are unprocureable in the original. Runs of many important biomedical journals, for example, can often be acquired in this form at reasonable cost but are prohibitively expensive (or unprocureable) in the original. Such funds would also make it possible for libraries to expand their copying facilities so that most loans can be issued in copy instead of in the original. This system, now thoroughly tested in several centers, not only spares wear and tear on the original source but provides the reader with a permanent copy for his own use. We also trust that funds under this provision could be used, where indicated, to bring salary scales of library workers to a reasonable level. In many instances, library workers are paid at the bottom of an institution's pay scale and desert the library as soon as a better paid opening is available. We believe the descending scale of awards under this provision (\$200,000 or 60 percent of annual operating expenses in the first year; 50 percent in the second; 40 percent in the third, and so on) to be wise and hope that it may serve to induce parent institutions gradually to increase the amounts allocated to their libraries.

RESEARCH AND DEVELOPMENT

The proposal to support research and development in medical library science is especially important in view of rapid progress in storage and retrieval techniques, methods made mandatory by the explosive increase in publication of biomedical material. Also to be considered are improved methods of copying and transmission and other items.

The American Heart Association regards the proposal as a reasonable component of the larger plan to improve the Nation's medical library facilities.

FINANCIAL SUPPORT OF BIOMEDICAL SCIENTIFIC PUBLICATIONS

The American Heart Association strongly approves the proposal of financial support for appropriate biomedical scientific publications of a nonprofit nature.

Certain needed scientific journals, particularly of a technical nature with relatively limited, but crucial, readership, not infrequently require financial assistance in the beginning years and in some instances, in subsequent years as well. Likewise, other significant scientific publications may never appear without financial subsidy. A recent example in the cardiovascular field is the *Journal of Lipid Research* (for biochemists and other investigators in atherosclerosis and related research) which was established with wisely expended Federal funds. Likewise, the "Proceedings of the 1964 Second National Conference on Cardiovascular Diseases" and the "Summary of the Conference" are being published through joint support of the National Heart Institute, the heart disease control program, and the American Heart Association.

Since certain highly meritorious periodical publications may not achieve financial stability during the first 3 years, our association recommends that the restriction of grant support to 3 years be liberalized, certainly to 5, and possibly 10 years.

REGIONAL MEDICAL LIBRARIES

The American Heart Association fully supports the provision relating to regional medical libraries but urges that careful consideration be given, in its implementation, to existing medical library developments of a regional nature.

We note, for example, that the Medical Library Extension Service of the University of Wisconsin has been in successful operation since 1926.

Similar services are provided by the University of Nebraska in its State. Most significant, however, is the fact that in both instances the service is not actually promoted or advertised owing to the fact that each is already operating to capacity (but on a very small scale). Similarly, the farsighted efforts of the Medical Library Center of New York should be studied and facilitated in implementing this provision of the bills.

Special consideration should, we believe, be given to the library and information needs of the practicing physician. The Wisconsin and Nebraska operations are primarily devoted to meeting such needs. In some States, including Texas, State medical societies maintain special collections and facilities to serve the needs of practicing physicians which are not, incidentally, always similar to those of the medical student or research worker. We believe that the experience of such units should be carefully studied and that any regional medical library plan should help them to expand and upgrade their operation. The services they render are indispensable and, in most instances, overtaxed. Whether or not such units join a regional library plan, or cooperate as an independent unit, should, of course, be optional.

In the last analysis, regional organization of medical library facilities is the only solution to the problems created by small collections, inadequate operating funds, and the costliness of modern bibliographic and copying machinery. The American Heart Association believes that the provision relating to regional medical libraries will greatly facilitate existing efforts at regionalization and considers it a wise and useful component of the bills.

In conclusion, the American Heart Association puts itself solidly on record as strongly favoring the Medical Library Assistance proposal (H.R. 3142 and H.R. 6001) virtually in its entirety. Even with careful consideration, we can find no serious fault with it.

More positively, we believe it will make a contribution to the health of the Nation that is out of all proportion to the amount of money requested. Funds for construction and renovation, on a matching basis which should be negotiable within wide limits, are very urgent. So are funds for expansion of collections and services. Training funds are scarcely less important and we urge that some means of making the career of medical librarians attractive to physicians be earnestly sought. The use of funds for research in library and bibliographic techniques seems eminently sensible to us and we hope it will receive favorable consideration. We are especially impressed with the need for Federal funds in support of special types of medical publications. It is paradoxical that there is a sizable number of biomedical publications which, although of little commercial promise, are inordinately valuable scientifically. Finally we support the regionalization of medical library facilities as a logical and highly useful provision. And we again urge that in planning regional organizations previously established units be considered and assisted; and that the library needs of practicing doctors, as well as other categories of physicians, be taken into account.

Finally, the American Heart Association finds that the tangible reasons for supporting the proposal (H.R. 3142 and H.R. 6001) are quite compelling but wishes nevertheless, to place greatest emphasis on the intangible. We believe that progress in biomedical research will be more effectively served by renewed emphasis on sound scholarship than by any other single action now open to us. The medical libraries assistance proposal, if implemented, will be a giant stride in this direction.

The CHAIRMAN (Mr. Harris presiding). Thank you very much, Doctor. That concludes your statement?

Dr. WAKERLIN. It does, indeed, sir.

The CHAIRMAN. Should you desire to extend your remarks on the subject in the record, you may have that permission.

Dr. WAKERLIN. Thank you, sir.

The CHAIRMAN. Are there any questions?

We thank you for your appearance and for your presentation on this highly important matter.

Dr. WAKERLIN. Thank you.

The CHAIRMAN. We are glad to welcome the next witness, also, Dr. William A. Sodeman, dean, Jefferson Medical College, Philadelphia, who has with him Dr. Ruhe and Mr. Paul Donelan of the legislative department.

We are pleased to have you gentlemen and we shall be glad to receive your statements.

STATEMENT OF DR. WILLIAM A. SODEMAN, AMA COUNCIL ON MEDICAL EDUCATION; ACCOMPANIED BY DR. C. H. WILLIAM RUHE, ASSISTANT SECRETARY, COUNCIL ON MEDICAL EDUCATION; AND PAUL DONELAN, LEGISLATIVE DEPARTMENT, AMERICAN MEDICAL ASSOCIATION

Dr. SODEMAN. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am Dr. William A. Sodeman, a physician residing in Philadelphia, Pa. I am dean of the Jefferson Medical College of Philadelphia and serve as a member of the American Medical Association Council on Medical Education. With me today are Dr. C. H. William Ruhe, assistant secretary of the AMA Council on Medical Education, and Mr. Paul R. M. Donelan, an attorney on the staff of the AMA Legislative Department.

The American Medical Association has always recognized the importance of medical libraries at all levels of education of health personnel. Evidence of this is contained in statements of the "essentials" of various educational programs accredited by the AMA Council on Medical Education. For example, the following paragraph is contained in "Functions and Structure of a Modern Medical School," a statement developed by the American Medical Association and the Association of American Medical Colleges as a general guide in the medical school accreditation program:

A well-maintained and cataloged medical library that can be used conveniently and effectively by both students and faculty is essential to a modern medical school. A trained librarian with experience in medical library work should be employed to supervise the development and operation of the library with the advice and assistance of an active representative committee of faculty. The library should receive regularly the leading medical periodicals, the current numbers of which should be readily accessible. Adequate arrangements should be made by the librarian and the faculty to instruct all students in the use of the library at the beginning of their medical studies.

Similar statements may be found in the "Essentials of Approved Internships," "Essentials of Approved Residencies," "Essentials of an Acceptable School of Medical Technology," "Essentials of an Accredited School of X-Ray Technology," "Essentials of an Acceptable School of Occupational Therapy," "Essentials of an Acceptable School of Cytotechnology," "Essentials of an Acceptable School of Physical Therapy," "Essentials of an Acceptable School for Medical Record Librarians," and "Essentials of an Acceptable School for Inhalation Therapy Technicians."

The medical library is likewise recognized as playing an important role in the continuing education of the practicing physician. The AMA's "Guide Regarding Objectives and Basic Principles of Continuing Medical Education Programs" cites the medical library as one of the important facilities which should be available to the physician-student.

The current bills, H.R. 3142 and H.R. 6001, are based on the premises that the massive growth of knowledge in the health sciences in the past 20 years has not been matched by a growth of library

facilities and techniques, and that much of the value of the knowledge and information may be lost unless proper measures are taken to develop the appropriate facilities and techniques. The American Medical Association is in agreement with these premises and believes that action should be taken to provide assistance in the construction of new facilities, the expansion and rehabilitation of existing facilities, the training of professional personnel and the development of new tools and methods for dissemination of medical knowledge and information.

Evidence of the need for assistance is available from information gathered through the annual report of the AMA Council on Medical Education, published in the November 16, 1964, issue of JAMA, and from a series of studies on the subject published in recent issues of the Journal of Medical Education.

A comparison of the 87 existing medical school libraries with minimum standards recommended by a joint USPHS-AMA-AAMC committee (table I) showed that the average existing library was well below recommendations in space, volumes and serial titles during the 1963-64 academic year.

TABLE I.—Comparison of existing libraries with recommended standards

	Recom- mended ¹	Existing		Number above recom- mended
		Average	Median	
Space (square feet).....	29,560	18,000	10,000	15
Volumes.....	100,000	77,000	65,000	14
Serial titles received.....	1,600	1,340	1,200	22

¹ From Medical Education Facilities, U.S. Department of Health, Education, and Welfare, Public Health Service, Publication 1180-A-1b, 1964.

Source: Journal of the American Medical Association, vol. 190, No. 7, Nov. 16, 1964, p. 615.

Review of the information provided by the 87 medical schools in existence during 1963-64 revealed startling variations in size and holdings among the various school libraries. The number of volumes held ranged from 2,000 to 359,000; the number of serial titles from 275 to 5,057. The range in annual budget was from \$13,000 to \$382,101, and the number of full-time staff varied from a low of 1 to a high of 55. Details are given in table II.

TABLE II.—Medical school libraries, 1963-64

	Total	Range	Average	Median
Budget.....	\$8,519,412	\$13,000-\$382,101	\$99,000	\$80,000
Volumes.....	6,751,150	2,000-359,000	77,000	65,000
Acquisitions.....	285,278	181-14,612	33,000	2,800
Serial titles currently recorded.....	116,568	275-5,057	1,340	1,200
Space (square feet).....	1,606,711	1,809-83,497	18,000	10,000
Seat capacity.....	13,492	38-496	155	140
Number of full-time staff.....	975	1-55	11	9

Source: Journal of the American Medical Association, vol. 190, No. 7, Nov. 16, 1964, p. 615.

It is clear from these figures that one should not make general statements about the condition of all medical school libraries. A few appear to be relatively very well off, while many others fall below the minimum standards recommended by the joint committee.

Recent articles in the *Journal of Medical Education* have shown that expenditures for medical school libraries have not kept pace with the growth in their research expenditures, even though the marked increase in research activity has brought about greatly increased demands upon the library facilities. Similarly, the growth in complexity of activities in medical schools and hospitals has resulted in unusual demand upon the holdings and services of the medical library. Hosts of new professional, scientific, and technical personnel are seeking access to new kinds of scientific and medical information which many medical school libraries are simply not prepared to provide. As a result, there has been some impediment to the flow of productive research and to the availability of research information to professional practitioners.

Detailed information on the current status of private, independent medical libraries, of those in community hospitals, and of those in State and county medical societies and other professional medical societies is not available to us at this time. The AMA is undertaking a study of the status and needs of medical libraries of State and county medical societies; but the results will not be available until later this year.

The American Medical Association strongly supports the intent and purposes of H.R. 3142 and H.R. 6001. We will comment, however, separately on each of the substantive sections of the bill.

SECTION 393. ASSISTANCE FOR THE CONSTRUCTION OF FACILITIES

The American Medical Association supports the concept of the use of Federal funds for the construction of facilities. In implementing these provisions, we recommend that emphasis be given to the requirement that the construction meet demonstrated needs for additional or improved medical library facilities in the community or area. Properly favored, then, would be new medical schools and currently underprivileged institutions.

In addition, we would hope that care would be exercised in the administration of the program, to prevent an overlap in grants with other Federal construction grant programs.

SECTION 394. GRANTS FOR TRAINING IN MEDICAL LIBRARY SCIENCES

We believe that there is a need for professionally trained personnel in medical library science and in related health science fields, as well as in the field of communication of information. The provision of grants for traineeships and fellowships and for the establishment of new training programs, both for new persons entering the field and to modernize and improve the skills and knowledge of persons already in the field, is most important and the American Medical Association supports this section.

SECTION 396. RESEARCH AND DEVELOPMENT IN MEDICAL LIBRARY
SCIENCE AND RELATED FIELDS

Section 396 provides for grants for projects of research and investigation in the field of medical library science and for "the development of new techniques, systems and equipment, for processing, storing, and retrieving and distributing information pertaining to sciences related to health." We believe this section to be of particular importance.

Since emphasis is usually placed on space, budget, and library holdings, the important aspect of utilization is often overlooked. The critical factor in the value of a medical library is, after all, the question of how effectively its stored information is made available to the learner in response to his need. The largest and most magnificent library is of little value until its storehouse of information is actually in use. New methods of meeting the requirements of the learner more quickly and efficiently are badly needed, and we strongly support this section which is intended to develop such new methods.

SECTION 397. GRANTS FOR IMPROVING AND EXPANDING BASIC RESOURCES
OF LIBRARIES

This section would provide the means for libraries to improve their holdings of books, journals, et cetera, and thus strengthen their basic resources and facilities. The provisions permitting acquisition of films, projectors, duplicating devices, and new technologic equipment are particularly valuable since most medical libraries are deficient in these areas. The AMA supports this section of the bill.

SECTION 398. GRANTS FOR ESTABLISHMENT OF REGIONAL MEDICAL
LIBRARIES

The concept of having a strong medical library in each region of the country to serve as a source of support for other libraries in the area appears to be a reasonable one under present conditions.

The purpose of this section would seem to be best fulfilled by strengthening existing medical libraries in strategic locations to serve as regional libraries. Except in the unusual circumstances where a geographic area is completely lacking in library resources, new and separate regional libraries need not be established.

SECTION 395. ASSISTANCE TO SPECIAL SCIENTIFIC PROJECTS, AND SEC-
TION 399. FINANCIAL SUPPORT OF BIOMEDICAL PUBLICATIONS

We make no specific comment as to sections 395 and 399. However, the need for these provisions is less apparent to us.

Mr. Chairman and members of the subcommittee, the American Medical Association appreciates this opportunity of presenting its views on this important legislation. We will be pleased to attempt to answer any questions the committee may have.

The CHAIRMAN. Doctor, thank you very much.

I wonder if Dr. Ruhe or Mr. Donelan have any further comments to make.

Mr. DONELAN. No, sir.

Dr. RUHE. No, sir.

The CHAIRMAN. Are there any questions among members of the committee?

Mr. MACDONALD. Mr. Chairman.

I have listened to your very fine statement, and I am glad to see that you support the legislation, as I do. I was just wondering if AMA did not feel this would be Federal interference with the practice of medicine and research.

Dr. SODEMAN. I believe the AMA believes that this is sound support for the health of the country.

Mr. MACDONALD. Obviously this would not be leading to socialized medicine, would it?

Dr. SODEMAN. I don't see how it can, sir.

Mr. MACDONALD. Because sometimes I have difficulty following the mental processes of the AMA. They support some things that the Federal Government does in the field of health. Other times they take a rather, shall we say, a drastic point of opposition to things that we in the Congress try to do to help the field of medicine.

Dr. SODEMAN. This bill would give support to each and every physician and researcher in sharpening his knowledge and the depth of his knowledge in medical science, and this is very important.

Mr. MACDONALD. I take it in that area the AMA gives it full support.

Dr. SODEMAN. There is full support.

Mr. MACDONALD. While in other areas they do not.

Dr. SODEMAN. It may be a matter of technique, sir.

Mr. MACDONALD. Thank you very much.

The CHAIRMAN. Are there any further questions?

Dr. SODEMAN, thank you very much for your very fine statement. We are pleased to have you gentlemen here in support of this legislation.

Dr. SODEMAN. Thank you.

The CHAIRMAN. The next witness will be in behalf of the Association of American Medical Colleges, Dr. John Parks, George Washington University, in Washington, D.C., and Dr. Robert C. Berson, the executive director of the association.

Gentlemen, we are glad to have you. We shall be pleased to have your statement.

**STATEMENT OF DR. JOHN PARKS, DEAN OF MEDICAL SCHOOL,
GEORGE WASHINGTON UNIVERSITY, WASHINGTON, D.C.; AND
DR. ROBERT C. BERSON, EXECUTIVE DIRECTOR, ASSOCIATION
OF AMERICAN MEDICAL COLLEGES**

Dr. PARKS. Mr. Chairman and members of the committee, I am Dr. John Parks, dean of the George Washington School of Medicine and a member of the Executive Council of the Association of American Medical Colleges.

This is Dr. Robert C. Berson, executive director of the association.

We are pleased to have this privilege to speak in behalf of this proposed bill.

Speaking for all the 87 medical schools in this country who constitute the institutional membership of the Association of American Medical Colleges, I want to express enthusiastic and unqualified support for all provisions of this legislation and urge its passage at an early date.

While the major medical libraries in this country are located in medical school centers, large research complexes, and the medical societies of a few metropolitan areas, there are over 6,000 medical libraries serving smaller medical societies and community hospitals throughout the Nation.

For a number of years responsible reports have indicated that the medical libraries of the Nation are in a serious state of disrepair. It has been impossible for librarians to keep pace with the growing volume of scientific literature which is of such great importance to medicine.

Productive medical research is dependent on access to the relevant literature. Each research project usually results in one or more published articles or periodicals and as the number of research projects underway in this and other countries has increased, the volume of published literature has grown at an astonishing rate. The protection of our national investment in research requires adequate provision for making the published results available to investigators.

Medical libraries play a very important role in the education of medical students, dental students, students of public health and veterinary medicine, other students in the health disciplines, interns, and residents. For health care everywhere it is of greatest importance that practicing physicians have access to appropriate parts of the published literature in order to keep abreast of new developments in the study and care of their patients.

This triple role of the medical library in providing a service basic to research, education, and patient care has made it difficult for existing national programs to meet the needs of medical libraries.

One of the most important traditions of science has always been the free exchange of knowledge between scientists wherever located. It can truly be said that the literature of medical science as well as the problems it attempts to solve transcends national boundaries. At the present time a considerable percent of the important new periodicals in medical literature are printed in languages other than English. There is a very active exchange of literature between our country and Russia, Germany, Italy and other countries all over the world. It is far more efficient to provide translating, abstracting, and bibliographic services to serve the entire English-speaking world rather than for each library to attempt this type of technical work. There are unparalleled opportunities for strong leadership at the national level through the National Library of Medicine.

The more than 6,000 medical libraries in this country reflect the efforts that have been made through hospitals, research institutes, professional societies, and medical schools to provide library services. It has been estimated that the present investment in medical libraries in this country is something over \$300 million, essentially all of which has come from private, local, or State resources. The Medical Library Assistance Act of 1965 recognizes that these local sources will

continue to carry most of the library expenses. It also recognizes that Federal funds should be provided to augment these local funds and to strengthen the role of leadership of the National Library of Medicine in matters that can be handled effectively on a national basis.

Medical libraries are thought centers for medical scientists and physicians. Better medical library facilities are urgently needed to support the expanding educational and health programs of our Nation. The Association of American Medical Colleges strongly endorses the Medical Library Assistance Act of 1965 and looks forward to its early adoption.

That is our testimony, gentlemen. We shall be pleased to answer any questions.

The CHAIRMAN. Thank you very much, Dr. Parks.

Dr. Berson, do you have any further comment?

Dr. BERSON. No, sir. We shall be glad to attempt to answer any questions.

The CHAIRMAN. Are there any questions by any members of the committee?

I would like to make this suggestion for those of you who are very cooperative in making the record—I think I will start with Dr. Dempsey. I believe this record should show information to support the estimated expenditures. I would like more positive information as to what the estimates are. I know the bill proposes to utilize so much money for various purposes, but I do not see in any of your statements that have been presented yet any information as to what those requirements actually are going to be.

As an example, you testified for the need of certain construction. The Bureau of the Budget asked that this program be deferred, and I think with some merit, for at least a year in order that plans can be developed to provide more information. What I would like to know, Dr. Dempsey, is the justification for the amounts proposed for construction. We know that \$10 million is estimated to be the amount that should be authorized. But maybe it should be \$5 million or maybe it should be \$15 million. There is no information here yet to indicate what the requirements will be. So, I would like to ask you, Dr. Dempsey, if you will give us more detailed information for the record to go along with your statement on what your estimated requirements will be for each of the budgetary items.

Dr. DEMPSEY. I will be delighted to furnish that.

The CHAIRMAN. For 1966, for 1967 and during the 5-year proposed program, so that we will have a record of what would be needed. (The information requested follows:)

MR. JAMES M. MENDER, PROFESSIONAL STAFF MEMBER, HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE

Mr. Menger, in response to Chairman Harris' request, we are transmitting herewith, two statements of appropriations requirements together with our justifications for the Medical Library Assistance Act.

The first of the statements is based on the authorization as set forth in the bill; The second embodies our recommendations for authorizations which could provide for maximum flexibility and efficiency of administration.

You will note that the 5-year totals are \$117.5 million in each case.

Appropriations authorizations recommended by Department of Health, Education, and Welfare to carry out the proposed Medical Library Assistance Act of 1965 (H.R. 3142)

[In millions of dollars]

	1966	1967	1968	1969	1970
Construction of facilities.....		12.5	12.5	12.5	12.5
Training in medical library sciences.....	1.0	1.0	1.0	1.0	1.0
Special scientific projects.....	.5	.5	.5	.5	.5
Research and development in medical library science and related fields.....	3.0	3.0	3.0	3.0	3.0
Improving and expanding the basic resources of medical libraries and related instrumentalities.....	3.0	3.0	3.0	3.0	3.0
Support of biomedical publications.....	1.5	1.5	1.5	1.5	1.5
Regional medical libraries.....	2.5	2.5	2.5	2.5	2.5
Regional branches of the National Library of Medicine.....	2.0	2.0	2.0	2.0	2.0
Total.....	13.5	26.0	26.0	26.0	26.0

Alternative method of authorizing appropriations to carry out H.R. 3142

[In millions of dollars]

	1966	1967	1968	1969	1970
Construction of facilities.....		50	(¹)	(¹)	(¹)
Training, special scientific projects, research and development, resources, publications support.....	4.0	7	10.0	12	12.0
Regional medical libraries or regional branches of NLM.....	1.5	3	5.5	6	6.5

¹ Total appropriation authorization for 1967 through 1970.

SECTION 393. ASSISTANCE FOR CONSTRUCTION OF FACILITIES

Based on information obtained from various health professional organizations, from governmental agencies, and by its own resources, the National Library of Medicine has determined that an amount of \$50 million made available over a period of 4 years will make a significant impact in reducing the backlog of construction and renovation needs of health science libraries. Since there has been very little new construction of health science libraries in recent years, it appears that the larger need is for new construction rather than for renovation of existing facilities. This is confirmed in the case of the study of medical school libraries conducted by the Association of American Medical Colleges in 1964. This study disclosed that 80 established medical schools required \$87,217,062 for planned library construction. In addition new construction for freestanding medical libraries and those in other health professions such as dentistry, public health, osteopathy, and optometry will require an additional \$10 million. At the 75-percent matching rate allowed in the bill, these projects would require somewhat more than \$72 million.

SECTION 394. GRANTS FOR TRAINING IN MEDICAL LIBRARY SCIENCES

The manpower deficit in the medical library field is evident when one considers that there are about 6,000 functioning medical libraries in the country but only about 3,000 librarians with specialized training or experience. It is not suggested that all these libraries need be manned by highly trained professional librarians. Many of the smaller ones could be operated by library technicians. At the present time less than 50 new medical librarians are being added to the manpower pool per year. The appropriation authorization (\$1 million) contained in H.R. 3142, section 394, would permit the support of approximately 200 individuals per year for training in biomedical information work. Since not all of these would be in 1-year programs, it is estimated that between 125 and 150 new personnel could be added to the manpower force annually. During the 5-year period of this program, approximately 750 information personnel will be trained at 20 academically based training centers.

SECTION 395. ASSISTANCE TO SPECIAL SCIENTIFIC PROJECTS

This section would allow for support of qualified individuals who need to use the extensive collection of medical literature within the National Library of Medicine or within other large research libraries for the compilation of existing information or the preparation of original contributions in the sciences related to health. There are very few opportunities presently available to the medical scientist to devote a period of full-time effort to intensive examination of the scientific record and to produce a thoroughgoing evaluation and synthesis of the work that has been accomplished. This section authorizes the appropriation of \$500,000 per year for this purpose. This sum will support the studies of approximately 25 medical scholars per year or approximately 125 individuals for the 5-year authorization of \$2,500,000.

SECTION 396. RESEARCH AND DEVELOPMENT IN MEDICAL LIBRARY SCIENCE AND RELATED FIELDS

Research and development projects, utilizing grants and contracts, will be reviewed, selected, and supported on the basis of their potential contribution to the biomedical information field. Such projects will include studies designed to define the information needs of workers in the health field, to study means of improving access to and transmission of information, and to explore the institutional interrelationships of organizations and facilities engaged in the acquisition, processing, and dissemination of biomedical information.

The Medical Library Assistance Act will allow a total of \$15 million over a 5-year period. Since much of such research and development work involves long-term observation and assessment it can be expected that many projects will require 3 to 5 years for completion. It is hoped that the funds for expected increases in cost per project on continuing projects can be balanced by the funding of some studies for no more than 1 or 2 years.

SECTION 397. IMPROVING AND EXPANDING THE BASIC RESOURCES OF MEDICAL LIBRARIES AND RELATED INSTRUMENTALITIES

Resource needs for libraries in schools of medicine, dentistry, osteopathy, nursing, and hospitals is estimated to exceed \$85 million. H.R. 3142 authorizes an appropriation of \$15 million spread over 5 years. The large discrepancy between the need and the requested appropriation authorization is justifiable at this time because of two circumstances: (1) the program authorized by H.R. 3142 is a descending matching one and local funds will meet a part of the need, and (2) it is possible that the magnitude of the need for local resources will decrease with the rapidly developing technology. Because of the wide discrepancy between the need and the available funds, some rationale must be established for the most effective way in which to use the available funds.

The uses for which grants are made for resources may include but are not limited to the acquisition of books, journals, photographs, motion pictures and other films, and other similar materials; cataloging, binding, and other services and procedures for processing library resource materials for use by those who are served by the library or related instrumentality; acquisition of duplication devices, facsimile equipment, film projectors, recording equipment and other equipment to facilitate the use of the resources of the library or related instrumentality by those who are served by it; and the introduction of new technologies in medical librarianship.

Three main groups of library users need to be considered: (1) students and faculties in academic institutions; (2) physicians and other health professionals who are providing direct services to the public; and (3) research workers.

After careful review, the funds will be made available to selected libraries in professional schools in the health sciences, nonprofit, free standing libraries, and to institutions where research, teaching, or the practice of medicine play an important community role. It is not intended to provide support to all existing medical libraries, but rather to those who show promise in providing the greatest service at the least cost.

SECTION 398. ESTABLISHMENT OF REGIONAL MEDICAL LIBRARIES

The purposes to be accomplished by this section are the following:

1. To insure the equality of access to the documents comprising the scientific record of medicine by all professional workers in the health fields.

2. To improve the quality of access to these documents in terms of speed and ease and thereby insure the widest dissemination of research results and their application to health practice.

3. To avoid the necessity of costly duplication of extensive collections and lessen competition for library materials now in short supply.

To establish and assist regional medical facilities in accomplishing these purposes an amount not to exceed \$2,500,000 for any fiscal year is requested. The 5-year authorization of \$12,500,000 would provide for the establishment and support of eight regional medical libraries. Two centers would be funded during the first year of the program, three centers the second year and three centers the third year. During the first 3 years most of the funds would be utilized to provide the necessary construction or renovation as required by the existing facilities with the remainder providing other resources. The amounts to be expended for construction as opposed to other resources will reflect the varying needs of the particular centers to be chosen and the limitation imposed by the legislation. Funding after the third year would concentrate on acquisition of books, journals, etc., and the additional services made possible by the earlier, nonrecurring construction expenditures.

SECTION 399. FINANCIAL SUPPORT OF BIOMEDICAL SCIENTIFIC PUBLICATIONS

The efficient provision of biomedical information to the health science community requires publication forms other than original journal articles. Translations, bibliographies, abstracting services, indexes and critical reviews are examples of the types of services which would be provided under this section. In addition, a program of analysis of the movement of information from the primary research articles to the scientific and medical consumer would be carried out in order to identify the specific needs for the many segments of that consumer group for these secondary publications. The 5-year appropriation authorization of \$7.5 million would support 35 high-priority publication projects per year with the annual authorization of \$1.5 million.

SECTION 378. REGIONAL BRANCHES OF THE NATIONAL LIBRARY OF MEDICINE

In geographical areas where no health science library exists which is suitable as a base for development as a regional library, this section would allow the establishment of a branch of the National Library of Medicine to serve the needs of that area. The \$10 million, 5-year authorization would allow for the establishment and operation of one such branch. Major construction would be emphasized during the first years. The continuing support of the facility would be required during the remaining years of the annual authorization of \$2 million.

The CHAIRMAN. Dr. Sodeman, if you have information in your files as to what you think will be needed in this program I would welcome such additional information as you can give us. What do you think the requirements will be, for example, for construction, or for training, or for these various purposes? We would like to get down to more specific items.

If you gentlemen representing the American Association of Colleges will also favor us with this information, we would like to have it in the next few days because we hope to proceed with this as expeditiously as we can, and we would appreciate your cooperation.

Dr. BERSON. Mr. Chairman, we will be delighted, jointly between the Association of American Medical Colleges and Council on Medical Education of the American Medical Association, we have collected a good bit of information that is relevant to the needs for construction and we will be happy to pull that together and make it available.

The CHAIRMAN. It will strengthen this record a great deal and it will help us immeasurably.

Dr. SODEMAN. Mr. Chairman, we do have some of these data in the chart in our presentation which we have submitted to you. We can expand that if you wish.

The CHAIRMAN. Very well. If you think there is sufficient information in the chart that will be very fine. I notice there are a few tables that I have in mind though. But the charts you referred to will go into the record.

Dr. SODEMAN. The need is stated. It is not translated into dollars. The need in volumes and so on is stated but it is not translated into dollars. We appreciate that. We know what you have in mind. On the other hand we do not like to authorize these open end appropriations around here. We have had some experience in the past on that. We would like to authorize what is needed but we would like to do it in a sufficient sum that the needs require but we will know where we are. We will be happy to transmit more information.

(The following letters were subsequently received from the American Medical Association and the Association of American Medical Colleges:)

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., September 16, 1965.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR CONGRESSMAN HARRIS: At the hearing held on September 14, 1965, on H.R. 2142 and H.R. 6001, the Medical Library Assistance Act of 1965, you requested that any available information concerning the costs of medical library needs be furnished to the committee for its consideration. We can offer the following information about medical school libraries.

As was stated in our prepared statement: "A comparison of the 87 existing medical school libraries with minimum standards recommended by a joint USPHS-AMA-AAMC committee showed that the average existing library was well below recommendations in space, volumes, and serial titles during the 1963-64 academic year."

In the limited time available to us, we have searched our sources of information in order to provide additional data relating to the foregoing statement.

The average unit cost per volume was estimated in 1961 at \$9.40. The average unit cost per serial title was estimated at \$11.19. (See: U.S. Office of Education, Library Services Branch "The Cost of Library Materials," by Frank L. Schick and William H. Kurth. Washington, D.C., 1961, ("Library Statistics OE-152029 A" supplement, 1962.) Construction costs for library space are currently estimated at \$40 per square foot.

Based on these figures, to bring all existing medical school libraries to the level of the minimum standards recommended, an estimate of the required expenditures would be approximately \$18.8 million for books, \$250,000 for serial titles, and \$40 million for construction of new space. These items would total approximately \$59 million. Since there are 12 new medical schools in development, the costs of their libraries should also be considered in addition to these figures.

The above information relates only to a part of the costs of the proposed legislation, and does not cover such other items as the support of training of library personnel, development of new techniques of storing and retrieving new information, as well as other items covered by the bills. Unfortunately, we do not have available costs for these items.

We hope that the foregoing limited information available at this time will be of assistance to your committee.

Sincerely,

F. J. L. BLASINGAME, M.D.,
Executive Vice President.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES,
Washington, D.C., September 16, 1965.

Congressman OREN HARRIS,
*U.S. House of Representatives,
Committee on Interstate and Foreign Commerce, Washington, D.C.*

DEAR MR. HARRIS: The Association of American Medical Colleges would like to take this means of supplementing its statement in support of the Medical Library Assistance Act of 1965 (H.R. 3142 and H.R. 6001).

We recently completed a survey of all of the medical schools in which we asked each institution to tell us how much construction they needed to meet their medical library needs, how much they estimated the construction would cost, and how much they needed for the support of "resources" as defined in the bills.

Eight established medical schools and one developing school were unable to provide the figures concerning construction or did not need additional construction for which they had not already made provisions. Seventy-nine established medical schools and 11 developing medical schools reported a need for construction to meet the needs of their medical libraries that they estimated would cost \$98.7 million. It is my opinion that these estimates will turn out to be somewhat low, since they work out to an average cost of \$33 per square foot. Several of the institutions have had but little experience in estimating cost of constructing and fully equipping library space, and a number of people with such experience believe that the cost will average about \$40 per square foot. If that turns out to be the case, the total cost for the construction would be approximately \$119.4 million. If Federal grants provide 75 percent of the construction cost, as the bills provide, the Federal share would be \$74 or \$89.5 million, depending upon which of the above estimates of costs turns out to be correct.

Since the bill as introduced authorizes an appropriation of \$10 million for each of 5 years, the medical schools would have to provide more than 25 percent of the construction costs, if their known needs are to be met.

In response to the question concerning additional "resources" as defined in the bills, six of the developing medical schools did not provide cost estimates. All of the existing medical schools plus six of the developing schools reported a total need for "resources" over and beyond those that can be procured from their present budgets that they estimate will cost \$31.3 million.

The AAMC does not have accurate figures concerning the needs for construction or resources in other eligible schools. We have some reason to believe that the needs for construction in the other health schools are substantially less than they are in medical schools, but that the need for resources is perhaps even greater.

Since the bills as written would authorize the appropriation of \$3 million for each of 5 years, it is obvious that the schools will have to find very substantial amounts of money from other sources if their needs for resources are to be fully met.

We appreciate the opportunity to testify in support of this most important legislation and would like to repeat the hope that your committee will report it favorably and that it will be enacted soon.

Sincerely yours,

ROBERT C. BERSON, M.D.,
Executive Director.

The CHAIRMAN. Thank you, gentlemen.

Dr. PARKS. Thank you, Mr. Chairman.

The CHAIRMAN. The next witness will be Dr. Alfred N. Brandon, president of the Medical Library Association, and director of the Welch Medical Library, Johns Hopkins University.

Dr. Brandon, we will be very glad to have your statement.

STATEMENT OF DR. ALFRED N. BRANDON, PRESIDENT, MEDICAL LIBRARY ASSOCIATION, AND DIRECTOR, WELCH MEDICAL LIBRARY, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD.

Dr. BRANDON. Thank you, Mr. Chairman and gentlemen of the committee.

I have submitted a formal written statement on the part of the Medical Library Association in support of this bill. I would like to orally emphasize certain sections of that bill.

The CHAIRMAN. Thank you very much.

You may proceed.

Dr. BRANDON. May I first direct attention to Section 394: Grants for Training in Medical Library Sciences: The most important elements in the success of any venture are the people who operate it. Funds for books, for buildings, for equipment (such as key punches,

sorters, and computers) will avail little if we do not have knowledgeable, imaginative, and dedicated people to transmit them into live library service. I think it would be accurate to say that we consider shortage of personnel plus shortage of training opportunities are our No. 1 problem. Dr. Dempsey has already alluded to this point, but to emphasize the magnitude of the problem I would like to point out that today there are seven head medical school library positions open. These are some of the top medical library positions in the country. It can easily be shown that subordinate positions and positions of lesser importance are also most difficult to fill with qualified librarians. It is the typical finding throughout the country.

The truism holds as elsewhere that people go where opportunity beckons. H.R. 3142 provides for most of the opportunities which we have long sought: assistance for developing programs in medical library science and in the general field of communication in the health sciences; traineeships and fellowships for students seeking graduate degrees in these areas; internship programs in medical libraries, and retraining for those already working in the health information area.

Section 396. Research and development in medical library sciences: In these modern times, the old cut-and-dried, haphazard methods for acquiring new knowledge and techniques in medical library science have failed. It is now necessary to adopt the methodology of the sciences and to formulate and prosecute programs of research and investigation which will yield information that will improve medical library techniques. In particular, funds are needed for research and development in the application of computers to the processing, storing, retrieving, and distributing of medical information. Such investigations have begun in some libraries, but money is sorely needed to train new investigators to support their investigations and to make available to them expensive equipment required for the development of new techniques. Thereby, the passage of H.R. 3142 will contribute to the development of wholly new medical library systems.

Section 397. Grants for improving and expanding the basic resources of medical libraries and related instrumentalities is perhaps the most important part of this bill. Medical library collection needs based on suggested standards indicate a total of \$102,732,952 would be needed to bring these libraries up to recommended strength. An analysis of needs would substantiate the propriety of suggesting a considerable larger annual appropriation for resources than the \$3 million the bill presently contains. Administered wisely, this provision can in some way reach every aspect of the medical community: student, researcher, and practitioner of all health professions. It is important to recognize the magnitude of this need and to understand that the appropriation authorized by this section would hardly begin to provide the solution.

Section 398. Sections 397 and 398 of the bill recognize that certain larger medical libraries extend their service beyond their immediate constituencies to share resources with nearby hospitals, medical schools, publishers, municipal, State, and Federal governmental agencies, as well as other public and private institutions requiring access to medical literature. In many cases, the members of these regional resources facilities are carrying most of the costs even though their own use of the library is a small proportion of its service load.

The increasing amount of medical literature and the rising costs of operating a comprehensive medical library is outstripping the capacity of any one institution to furnish adequate support. The National Library of Medicine recognizes its inability to meet the medical literature needs of the entire Nation without support from a network of regional libraries. It is both economical and logical to prevent the deterioration of these reservoir libraries by furnishing Federal support in recognition of the vital function which they are already performing. Failure to secure greater support will result in less effective service which will jeopardize existing support. In many communities there are no other institutions able to meet these needs if existing regional libraries fall victim to rising costs and increasing demands without means of increasing income.

In conclusion, the Medical Library Association, representing about 2,000 medical libraries and librarians throughout the world, wholeheartedly supports the provisions of this bill. The impact which Federal moneys, particularly grants for research and teaching in medicine, have had on U.S. medical libraries is profound. It has made the needs of the users far outstrip the abilities of the institutions with which the libraries are connected to support them. Unless the scientific information handling apparatus of the country is brought up to the level of the research, teaching, and patient care of this country, we may very well see either a decline in the status of our medical sciences, or find different and more expensive methods of reaching the same goals being attempted by society. We urge, therefore, that the House pass H.R. 3142, the Medical Library Assistance Act of 1965, speedily, and we hope that the necessary funds to implement it will be provided in the next Executive budget.

Thank you.

(Dr. Brandon's full statement follows:)

STATEMENT BY ALFRED N. BRANDON, PRESIDENT, MEDICAL LIBRARY ASSOCIATION, AND DIRECTOR, WELCH MEDICAL LIBRARY, JOHNS HOPKINS UNIVERSITY

INTRODUCTION

Mr. Chairman, gentlemen of the committee, my name is Alfred N. Brandon. I am president of the Medical Library Association; chairman of its Federal relations committee; and director of the Welch Medical Library, Johns Hopkins University, Baltimore, Md. The Medical Library Association has designated me to present its views and recommendations on H.R. 3142. It is a privilege to appear before this distinguished committee to urge your recommendation of this bill which is of incalculable importance in the revitalizing of medical libraries whose mission it is to preserve, organize, and transfer published knowledge resulting from the research efforts that Congress has, itself, done so much to foster through its long and splendid support of health legislation.

Section 393

Despite other programs of support for the construction of health-related facilities, medical libraries have never received an adequate share of assistance. A recent survey of 116 established medical, dental, osteopathic, and public health schools shows that 86 of their libraries were in need of funds for construction of new facilities and 18 needed funds for renovating existing library quarters.

During the last 8 years I have visited most of the medical school libraries in the United States. With few exceptions, I found them overcrowded with little expansion possibilities in their present stacks. Seating capacities were generally low in relation to the clientele served and work areas for the librarians were at a premium.

The enactment of this bill would do much to improve the physical facilities of medical libraries. The total estimated need for construction for medical, dental, osteopathic, and public health schools, both established and new, at 75 percent

matching, is over \$96 million. This kind of support would represent a significant step toward meeting this critical need.

Section 394

The most important element in the success of any venture are the people who operate it. Funds for books, for buildings, for equipment—keypunches, sorters, computers—will avail little if we do not have knowledgeable, imaginative, and dedicated people to transmute them into live library service.

The critical shortage of qualified personnel in all areas of science information handling has been emphasized over and over in reports of recent years on communication problems in science, notably in the Surgeon General's Conference on Health Communications (1962), the President's Science Advisory Committee's Science, Government and Information (1963), the National Academy of Sciences-National Research Council's Communication Problems in Biomedical Research (1964) and in the recommendations of the President's Commission on Heart Disease, Cancer and Stroke. The Medical Library Association has made the problem the pivot of its activities, e.g., its programs for continuing education, certification, and recruiting. I think it would be accurate to say that we consider shortage of personnel plus shortage of professional training opportunities our No. 1 problem. This point of view is brought out well in "Guidelines for Medical School Libraries" (1965) prepared by a joint committee of the Association of American Medical Colleges and the Medical Library Association.

The usual minimum professional preparation for librarianship is a bachelor's degree followed by a year of graduate study for the master's degree in one of the country's 33 graduate library schools. Ten of these schools now offer a single course in medical librarianship varying from 30 to 45 semester hours. Three medical libraries offer post-master's training programs with a total of eight places each year available. These offerings are tied in with the Medical Library Association's certification plan. They are very useful, but they do not go far in alleviating the overall shortages—and there is nothing more except scattered courses in information science which are not directly concerned with the health sciences field.

Information assembled by the President's Commission on Heart Disease, Cancer and Stroke shows that we are short at least 3,000 professional librarians in the 6,300 health science libraries at the present time.¹ We lose 150 through normal attrition each year and we bring in from the library schools 100 of whom 60 already hold medical library positions. Thus only an approximate 40 new people, many of whom have neither subject background nor special training of any sort for the health sciences, are added annually. Positions are commonly open for 6 to 8 months, not infrequently for a year or more even in top locations and situations. Veteran head librarians are flooded with requests for recommendations for vacant positions from every part of the land. The well-qualified, sometimes even half qualified, are courted on all sides at all levels. There is constant reshuffling of people and jobs. To fully appreciate existing conditions one must remember that medical libraries are for the most part very seriously undermanned even when all positions are filled. The effects of such conditions on service are obvious.

Meanwhile the demands on libraries become both larger and more complex as we struggle not only with the size of the literature, but also with its rapidly evolving interdisciplinary nature which requires a whole realigning of the traditional concept of scope of collections and public services. Expansion and change in the literature are, of course, the direct result of expansion and change in research personnel, the same personnel who account, in turn, directly or indirectly, for all calls on the library for larger collections and greater services. The cycle continually winds back on itself in wider and wider circles. A few of the larger libraries are beginning to attempt to hold this spiral in place by the automation of library operations and the pioneering of library-based information and search centers, but these experiments only increase the need for staff, highly qualified staff at that. Too, any success in finding new ways of handling information processing affects the profession as a whole and steps up the urgency of equipping everyone in it to take as much advantage as possible of the innovations. For example, the librarian in the field needs some insight into the system to obtain for his clientele full benefits from medlars. The more he knows about both medicine and data processing the better his insight will be.

¹ U.S. Congress. House. Committee on Appropriations. Departments of Labor and Health, Education, and Welfare appropriations for 1966. Hearings before a subcommittee of the Committee on Appropriations, House of Representatives, 89th Cong., 1st sess. Department of Health, Education, and Welfare. Pt. 2, Public Health Service (exclusive of National Institutes of Health), Washington, D.C., Government Printing Office, 1965.

Our personnel shortages then are in both number and kind. There is no choice but to find recruits with subject background in the sciences for many of our positions and recruits who are acquainted with at least the elements of data processing and information science for others. There must be people on the staff who can interpret the library to programmers, systems designers, computer experts, etc., and work with them to devise new and better patterns and procedures. But can we indeed find these recruits?

From what experience we have had, we know that students with appropriate subject background and academic qualifications can be drawn into librarianship and other areas of information work once they are aware the field exists. Awareness increases as scholarships, fellowships, and traineeships become available, as new programs are offered in the library schools and related institutions and as salary and status improve. Moreover, so far as shortage in kind of personnel is concerned, we are not without a backstop of able practicing librarians eager to learn as much as they can of the new technology, eager to improve their subject competence, and to add to their foreign language proficiency. This has been demonstrated by attendance at the association's continuing education classes, in the organization of workshops and short courses in some parts of the country, and by individual enrollment in university courses.

The truism holds as elsewhere that people go where opportunity beckons. H.R. 3142 provides for most of the opportunities we have long sought: assistance for developing programs in medical library science and in the general field of communication in the health sciences, traineeships and fellowships for students seeking graduate degrees in these areas, internship programs in medical libraries, and retraining for those already working in the health information area.

Section 396

Medical libraries are twice as old as medical schools, and during the long years of their existence, their librarians have accumulated a large store of experience which has served them well until the past decade. During the past 10 years, knowledge, including medical knowledge, has become central in our society, and there has been a tremendous increase in the urgency to have medical knowledge immediately available for the treatment of those ill, for the protection of those well, and for the research on which cure and protection rest. In these modern circumstances, the old cut-and-dry, haphazard methods for acquiring new knowledge and techniques in medical library science have failed. It is now necessary to adopt the methodology of the sciences and to formulate and prosecute programs of research and investigation which will yield information that will improve medical library techniques. In particular, funds are needed for research and development in the application of computers to the processing, storing, retrieving, and distributing of medical information. Such investigations have begun in some libraries, but money is sorely needed to train new investigators to support their investigations and to make available to them expensive equipment required for the development of new techniques. Thereby, the passage of H.R. 3142 will contribute to the development of wholly new medical library systems.

Section 397

Section 397, "Grants for Improving and Expanding the Basic Resources of Medical Libraries and Related Instrumentalities," is perhaps the most important part of this bill. Medical library collection needs based on suggested standards indicate a total of \$102,732,952 would be needed to bring these libraries up to recommended strength. An analysis of needs would substantiate the propriety of suggesting a considerable larger annual appropriation for resources than the \$3 million the bill presently contains. Administered wisely, this provision can in some way reach every aspect of the medical community: student, researcher, and practitioner of all health professions. It is important to recognize the magnitude of this need and to understand that the appropriation authorized by this section would hardly begin to provide the solution.

Current statistics show that Federal support of medical and health-related research has grown from \$105 million in 1951 to an estimated \$1.3 billion in 1965. National Institutes of Health research grants supported 1,695 projects in 1951. By 1964, NIH granted funds for 15,242 projects. Of the total national and private expenditures for health-related research in 1964, the Federal Government provided 65 percent, industry 23 percent, and other non-Federal sources 12 percent of the funds.

The Federal Government provides two-thirds of the support for medical research and should rightly be concerned with seeing to it that the scientists performing this work have available to them needed tools and equipment including adequate libraries.

Section 398

Sections 397 and 398 of the bill recognize that certain larger medical libraries extend their service beyond their immediate constituencies to share resources with nearby hospitals, medical schools, publishers, municipal, State and Federal governmental agencies, as well as other public and private institutions requiring access to medical literature. In many cases, the members of these regional resources facilities are carrying most of the costs even though their own use of the library is a small proportion of its service load.

Government grant support allocation for overhead goes to the institution where the principal investigator has his primary affiliation but does not reach the regional library to which these investigators turn when the libraries of their own institutions prove inadequate.

These sections of H.R. 3142 also recognize that all medical libraries do not need to be self-sufficient (if, indeed, any medical library could achieve completeness today). Smaller collections may satisfy a large percentage of immediate clientele needs and they may be effectively supplemented by a nearby regional library which can fill requests for less demanded but frequently very expensive material.

In different parts of the country, this regional function is performed by different types of libraries; in some cases medical school libraries are serving the entire community, in other cases private hospitals, medical societies, and governmental agencies are performing this reservoir function.

The increasing amount of medical literature and the rising costs of operating a comprehensive medical library is outstripping the capacity of any one institution to furnish adequate support. The National Library of Medicine recognizes its inability to meet the medical literature needs of the entire Nation without support from a network of regional libraries. It is both economical and logical to prevent the deterioration of these reservoir libraries by furnishing Federal support in recognition of the vital function which they are already performing. Failure to secure greater support will result in less effective service which will jeopardize existing support. In many communities there are no other institutions able to meet these needs if existing regional libraries fall victim to rising costs and increasing demands without means of increasing income.

CONCLUSION

Scientific libraries are one way which our society has devised for the purposes of diffusing innovation and of preserving accurately the information which has already been uncovered in the fields of science. As Santayana has noted, those who are ignorant of the past are condemned to repeat it, and where knowledge uncovered at one time or place is unknown to those who need to use it at another time or place, the forward movement of all science is slowed down by the necessity for repetition of experimental work and pragmatic solutions to problems. In a field as vital as medicine, moreover, information or methods uncovered in one part of the globe must be transmitted to all other parts of the globe. Health and disease know no political or geographical boundaries, and illness in rural areas of the United States requires as high a standard of treatment as illness in Bethesda, Md., New York City, or Chicago.

H.R. 3142 contains provisions which will aid science in the transmission of new knowledge and the methods by which it is preserved and brought forth when needed. It provides for research in methods of handling scientific data, so that society can get the most efficient return for the money it invests in medical libraries; and it provides for the training of people who will handle these data. It allows for support of syntheses of existing knowledge so that each individual does not himself have to go through the entire record to extract the meaningful portions for his field, and it provides for the compilation of historical discussions of the means whereby the discoveries were made, thus (hopefully) pointing out more fruitful ways to investigate problems in the future.

Since the results of medical advance are now preserved in written form, the bill makes provision for the collection of such publications in strategic positions around the country, as well as for the buildings and other storage depots which will contain these publications. But it also sees to it that the exciting new frontiers of the transmission of medical data, as exemplified by the medlars system at the National Library of Medicine, are expanded and made available on a wider scale.

The Medical Library Association, representing about 2,000 medical libraries and librarians throughout the world, wholeheartedly supports the provisions of this bill. The impact which Federal moneys, particularly grants for research and

teaching in medicine, have had on U.S. medical libraries is profound. It has made the needs of the users far outstrip the abilities of the institutions with which the libraries are connected to support them. Unless the scientific information handling apparatus of the country is brought up to the level of the research, teaching, and patient care of this country, we may very well see either a decline in the status of our medical sciences, or find different and more expensive methods of reaching the same goals being attempted by society. We urge, therefore, that the House pass H.R. 3142, the Medical Library Assistance Act of 1965, speedily, and we hope that the necessary funds to implement it will be provided in the next Executive budget.

The CHAIRMAN. Thank you very much.

Are there any questions?

Mr. O'BRIEN. I have one, Mr. Chairman.

The CHAIRMAN. Mr. O'Brien.

Mr. O'BRIEN. Doctor, you mentioned the critical shortage of medical librarians. Is the principal reason for that inadequate salaries?

Dr. BRANDON. Partially, sir. There are, as I think is brought out in the President's Commission on Heart Disease, Cancer, and Stroke, only 3,000 professional librarians in over 6,000 health science libraries at the present time and we are only recruiting about 40 or 50 a year to try to fill the gap and to create the replenishment that we need for those that we lose by attrition, death, retirement, and so forth.

Mr. O'BRIEN. Are these people being siphoned off into other areas where their knowledge pays more?

Dr. BRANDON. Yes, this has happened and is happening more all the time.

Mr. O'BRIEN. Thank you.

The CHAIRMAN. Are there further questions?

Mr. ROGERS of Florida. Mr. Chairman, I have just one question.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. Are you saying in your testimony that you think we need 6,000 librarians?

Dr. BRANDON. No; I am not saying that. I am saying that the President's Commission on Heart Disease, Cancer, and Stroke shows that we were short at least 3,000 professional librarians in the 6,300 health science libraries at the present time.

Mr. ROGERS of Florida. Some of the testimony that we developed shows that in some of the hospitals which they include in the 6,000 figure they may have medical journals or something that people very seldom use. I doubt if a person could spend full time in some of these hospital libraries as a librarian. Would you agree with that?

Dr. BRANDON. I think there is a very definite need for what we might call the medical library technician, an individual who may not have a library science degree per se but someone who has had some training and experience in library methods. This individual in a small hospital library could very much better cope with the library problems than a secretary who is usually given a few hours a week to take care of this.

Mr. ROGERS of Florida. I will agree with that. I would hope, too, that we would put more emphasis on our medical libraries in the hospitals, because a number I have seen or know of appear to not be used too frequently.

Dr. LANDON. I think they have on the whole been quite inadequately cared for and I think if we could train some of these medical library technicians that could, for lesser salaries than a professional librarian might command, give attention to this matter. Perhaps

even under the direction of competent medical librarians in their community, these technicians could do much to help build up strong working collections in those hospital libraries which could then be backed up by the regional library from the more expensive material and the research type of material that might be needed by the staff of the hospitals.

Mr. ROGERS of Florida. Give us a rundown for the record on what you think might be necessary for a technician to have in the field you have just described.

Dr. BRANDON. Yes, I can cite some of the literature. I will be glad to append that to my report.

(The information requested follows:)

Annan, Gertrude L., Library technicians: need, training, potential. Bulletin of the Medical Library Association, 52: 72-80, January 1964.

Mr. ROGERS of Florida. Thank you, Mr. Chairman,

The CHAIRMAN. Mr. Macdonald.

Mr. MACDONALD. My question is so basic, that I should be fearful to ask it.

What does a medical librarian do?

Dr. BRANDON. It depends on the type of institution to which you are referring to as to how I can answer that question. Basically let us take a medical school librarian.

Mr. MACDONALD. Let us take a hospital.

Dr. BRANDON. All right. A hospital librarian should be an individual who has at least some training in library methodology, who has some knowledge as to how to retrieve citations to information requested by the practicing physician, or any hospital staff member.

Mr. MACDONALD. You mean a doctor comes in and says to the librarian, I have a tough case, I don't understand it but here are the symptoms and the librarian puts it through a computer or something and comes out with an answer.

Dr. BRANDON. That may be for the future. It is not for the present.

Mr. MACDONALD. What happens at the present? Most doctors I know hate to admit they don't know what is wrong. The average doctor seems to know the answers. Would there be the need for a highly skilled doctor to go to the librarian and say he has x number of symptoms, what is wrong with the patient?

Dr. BRANDON. This is not the usual kind of question that the librarians get fortunately.

Mr. MACDONALD. What is the typical question?

Dr. BRANDON. The typical question is: I would like to know the most current literature in a specific subject area. Then the librarian can, through consulting the printed indexes, through homemade indexes, or through a current awareness service, checking each journal as it comes into the library, be able to give many citations to the most recent literature which will help answer the problem which he has presented.

Mr. MACDONALD. Thank you.

The CHAIRMAN. Doctor, I thought what you and others had in mind was to provide assistance for these approximately 116 medical libraries in the medical institutions and so forth. Is that not true?

Dr. BRANDON. Yes, we want to build up the professional staff who are capable of using new methodologies for searching out the literature as it is requested by the researcher, or by the physician.

The CHAIRMAN. You don't think it should be extended to provide assistance for 6,000 libraries?

Dr. BRANDON. In one sense or another, it might through the establishment of regional libraries help all of the medical libraries.

The CHAIRMAN. It will require more money than anybody has suggested. Probably more money than we will be able to get.

Doctor, thank you very much.

Mr. KORNEGAY. Mr. Chairman.

The CHAIRMAN. Mr. Kornegay.

Mr. KORNEGAY. How much will this bill cost, Dr. Brandon?

Dr. BRANDON. Totally?

Mr. KORNEGAY. Totally, yes.

Dr. BRANDON. I think it is \$23½ million per year.

Mr. KORNEGAY. Dr. Brandon, I think yours is a fine statement and the statement I am going to make is not directed to you. I got here a little late. I attended an executive session of another committee. I wanted to get here in time to talk to some of the witnesses for the administration. I see my good friend Dr. Dempsey is here. This is not exactly in his department but he is a representative of the administration and I would like for him to hear this.

This year this committee has spent a considerable portion of its time considering and acting upon and passing out bills that deal with public health, and which authorize the expenditure of hundreds of millions of dollars. Last Saturday I had a telephone call from the dean of one of the leading medical schools of this country, and which happens to be affiliated with what I consider to be one of the best VA hospitals. The dean of the medical school told me that unless something was done and done rather quickly insofar as upgrading the medical care in this particular VA hospital, the medical school was going to withdraw its affiliation. Because of the parsimonious attitude of the Bureau of the Budget and the administration in providing for this particular VA hospital, the medical school, in view of its reputation, could not much longer afford to remain affiliated with it. That was quite concerning to me because, as I understand it, the VA hospital system has trained about 30 percent of the Nation's interns and residents in the past 5 years and certainly is one of the most significant factors in medical education in the country today.

My point is, while I am not opposed to this bill and all the others that we have passed out, what are we doing here when we constantly report out here and pass new legislation and spend a lot of money when apparently the Government is failing to take care of those plans and those plants that we already have. I just want to get that in the record. I have not had a chance yet to get into it and do a lot of studying about it and get a lot of facts but I did want to call that to Dr. Dempsey's attention over there. While he does not have anything officially to do with VA hospitals he is affiliated with the administration and might be able to give this word back to them that there is growing discontent throughout the country. Understand this is not this one situation that I know about but it may be true in other cities.

Thank you very much.

Mr. YOUNGER. Just for the record, I did not get your figure of the cost or your estimate.

Dr. BRANDON. Of the bill itself? The only estimate that I gave in my figures here had to do with section 397: Grants for Improving

and Expanding the Basic Resources, where I mentioned that the medical library collection needs, based on the suggested standards, indicated a total of over \$102 million would be needed to bring them up to recommended strength.

Mr. YOUNGER. I think the bill itself provides for \$19,900,000 a year for a 5-year program, round numbers, \$100 million.

Mr. KORNEGAY. If the gentlemen will permit, I have been advised by the staff \$50 million is only for construction. The total cost of the bill is \$117,500,000 for the 5 years.

Thank you for letting me use you as the fall man, Dr. Brandon.

The CHAIRMAN. Dr. Brandon, I am sure the others who are interested will get the hint from Mr. Kornegay and provide the information he would like to have.

Thank you very much.

Miss Germaine Krettek.

I believe you are representing the American Library Association here in Washington.

Miss Krettek, we are very glad to have you and we are glad to have your statement.

STATEMENT OF MISS GERMAINE KRETTEK, ASSOCIATE EXECUTIVE DIRECTOR, AMERICAN LIBRARY ASSOCIATION, WASHINGTON, D.C.

Miss KRETTEK. Thank you, sir.

My name is Germaine Krettek. I am associate executive director of the American Library Association.

The American Library Association is in favor of the Medical Library Assistance Act of 1965, H.R. 3142—Harris, and H.R. 6001—Fogarty: legislation designed to assist in the development of adequate medical library services and facilities in the United States. We feel that this measure is necessary and vital to the health of the Nation.

I have a brief statement, Mr. Chairman. In the interest of time, if you prefer, I would like to have it made a part of the record and to read excerpts from it.

The CHAIRMAN. It may be included in the record. You may proceed. I note it is a very short statement.

Miss KRETTEK. Then I will go ahead and read it.

In taking its favorable stand on this proposed legislation in the field of medical libraries and librarianship, the American Library Association would point out that it considers the provisions embodied in the medical bill, important as they are, as a supplement to the Higher Education Act of 1965, H.R. 9567, wisely passed by both the House and the Senate. In our judgment, this measure in support of basic higher education is of vital importance as a means of helping to solve the pressing current deficiencies in our college and university libraries, and to alleviate the alarming shortages in competent personnel to man our libraries of all types—college, school, public, and other.

Along with its position on this fundamental Higher Education Act, the American Library Association, as the oldest and largest library organization, is concerned also with the shortcomings in medical libraries and services. The association, moreover, has two constituent units which are particularly concerned in the development of medical libraries and related areas. One is the Association of College and Research Libraries, and the other is the Association of Hospital and

Institution Libraries. Both of these constituent organizations, which have special responsibility in these fields, endorse the proposals for medical library legislation.

At its meeting on January 27, 1965, the Association of College and Research Libraries board voted its approval of the proposed medical library assistance bill, noting that many institutions with medical libraries are members of ACRL and would benefit under the provisions of this bill.

The Association of Hospital and Institution Libraries also has expressed formally its concern for the pending medical library services bill. At the July 1965 Detroit conference, the AHIL Board went on record as strongly supporting the provisions of H.R. 3142 and urging its passage.

Various reports and documents prepared by medical committees, societies, and libraries show convincingly the great shortages in medical library resources, services, and buildings. These deficiencies are seriously affecting medical research, medical teaching, and medical practice. It is a matter of national concern to have them corrected.

In addition, the Special Projects Committee of the Association of Hospital and Institution Libraries at a recent meeting set forth the following additional deficiencies in the field of medical libraries:

Inability to maintain properly collections, preserve materials, and keep abreast of literature and trends because of the rising cost of medical literature, abstracting services and equipment, and lack of adequate and properly trained personnel to perform these services and duties.

Lack of coordination of resources and efforts to make readily accessible the materials to physicians and paramedical personnel, such as psychologists, social workers, and rehabilitation workers, as they are needed.

The Association of Hospital and Institution Libraries also advocates:

The establishment of regional medical libraries: Books, journals, photostats, reference, and bibliographic services would be quickly accessible to medical and ancillary staff, such as nurses and therapists, in hospitals, clinics, mental health centers, and nursing homes in outlying communities where such regional libraries situated throughout the Nation.

In addition, we feel that the provisions concerning the establishment of regional libraries covered in section 398(b) are highly important because of the need for continuing education by all practicing physicians, especially those located in more remote places. Medicine has changed and continues to change so rapidly that an ever-widening gap stretches between the work of the medical researchers and the practice of medicine by the physician. The role of the medical library is to help the practicing physician narrow that gap and keep pace with the acceleration in research and the health needs of the population.

In the field of medical research, the growth in funds has been steadily and encouragingly upward: \$45 million in 1940; \$148 million in 1950; \$715 million in 1960; and a projected rise to \$3 billion in 1970. This tremendous increase should have been accompanied by a corresponding one in the amount spent for medical library book and periodical resources, services, training of medical librarians, and building to bulwark such a program. But such has not been the case. If it is to be successful and fruitful, research in medicine and allied

fields must be supported by a solid foundation of library materials and by some method of quick retrieval of the information when needed.

Recent reports bear out clearly the sad state of the relative amount of funds allotted by the Department of Health, Education, and Welfare to medical library service. For example, in 1964 the Department received in appropriations \$5.5 billion, of which \$36.1 million, approximately 0.65 of 1 percent, were devoted to scientific and technical information, but less than \$1 million was assigned directly or indirectly to the support of medical library activities.

The task is tremendous, especially when we consider that there are some 4,000 libraries operated by medical research institutions, medical schools, medical societies, schools of nursing, pharmacy, veterinary medicine, osteopathy, public health agencies, and other segments of the medical and health community. These libraries and their significance to the Nation can readily justify their claim for assistance from the Federal Government.

The American Library Association therefore strongly supports the Medical Library Assistance Act of 1965 and urges that this committee act favorably upon the measure.

Thank you, Mr. Chairman and members of the committee, for allowing me to present this testimony.

The CHAIRMAN. Thank you very much, Miss Krettek.

Are there any questions?

We appreciate having your statement.

Mr. Younger?

Mr. YOUNGER. On page 3, Miss Krettek, the estimate of funds which you gave there for 1940, 1950, 1960, and an estimate of \$3 billion in 1970; where did those figures come from?

Miss KRETTEK. These are total national expenditures for medical research and include appropriations of the Department of Health, Education, and Welfare. These figures are from the Journal of Medical Education, volume 38, March 1963, page 146.

Mr. YOUNGER. From the Federal Government?

Miss KRETTEK. Yes, sir; there is a tremendous amount of research that is going on. In order for this research to be properly carried on and the effect of the research made available to those who need it, it is essential that there be good library service to control the information and make it available to those who need it most.

The CHAIRMAN. Thank you very much. We are glad to have your statement.

Dr. Logsdon, with the Association of Research Libraries, Columbia University.

STATEMENTS OF DR. RICHARD H. LOGSDON, DIRECTOR OF LIBRARIES OF COLUMBIA UNIVERSITY AND FORMER CHAIRMAN OF THE ASSOCIATION OF RESEARCH LIBRARIES; AND JAMES E. SKIPPER, EXECUTIVE SECRETARY, ASSOCIATION OF RESEARCH LIBRARIES

Dr. LOGSDON. Mr. Chairman, it is a pleasure, indeed, to appear in support of this legislation.

The CHAIRMAN. Doctor, I am going to suggest that you include your statement in the record because of the time and you give us a brief summary of your statement.

Dr. LOGSDON. That is what I had hoped to do. We have a longer statement for the record. I will highlight only a few points, perhaps offering Dr. Skipper, who is with me, the executive secretary of our association, an opportunity to pick up on any point or points that I may miss.

Ours is an association of some 74 libraries. Sixty-one are universities, and I think of particular importance to this legislation, 47 of those universities operate, finance, and sustain major programs of medical research and medical education. As these are the larger and more comprehensive of the medical research and education centers of the country, our members represent a very substantial part of the total universe of activity in this field.

For that reason our members are in a particularly good position to bring to this committee and to the Congress firsthand evidence of the real need for substantially larger support of medical library activities.

At the institution I know best, the Columbia Presbyterian Medical Center, you will find the firsthand evidence of the influence of figures that have been presented by other witnesses today. In my testimony I refer to an increase of roughly fiftyfold in Federal Government support of bio-medical research since 1947. Other figures have been given suggesting a twelvefold increase since 1951. During this period of enormously increased activity in research it has been extremely difficult to improve library resources and services to keep pace.

This has caused arreages of need to develop in every phase of activity to be supported by this bill; in physical facilities, personnel, and training. Not only do we have this shortage in numbers of medical librarians but there is also the fact that many individuals coming into the library profession have backgrounds in humanistic studies. To prepare them adequately for high-level services in medical libraries requires additional training which this bill will help provide.

Very importantly, it offers the opportunity for substantially increased research and development expenditures in medical library and information services. While this section of the bill relates specifically to medical libraries, it is certain that any research of this kind relating to one field will have benefits for other fields of library service.

The ultimate objective of this and related legislation is improved patient care. I am sure that through the idea of developing a network of medical libraries and medical information service we will find the larger institutions working more effectively with the smaller institutions bringing to them and to individual physicians the benefits of first-class, high-level information service.

It is a pleasure to endorse this legislation and to ask that Mr. Skipper be given an opportunity to supplement my statement.

The CHAIRMAN. Very well. We will be glad to hear from you, Mr. Skipper.

Mr. SKIPPER. Mr. Chairman and members of the committee, I am James Skipper, executive secretary of the Association of Research Libraries. I would like to take a moment to suggest that in addition to helping medical libraries rectify the imbalance between support for medical research and library service, I believe that the bill under consideration has great significance for the entire library community, not just libraries concerned with medicine. The National Library of Medicine has established its preeminence as the pioneer in developing

new techniques to successfully exploit the increase in published medical information.

These innovations have great potential in being applied to the non-medical sector in our research libraries. Thus it is my conviction that the support and encouragement given to medical libraries will be multiplied many times by the application of these new techniques and service concept to general information needs.

Thank you, sir.

The CHAIRMAN. Thank you very much, gentlemen. We are very glad to have your statements.

Are there any questions?

Mr. MACDONALD. I want to compliment both of you on the restrained and educational statement. One question does come to my mind: How will this do what you say it will do, on page 3? I think one of the problems that the Federal Government is faced with is the increasing instances of needless duplication of research. It has always been a problem. NIH could not use the amount of money we gave it one year. It set a record in sending some money back.

Dr. LOGSDON. The thing we are faced with is the acceleration in the amount of research and publishing ahead of our being able to keep track of all the information that is reported. We do not always know what has already been done. It is precisely that kind of objective that these new levels and new concepts of information handling are designed to achieve. We will be more certain once we have a really thorough system of analysis of published literature, a proper subject heading systems, and improved machine handling of this subject and bibliographical information. We will be more certain of what has already been done so that current research can really be on the frontier and nonduplicating.

There is a frequently quoted story in research circles that it is often cheaper to repeat the research than to search the literature. This may be true in some cases but all too often large sums may be wasted or important data overlooked.

Mr. MACDONALD. My question is this: Would it not be more economical, instead of having 6,000 or whatever was suggested as the figure for construction, to have just one center in which this research would be put together and have the center send it out to the various hospitals and schools and the other places where it is needed instead of having regional centers all over the country?

Dr. LOGSDON. I think the basic work of analyzing the literature, being sure of what is in it, should be done in one place, and that is precisely what is developing with the medlar's program and the medlar's related program. But in order to bring this information quickly to the individual user at these various centers throughout the country we must have a local staff, the equipment to handle requests, and of course books and journals containing it. You have to provide the article or articles for the user locally.

The basic intellectual work of indexing, cataloging, and so on, can be done more efficiently at a central point. That is the wonderful contribution through the years of such publications as "Index Medicus," and now through the medlar's program. Does that answer your question?

Mr. MACDONALD. In some measure, thank you.

Dr. LOGSDON. We must get this hard work centrally and we are moving very fast in that direction.

Mr. MACDONALD. You don't think it will be more economical to do it in place and have it distributed from that one place?

Dr. LOGSDON. Yes, I agree it is more economical to do some things centrally; but I think that is what we are working toward in present programs and in programs projected by this legislation. But doing these things centrally will not be a substitute for competent reference librarians at the local level. You need both.

Mr. MACDONALD. Thank you.

The CHAIRMAN. Are there further questions?

Thank you very much, gentlemen. We are pleased to have your statement.

(Dr. Logsdon's statement follows:)

STATEMENT BY RICHARD H. LOGSDON, DIRECTOR OF LIBRARIES, COLUMBIA UNIVERSITY, REPRESENTING THE ASSOCIATION OF RESEARCH LIBRARIES

I am Richard H. Logsdon, director of libraries of Columbia University and former chairman of the Association of Research Libraries, the organization which I am representing today. Appearing with me is James E. Skipper, executive secretary of the association.

The Association of Research Libraries, established in 1932, comprises 74 institutional members, the larger academic, public, and special libraries which collect comprehensively in support of research. Sixty-one of the members are American university libraries, 47 of which operate medical schools and medical research centers. Our member institutions accordingly are carrying a substantial part of the total responsibility for nurturing biomedical research and medical education. They are similarly in a good position to assess present shortcomings of the whole information complex and in turn to assess also the opportunity offered to the Congress in this bill to strengthen medical library resources and services. This testimony is based not only on 17 years of direct experience in the administration and financing of library services to one of these medical research centers (the Columbia Presbyterian Medical Center including the College of Physicians and Surgeons) but also on knowledge of the pressures which are being felt by medical libraries generally.

The case for this bill can be stated briefly under four headings:

(1) Programs of education and research in medicine and the health-related fields will be effective only if supported by adequate library and information services.

(2) Medical library resources and services are not now adequate to the needs of the research community.

(3) The gap between present levels of support and adequacy is too large to be closed quickly if at all from nongovernmental sources.

(4) The program set forth in H.R. 3142 and H.R. 6001 is soundly conceived and would achieve a dramatic and balanced development of medical library resources.

One of the best guarantees that funds available for research will be spent effectively is through the provision of adequate library resources. Medical libraries form a vital link in the chain of communication of ideas and information in the health sciences. They serve as custodians of recorded knowledge; the recipients of a virtual torrent of publications reporting the results of current research; and as the principal means through which medical school teaching is kept up to date and research guided to new frontiers of discovery and understanding. Only through well-organized, comprehensive and readily available collections is it possible for the researcher to know what has been done in his field of specialization, the direction of current research and the areas needing further study. The findings of research must be reported and put to use if the original objectives of research grants are to be achieved.

The ultimate objective is, of course, better patient care and here, too, the library plays an important role by bridging the distance between the findings of research and the practicing physician.

That funds available for biomedical research have increased much faster than appropriations for medical libraries is, I believe, well established. Funds

from the Federal Government alone have risen from some \$27 million in 1947 to an estimated \$1.3 billion. This emphasis on the part of Government coupled with funds from nongovernmental sources has, in a real sense, created the library problem by generating the so-called explosion both in publication output and the number of users to be served. Similarly increasing specialization in research has brought demands for library and other information services of a much more sophisticated nature calling for subject analysis in depth and machine handling of bibliographical records. Taken together these influences call for a higher proportion of total funds for information services at a time when library support is almost certainly falling behind on a percentage basis.

The logic of Federal support for strengthening medical library services is, I believe, uncontestable. Not only is the gap so large as to preclude early correction from private sources but the Federal Government itself is likely to be the principal beneficiary. Improved information services will, as stressed earlier, increase the effectiveness of Federal funds for research and in addition, decrease the incidence of needless duplication of research. Time is, of course, important in that each year of delay risks the losses which can be generated by a poor communications network.

Those responsible for the drafting of this bill are to be commended for the care and appropriateness with which the several key aspects of a good medical library program are considered. I should now like to comment briefly on those separate provisions which deal particularly with medical library services.

CONSTRUCTION OF FACILITIES (SEC. 393)

It seems to be especially difficult to secure construction funds for library buildings. At Columbia, as is true of other privately supported institutions, the money must be sought from individual donors or foundations. A medical library area planned years ago for a relatively small collection and before the dramatic expansion in biomedical research is simply not meeting current needs for collections, staff activities, and services. While some funds are in hand for a new building, it may be several years before construction could begin from private funds alone. A matching grant, on the other hand, would make it possible to begin immediate construction. I am sure that this situation could be duplicated in dozens of other universities and medical libraries.

TRAINING IN THE MEDICAL LIBRARY SCIENCES (SEC. 394)

The shortage of library personnel generally and of persons qualified in specializations like medical librarianship has been a critical handicap in the maintenance of good library service. The investment in training provided for in section 394, including the program for information specialists, would be extremely helpful in recruiting the staff necessary for achieving high standards of service.

RESEARCH AND DEVELOPMENT IN MEDICAL LIBRARY SCIENCE (SEC. 396)

It is gratifying to see the emphasis given in this bill to research and development. Libraries have been so hard pressed through the years to provide the essentials in acquisitions, organization of collections and reference services that there has been all too little attention given to research in the nature of the library operation itself. The program here proposed would go a long way toward correcting this lack of emphasis in the past and would contribute to the improvement and efficiency of library operations not only in medical libraries but libraries generally.

IMPROVING AND EXPANDING THE BASIC RESOURCES (SEC. 397)

This section offers the promise of the kind of direct strengthening of resources and services at the local level which could bring immediate benefits to research programs. It should help to correct the present imbalance between the levels of local support for research and for medical libraries.

REGIONAL MEDICAL LIBRARIES (SEC. 398)

There is growing evidence and conviction that the total information needs of the society will finally be met only through the creation of a network of libraries each providing a level and quality of service appropriate to the geographical

area and clientele served. The program here envisaged would establish just that kind of pattern of interrelation between a local service, a more comprehensive backstop collection for a larger area and, of course, the capstone of the National Library of Medicine. Achieving this kind of network for biomedical literature would be a big step toward the ultimate goal.

REGIONAL BRANCHES OF THE NATIONAL LIBRARY OF MEDICINE (SEC. 378)

The proposal to amend the Public Health Service Act to enable the National Library of Medicine to establish regional branches similarly supports the idea of a network of medical library service mentioned above. The concept is consistent with emerging ideas of good library planning and deserves support.

CONCLUSION

Mr. Chairman and members of the committee, I appreciate this opportunity to appear before you in support of such a vital legislative proposal.

I wish to reemphasize the importance of this bill in correcting the imbalance which has been created by extensive Federal assistance to medical research without corresponding support for medical information. This imbalance threatens to become even greater under the recently enacted medicare program.

The purpose of the bill under consideration is to assure that doctors and medical scientists are provided with the essential knowledge which they require in doing their work. Information is an essential ingredient in medical progress and H.R. 3142 and H.R. 6001 will provide the support required.

Dr. LOGSDON. Thank you, Mr. Chairman.

The CHAIRMAN. Dr. Pearlman. Doctor, I believe you are here representing the American Dental Association and the American Association of Dental Schools.

STATEMENT OF DR. SHOLOM PEARLMAN, REPRESENTING THE AMERICAN DENTAL ASSOCIATION AND THE AMERICAN ASSOCIATION OF DENTAL SCHOOLS

Dr. PEARLMAN. That is correct, sir. For the record, to qualify myself, I am the secretary of the Council on Dental Research of the American Dental Association. I am also a member of the National Research Council and of the Advisory Committee on Scientific Publications of the National Library of Medicine.

It is my privilege to appear before you on behalf of the American Dental Association and the American Association of Dental Schools, to testify in support of this bill H.R. 3142. In addition to my oral comments I should like to file for the record a prepared statement which indicates the position of both organizations.

The CHAIRMAN. It may be included in the record.

Dr. PEARLMAN. Thank you sir.

(The statement follows:)

STATEMENT OF THE AMERICAN DENTAL ASSOCIATION AND THE AMERICAN ASSOCIATION OF DENTAL SCHOOLS

INTRODUCTION

The American Dental Association, which represents 105,000 dentists, and the American Association of Dental Schools, which represents the 50 dental schools in the United States, are pleased to have this opportunity to record their support for H.R. 3142, a bill to amend the Public Health Service Act to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities. In recording this support, the associations make a basic assumption that the intent of this legislation is to provide, within each of the programs authorized in the bill, assistance to all biomedical library and com-

munication activities, including those related to dentistry and to the fundamental and applied sciences related thereto.

The chairman of the committee has once again demonstrated an informed interest and sensitivity to a major problem confronting the health professions of the country. As documented so convincingly in volume II of "A National Program To Conquer Heart Disease, Cancer, and Stroke," in the special report prepared by the Subcommittee on Facilities of the President's Commission, the development of a large-scale, coordinated, national program to improve communication and research in the biological and health sciences has come to be one of the most urgent needs confronting the public and private agencies concerned with our Nation's health. Although there is yet much to be done, the support which the Federal Government has given to the construction of hospital and health research facilities has aided immeasurably in achieving significant progress in the understanding, treatment, and prevention of disease. More recently, the Health Professions Educational Assistance Act of 1963 has encouraged the expansion of educational facilities for the preparation of professional health personnel. In addition to these programs oriented toward specific problems of health facilities and manpower, the National Institutes of Health has and continues to provide much-needed and expanded support for research and research training as evidenced by the more than \$1 billion appropriated for these purposes during the last fiscal year.

As important and beneficial as these federally supported programs have been, however, relatively little has been accomplished in expanding and strengthening the vital lifeline of all of these developments—namely, the expansion and modernization of the systems needed to communicate biomedical literature to the community of health practitioners and research scientists. With the exception of the modestly supported program of the National Library of Medicine, there has been no concentrated effort to develop a cohesive and coordinated national program of biomedical communication commensurate with the greatly expanded demands which are placed on the health science libraries of today. With rare exception, those publicly or privately supported health centers which have been developed or which are now developing have not been able to incorporate within their plans the kind of communications systems and facilities which will be needed increasingly in the future. In the view of the associations, adoption of H.R. 3142 would be a major step in the direction of strengthening the communication of scientific knowledge—one of the weakest elements of the Nation's total health effort.

During the past 3 years, the American Association of Dental Schools and the American Dental Association have devoted extensive efforts to studying the ways and means of developing more effective continuing education programs for dental practitioners. Although the formats and techniques of providing continued professional education are many and varied, the overriding objective of any activity of this kind is to assist the dental practitioner in bringing to his patients the very best oral health care available. Through the cooperative efforts of dental schools, other educational institutions, State and local dental societies and study clubs, more than 35 percent of the Nation's active dental practitioners annually engage in some form of continuing education. This is indeed encouraging but we cannot and must not be satisfied until every practitioner finds it possible to keep abreast of the progress which is being made through dental research and through improved methods of oral health care. This goal, we firmly believe, will be more attainable if financial support such as that proposed in H.R. 3142 is made available for the construction of expanded dental library and other communication facilities, for the training of specialists in the communication sciences, for the support of research and development of new techniques and equipment related to the distribution of new information and for the expansion of published reviews, abstracts and bibliographies.

Before commenting on some of the specific needs of dental libraries, the associations would like to commend the chairman on the broadly based approach which has been proposed for solving the problems of biomedical communication. Although there are specific problems which relate uniquely to medicine, dentistry, public health, and the several biological and physical sciences related to health, it is increasingly apparent that real progress toward realizing total health care for all of our people will be achieved most effectively by an interdisciplinary approach to research, education, and the communication of new knowledge. It should be emphasized, therefore, that although we will comment primarily upon those activities which relate to dental education, research, and the communication of dental knowledge, these comments are intended to be within the compre-

hensive frame of reference proposed by H.R. 3142 supporting the need for a greatly expanded system of communication among all of the sciences related to health.

LIBRARY FACILITY NEEDS OF THE DENTAL SCHOOLS

There are three basic types of libraries which serve dental schools today. One is an integral part of the dental school; the second is either a combined medical-dental library or a health science library and the third is a part of a main university library. At present, 21 of the 50 dental schools operate separate libraries. Of the remainder, most are conducted as medical-dental or health science facilities. There are, of course, advantages and disadvantages to each of these administrative arrangements, but irrespective of the organizational pattern, the library is considered as an essential ingredient of any acceptable program of dental education.

According to a recent survey, the present average size of the library in those institutions which conduct a separate facility is 1,430 square feet. This same survey indicated that, were it possible to do so, these institutions would expand their existing facility to at least 9,000 square feet per institution, indicating that the present dental school library is operating at about 15 percent of the size that is considered desirable.

These estimates are reinforced by recent information submitted by dental schools now being planned in which the average amount of space projected for the library facility is about 9,000 square feet for an entering class size of 100 students. A space allocation of this amount represents between 5 and 6 percent of the total space planned for the dental educational program in new institutions presently under consideration—a modest allowance indeed when considering the multiple responsibilities of the modern health science library.

With reference to physical facilities, it is apparent that the majority of existing dental schools utilize library facilities which are a part of the total health center. As additional health center complexes are constructed, it seems likely that there will be an increasing trend toward the sharing of library and scientific communication facilities. In addition to the reasons already cited, such sharing will become increasingly important as more complex and sophisticated systems of information accumulation and retrieval are developed. As the committee recognizes, however, the cost of constructing, equipping, and maintaining multipurpose biomedical communication facilities will increase proportionately, thus it is urged that the suggested appropriations in H.R. 3142 be supported at the levels presented.

LIBRARY RESOURCE NEEDS OF DENTAL SCHOOLS

One of the measures of the adequacy of a dental library is the size and quality of its book and periodical collection. The average size of the book collection presently available in the 21 separate dental school libraries is 13,000 volumes. It has been estimated conservatively that the minimum need of a dental school library is at least 25,000 volumes, thus there is an average deficit of 12,000 volumes in each of these dental libraries at the present time. Based on an average acquisition cost of \$13 per volume, it would be necessary for the 21 institutions which have separate dental libraries to invest over \$3.25 million in order to bring their collections up to an acceptable standard.

In addition, each of the new dental schools now being planned or constructed can anticipate an expenditure of \$325,000 in order to establish an acceptable library collection, based on the standards cited above. These estimates of expenditures are based only on text and reference book acquisition and do not provide for periodical subscriptions, the purchase and maintenance of micro-filming equipment, and the use of the many information indexing and retrieval systems which are now available. It is apparent, therefore, that the dental school libraries presently in operation and those which are to be constructed and placed in operation within the next several years have an urgent need for the type of improvement and expansion grants proposed in section 397 of H.R. 3142.

The American Association of Dental Schools is presently undertaking a comprehensive cost study of dental education which, when completed in November 1965, will provide explicit information on the various cost elements involved in conducting a dental educational program. Although the final figures from the cost study are not yet available, preliminary information indicates that dental school libraries are supported at the seriously inadequate level of approximately \$25,000 per year in public institutions and at slightly less than \$19,000 a year in privately supported schools. Cost figures cited previously in this

statement with respect to the funds needed to develop an adequate textbook collection indicate an average need of more than \$150,000 in each of the 21 dental schools which maintain separate library facilities. There is no reason to believe that this need is not at least as great in those dental libraries which are a part of the health science centers of university complexes. It is apparent, therefore, that the library activity is in critical need of financial assistance far above the level which it has thus far been possible for the dental school to achieve. We urgently request the committee to place the highest possible priority on the legislation under consideration and, specifically, to seek the full authorization recommended for the improvement and expansion of basic resources of biomedical libraries.

DEVELOPMENT OF LIBRARY PERSONNEL

As is true in all aspects of dental education and research, the ultimate effectiveness of the activities of the dental library is determined by the availability of a sufficient number of highly qualified personnel. The science of medical librarianship, including all of the ramifications of scientific communication, is no less exacting and specialized than any other field or endeavor in the health professions. Although we do not have current statistics on the shortage of qualified medical and dental librarians, information that has been compiled by the National Library of Medicine indicates there is a net gain of only 40 trained medical librarians annually available to institutions engaged in health science education. This production must be expanded manifold if we are to have available the numbers and caliber of individuals already needed in our health educational institutions. The attrition of currently trained personnel and the addition of new institutions makes the demand for newly trained medical librarians even more acute.

RESEARCH AND DEVELOPMENT

One of the important objectives of H.R. 3142 is to make possible the implementation of modern automated systems of storing, processing, and retrieving information from publications related to biomedical sciences. The need for these systems is imperative if the public is to receive optimum benefit from research efforts which are being conducted in this field.

Today's inadequate storage and retrieval systems, which fail to make use of modern data processing techniques, force the conscientious researcher to spend needless hours, days, or even weeks searching for reports of related research. Even then a report containing valuable information may be unavailable or, because it is uncataloged, undetected. The phenomenal growth which has taken place during the past decade in biomedical research and the equally astounding progress which has been made in the fields of automatic information processing virtually demand that the prompt and extensive correlation of these concurrent developments be expedited. This is not, in the view of our associations, an attainment which can be realized without substantial assistance from the Federal Government. It is, of course, apparent to the committee that the application of modern information processing techniques in this field holds the potential not only for improving the amount and quality of scientific investigation but can also be expected to accomplish substantial economy in the saving of man-hours and physical space requirements. We endorse the contributions which H.R. 3142 would make toward the development of a modern information storage, cataloging, and retrieval systems for the literature of the biomedical sciences.

Finally, we urge support of a greatly expanded program of research and development in medical library science and related fields. The necessity for continuous study of improved techniques for communication is so obvious as to need no further support. It should be indicated, however, that the essential research and development which is needed in the science of communication in the health fields has not kept pace with the other important phases of health research, thus the modest contribution recommended in H.R. 3142 is particularly and urgently needed.

It is our understanding that the programs we are supporting will, as we have said, benefit medicine, dentistry, osteopathy, and public health. We have no doubt that this is the committee's understanding as well. Except with reference to section 394, however, this intention is not clear. Amendments directed

to this end, then, would be desirable. In particular, we believe that the term "medical library" and "medical library facilities" should be defined to include dental libraries and the term "physicians" should be defined to include dentists.

In conclusion, the American Association of Dental Schools and the American Dental Association urge the committee to give prompt and full support to this important legislation in the interest of the improved health of the people of the United States and, indeed, of the entire world.

Dr. PEARLMAN. The overall purpose of this bill is to improve communication of health information, in the public interest.

Communication is the key to progress in dental health service and practice, in research, and in education. For service can be improved and broadened to meet the expanding needs of a growing population only to the extent that new understanding, new methods, and new approaches that are evolved through research are rapidly communicated to the practitioners and health administrators who can put them into effective practice.

In dentistry, as in other areas of health, our capability has already fallen behind the needs created by the growing demand for service and the rapid increase in the output of information from the continually expanding activity in dental research. We have been doing our best to cope with these needs, but we do need substantial assistance with respect to library space and facilities, resources, personnel, information services, and research and development.

Of the 48 existing dental schools, 21 now have separate libraries; 27 share a library with either a medical school or a medical complex. In addition there are five new dental schools now in process of development. Recent surveys show that the average size of dental libraries is approximately 1,430 square feet, although at least 9,000 square feet are required for optimal function.

We don't have, at this time, a precise estimate of the cost of upgrading these facilities to an adequate level. Our estimate roughly would be \$350,000 to \$400,000 each for the dental schools. I would estimate roughly in the neighborhood of \$10 million in total will be required for this purpose.

I would like the privilege of submitting later a table which will provide to you more detailed estimates of the cost of construction.

The average size of the collections in the 21 separate dental libraries range broadly in size from a low of 3,700 volumes to a high of over 40,000, averaging approximately 13,000 volumes per library although 25,000 is a minimal recommendation.

Based on this average deficiency of 12,000 volumes for the 21 schools and an average cost of about \$13 per volume, there is a need for \$3.25 million in the existing schools alone just to build their collections to adequate size. Considering that the 27 dental libraries that are now shared with medical facilities need about the same, the total cost of raising existing collections to minimal levels of adequacy would be about \$6.5 million. In addition each of the 5 new dental schools can expect to spend about \$325,000 to acquire the basic 25,000 volumes, a total of approximately \$1,625,000. Accordingly, it would take \$8 million to establish minimally adequate dental library resources across the country.

These figures are exclusive of the cost of periodicals and serials, which in the dental field are continuing to increase both in number and in usage.

The shortage of library personnel will be alleviated substantially with the passage of this bill. Schools of library science are able to graduate only about 100 medical librarians per year. Sixty of these are already employed upon graduation, leaving only about 40 for whom medical and dental schools must compete. Each dental school should have at least two topnotch librarians. On that basis, the 21 existing schools plus the 5 new schools would absorb 31 of the available 40 immediately. Grants for training personnel would clearly be helpful.

There is a steadily increasing demand for library services from students, research scientists, from dental practitioners in general, and from physicians and hospital staff who seek information about diseases of the oral structures. Research and development of better library techniques are essential for dramatic improvement of such service.

There is a great and important need for research in communication and the transfer of information. Research is needed also in indexing and cataloging; in storage and retrieval methods and service; in improvement of reproduction of materials and of the distribution or disseminative services.

There is a need for more extensive microfilming, to provide secondary storage of material, quick access for reproduction and distribution and, secondarily, a method of saving space on volumes that may be discarded and on copies of borrowed material.

Special bibliographies and selected packages of material are needed regularly for use in the continuing education of the dentist, for research investigators and for others who demand them. Every dental library faces these pressures.

In addition, it seems highly desirable to begin now to establish regional libraries in certain areas if it is not practical immediately to have full-scale independent libraries at each school in the area.

The objective of the dental profession, in supporting H.R. 3142, is to benefit the public by providing better health service. This can be achieved only by closing the gap between research and development and the provision of better service by the practitioner and public health agencies.

In conclusion, the American Dental Association and the American Association of Dental Schools are pleased to support this bill and the important programs it would make possible. I should like to make one important point, however. It is our understanding that this bill is intended to cover medicine, dentistry, osteopathy, and public health in each and all of its sections. It is believed, however, that with respect to sections of the bill other than section 394 this intent is not entirely clear, and clarifying amendments would be extremely desirable. In particular we believe that the terms "medical library" and "medical library facilities" should be defined to include dental libraries and the term "physicians" should be expanded to include dentists.

The timeliness and necessity of this bill are quite obvious and have been noted by others who have testified before you. There has been exceptional expansion of research during the past several decades. There is continuing growth in the number of schools, which places heavier demand upon the dental libraries in terms of both quantity and activity. And the dentist himself needs to keep in touch with new information as well as he can in the face of a growing population which places more and more demands upon his time.

Mr. Chairman and members of the committee, we believe this is desirable legislation and should be enacted.

I am at your disposal, Mr. Chairman, to reply to any questions you may have.

The CHAIRMAN. Thank you very much, Dr. Pearlman, for your presentation here in behalf of the American Dental Association and the American Association of Dental Schools. Are there any questions by members of the committee?

We are very glad to have your statement.

Permit the Chair to inquire: Is there anybody here who is going to appear in opposition to this legislation?

If not, we will have Dr. Gordon Heath.

**STATEMENT OF DR. GORDON G. HEATH, PROFESSOR OF OPTOMETRY,
INDIANA UNIVERSITY, BLOOMINGTON, IND., REPRESENTING
THE AMERICAN OPTOMETRIC ASSOCIATION**

Dr. HEATH. Thank you, Mr. Chairman.

The CHAIRMAN. Dr. Heath, we are very glad to have your statement. I am going to suggest, however, as I have to the others, that your statement be filed for the record and you summarize it.

Dr. HEATH. I intend to do just that, Mr. Chairman. Thank you.

The CHAIRMAN. Very well. You may proceed accordingly.

Dr. HEATH. Just to identify myself, I am a professor of optometry at Indiana University, and chairman of the graduate school program in physiological optics there. I am also serving on two committees for the American Optometric Association, which organization I represent today. One of these committees is the committee on new academic facilities.

So, we have been greatly concerned with the planning for, among other things, the library facilities at new prospective schools of optometry throughout the country.

I am also past president of the Association of Schools & Colleges of Optometry.

Now both of these organizations, the American Optometric Association and the Association of Schools & Colleges of Optometry, are concerned about the present wording of the bill. We support the bill, but we are concerned about the definition within the bill of "sciences related to health."

This definition states that it includes medicine, osteopathy, dentistry, public health, and fundamental and applied sciences when related thereto.

We do not believe that it was the intent of the authors of the bill to exclude optometry from any of the provisions of the bill, but interpretation of the present wording could omit this health care specialty, and therefore we respectfully request that on page 3, section 391, line 22, after the word "dentistry" the word "optometry" be inserted. This amendment will in no way change the intent of the bill, but simply continues the precedent that Congress established in the Health Professions Educational Assistance Acts of 1963 and 1965.

Now libraries in the optometry schools and colleges are unique because they are so very interdisciplinary. The materials in these libraries are selected from a great many other disciplines, physics, mathematics, biological sciences, as well as the strictly optometric

publications. So, a properly constituted optometry library represents a very careful and very specialized collection of both volumes and periodicals.

Currently our optometry libraries have been developed and maintained almost exclusively in the optometry schools and the universities that have schools of optometry. These libraries are used widely by others than optometrists. Any individual working in science fields in research or in the applied visual science areas very frequently tap these optometry library sources simply because the personnel are there and are familiar with the materials and are able to render more specialized aid than they can obtain through the central libraries.

Mr. Chairman, you have requested also that we supply data in terms of dollar needs. I have supplied some data on the sizes and facilities of libraries in my submitted statement. I would like the privilege of submitting later to you a summary so far as it can be determined from our schools of their needs translated into dollars for the purposes of your committee.

The CHAIRMAN. How much time would you need?

Dr. HEATH. I think within the next week I can submit that.

The CHAIRMAN. That will be too late.

Dr. HEATH. Within the next 3 days?

The CHAIRMAN. Yes, we would want it this week.

Dr. HEATH. All right. I will endeavor to get those figures for you.

(The information referred to follows:)

Estimated library facilities needed by optometry, next 5 years

Section number	Current provisions	Estimated need	Additional cost (all schools)
393—Construction	1,600 square feet ¹	² 8,000	\$1,540,000
394—Training (personnel):			
(1) Graduate work	None	10	35,000
(2) Retraining	do.	5	12,500
(3) Training improvements			
(4) Internships	None	3	15,000
395—Special projects	\$2,500 (1 school)	3	15,000
396—Research and development	None	5	45,000
397—Improvement and expansion:			
(a) Books	3,000 ¹	² 7,500	540,000
Journals	600 ¹	² 1,000	10,000
(b) Cataloging	Not available		50,000
(c) Equipment	do.		150,000
398—Regional libraries			
399—Publications	\$50,000	\$80,000	30,000
Total			2,442,500

¹ Current provisions for each of present 10 schools and colleges of optometry.

² Estimated need for each of present 10 schools and colleges of optometry.

³ Square feet.

NOTE.—Figures based on provisions contained in H.R. 3142 (Medical Library Assistance Act of 1965).

Dr. HEATH. Now our plight is severe in the optometry libraries. It is a great deal smaller than that for the medical schools simply because we are numerically smaller and our holdings are smaller. So, in terms of dollars this is perhaps only a very small part of the total bill, the total need, but nevertheless to those working in this area it is an important feature.

Now we do heartily endorse the aims of this bill, and we respectfully urge its adoption and the adoption of the amendment that we have proposed.

Thank you, Mr. Chairman.
(Dr. Heath's full statement follows:)

STATEMENT BY GORDON G. HEATH, O.D., PH. D.

Mr. Chairman and members of the committee, I am Gordon G. Heath and I live at 1206 Longwood Drive, Bloomington, Ind. At Indiana University my position is that of professor of optometry, and I also serve as chairman of the graduate school program in physiological optics.

I am here today as a representative for the American Optometric Association. Two association committees on which I serve are the committee on visual problems of children and youth and the committee on new academic facilities. The academic facilities committee works for the much needed establishment of several new schools and colleges of optometry at appropriate universities.

Also, I am past president of the Association of Schools and Colleges of Optometry, an association of the schools and colleges accredited by the Council on Optometric Education. This council is recognized by the National Commission on Accreditation and the U.S. Office of Education as the accrediting body for optometric education.

Both the American Optometric Association and the Association of Schools and Colleges of Optometry are concerned about the current wording of H.R. 3142. As now written the bill defines the term "sciences related to health" includes medicine, osteopathy, dentistry, and public health, and fundamental, and applied sciences when related thereto."

We believe the bill should include optometry in all of its provisions. Interpretation of the present wording could omit this health care specialty. Therefore, we respectfully request that on page 3, section 391, line 22, after the word "dentistry" the word "optometry" be inserted.

The amendment in no way changes the purpose of this legislation, but instead continues the precedent Congress established when it recognized optometry as a health care profession by inclusion in the Health Professions Educational Assistance Act of 1963. Optometry is also included in the Health Professions Educational Assistance Amendments of 1965, legislation on which the Senate held hearings only last week. We feel that the insertion of the word "optometry" will prevent any future misunderstanding of congressional intent.

The purpose of this bill, as we see it, is to improve communication. Communication between educational institutions and health care practitioners; communication between members of various health care disciplines; communication between students, researchers, and educators, and the population. This bill should help build communications between disciplines most concerned with the art and science of vision.

Libraries in optometry schools and colleges are unique because of the interdisciplinary nature of the profession. Our needs cannot be served by a general collection, but require instead careful selection from such fields as physics, psychology, and physiology, as well as the strictly optometric publications.

The wide range of materials which every optometry school should have available is exemplified by the attached listing (attachment A). Compiled by the Lionel Topaz Memorial Library of Visual Science at Ohio State University School of Optometry, the listing includes anatomy of the eye and nervous system, physical optics, metallurgy, and vision in art and industry, to mention just a few.

That optometry libraries serve a health service area of unusual importance is illustrated by action taken last year by the Indiana University Faculty Library Committee. With administrative status equivalent to the 13 other university branch libraries on campus, the university established an optometry library branch with a fully qualified librarian in charge. The action is more significant because the optometry collection represents only 4,000 items—expected to double within the next 10 years—in a university library system of almost 5 million volumes and over 100 academic departments and schools. It should be noted that the optometry branch library is the first addition by the committee in 27 years.

Currently, optometry libraries have been developed and maintained almost exclusively in connection with optometric training programs. Through cooperation of an optometric librarians' association and interlibrary loan arrangements, they have provided a resource for visual science information not provided by even the Library of Congress or the National Library of Medicine.

Many agencies, researchers, and students, unable to obtain desired information elsewhere, regularly tap these optometry libraries. In 1954 under the auspices of the Association of Schools and Colleges of Optometry, the libraries of the member institutions drew up an agreement whereby each agreed to—

(1) Gather and preserve all serial publications published in an assigned geographical area primarily related to any or all phases of visual science; and

(2) Make these publications available to all other libraries through the interlibrary loan arrangement.

Well over 200 periodicals are thus regularly preserved and made available to each library. Some of the publications are ophthalmic house organs, others publications of professional societies and organizations of the blind, and others promotional periodicals distributed by ophthalmic supply laboratories which often contain valuable technical information and statistics.

While serving as editor of the *Indiana Journal of Optometry*, I became acutely aware of the importance of library holdings. There were seven early issues of the *Journal* missing, and a 3-year search failed to turn up the missing publications. We were, therefore, unable to complete our set and reluctantly concluded available copies simply did not exist.

Anyone familiar with library development knows that to establish and maintain a worthwhile library both funds and hard work are essential. While libraries of optometry schools and colleges make a diligent and conscientious effort to acquire current publications and build their collections, they simply do not have the funds to do all they should. Attachment B shows totals of library materials as of 1964. At best, optometry school libraries today offer only limited facilities.

In the future there will be more demands from students, from research personnel, and from practitioners for library services. To fill the demands libraries must develop and improve their facilities and collections. They must refine their systems for indexing and cataloging. They must develop procedures for housing discarded volumes and reproduction of materials. To provide the vision care the American people have rightfully come to expect, we must have the tools to provide both the care and the research so essential to that care. Libraries in the health care field should be equipped to provide the needed information.

Whether it be microfilming for discarded volumes or data processing for cataloging, the facilities must be available.

Because of the need for improved and up-dated library facilities at each of the country's schools and colleges of optometry, we strongly urge adoption of the proposed amendment and passage of the amended legislation.

ATTACHMENT A

ESSENTIAL OPTOMETRIC RESEARCH MATERIALS

(Compiled by Lionel Topaz Memorial Library of Visual Sciences,
Ohio State University School of Optometry)

1. Anatomy of the eye and nervous system.
2. Physiology of the eye and nervous system.
3. Comparative anatomy and physiology of the eye and comparative psychology of vision.
4. Physiological optics, including sensory mechanism of vision, the functions of the intraocular and extraocular muscles, and the image-forming mechanism of the eye.
5. Experimental psychology, including psychological optics.
6. Educational and industrial psychology.
7. Physical optics.
8. Meteorological optics.
9. Photography.
10. Geometrical optics.
11. Design, use, and manufacture of optical instruments.
12. Manufacture and dispensing of eyewear.
13. Manufacture and testing of optical glass.
14. Metallurgy, with special reference to metals used in the design of eyewear and optical instruments.
15. Eye examinations and visual testing and training.
16. Diseases of the eye and orbit and of the nervous system.

17. Illuminating engineering, including colorimetry.
18. Vision in art and industry.
19. Social, legal, economic, and professional aspects of eye care.
20. Dictionaries, handbooks, and books on statistics and mathematics used by researchers in the field of visual science.

ATTACHMENT B

Library holdings of 10 schools and colleges of optometry for 1964

Name of institution	Books and monographs	Periodicals	Other
Ohio State University	1,560	870	50
Los Angeles College of Optometry	3,200	700	400
Southern College of Optometry	4,378	767	31
University of Houston	200	100	200
Pennsylvania College of Optometry	6,800	1,000	100
Illinois College of Optometry	5,300	550	2,500
University of California	2,000	500	100
Massachusetts College of Optometry	3,000	600	300
Pacific University	1,400	580	
Indiana University	2,100	400	1,000
Total	29,938	6,067	4,681

The CHAIRMAN. Thank you very much. I am sure that you can, and will be given able assistance by the young man sitting to your right whom you have not yet identified.

Dr. HEATH. This is Mr. William McCracken. I think he is well known to all the members of this committee. He serves as Washington counsel for the American Optometric Association.

The CHAIRMAN. We are glad to have you again.

STATEMENT OF WILLIAM McCracken, WASHINGTON COUNSEL, AMERICAN OPTOMETRIC ASSOCIATION

Mr. McCracken. Thank you, Mr. Chairman.

As I listened to the testimony this morning, I could not help but be impressed with the fact that vision is the keystone of the utilization of all the libraries, whether it is medicine, law, education, or what. Optometry is the science of vision. So I think it should be included.

The CHAIRMAN. Very good.

Mr. SPRINGER. Mr. Chairman, I would like to ask, Doctor, in your attachment B, Illinois College of Optometry has more than half of all the other library holdings under "other." Is there a reason for that?

Dr. HEATH. This is a summary that the schools put together without careful definition of all items that might come under "other." So this perhaps represents a categorical switch. You see, some of these might be classified as periodicals by the other schools. On the other hand, the Illinois College of Optometry also serves as a repository for the archives of several optometric associations or groups within optometry and the Association of Schools and Colleges of Optometry, for example, has its archives deposited in that library.

That would be one reason for an unduly large number of "other" materials at that particular repository.

Mr. SPRINGER. Thank you.

The CHAIRMAN. Mr. Pickle.

Mr. PICKLE. I just want to add my word of thanks to Dr. Heath and Mr. McCracken for being with us. I think your request is in line, and I hope the committee will keep that in mind when it considers it.

Mr. VAN DEERLIN. Dr. Harry Malin, who is your association spokesman in San Diego, Calif., called me to say that they wanted this language included that you have indicated. He says that, even without this language, he would expect that optometry would automatically be included. This would be an assumption on their part. This is an assumption on which you don't rely too strongly?

Dr. HEATH. That is correct, sir.

Mr. VAN DEERLIN. You would like to have it spelled out?

Dr. HEATH. We think that to be specifically included avoids any possible later misinterpretation of congressional intent.

Mr. VAN DEERLIN. Thank you.

The CHAIRMAN. Thank you very much. We are pleased to have your statements.

I think we will give opportunity, if there is no objection, to anyone who would like to file a statement for the record or who would like to supplement his statement for this record. The record will be held open this week for that purpose.

The next witness will be Mr. Charles O. Reville, Jr., vice president in charge of sales, and you have with you Mr. Lyle Lodwick, director of marketing of the Williams & Wilkins Co., Baltimore.

STATEMENTS OF CHARLES O. REVILLE, JR., VICE PRESIDENT IN CHARGE OF SALES, AND LYLE LODWICK, DIRECTOR OF MARKETING, WILLIAMS & WILKINS CO., BALTIMORE, MD.

Mr. REVILLE. Mr. Chairman, mine is a summary statement.

The CHAIRMAN. Your statement which you have passed around will be included in the record.

Mr. REVILLE. Yes, sir. And since it contains some points that have not been touched on before, I will read partially from it, but in consideration of the people who will follow me, I will skip a good deal of it.

The CHAIRMAN. All right.

Mr. REVILLE. I am Charles O. Reville, Jr., and with me is my colleague Lyle Lodwick. I am vice president for sales and Mr. Lodwick is director of marketing of the Williams & Wilkins Co., of Baltimore, Md., which is a private corporation devoted primarily to the publication and distribution of medical books and journals.

Medical education and communications, as represented by books and journals, are our stock in trade, and medical library facilities are essential links in this chain of communications. Obviously the passage of H.R. 3142 would have a direct and desirable effect on our financial well-being. A portion of increased funds available for book and journal acquisition—dependent on the value of our publications and our abilities to produce and distribute them—would certainly show up favorably in our sales figures. Even if we did not agree entirely with the compelling philosophical, educational, and humanistic arguments for this bill, the effect of it on our own profit-

and-loss statement would incline us toward at least considering endorsement. All considered, we are more than inclined.

The Williams & Wilkins Co., like so many of our good friends in medical education, strongly supports the intent and purposes of H.R. 3142.

We would ask, however, that an amendment be added as follows in section 397 on page 18 following line 24:

(C) to refrain from purchasing from foreign booksellers those publications originating outside the United States when these publications are available through recognized trade channels domiciled within the United States.

This amendment is quite frankly aimed at a practice in the publishing industry known as "buying 'round." Buying 'round occurs when a publisher or agent such as ourselves contracts with a foreign publisher to sell a book or a series of books in the United States, such titles being originally published outside the United States. And, after the agent assumes in one way or another all risks and cost of importing—including duties—plus warehousing and extensive promotion, we are bypassed or brought 'round by the book buyer and the sale is consummated not by us, the agent, but by a bookseller in London or somewhere else outside the United States. Estimates in the medical library market alone range from \$200,000 to \$400,000 annually in this type of business. Now this may seem a very minor amount of dollars in this era of the "megabuck," but it all depends on whose ox is being gored. At the moment, along with other U.S. publishers and booksellers, our corporate ox is being gored by a frisky yearling. But, given the passage of this bill, which we endorse—coupled with such factors as the almost algebraic increase in scientific information and the need to retrieve it—we will wind up being wounded by a full-grown bull.

Beside this threat to our own pocketbook, we feel there are very clear principles involved.

First of all, the practice of buying 'round by librarians, institutions, and others contributes to the dollar drain and, even if in a small way, to the depletion of our country's gold reserves. We're sure it is not the intent of H.R. 3142 that these funds be spent directly outside the United States.

Secondly, when books are purchased directly from overseas by libraries, while in theory the books are dutiable, in practice rarely is any duty collected by the post office. But, as purchasers of large lots for resale, we must pay a duty currently set at 4 percent. Increased buying 'round continues to remove this source of revenue from the U.S. Treasury.

Thirdly, when we import unfinished books—as is our majority purchase—the finishing of these products supplies good taxpaying jobs. The allowance or even the tacit endorsement of direct sales from overseas to our libraries removes this wage-earning potential. It is common practice to have a "buy American" clause in Federal contracts. Why not in a bill supporting medical libraries?

Fourth, as a small business we are part of a distribution system of small businesses. On this very committee the States represented by you gentlemen account for 60 percent of the active medical schools in the United States. Each one of these is served by a local bookstore or distributor who is bypassed if a library buys directly from overseas. Isn't it desirable that Federal funds allocated locally should be,

wherever possible, expended locally, creating employment and tax revenue locally?

From the economic point of view, the medical book distribution industry in the United States has been a strange sort of an hermaphrodite by necessity rather than design. The manufacturer (i.e., publisher) is forced to sell directly to the purchaser as well as through bookstores. A strong bookstore-distributor complex seems desirable for medical communication as well as for local enterprise. We as a corporation have made positive efforts in this direction. Certainly it is not the intent of H.R. 3142 to condone the weakening of local, small business by tacitly allowing buying 'round.

Fifth, we feel that without a restrictive amendment to H.R. 3142, scientific communication will suffer indirectly. As mentioned above, the much-needed bookstore complex will be discouraged. But also the efforts of the U.S. agent/publisher makes known by direct mail, advertising, Library of Congress cataloging, and other sources the availability of various publications. When publications are bought 'round, the fruit of these efforts by U.S. publishers and bookstores go directly outside the American economy.

Aside from contributing to the economy by the sheer mechanics of "making known," we are also contributing to the scientific societies by advertising imported publications in their periodicals and displaying them at their meetings. Increased buying 'round can significantly decrease or even eliminate these meaningful promotion expenditures. Will commensurate efforts and expenditures come into the United States from booksellers overseas? Not likely.

Sixth, it would seem to be in the general interest of the libraries and the medical community in general to discourage buying 'round. With the increasing threat removed or diminished, publishers could afford to import larger quantities, promote with more assurance and—with the added sales now escaping over the transom—lower prices.

In summary I would like to say that we urge this amendment be added. It would reduce the U.S. dollar drain, increase customs revenue, encourage small business.

We are here to answer any of your questions. Thank you
(Mr. Reville's full statement follows:)

STATEMENT OF THE WILLIAMS & WILKINS CO., BY CHARLES O. REVILLE, JR.

Mr. Chairman and members of the committee, I am Charles O. Reville, Jr., and with me is my colleague, Lyle Lodwick. I am vice president for sales and Mr. Lodwick is director of marketing of the Williams & Wilkins Co., of Baltimore, Md., which is a private corporation devoted primarily to the publication and distribution of medical books and journals.

Medical education and communications, as represented by books and journals, are our stock in trade, and medical library facilities are essential links in this chain of communications. Obviously the passage of H.R. 3142 would have a direct and desirable effect on our financial well-being. A portion of increased funds available for book and journal acquisition (dependent on the value of our publications and our abilities to produce and distribute them) would certainly show up favorably in our sales figures. Even if we did not agree entirely with the compelling philosophic, educational, and humanistic arguments for this bill, the effect of it on our own profit and loss statement would incline us toward at least considering endorsement. All considered, we are more than inclined.

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Besides this threat to our own pocketbook, we feel there are very clear principles involved.

First of all, the practice of buying 'round by librarians, institutions, and others contributes to the dollar drain and, even if in a small way, to the depletion of our country's gold reserves. We're sure it is not the intent of H.R. 3142 that these funds be spent directly outside the United States. Second, when books are purchased directly from overseas by libraries, while in theory the books are dutiable, in practice rarely is any duty collected by the Post Office. But, as purchasers of large lots for resale, we must pay a duty currently set at 4 percent. Increased buying 'round continues to remove this source of revenue from the U.S. Treasury.

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From the economic point of view, the medical book distribution industry in the United States has been a strange sort of a hermaphrodite by necessity rather than design. The manufacturer (i.e., publisher) is forced to sell directly to the purchaser as well as through bookstores. A strong bookstore-distributor complex seems desirable for medical communication as well as for local enterprise. We as a corporation have made positive efforts in this direction. Certainly it is not the intent of H.R. 3142 to condone the weakening of local, small business by tacitly allowing buying 'round.

Fifth, we feel that, without a restrictive amendment to H.R. 3142, scientific communication will suffer indirectly. As mentioned above, the much-needed bookstore complex will be discouraged. But also the efforts of the U.S. agent/publisher makes known by direct mail, advertising, Library of Congress cataloging and other sources the availability of various publications. When publications are bought 'round, the fruits of these efforts by U.S. publishers and bookstores go directly outside the American economy. Aside from contributing to the economy by the sheer mechanics of "making known," we are also contributing to the scientific societies by advertising imported publications in their periodicals and displaying them at their meetings. Increased buying 'round can significantly decrease or even eliminate these meaningful promotion expenditures. Will commensurate efforts and expenditures come into the United States from booksellers overseas? Not likely.

Sixth, it would seem to be in the general interest of the libraries and the medical community in general to discourage buying 'round. With the increas-

ing threat removed or diminished, publishers could afford to import larger quantities, promote with more assurance and—with the added sales now escaping over the transom—lower prices.

It might be well to speak about prices at this point. Are imported books priced higher when bought in this country than when bought directly from abroad? Of course they are, on an average of about 35 percent higher. If they weren't, why then a good deal of the reasons for buying 'round would be removed. And why are these prices higher? For about the same reasons that we pay more in the United States for Volkswagens, Scotch whisky, and indeed for hospital beds, appendectomies and the services of librarians, as well as the wages of publishers. Speaking of Volkswagens and Scotch whisky, can any one of us order by mail either of these commodities and have them sent to us duty free at the price charged in the country of origin? I doubt it. But a medical or scientific book can be bought in precisely that manner.

Is it the intent of H.R. 3142 to encourage such practices? We think not. Therefore we urge that you consider the adoption of the aforementioned proposed amendment. Such action would—

- (a) Reduce the U.S. dollar drain;
- (b) Increase custom revenue collected by the Bureau of Customs;
- (c) Encourage and promote small business;
- (d) Enhance the medical publications distribution system and hence medical communications; and
- (e) Ultimately lower the list price of imported books distributed in the United States.

Also, such efforts against buying 'round have the endorsement of overseas publishers. In some cases, the U.S. market accounts for 40- to 50-percent of the entire foreign publishers' output. Most statements indicate that these foreign publishers feel that strong, unencumbered U.S. agents are desirable.

Finally, we're certain the Williams & Wilkins Co. as well as other U.S. publishers, will benefit and for this we'd be grateful.

Mr. Chairman and members of the committee, we have appreciated and enjoyed this opportunity to present our views on this very important legislation. We will gladly attempt to answer any questions the committee may have.

Mr. O'BRIEN. Mr. Chairman, I think one question should be asked: Are you aware of the provision on page 18 which provides that grants under this section shall be made only to medical libraries which agree to make available photoduplicated or facsimile copies of biomedical material which qualified requesters may obtain? You are publishers of biomedical books and journals. Do you regard this service by libraries as good or bad for your business?

Mr. LODWICK. I would like to answer that. We have been previously testifying on a completely different bill, the copyright law, and photoduplicating is a live issue. If the libraries are going into economic competition with the authors, scientific societies or publishers who are publishing scientific books and journals which the libraries use, I think then appropriations for this section should be reviewed very carefully.

I think really the responsibility is on the National Library of Medicine, the Association of Medical Colleges, the Medical Library Association, to insure that books and journals will not go out of business because of this economic competition by the photoduplicating and other facsimile machines.

Mr. O'BRIEN. You think it is more a matter of agreement, courtesy, and understanding than to attempt to draft any specific language?

Mr. LODWICK. Precisely, sir.

Mr. O'BRIEN. Thank you.

The CHAIRMAN. Thank you very much.

Mr. REVILLE. Thank you, Mr. Chairman.

Mr. MACDONALD (presiding). The editor and secretary of the Council on Education of the American Podiatry Association, Dr. Rubin.

STATEMENT OF DR. ABE RUBIN, EDITOR AND SECRETARY OF THE
COUNCIL ON EDUCATION, AMERICAN PODIATRY ASSOCIATION,
WASHINGTON, D.C.

Dr. RUBIN. With your permission, sir, if I may have the full statement incorporated in the record, I will limit my remarks to a very short summation.

I am Abe Rubin, D.S.C., a doctor of podiatry, executive secretary of the Council on Education of the American Podiatry Association and editor of Journal of the American Podiatry Association. With me is Mrs. Thomas Boyd, B.S., M.L.S., librarian of the Stickel Memorial Library of the American Podiatry Association.

Our colleges and our associations support fully this legislation. Aware of the very wide support for the legislation, we have limited our presentation to a discussion of podiatry college needs and the extent of this need. This is presented in the table in exhibit A.

We also raise the same question that some of the others voiced here as to whether or not this legislation extends the opportunity for Federal support to our libraries. We are suggesting two minor amendments should they be necessary to assure this opportunity to our colleges to help them better serve our students, faculties, practitioners, and through them the health of the Nation.

We thank you for the opportunity of presenting our views to you and will feel privileged to answer any questions you may have.

Mr. MACDONALD. Are there any questions?

Thank you very much for your statement, sir.

Dr. RUBIN. Thank you, Mr. Chairman.

(Dr. Rubin's statement follows:)

STATEMENT OF THE AMERICAN PODIATRY ASSOCIATION, BY DR. ABE RUBIN

Mr. Chairman and members of the committee, I am Abe Rubin, D.S.C., a doctor of podiatry, executive secretary of the Council on Education of the American Podiatry Association, and editor of Journal of the American Podiatry Association. With me is Mrs. Thomas Boyd, B.S., M.L.S., librarian of the Stickel Memorial Library of the American Podiatry Association.

The American Podiatry Association is a voluntary, nonprofit federation of 52 component societies. The association's council on education, which I represent here today, is listed by the Commissioner of Education, U.S. Department of Health, Education, and Welfare as the national accrediting agency for the five podiatry colleges. Three of the colleges are more than 50 years old. One celebrates its 50th anniversary next year, and one will graduate its 1st class in 1967. The colleges are all private, independent, nonprofit institutions. The minimal education program is 4 years of podiatry college after 2 years of undergraduate work.

We appear before you today to express the interest and support of the podiatry profession and its colleges in the legislation you are considering as H.R. 3142 and similar and related legislation.

In 1960, the podiatry profession established a special commission to examine in depth the whole program of podiatry education. This commission was chaired by William K. Selden, LL. D., executive secretary of the National Commission on Accreditation. Besides the chairman, this commission consisted of three educators from the field of higher education (nonpodiatrists); one doctor of medicine (a medical educator); and a member of the board of trustees of a podiatry college. This commission was organized to examine from a broad point of view, the profession's educational program and advise on steps necessary to improve this program. In fulfilling the latter part of this obligation—i.e.,

recommendations for the future, the Selden commission made the following statements on library needs:

It is recommended that each college of podiatry—

- (a) Increase the space in the library to provide adequately for reading and reference purposes, and for shelving of books;
- (b) Increase the number of volumes and periodicals on a selective basis;
- (c) Bind and file back issues of periodicals;
- (d) Catalog and index all library holdings; and
- (e) Employ a professionally trained librarian on a full-time basis.

Recently, the staff of the council on education made a study of the five podiatry colleges in order to compare existing conditions with the recommendations of the Selden commission made in 1961. The fact remains that progress is being made but at a pace alarmingly slow. Figures on the attached exhibit A show that library conditions in our colleges have an average deficit in space needs of 4,097 square feet; an average deficit in volume needs, of 8,541.

The need to expand the libraries in our podiatry colleges is vital. In the last 5 years our college enrollments have risen 40 percent, operating costs have risen 131 percent, and average cost of education per student has nearly doubled. Our students must, in most cases, travel considerable distances to avail themselves of adequate library facilities because the podiatry college libraries cannot meet their needs—an obviously unsatisfactory arrangement.

Our 5 colleges of podiatry have a total enrollment of 625 students. To provide the number of podiatrists needed by 1980, podiatry colleges will have to graduate about 600 students annually beginning with 1968. This is approximately three times their present capacity.¹ One very real factor in the need for more podiatrists is the rapidly expanding older population.² Two-thirds of all patients requiring podiatry care are over 45 years of age. The libraries in our podiatry colleges must grow and must grow rapidly.³ Basic collections need to be revised and enlarged; budgets must be expanded to purchase all latest literature on foot health; and additional professional personnel must be employed to organize and administer such libraries.

The Health Professions Educational Assistance Act of 1963 provides podiatry colleges with the opportunity to participate in support being provided by the Federal Government for expansion and improvements in education for the health professions. We urge that your committee amend the language of the present legislation to provide the same opportunity for their libraries as proposed by H.R. 3142. This can be accomplished with two simple amendments and these are attached in exhibit B.

The podiatry profession fully supports the need of the legislation known as Medical Library Assistance Act of 1965 and thanks you for the opportunity of presenting this opinion to you.

It will be a privilege to answer any questions you may have.

EXHIBIT A

Library deficits for the 5 podiatry colleges (1st-year enrollment ranges from 40 to 60 students)

	Present average size	Suggested standard ¹	Average deficit	Average cost ²	Total cost
Space	2 1,903	2 6,000	2 4,097	\$163,880	\$819,400
Library collection	4 1,459	4 10,000	4 8,541	111,033	555,165

¹ Based on council on education's suggestions for minimal library requirements.

² Based on GSA figures from "Program for Developing Medical Libraries," President's Commission on Heart Disease, Cancer, and Stroke, February 1965.

³ Square feet.

⁴ Volumes—which means books and serials (serials includes periodicals, annual reports, yearbooks, proceedings, and transactions of societies).

¹ Blaich, Lloyd E., Ph. D. Number of podiatrists needed. Journal of the American Podiatry Association. 55: 356-359, 1965.

² Rubin, Abe, D.S.C. Enrollment, spaces, manpower shortages and projected podiatry construction. Journal of the American Podiatry Association. 54: 709-712, 1964.

³ Fuchsberg, Robert R. Report presented to the 1965 annual meeting of the American Podiatry Association (in preparation for publication). (Mr. Fuchsberg is on the staff of the National Center for Health Statistics.)

EXHIBIT B

PROPOSED AMENDMENTS TO H.R. 3142

Page 3, line 20, after the word "dentistry" add the word "podiatry".

Page 14, line 19, after the word "physicians" add the words "and podiatrists".

Mr. MACDONALD. Mrs. Phyllis V. Parkins, Director, BioSciences Information Service, Philadelphia.

**STATEMENT OF PHYLLIS V. PARKINS, DIRECTOR, BIOSCIENCES
INFORMATION SERVICE, PHILADELPHIA, PA.**

Mrs. PARKINS. Mr. Chairman, members of the committee, I am very pleased to be able to present a brief statement on behalf of Biological Abstracts, as representing one of those biomedical publications I think are referred to in section 399 of the proposed legislation.

I do not know whether an abstracting and indexing service is very familiar to the members of the committee or not. Our chief product is a journal published semimonthly and covering well over a hundred thousand, that is, analyzing and publishing abstracts of well over a hundred thousand research articles in the life sciences. So you can see it is a very large area of world literature that is covered and much of it is biomedical in importance.

Approximately half of our supporting subscriptions come from abroad. I think perhaps the committee might like to know that Biological Abstracts, in this country, is the world's largest and most important abstracting service in the life sciences, located in Philadelphia, and more precisely, on the campus of the University of Pennsylvania where Dr. Luther Terry will be residing in the near future.

We have been greatly concerned that financial support of those existing services that are widely used to further the dissemination of information in the medical sciences would not be included under the provisions of this act. Our fears may be groundless. The wording in section 399, as I pointed out in my submitted statement, refers only to those publications that are associated with institutions of higher education; yet there are many nonprofit, active information disseminating services that are not directly associated with institutions of higher education.

In general, and certainly I can say it more boldly than that, we do endorse this legislation as being a very forward move in furthering the communication of information in the medical sciences, which is very important to the future advance of medical practice.

Mr. MACDONALD. Thank you very much.

Are there any questions?

Mr. VAN DEERLIN. Mr. Chairman, I did not get what the witness' fear was.

Mrs. PARKINS. It is presented in detail in my formal statement, sir, and perhaps we had better not use the time for reading it precisely.

Mr. VAN DEERLIN. Thank you.

(The statement presented by Mrs. Parkins follows:)

STATEMENT OF BIOSCIENCES INFORMATION SERVICE OF BIOLOGICAL ABSTRACTS, BY
PHYLLIS V. PARKINS, DIRECTOR

Mr. Chairman, and members of the committee, in general, H.R. 3142 (Harris) represents an extremely forward-looking effort toward strengthening the health services of this country, in our opinion. Communication of new knowledge in the medical and related sciences is indeed basic to its application in bettering the health of our own citizens and peoples everywhere.

On behalf of BioSciences Information Service of Biological Abstracts, however, and in the interest of other nonprofit organizations and societies in a similar situation with respect to the proposed legislation, I wish to bring to your attention wording in H.R. 3142 (Harris) that would appear to be in conflict with the stated purpose of this bill.

Please refer to section 399—"Financial Support of Biomedical Scientific Publications," page 20, lines 18 to 25, continued as lines 1 and 2 of page 21. More specifically, I would call to your attention lines 21 and 22, beginning "contracts with, public or private nonprofit institutions of higher education and individual scientists * * *." Since several of the "biomedical publications of a nonprofit nature," and "writing, editing, and publication of reviews, abstracts, indexes * * *" are almost wholly sponsored by scientific societies and (or) private nonprofit organizations, rather than by "institutions of higher education and individual scientists," the present wording of the bill would exclude a large number of societies and organizations sponsoring existing biomedical publications and information services from receiving financial assistance in the proposed program. As a consequence of their exclusion the purposes of the bill under consideration would be seriously impaired. In actuality, apart from libraries and library services, very few information activities (nonprofit scientific journals or abstracting and (or) indexing publications) are sponsored or controlled by institutions of higher education.

Permit me to use Biological Abstracts as one example of a nonprofit organization that might be ineligible for aid in furthering the communication of biomedical information—under the provisions of the bill as it is worded at present. Yet in 1965 our chief publication, Biological Abstracts and its indexes, published semimonthly, will present indexed abstracts of at least 110,000 research articles, the bulk of which can be classed as biomedical in content. In addition, a publication to appear for the first time this month—BioResearch Titles will index and include complete references for another 20,000 research articles not represented in Biological Abstracts. For 1966—120,000 indexed abstracts are planned; 60,000 additional articles will be represented in BioResearch Titles.

Biological Abstracts has been published continuously since 1926, and is now the world's largest and most comprehensive abstracting and indexing service of its kind. It is widely used as an information tool in biomedical research, both here and abroad.

In view of the sizable effort required to support biomedical scientific publications, and in the interest of the national economy, I feel certain it was not the intention to deny financial assistance to existing publications of vital importance to biomedicine. There are a great many, both primary and secondary, that can contribute substantially to the aims and goals represented by Bill H.R. 3142 (Harris).

As evidence, permit me to submit copies of Biological Abstracts, current abstract issues and indexes, for examination of the committee. Included, also, are an outline of subjects covered in Biological Abstracts, and a breakdown of proportionate coverage by subject for the preceding year.

Mr. MACDONALD. Mr. William Budington, Special Libraries Association, Chicago, Ill.

STATEMENT OF WILLIAM S. BUDINGTON, SPECIAL LIBRARIES
ASSOCIATION, CHICAGO, ILL.

Mr. BUDINGTON. Thank you, Mr. Chairman.

I would like to make three very brief points which are amplified in the statement which I trust may be included in full in the record.

Mr. MACDONALD. Without objection, that may be done.
(The statement follows:)

STATEMENT OF WILLIAM S. BUDINGTON, IN BEHALF OF THE SPECIAL LIBRARIES ASSOCIATION

My name is William Budington. I am associate librarian of the John Crerar Library in Chicago; this is a private organization providing free public library services in science, technology, and medicine, and is the largest such public library in this country. I am here to present the views of the Special Libraries Association, of which I am the past president. This association is composed of some 6,100 members who are librarians and information specialists employed in private and public organizations and institutions, including industrial, academic, association, and independent nonprofit activities.

Our association wishes to express its wholehearted support of H.R. 3142. In its "declaration of policy and statement of purpose," the bill itself pinpoints the needs for action. It is hardly necessary for me to speak again of the rate at which scientific research is outpacing itself, in terms of utilization of known facts, old and new. In the health sciences, this is especially critical in today's context of concern for our Nation's health and the continuing welfare of our citizens. While we are accustomed to support research activity, we have not provided adequately for dissemination and availability of generated results. To insure prompt and effective use of our new skills and knowledge, it is essential that the creation, recording, bibliographic control and availability of medical knowledge be assured; this requires federalized, coordinated support at each phase of the communicative chain in this vital area.

Of all areas of scientific communication, medicine is presently seeing perhaps the most interesting advancement, through work at the National Library of Medicine. Through experimentation, and in current applications, we are witnessing application of computer technology and mechanization to the storage and rapid dissemination of data and ideas. The proposed legislation will promote a network of facilities which will be largely autonomous and soundly prepared; yet they will be continually infused and mutually supportive in seeing that the needed, correct and latest information is always ready, anywhere in our country.

Support of libraries and information activity is commonly seen as building more buildings and buying more books. These are indeed basic. But present and future needs reflect even more basic changes. It is not sufficient to buy a book, shelve it and maintain silence around it. Today's librarians and information specialists are only secondarily interested in a book as a container; they are vitally concerned with its content and, as expressed by our association slogan, with "putting knowledge to work." Creation of such content and knowledge in the biomedical sciences has been spurred by Federal expenditures; in this subject area alone, such support now totals more than \$1 billion per year in sponsored research. In virtually no instances have these grants provided for libraries or for increased facilities in the supply and flow of information. Operating budgets and added space for libraries has had to come from institutional funds, and you will be hard put to find much evidence of any support from local resources. If money wasn't to be had for libraries before the grant, it isn't there afterward, either.

The bill speaks—and one naturally thinks—of medical schools, local practitioners, and institute researchers as benefiting most. In reality, the influence is much broader. The membership of our own association includes but 580 members in its biological sciences division. In the space sciences, nuclear sciences, technology, chemistry and similar areas are another 2,800. And all of them have need of medical information ranging from casual to constant. Recall, if you will, such topics as aerospace physiology, radiation hazards, toxicity of materials, air pollution and the like. An aircraft company may have a good technical library; it must depend on other sources for medical documents and information. While such industry naturally turns to, say, a local medical school, this library is seldom equipped to serve these demands in addition to its own staff and students. Provision of regional medical library centers will thus benefit industry in addition to existing medical school facilities. It will also insure such resources in areas where no topflight medical libraries of any kind are now to be found.

To some extent, the present bill is aimed at curing present ills. We need better libraries and library facilities now. We need better trained staff now, grounded in the subject matters of medical science and library or information science. We need radically new techniques now, to cope with a present flood of information and publications. But if we need these things now, and badly, what is in

store for the future, as our research effort and support climbs literally astronomically? Above all, we need action now so that we will not be completely engulfed and eternally helpless. Today's preparation, as embodied in the provisions of this bill, will provide tomorrow's resources. Resources for efficient medical research, resources for adequate education, resources for use in all the fields touched by medical implications and advances. Information at the right time, at the right place, for the right person in the right form will be vitally needed. If we make no provision for these resources, we had better save our current research outlay, for its results will be permanently and irrevocably buried.

A particularly important feature of this bill is that its implementation, while including educational institutions, is not restricted to them. In our current concern for maximum advancement of educational programs at all levels we may overlook the fact that information needs and flow and learning occur throughout our economy and our geography, not solely in the teaching process and institution. I have mentioned the needs of industry. One must remember also the needs of scholars in other fields than medicine, at nonmedical institutions. One must especially remember the practitioner and the hospital. These people may be far removed from a medical school; yet their daily needs are increasing. The doctor must continue his education. His practice, and the work of this hospital staff, need more than ever the close contact with the latest laboratory development and the new clinical or surgical techniques. The regional medical library can best serve their needs, with services developed on a very broad scale. These services may include support of teaching and medical education, indeed. But they go far beyond, in providing a tailored, automatic, prompt, and continuing flow of information to all who need it.

This also requires specialists in medical information work, who are trained for this specific field and have not just drifted into it. The curricula of librarianship and information science are reflecting these needs. Attention is now given in several professional schools to thorough training in medical librarianship. We cannot find enough such specialists now; the supply must be stepped up.

In conclusion, I wish to reiterate the support of our association for this bill. We believe it provides sound elements for expansion of facilities, available personnel, and improved medical communications. Thank you for the opportunity of appearing in behalf of this legislation.

Mr. BUDINGTON. First, we have been accustomed in recent years to supporting general research in the sciences to a very large extent, but no provision whatsoever has been made for the dissemination of the information generated in this research and particularly so through the medium of libraries, abstracting services and other similar means.

Second, I would emphasize that this bill has very broad effects beyond those of the education field typified by the libraries in industry represented in our association. Everyone knows now the many effects of cross-fertilization of fields and industrial libraries have considerable need occasionally for medical information for biological information and at the present time they cannot rely completely upon medical school libraries as a source.

The regional medical library action can help to supplement these sources which they need.

Third, I can only reiterate again the need for immediate action in these fields about which we have been talking this morning. Estimates currently are that there are something in the order of 200,000 articles yearly in the field of medicine and 10,000 monographs. It is almost impossible to control these now and to disseminate the information contained in them. It is only through the additional facilities provided in this bill that we have any hopes of succeeding.

Thank you, sir.

Mr. MACDONALD. Thank you very much.

Are there any questions of the witness?

Mr. O'BRIEN. Mr. Chairman, I would just like to make this statement. This I assume is the conclusion of the hearings. I don't recall since I have been on the committee any legislation which has such solid, enthusiastic, across-the-board support as this particular legislation has.

I might add further that I think all of us learned something this morning, that through the years we have built a gigantic reservoir of research knowledge. One of the witnesses said it would cost \$3 billion a year by 1970. I think that, unfortunately, in building the reservoir we also are depending on a 1-inch main to get the stored material out to the public.

Thank you, Mr. Chairman.

Mr. MACDONALD. Thank you, Mr. O'Brien.

Without objection, I will include in the record at this point a statement by William N. Hubbard, Jr., M.D.

(The statement follows:)

STATEMENT OF WILLIAM N. HUBBARD, JR., M.D.

Mr. Chairman, I thank you for this opportunity to express my wholehearted support of the Medical Library Assistance Act of 1965.

Many distinguished national associations concerned with the health of the American public have supported this act. The President's Commission on Heart Disease, Cancer, and Stroke has included several recommendations which would be supported by this act and has emphasized the importance of these matters by stating:

"The Commission feels strongly that unless major attention is directed to improvement of our national medical library base, the continued and accelerated generation of scientific knowledge will become increasingly an exercise in futility."

The National Advisory Health Council of the U.S. Public Health Service has, on two recent occasions, made formal resolutions supporting programs which would be implemented under the provisions of this act.

My own testimony is based on 15 years of activity in administrative posts supporting medical education, health-related research and medical care. As the dean of the University of Michigan Medical School, a member of the executive council of the Association of American Medical Colleges and the Board of Regents of the National Library of Medicine, I have a privileged perspective of the communication needs in medicine and the related health sciences. The opportunity of serving on committees advisory to Federal agencies concerned with health problems has led me to a full appreciation of the importance of the role of the Federal Government in securing the health of the people.

SECTION 390. DECLARATION OF POLICY AND STATEMENT OF PURPOSE

This section reflects the complex variety of users that a modern library of the health sciences must serve. Requirements of the graduate or professional student, the researcher, the faculty, the hospital interns and residents, the post-doctoral fellow, the community practitioner, industry, and, not least, the requests of other health science libraries must all be met.

Although weekly and monthly serial journals now make up the bulk of the holdings of medical libraries, textbooks and monographs continue as important reference documents. Without diminishing the importance of these more traditional holdings, television tapes, photographic films and slides, audiotapes and visual displays are becoming of increasing importance as means of storing scientific information. Modern electronic forms of handling this information through the use of computers and microreproduction hold the promise of more efficient and more economical access to this stored information. Such electronic devices also allow access to the holdings of the library from distant areas and form the basis of predicting the development of a national network.

The policies enunciated in section 390 recognize the breadth and complexity of the problem of communications in the health sciences and the importance of the evolving library as a means of providing essential improvements in these communications.

SECTION 392. NATIONAL MEDICAL LIBRARIES ASSISTANCE BOARD

This section represents an extension of the existing function of the Board of Regents of the National Library of Medicine. I do not speak formally for that Board, but would assert that the mood of the membership is to accept the responsibilities defined under this section as representing a proper expansion rather than a digression from their established responsibility.

SECTION 393. ASSISTANCE FOR CONSTRUCTION OF FACILITIES

The need for increased manpower in support of the health of the Nation is well documented. Not only physicians, dentists, and nurses, but an array of related health workers of increasing importance to the system of delivering health service must be educated in our colleges, universities, and teaching hospitals; all of which require library facilities beyond those now available. Furthermore the need for maintenance of our health-related research effort requires the improvement and extension of our library system. As the postgraduate education efforts that are so sorely needed on behalf of the community practitioner are realized, he, too, will seek continuing access to the library.

It can fairly be said, then, that to achieve the improved health service that the American people deserve and demand, the capital expansion of our library system is essential. In my opinion, we must provide for capital expansion of the library system as it exists today as the foundation for its evolution into the health science information center that is needed. It will therefore be important to make a judicious division of the available funds for capital improvement so that we do not merely expand libraries as they have been traditionally conceived as repositories for printed information but include provision for their rapid evolution into "information centers" that take advantage of all the present-day improvements in communications techniques.

It is my opinion that the \$10 million a year for the fiscal year ending June 30, 1966, through that ending June 30, 1970, is appropriate in order that the program can be reviewed at that time. I would predict that at the time of review in the future it will be found that significantly larger sums can be effectively expended in this category as most valuable contributions to the health of the people of this country.

SECTION 394. GRANTS FOR TRAINING IN MEDICAL LIBRARY SCIENCES

Our medical libraries need many more librarians than are now available or are likely to become available within the foreseeable future unless a strong effort is made to strengthen and accelerate our program for training in medical librarianship. These new librarians must not only have the established competence of organizing printed materials so that they are readily accessible to readers, but must become familiar with recent developments in electronic technology and information theory which will provide a new kind of bibliography control over the growing and changing mass of knowledge produced by our research programs and clinical experience. It is safe to say that there are few fields where teachers, researchers, and administrators agree so completely with librarians on the importance of a training program.

This section recognizes the need not only to provide improved training for new degree candidates in library sciences, but also allows for existing librarians and specialists in information sciences related to health to be given support in learning of the new developments in the field of electronic information storage and retrieval.

The addition of an internship program to the traditional period of library training will allow the recent graduate to enter the community much better prepared to undertake operating responsibility than has been in the past.

This section, then, provides for the necessary improvement and expansion of training of the manpower responsible for the operation of medical libraries in the future.

SECTION 395. ASSISTANCE TO SPECIAL SCIENTIFIC PROJECTS

This section fills a most important need in that it provides the opportunity for physicians and scientists to utilize library resources to their fullest depth in writing up the original contributions that their efforts have produced. At the present time, these people have to steal time from their research, teaching, and patient care duties in order to utilize in depth the resources of the library.

These special fellowships would enhance their opportunity to utilize the unique facilities of the National Library of Medicine as well as supporting "in depth" literature reviews.

Intensive utilization also gives an opportunity to understand more clearly the limitations of the present library system. To the casual user of the library, these limitations may not be evident and he may therefore fail to obtain with precision and depth the information which he should have. From experience in the needs of intensive consumers of library service it will be possible to provide more precisely for improvements in providing that service.

SECTION 396. RESEARCH AND DEVELOPMENT IN MEDICAL LIBRARY SCIENCE AND RELATED FIELDS

The importance of research and development in library science has been alluded to already in my testimony. At this point I would suggest that consideration be given to the establishment of a small number of health-science information centers which could serve as prototype models for the fullest exploitation of available modern techniques in information processing. In my opinion, the development of a few such models is of a very high degree of importance. It would allow for practical experience in a field which is now full of speculation about "what might happen." If these model units were established in areas with long experience with the more traditional library organization, then something akin to a controlled experiment could be conducted which allowed objective comparison of the advantages and shortcomings of the traditional as compared to the electronically based methods. Once established, such a prototype information center in the health sciences would provide the resources for research, training, and experience in service which will be essential before a comprehensive national library can be most effectively designed. The established systems of the National Library of Medicine make it uniquely competent to lead such developments.

There are only a few institutions whose libraries are in a position to carry on this kind of research and development but their role as models is of crucial importance to the Nation.

SECTION 397. GRANTS FOR IMPROVING AND EXPANDING THE BASIC RESOURCES OF MEDICAL LIBRARIES AND RELATED INSTRUMENTALITIES

This section recognizes that we are not undertaking a dissolution of the existing library system but rather seeking full advantage of its optimum potential while adding to it the modern electronic developments which will give a new dimension to its power.

The provisions in this section will allow for those medical libraries which have heretofore been unable to take advantage of well-established methods of improving library service to acquire this enhanced potential. Such a simple matter as being unable to photoduplicate rapidly articles in journals so that the volumes themselves do not have to circulate is a distressingly frequent defect in existing medical libraries. It is a rare medical library that has a budget for the acquisition of magnetic tapes and films and the facilities for using them.

While I recognize that we must plan immediately for the development of an electronic computer-based national system for communications, I would assert that we should not forget that we have in existence a library system which, if given adequate support, will continue to be an essential component of any communication system in the health sciences. Home circulation of volumes from the medical library of the University of Michigan has increased 43 percent in the past 3 years. Loans within the library itself have increased by approximately 75 percent in that same period. I cite these figures to emphasize that we are by no means suggesting that we abandon the existing system since it is clearly a very attractive resource to its users. Rather, we look forward to securing the advantages of the present system while adding new and improved capacities.

SECTION 398. GRANTS FOR ESTABLISHMENT OF REGIONAL MEDICAL LIBRARIES

More and more in the United States we are recognizing that health services of all kinds must be planned on a regional basis. The unnecessary duplication and self-seeking competition that can develop when isolated institutions pursue

their own development without reference to regional needs is a luxury that we cannot afford. Some early beginnings have been made in this kind of regional development. The New York Academy of Medicine, as an example, has for years collaborated with the hospitals, the medical society, and the universities in the greater metropolitan area in providing a central repository library and reference source. More recently, Harvard, Yale, and Columbia have announced their intention of developing communications that would allow their medical science libraries to collaborate more effectively. There are a few more instances that could be cited.

In general, however, the support necessary to function as a regional resource which can provide free loan services to qualified users and make available photocopied or facsimile copies wherever qualified requesters wish to retain them is unavailable. This section, therefore, addresses itself to those medical libraries which might wish to provide regional service and free loan service in addition to their traditional obligations. Where the budget of a medical library is sharply limited—as all of them are—it is very difficult to add the personnel and equipment that is necessary to meet the regional responsibility described in this section. The development of a physical plant which would provide this regional service without diminishing service to the existing users of the library makes necessary the provision for construction that is within this section.

As we look forward to the development of regionalization of health services of all kinds, it is essential that we have the means for developing regional medical libraries to serve as health science information centers.

SECTION 399. FINANCIAL SUPPORT OF BIOMEDICAL SCIENTIFIC PUBLICATIONS

An essential component of our present method of distributing new research information related to health is the publishing capacity of nonprofit societies and organizations. The costs of publication have risen to the point that even where advertising is solicited by the journal, the costs of publication are an important limiting factor in the journal's dissemination. Many journals are sharply limited in the extent to which they will accept charts and illustrations or bibliographic references.

Of particular importance is the need to supply biomedical scientific publications with the resources which will allow them to adapt their present indexing and abstracting to the needs of existing and projected computerized forms of bibliographic storage and retrieval. As we look forward to the development of a computer-based national network of libraries, the form of the information put into this system must be adapted to the needs of the electronic means of retrieving it. These changes in abstracting and indexing journals is an essential element of the development of a national system of libraries where free interchange of information is available. The grants authorized in this section will allow for a more complete and expeditious transmittal of information to those investigators and practitioners who have a need for it.

REGIONAL BRANCHES OF THE NATIONAL LIBRARY OF MEDICINE

There are in the United States geographic areas which do not now contain a medical library or group of medical libraries which are able to undertake the role of a regional resource. Where such a circumstance exists, the need of the people, in my opinion, should be met by the establishment of regional branches of the National Library of Medicine.

Mr. Chairman, it is obvious that we are not talking about support of the library function which is confined to giving readers access to printed materials. We are talking instead about the need for securing an essential regional health source which is capable of providing to students, teachers, researchers, and practitioners the up-to-date information which they must have in order to serve their role in providing for the health of the Nation. I urge passage of this Medical Library Assistance Act of 1965 as an essential component of the programs necessary to meet the health needs of the Nation.

SEPTEMBER 14, 1965.

Mr. MACDONALD. With that the hearing is concluded.
(The following material was submitted for the record:)

STATEMENT OF DR. FREDERIC H. BARTH, PRESIDENT OF THE PHILADELPHIA COLLEGE OF OSTEOPATHY

Mr. Chairman, and members of the committee, my name is Dr. Frederic H. Barth. I have long been interested in the field of education as a member of the Board of Education of the City of Philadelphia and as president of the Philadelphia College of Osteopathy.

I am immediate past president of the American Association of Osteopathic Colleges, which consists of the five schools of osteopathic medicine and surgery, all of which are nonprofit and accredited by the American Osteopathic Association, on whose behalf I am privileged to express enthusiastic support for all parts of the pending Medical Libraries Assistance Act of 1965, H.R. 3142.

The principal objective of the American Osteopathic Association is the maintenance and improvement of standards of education in osteopathic colleges. The association's standards for accreditation require that a school must maintain a medical library which shall include current texts, reference books, and the periodicals needed in the teaching and research program, and that a qualified librarian shall be employed to supervise and develop the library.

Association standards for approval of teaching hospitals require that the hospital shall provide a professional library which must contain modern texts and current periodicals on anatomy, anesthesiology, bacteriology, chemistry, dermatology, diagnosis, internal medicine, laboratory diagnosis and technic, neurology, obstetrics and gynecology, ophthalmology, orthopedics, otorhinolaryngology, pathology, pediatrics, physics, physiology, practice of osteopathy, proctology, psychiatry, radiology, surgery, syphilology, and urology, and additional current texts and other professional periodicals of a general and specialty nature. Nonteaching hospitals accredited by the association are also required to provide and maintain a professional library to meet the professional needs of the institution.

There is a wide variation in the facilities and equipment provided in the schools and hospitals. Little or no facilities are provided by most State osteopathic societies notwithstanding the urgent needs of practitioners for more ready access to the growing body of new medical information, and the number of States which require annual registration of physicians following refresher courses.

As stated in the special report of the Subcommittee on Facilities contained in volume II of the report of the President's Commission on Heart Disease, Cancer, and Stroke, the disrepair of the medical library system, so essential to the transmission of medical knowledge across time and space, constitutes a major weakness in both Federal and private health and medical programs.

The special report emphasized that the need for space in which to maintain their collections and to carry out necessary day-to-day operations is perhaps one of the most critical needs of the medical libraries, and cited the following table of medical library space requirements:

Medical library space requirements

	Present average size (square feet)	Average additional square footage needed	Estimated cost	
			Average per school	Total cost
Medical schools:				
87 established.....	18,115	32,921	\$1,316,840	\$106,664,040
12 new.....		37,736	1,509,440	18,113,280
Dental schools:				
21 separate.....	1,430	9,797	391,880	8,228,480
5 new.....		9,000	360,000	1,800,000
Osteopathic colleges, 5 colleges.....	2,637	11,803	472,120	2,360,600
Total.....				137,167,400

¹ 6 of the established medical schools state they do not need additional space. Therefore, the estimated total cost is for 81 schools.

This table reflects the square footage employed, and needed, by the 113 established schools of medicine, dentistry, and osteopathy, and the 12 developing new medical schools and 5 new dental schools. For the purposes of this table, information was sought also from public health schools but was not available.

The medical school library data have been derived in part from a survey conducted early in 1964 by the Association of American Medical Colleges together with estimates by the National Library of Medicine. The Division of Dental Public Health and Resources, BSS, PHS, provided the information on the dental school libraries. Data on the libraries of the osteopathic schools was obtained directly from those libraries or schools.

Estimated costs were obtained by studying space requirements and applying the figure of \$40 per square foot based on data developed by the General Services Administration from its experience in constructing public buildings.

Section 393 of H.R. 3142 authorizes a 5-year program of assistance for the construction of medical library facilities. The amount of any grant would not exceed 75 percent of the necessary construction cost. Priority would be given to applications evidencing the greatest need.

Section 394 authorizes a 5-year program of grants for training in medical library sciences. Grants would be made to individuals to support traineeships and fellowships in the field of medical library science, in related fields pertaining to sciences related to health and in the field of the communication of information. Grants would also be made to individuals who are librarians or specialists in information on sciences relating to health to enable them to attain intensive training and retraining. This should help reduce the deficit of professional librarians and persons adequately trained at the subprofessional level.

Section 395 authorizes a 5-year program of grants for special fellowships to be awarded to physicians and scientists for the compilation of existing, or writing of original, contributions relating to scientific advancements in sciences related to health.

Section 396 authorizes a 5-year program of grants for projects of research and investigations in medical library science and the development of new techniques, systems and equipment for processing, storing, and retrieving and distributing information on sciences related to health.

Section 397 authorizes a 5-year program of grants for improving and expanding the basic resources of medical libraries. According to the Subcommittee on Facilities above referred to, one of the most significant inadequacies of the Nation's medical libraries "is that they have only about half the books, journals, and other resources they need." Information provided by the osteopathic colleges shows that their holding of volumes ranges from 6,000 to 23,225, and their annual budgets range from \$10,500 to \$23,500. Obviously, none of the colleges has a desirable number of volumes or adequate budget. Section 397 provides funds for acquisition of books, journals, photographs, motion picture and other films, and for cataloging and binding, and for acquisition of duplication devices, and new technological equipment to facilitate the use of the library. As pointed out in the Medical Education Facilities, Public Health Service Publication No. 1180-A-1b, budgeted expenses for books, subscriptions, and other supplies are as high for 64 students per class as for 96. A smaller class and a smaller faculty do not reduce the need for library reference materials. However, the increase in class size will call for more services or larger library staff and the library facilities will be more fully utilized.

An estimate of what the program envisaged in this bill can mean as applied to the Philadelphia College of Osteopathy is provided in the following comment by Dean Sherwood R. Mercer:

"(a) A long-term program of construction, beginning with a \$7 million hospital project now under construction, includes a new college building in which will be a greatly enlarged library for a student body to be expanded from about 350 to 575 (based on increasing the first-year class from 100 to 150). The new library can be made an even more effective instrument in support of learning than is now possible under present plans, if we could enjoy the additional support as projected in H.R. 3142.

"(b) The library system of the college will be built around the main collection at the new city line campus where the building cited above will be located. A satellite collection will be housed in the presently used (and to be entirely renovated) college and hospital building at 48th and Spruce Streets. Another satellite collection will be located at our 20th and Susquehanna Avenue hospital. As is presently our practice, departmental libraries will be developed in all three locations.

"(c) Because the college is located in Philadelphia and in close proximity to some of the world's finest collections in medical libraries, our plans call for a more efficient intercommunication system with area libraries and we hope, through regional library facilities, with the entire county. Clearly, the intent of H.R. 3142 seems to support these projections.

"(d) We have begun the search for professional leadership for the library complex. Our discussions always included an exploration of our interest in training for careers in medical libraries. Here again we are fortunate in being close to the Graduate School of Library Science at Drexel Institute of Technology.

"(e) We are aware of the role of electronic equipment in the management of libraries more effectively to make them vital teaching centers. Because of costs we can do little other than to plan space into the new library where this equipment could be housed and used. H.R. 3142 would make possible application for support for this and other equipment, personnel, and facilities to make our new library a better one than we can now afford to plan.

"(f) In our discussions with candidates for the post of librarian we have outlined ideas for the education of faculty and students alike in the communication of ideas, new knowledge, and new techniques, so that the whole body of physicians will know how better to be informed and to inform."

We appreciate this opportunity of presenting our views on H.R. 3142, and we hope for early enactment of this most important legislation.

STATEMENT OF EDWARD C. ROSENOW, JR., M.D., EXECUTIVE DIRECTOR, AMERICAN COLLEGE OF PHYSICIANS

Congressman Harris, chairman of the Committee on Interstate and Foreign Commerce, I am Dr. Edward C. Rosenow, Jr. of Philadelphia—an internist who spent 20 years in the practice of medicine before becoming executive director of the American College of Physicians.

The president of the American College of Physicians, Dr. A. Carlton Ernstene, of Cleveland, has asked me to prepare a statement in support of H.R. 3142 and H.R. 6001, Medical Library Assistance Act, which was introduced in the House of the American College of Physicians.

For those who do not know of the American College of Physicians, I would like to describe our society. The college, which is 50 years old this year, represents 12,400 specialists in internal medicine and related fields.

Our principal interest is the continuing education of physicians. To work toward this goal, the college sponsors 2 national and 25 regional meetings each year; it conducts 18 postgraduate courses and publishes the monthly *Annals of Internal Medicine*.

To aid in maintaining high standards of medical practice, the college participates in the administration of the certifying agency for internists—the American Board of Internal Medicine—and, with other medical organizations, operates the Joint Commission on Accreditation of Hospitals and the Commission on Professional and Hospital Activities.

Included among our leadership are the physicians responsible for the training of a large percentage of our Nation's undergraduate and graduate physicians.

Because of its intense interest in the training of physicians and in the continuing education of internists, the American College of Physicians looks favorably on any Federal act that would improve medical library facilities.

We feel that these bills and their companion bill in the Senate, provide realistic solutions to a growing problem of collecting and retaining information vitally important to the present and future practice of medicine.

The act would assure the existence of adequate medical library facilities to serve physicians and other medical scientists in all regions of the United States.

The American College of Physicians supports the provisions of H.R. 3142 and H.R. 6001 and commends Congressman Harris and Congressman Fogarty for sponsorship of the legislation.

Thank you very much.

RESOLUTION ON THE MEDICAL LIBRARY ASSISTANCE ACT OF 1965, ADOPTED BY THE YOUNG DEMOCRATIC NATIONAL COMMITTEE, AND THE NATIONAL EXECUTIVE COMMITTEE OF THE COLLEGE YOUNG DEMOCRATIC CLUBS

Whereas (1) the unprecedented expansion of knowledge in the health sciences within the past two decades has brought about a massive growth in the quantity, and major changes in the nature of, biomedical information, materials, and publications, and (2) there has not been a corresponding growth in the facilities and techniques necessary adequately to coordinate and disseminate among health scientists and practitioners the ever-increasing volume of knowledge and information and information which has been developed in the health science field,

and (3) much of the value of the ever-increasing volume of knowledge and information which has been, and continues to be, developed in the health science field will be lost unless proper measures are taken in the immediate future to develop facilities and techniques necessary to collect, preserve, store, process, retrieve, and facilitate the dissemination and utilization of, such knowledge and information; and

Whereas the "Medical Library Assistance Act of 1965" (S. 597 in the Senate and H.R. 3142 in the House of Representatives of the United States) is proposed and would provide the means to (1) assist in the construction of new, and the renovation, expansion, or rehabilitation of existing medical library facilities; (2) assist in the training of medical librarians and other information specialists in the health sciences; (3) assist, through the awarding of special fellowships to physicians and scientists, in the compilation of existing, and the creation of additional written matter which will facilitate the the distribution and utilization of knowledge and information relating to scientific, social, and cultural advancements in sciences related to health; (4) assist in the conduct of research and investigations in the field of medical library science and related activities, and in the development of new techniques, systems, and equipment for processing, storing, retrieving, and distributing information in the sciences related to health; (5) assist in improving and expanding the basic resources of medical libraries and related facilities; (6) assist in the development of a national system of regional medical libraries each of which would have facilities of sufficient depth and scope to supplement the services of other medical libraries within the region served by it; and (7) provide financial support to biomedical scientific publications: Be it therefore

Resolved, That the Young Democratic Clubs of America hereby endorse the Medical Library Assistance Act of 1965, and commend it to our elected representatives in the Congress for early passage.

Unanimously adopted by the Young Democratic National Committee, and by the National Executive Committee of the College Young Democratic Clubs of America, in simultaneous but separate meetings at Kansas City, Mo., April 10, 1965.

RESOLUTION ON MEDICAL ASSISTANCE ACT, ADOPTED BY THE STUDENT AMERICAN MEDICAL ASSOCIATION

Whereas the unprecedented expansion of knowledge in the health sciences within the past two decades has brought about a massive growth in the quantity and major changes in the nature of biomedical information, materials, and publications, and (2) there has not been a corresponding growth in the facilities and techniques necessary to adequately coordinate and disseminate among health scientists and practitioners the ever-increasing volume of knowledge and information which has been developed in the health science field, and (3) much of the value of the ever-increasing volume of knowledge and information which has been, and continues to be developed in the health science field will be lost unless proper measures are taken in the immediate future to develop facilities and techniques necessary to collect, preserve, store, process, retrieve, and facilitate the dissemination and utilization of such knowledge and information: Therefore be it

Resolved, That the student American Medical Association endorses legislation that would (1) assist in the construction of new, and the renovation, expansion or rehabilitation of existing medical library facilities; (2) assist in the training of medical librarians and other information handling specialists in the health sciences; (3) to assist, through special fellowships, physicians, and scientists engaged in research involving health science information storage, distribution and utilization; (4) assist in the conduct of research and investigation in the field of medical library science and related activities, and, in the development of new techniques, systems, and equipment for processing, storing, retrieving, and distributing information in the sciences related to health; and (5) assist in improving and expanding the basic resources of medical libraries and related facilities.

The resolution was adopted by the national convention of the Student American Medical Association, meeting at Chicago, Ill., May 3-6, 1965.

[Telegram]

SANTA MONICA, CALIF., September 13, 1965.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
Rayburn House Office Building, Washington, D.C.:

On behalf of the southern California chapter, of the special libraries association I report our unanimous support for H.R. 3142, to amend PHS Act to provide a program of grants to assist in meeting the need for adequate medical library services and facilities.

J. E. TALLMAN, *Chapter President.*

HOUSE OF REPRESENTATIVES,
Washington, D.C., September 16, 1965.

HON. OREN HARRIS,
Committee on Interstate and Foreign Commerce,
U.S. House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Dean F. M. Walter, of the Kirksville College of Osteopathy & Surgery, which is located in my district, wrote in some detail in support of H.R. 3142. I believe Dean Walter's comments merit the attention and consideration of the members of your committee and respectfully request that his statement, as follows, be made a part of the official committee transcript.

"It is my understanding that this proposed act would provide Federal assistance in the construction of medical library facilities, medical library research, the training of medical librarians, and the establishing of regional medical libraries as branches of the National Library of Medicine in those cases where private resources are not available.

The continued rapid expansion of medical research and resulting literature makes the task of keeping current literature available for students extremely expensive and therefore quite difficult especially for the nonprofit private institutional libraries. The enactment of this proposed legislation could be of great assistance with this endeavor.

Thanking you in advance for your consideration, I remain,

Cordially yours,

WILLIAM L. HUNGATE.

AMERICAN HOSPITAL ASSOCIATION,
Washington, D.C., September 16, 1965.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN HARRIS: In this statement to you we wish to express the views of the American Hospital Association in respect to H.R. 3142, "Medical Library Assistance Act of 1965." The bill amends the Public Health Service Act so as to provide for a program of grants to assist in meeting the need for adequate medical library services and facilities.

The American Hospital Association approves the general purposes of the bill. There exists a vast unmet need for the dissemination of information in the health sciences. The very rapid advancements now being made in health research and in the treatment of illness have outpaced existing means of communication. There is also a failure to support the growth of library facilities and materials commensurate with the development of major health research. Adequate library and communication facilities and services are also necessary in all of the schools and educational programs directed to the training of health personnel.

The Congress has already enacted legislation looking toward a rapid acceleration in the training of physicians, dentists, public health workers, nurses, and others. It is imperative to the success of these efforts that we direct attention now to the sources of fundamental knowledge and toward the dissemination of such knowledge. Your committee recently voted out H.R. 3140, a bill with far-reaching implications for the health care of the American people. The kinds of proposals which are embodied in H.R. 3142 are of vital concern to the successful implementation of the Heart Disease, Cancer, and Stroke Amendments of 1965.

For many years the health field has been aware of the problems developing because of the unmet needs for adequate health science libraries. We believe

perhaps the most urgent need is that of training more people in library science. At present, libraries are often staffed largely by either untrained or inadequately trained personnel. The overall objectives of the bill will be seriously handicapped without major emphasis on training. We sincerely hope that the Congress will move ahead rapidly in making available the assistance proposed in H.R. 3142. Our general approval of the bill is limited only by what we believe are limitations in the language of the bill.

RECOMMENDATIONS ON SPECIFIC PROVISIONS

We strongly urge that the title of the act which cites overall intent be broadened beyond its present limited language and that the act may be cited as the "Health Science Library Assistance Act of 1965." The term "medical" is far too limited in light of the essentially broad purposes of the act. We urge that the appropriate language changes be made throughout the bill to accomplish this purpose.

Section 390(b)(3) provides for special fellowships for the creation of written matter. The purpose of the provision is not at all clear. However, written material in any way essential to research is part of research projects. We, therefore, do not support the inclusion of this provision in the bill.

Section 391(1) should be broadened so as to include the term "hospital administration" following the term "public health" on line 22. There are at the present time 16 university programs providing master's degrees in hospital administration. We believe the bill should provide assistance in its various purposes to such libraries and programs.

Paragraph (3) of this section, line 4, should be amended by deleting the word "medical" and inserting the phrase to any "health science" library.

We recommend that Section 393: Assistance for Construction of Facilities; Section 397: Grants for Improving and Expanding the Basic Resources of Medical Libraries and Related Instrumentalities should clearly provide for assistance to all teaching hospitals and other hospitals maintaining such essential health science information on behalf of their staffs and students.

In section 399(a) we question both the necessity and desirability of the section. We believe it will tend to promote the unnecessary publication of material. It can further burden libraries with materials in an area which appears to be adequately served. There is the definite likelihood of publishing material that recognized scientific channels and publications will not carry because they deem it to be inadequate.

Section 3, part (h) of title II of the Public Health Service Act which deals with the National Library of Medicine is amended so as to provide regional branches of the national library.

We would urge that this section not be limited, as it appears to be at present, so as to make it essential that such extended facilities be separate and independent facilities. The bill should provide that insofar as possible, such regional branches be located in existing hospitals and medical centers which may serve a large geographic area.

We appreciate this opportunity of submitting to you the views of the American Hospital Association on H.R. 3142. We would appreciate your making this statement a part of the record of the hearings on this bill.

Sincerely yours,

KENNETH WILLIAMSON, *Associate Director.*

HARVARD MEDICAL SCHOOL,
Boston, Mass., September 10, 1965.

HON. OREN HARRIS,
House of Representatives, Washington, D.C.

DEAR MR. HARRIS: Those of us who are close to medicine and medical education on a day-to-day basis hope very much that you continue to give high priority to the passage, during the present session, of the Medical Libraries Assistance Act.

This legislation must not languish. Our medical schools and medical centers are making hopeful progress with the complex task of improving the quality of medical education, with the training of additional doctors and with research in the medical sciences. In most of our medical schools we are hampered in our efforts because of inadequate libraries.

You are one who is known to appreciate that medical progress is dependent on quality medical library service and that it is often impossible for a medical school to mobilize the funds that are necessary to create a first-class library. Here at Harvard we were fortunate in being able to find private donors for our new library building. But this is far from typical. At most medical schools the library receives less than priority attention because private funds are just not available.

The Medical Libraries Assistance Act promises a nationwide alleviation of this situation. Its several provisions would greatly strengthen the medical libraries of the country. This, in turn, would extend critically needed library service to the nonurban areas of the Nation so that—among other things—the practicing physician in such areas would have a chance of keeping up with current medical advances and of bringing newly discovered medical knowledge to bear on his ability to heal the sick.

I should like to hope that your committee will take action on the Medical Libraries Assistance Act just as soon as possible and that it will report it favorably. If this can be done now, is there not an excellent chance that the House will act promptly and favorably? Since this legislation, is favored by so many, it would be a pity if its enactment were put off another year.

Please count on me to lend a hand with this effort if this seems to you to be appropriate.

Very truly yours,

ROBERT H. EBERT, M.D., *Dean.*

THE AMERICAN PUBLIC HEALTH ASSOCIATION, INC.,
Washington, D.C., September 14, 1965.

HON. OREN HARRIS,
Chairman, House Committee on Interstate and Foreign Commerce,
Washington, D.C.

DEAR MR. CHAIRMAN: I am pleased to inform you of the support of the American Public Health Association of the principles and objectives of H.R. 3142, the bill which you have introduced relating to medical libraries. The statement of declaration of policy in H.R. 3142 wherein the needs of medical libraries are enumerated is fully subscribed to by the APHA. The proposed course of remedial actions appears to us to be both logical and necessary.

We are delighted to note that under the definitions the term "sciences related to health" includes public health and fundamental and applied sciences related thereto. We believe, you will agree, that public health schools and departments should be clearly eligible to participate under all applicable sections of the bill. The language of section 394 is explicit in this respect, but we believe it would be very helpful to clarify the language of the remaining portions of the bill in this respect.

May I reiterate our support of H.R. 3142 and urge passage after the minor amendments referred to above.

Sincerely yours,

BERWYN F. MATTISON, M.D., *Executive Director.*

AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY,
Washington, D.C., September 15, 1965.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR MR. HARRIS: The executive committee of the American Association of Colleges of Pharmacy is pleased to have this opportunity to submit for the record this statement in support of H.R. 3142, the Medical Library Assistance Act. While this action is taken in the name of the executive committee, I am confident that the administrators of our 73 member colleges would give full endorsement to the legislation if time permitted a solicitation of their views.

It is anticipated that schools of pharmacy will be eligible for benefits under H.R. 3142 just as they are under the health research facilities construction program inasmuch as the term "sciences related to health" is defined identically in each instance. However, it is respectfully requested that the definition as given in section 391 (1) be amended to specifically so state.

The several programs embodied in H.R. 3142 provide a broad-based approach to an often neglected but an extremely important and essential part of the total educational program of the health sciences. For the past several years, Federal legislation has provided much needed support for the development of new knowledge through support programs for facilities and research. The programs provided for through H.R. 3142 will give impetus to the distribution of this knowledge to the researchers, to the educators, and to the practitioners of the health professions. The ultimate objective of all health research is the improvement of the health of the public, and unless the results of the research are translated into practical procedure for treatment and distributed to the practitioners the objective cannot be achieved.

Federal assistance in the form of health research facility grants and research grants from the National Institutes of Health has served as a pronounced stimulus to the graduate programs of schools of pharmacy. In fiscal 1964 grants totaling \$820,000 were awarded to 5 schools of pharmacy, and a recent survey, with 59 of our schools reporting, showed that during the decade ending June 1974, funds in excess of \$20 million, based on the total cost of construction, will be required for new research facilities.

During fiscal 1964, Public Health Service-supported research projects in schools of pharmacy totaled 182 with a dollar value of \$2,834,000. Since 1961 the annual growth rate of the amount of support has been 44 percent; during the past 10 years, the dollar value has increased a hundredfold. Inasmuch as about 56 percent of all funds expended for research in fiscal 1964 came from the National Institutes of Health, the growth rate figure exemplifies the growth of the research programs in schools of pharmacy.

In addition to the greatly increased amount of information coming from our education institutions, all of us are well aware of the vast amount of information on new drugs coming from the research laboratories of the pharmaceutical houses, all of which is essential to the research programs and to the educational programs of our schools of pharmacy. It is quite safe to state that the availability of funds for the expansion of facilities and of resources in the libraries of our schools has not kept pace with the availability of new knowledge essential for the total educational program for pharmacy students. It can also be said that to ask students to provide for this essential program through increases in student fees would place an impossible burden upon such students, both now and in the future.

It should be pointed out that pharmaceutical education is concerned with the physical sciences and with the biological sciences, from both the basic and applied viewpoints, and thus the library resources which must be available to our undergraduate and graduate programs are quite extensive.

The inadequacy of many of our libraries was emphasized in a recent survey in which information was requested on the availability, on a percentage basis, of 1,000 books and reference works relating to the professional curriculum. When the pharmacy library and university library were the basis for the percentage estimation, 71 schools reported a range of 3 to 100 percent, the average was 60 percent of the listed books and reference works, and the median was 62 percent.

In a second test designed to determine the effectiveness of the libraries readily available to schools of pharmacy, librarians were asked to choose one or two review articles from the *Journal of Pharmaceutical Sciences* and to determine from the bibliographies whether or not the articles could have been written by the use of the combined holdings of the pharmacy library, the university library, and nearby libraries. Twenty-three said they could not have prepared the articles from the pharmacy and the university libraries. However, 12 of the 23 said that nearby libraries would have provided the holdings essential to the preparation of the articles.

Pharmacy, like the other health professions, is becoming increasingly aware of the need for continuing education programs for its practitioners; a few persons have advocated attendance at such programs as requisite to renewal of the professional license. As these continuing education programs take on increased significance, the ready availability of current information to all community practitioners will be essential. Thus, methods of distribution of information and of the communication of information will need increased attention. In short, the resources of its library are the heart of any institution of higher learning. While the problem of maintaining adequate facilities is critical in all institutions, it is particularly significant in areas related to health because of the tremendous volume of research achievement and the primary

importance which must be attached to the widest dissemination of knowledge at the earliest moment possible. Extensive rehabilitation of facilities and increased capability for handling acquisitions can make this possible.

The discussion in this statement of individual sections of the legislation is deemed unnecessary inasmuch as they were covered by several of the witnesses during the hearings. However, it is our opinion that each of the proposed programs supplements the other and that all are essential in strengthening this important area of the health sciences programs.

Respectfully submitted.

JOSEPH B. SPROWLS,
Chairman, Executive Committee.

UNIVERSITY OF MINNESOTA,
COLLEGE OF PHARMACY,
Minneapolis, Minn., September 15, 1965.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce, House of Representatives, Washington, D.C.

DEAR MR. HARRIS: I am writing in respect to H.R. 3142, the Medical Library Assistance Act of 1965. I respectfully request that this letter be included in the record of the hearing. The University of Minnesota College of Pharmacy and, I am sure, other colleges of pharmacy in this country urgently need assistance of the type provided by H.R. 3142, especially as regards new library facilities; renovation and expansion of existing facilities; subsidy of postbaccalaureate degree programs in library science, data processing, and communication; special fellowships to aid development of new information tools; and funds for purchase of books, journals, films and equipment to expedite documentation and communication.

I assure you of the gratitude of pharmaceutical educators for the implication of colleges of pharmacy in the phrase, "sciences related to health." On their behalf I appeal, however, for the explicit identification of colleges of pharmacy as institutions eligible for assistance under the terms of H.R. 3142.

The knowledge of drugs with which pharmacists, in the interest of medical care and public health, must be familiar and to which pharmacists must have ready access is very large and very dynamic. The frequent changes are most significant as regards the efficacy and safety of drugs. The information bank is doubling at an alarming rate and the rate is accelerating. Since 1960, pharmacy students have been required to spend 5 years (instead of 4) in mastering the pharmacological sciences and, even more importantly, in learning how to use the vast store of recorded information effectively in the interest of medical care and public health and for research on drugs. During the period, 1958-64, 18.8 percent of the students receiving the B. S. degree in pharmacy at this college have undertaken postbaccalaureate degree programs most of which involve research. The role of colleges of pharmacy as clearinghouses for drug information and the role of community and hospital pharmacists in health communications should be recognized and should be further enhanced by the assistance provided in H.R. 3142. I have enclosed a recent article on "The Pharmacist's Responsibility in Drug Information Services." Certain of the arguments for naming pharmacy specifically in H.R. 3142 are elaborated in that article.

The January 1963, report of the President's Science Advisory Committee, "Science, Government, and Information", emphasizes the need for "central depositories" and "specialized information centers". Colleges of pharmacy should be enabled to serve as central depositories and as specialized centers in handling information on drugs. Some of our students should be encouraged to take the additional training required for the role of information specialists in documentation, retrieval, and communication of drug information. Naming pharmacy in H.R. 3142 would constitute a strong positive thrust in these directions.

Colleges of pharmacy urgently need the assistance provided in H.R. 3142 to fulfill responsibilities that fully justify such assistance.

Again, I thank you for your efforts in behalf of the Medical Library Assistance Act and for your intention as regards pharmacy. I am most sincere in my hope that you will recognize the merit of the points I have made and that you will include pharmacy specifically under the provisions of H.R. 3142.

Very sincerely yours,

GEO. P. HAGER, *Dean.*

AMERICAN NURSES' ASSOCIATION, INC.,
New York, N.Y., September 13, 1965.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
U.S. House of Representatives, Washington, D.C.

DEAR MR. HARRIS: The American Nurses' Association wishes to record its support of H.R. 3142, the Medical Library Assistance Act of 1965. We believe the provisions in this bill will do much to meet the current and ever-increasing need for trained medical librarians, adequate space, equipment, books, and journals. The growth in scientific research and writings requires a systematic accumulation of the valuable information and an orderly, speedy method of retrieval if the health of the Nation is to be advanced.

The report of the President's Commission on Health Disease, Cancer, and Stroke emphasized what was generally known, that medical libraries are inadequate in terms of space, trained staff, and essential volumes, and the Commission recommended immediate attention to this by the Congress.

It is our belief that nursing education will benefit greatly by the program proposed in the Medical Library Facilities Act of 1965, especially since a comprehensive index to nursing periodical literature is to be published in cooperation with the National Library of Medicine, using the facilities of medlars. We call your attention to the important part well-trained medical librarians will play in the dissemination and intelligent use of this material which will be retrieved from medlars. Therefore, we give strong support to the training grant program proposed in this legislation.

In order to insure the continued inclusion of nursing school libraries in all provisions of the bill we wish to recommend that section 391(1) of H.R. 3142, be amended to include the word "nursing" after "public health" (line 22, p. 3).

Although we believe it desirable that schools of nursing share library facilities with other disciplines in the health field, it is a fact that two-thirds of the schools maintain independent facilities and desperately need the quality and numbers of volumes increased, as well as adequate physical plants. It is estimated that the number of volumes in libraries of schools of nursing is less than half of what is considered the essential minimum. If nursing is to keep abreast of the advances in science, educational materials must be readily available.

We welcome this opportunity to lend our support to this very significant legislation and urge you to act favorably on our recommended amendment.

Very sincerely,

JUDITH G. WHITAKER
(Mrs.) Judith G. Whitaker, R.N.,
Executive Director.

GEORGETOWN UNIVERSITY SCHOOL OF MEDICINE,
OFFICE OF THE DEAN,
Washington, D.C., February 25, 1965.

HON. OREN HARRIS,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN HARRIS: I want to express my support and the whole-hearted support of the faculty and student body of the Georgetown University School of Medicine for the bill H.R. 3142. In the Federal program to upgrade medical education, in which your efforts have been so important, no item is more important than support for the libraries of the medical schools. These libraries are particularly important when they also serve university hospitals, schools of dentistry, and other training areas for the health professions.

I know that you are well aware of the problem created by the increasing volume of important scientific medical literature. The medical center libraries are faced with rapidly developing obsolescence unless facilities can be constructed, people trained, and new techniques developed for processing, storing, and distributing information in the health sciences.

Here at Georgetown University Medical Center, we are keenly aware of this problem. Indeed, we can provide a graphic demonstration of the urgency for action in the medical library field. The inadequacy of our library facilities threatens to reduce the effectiveness of our educational programs. In consultation with experts, we have now developed plans for a new library to serve the extraordinarily large population of a growing medical center: medical students, dental students, nursing students, interns, resident physicians, full-time

faculty of the three health-related schools of the university, the staffs of our affiliated hospitals, and the community of physicians and dentists.

We are grateful for your efforts in this vital field, and I want to assure you that we stand ready to help you in any way that we can toward the passage of this proposed legislation.

Sincerely,

JOHN C. ROSE, M.D., *Dean.*

PENNSYLVANIA COLLEGE OF PODIATRY,
OFFICE OF THE DEAN,
Philadelphia, Pa., February 19, 1965.

Re Medical Library Assistance Act of 1965.

MR. OREN HARRIS,
*Interstate and Foreign Commerce Committee, Room 1336, Longworth House
Office Building, Washington, D.C.*

DEAR SIR: Senator Lister Hill has introduced S. 597 in the Senate. Mr. Oren Harris has introduced H.R. 3142 in the House of Representatives.

As a private, nonprofit institution the Pennsylvania College of Podiatry in Philadelphia, Pa., is greatly interested in supporting the passage of these bills.

This college is desirous of obtaining funds of money, materials, or both, for the purpose of expanding and improving our basic medical library and related resources.

It is our plan to make our resources completely available to the community. In addition, we have need for materials which cannot be stored in our library and, for this reason, are interested in the development of libraries other than our own.

It is our understanding that hearings on these bills may be held during the last week of February. We are, therefore, requesting that this letter be filed from the Pennsylvania College of Podiatry as an institution performing a regional service.

Very truly yours,

ROBERT J. WAGNON, *Dean.*

(Whereupon, at 12:10 p.m., the hearing was concluded.)



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