M A I N E

L E G I S L A T I V E R E S E A R C H

C O M M I T T E E

FIRST REPORT

to

ONE HUNDRED AND THIRD LEGISLATURE

JANUARY, 1967

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LETTER OF TRANSMITTAL

August 25, 1966

To the Members of the 103rd Legislature:

The Legislative Research Committee is pleased to submit this study on the Feasibility of Establishing a Medical School in Maine pursuant to a directive of the 102nd Legislature. (Copy of the Order printed in full on page 3)

This report which was contractually studied for the Committee, under authority of the Legislature, contains the findings and recommendations of the Legislative Research Committee as developed by Dr. John B. Truslow, Fortunes Rocks, Biddeford, Maine.

The Committee sincerely hopes that the information herein contained will prove of benefit to the members of the Legislature and the people of the State of Maine.

Respectfully submitted,

LOUIS JALBERT, Chairman
Legislative Research Committee

A REPORT

TO THE LEGISLATIVE RESEARCH COMMITTEE

ON THE FEASIBILITY OF ESTABLISHING

A MEDICAL SCHOOL IN MAINE

Undertaken pursuant to H.P. 1174, June 4, 1965

The 102nd Legislature of the State of Maine

August 24, 1966

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V. Appendix - (pick sheets)

MEDICAL SCHOOL IN MAINE

WHEREAS, Maine has no medical school and it appears that creation of such a school can help relieve the present shortage of physicians and insure an adequate future supply of physicians and make conveniently available to Maine citizens the increasingly complex and effective facilities of a modern Medical School Center; and

WHEREAS, Maine must now rely on the generosities of its sister states to educate Maine physicians; and

WHEREAS, it has no guarantee that such generosity will be continued; and

WHEREAS, the Federal Government has passed legislation to underwrite partial construction costs of medical school and hospital facilities and is currently underwriting partial operating expenses through research grants and fellowships, and is currently discussing further subsidization of operating expenses; and

WHEREAS, the Federal Government is orienting its Veterans Administration Hospitals to geographic medical school affiliation and is contemplating similar affiliation of proposed cancer, heart disease and stroke centers: now, therefore, be it

ORDERED, the Senate concurring, that the Legislative Research Committee undertake a feasibility study of a medical school in Maine. Such study shall include, but not be limited to, whether a medical school in Maine is feasible; if it is feasible, where it should be located; and if it is not feasible, when will it be and what steps should be taken to make it feasible; and be it further

ORDERED, that the Committee report its findings and recommendations to the 103rd Legislature.

HP 1174	House of Representatives	In Senate Chamber
Jalbert	Read and Passed	Read and Passed
Lewiston	June 4, 1965	June 4, 1965
	Sent up for concurrence	In concurrence

Hon. Louis Jalbert, Chairman
The Legislative Research Committee
The Legislature of Maine
Augusta, Maine

Dear Mr. Jalbert,

Transmitted to you herewith is the Feasibility Study of a Medical School in Maine, undertaken as ordered in H.P. 1174, 102nd Legislature, to serve as a basis for Committee recommendations to the 103rd Legislature.

The study covered a period of ten months. It involved the review and analysis of large amounts of state and national data. It had the benefit of visits and extended conversations with hundreds of people in all walks of life from Kittery to Fort Kent to Calais. More than half of the colleges and hospitals of the state were visited, and two of the vocational-technical institutes. Students, patients and employees were interviewed as well as staff members and administrators.

The study is greatly indebted to all departments of the State Government for their interest and generous assistance. By virtue of the amount of time consumed, volume of data supplied and helpful suggestions offered, special appreciation must be expressed to the Departments of Health and Welfare, Mental Health and Corrections, Education, and Economic Development.

The cooperation of the Maine Medical Association, officially through its leadership and contribution of $2,500 to the support of this study, and individually through an 80% membership response to a four-page questionnaire, was invaluable to the study. Meetings with leadership representation of the osteopathic, dental and nursing professions proved extremely helpful and enlightening. Throughout the study my impression was repeatedly confirmed and strengthened that a major asset of the State of Maine is the genuine concern of the active leadership and membership in the health professions about the quality and distribution of health and medical services in Maine.

There are four firm conclusions supported by this study:

1. Maine is in a unique position to extend modern medical services to a greater majority of the people of the state than almost any other state or region in the nation. This potential capability stems from Maine's achievement over the years of a regional concept of medical services which has become acknowledged as one of the basic patterns of comprehensive medical care of the future.

2. Consolidation of this position through the recruitment of physicians and other health personnel necessary to provide these services can be achieved at a fraction of the cost necessary for a medical school; and will be, at this time, far more attractive of Federal supporting funds than a medical school in Maine can possibly be, until essential conditions for its establishment can be met.

3. Full implementation of a program of Comprehensive Regional Health Planning based upon Regional Centers of Medical Education, research and referral service, will, of itself substantially increase the feasibility of establishing a medical school one day. It will broaden the base of opportunity for health careers in other professional services. It will provide time for planning and expansion of Graduate Education Programs at the doctoral level in the biological and health-related sciences which are perhaps even more important to the health and welfare of the state than a medical school -- for which they would also be an essential prerequisite.

4. A continuing agency dedicated to these ends is an urgent need to correlate these efforts and assure attainment of these goals.

Appended to this letter, at your request, is a summary of specific proposals to the Legislative Research Committee for recommendation to the 103rd Legislature for the earliest possible action at that session. Cost estimates over a four-year period are guided by two considerations: their adequacy for a basic operational program, and their promising potential for drawing matching funds from local sources, foundations and the Federal Government.

The time is <u>now</u> for a statement of commitment by the state to Research and Development and to Regional Health Planning. If this commitment is supported by appropriation of funds which in total amounts are modest in comparison with the resources they can mobilize, the job that needs to be done in Maine can be done, and in all likelihood will be done with benefit to the nation.

Sincerely yours,

John B. Truslow

John B. Truslow, M.D.

JBT/pbb

SUMMARY OF PROPOSALS FOR LEGISLATIVE ACTION.

Suggested appropriations are indicated with each proposal.

1. A Resolution, declaring it to be the policy of the State of Maine to promote and assist in Regional Health Planning and in the development and support of Regional Centers of Medical Education and Research over the state.

   Appropriations necessary - NONE

2. An Act, establishing The Health Education and Research Foundation of Maine - to assist in carrying out the purposes of the above resolution; to undertake, and to award grants for others to undertake, research, surveys or consultation services related to these purposes; to seek, receive and administer funds from private and governmental sources directed to these same ends; and for other purposes. (See Appendix I A)

   Appropriations recommended

	Year 1	Year 2	Year 3	Year 4
a. Basic operation	60,000	80,000	100,000	80,000
b. Grant programs	10,000	40,000	20,000	20,000
c. Regional programs in medical education and research -				
Salaries:	20,000	40,000	60,000	100,000
Construction:	--	75,000	150,000	150,000
d. Contract program subsidies in health education -	150,000	150,000	160,000	160,000
e. Loan-scholarship program for students in health-service training.	60,000	75,000	85,000	90,000
TOTAL	300,000	460,000	575,000	600,000*

* This total can be regarded as the State's 1/3 share of the cost of the total operation at that time. Another 1/6 from local sources and foundations is likely to draw 50-50 matching funds from the Federal Government for these programs.

3. A Resolution, declaring it to be the policy of the State of Maine to encourage and support Scientific and Technological Education, Research and Development in order to promote the general welfare of the people of Maine.

Appropriations necessary - NONE

4. A Resolution, declaring it to be the sense of the Legislature that graduate programs of education and research at the doctoral level are as basic to the growth and development of industry in the state as to the feasibility of establishing a medical school: that the resources of Maine are limited and these institutions should be planned for a single site area: that the site for development of such a complex in Maine is at the periphery of the city of Portland, or adjacent to the Portland - Lewiston - Brunswick Triangle which is the population, industrial, transportation and growth center of the state.

SUMMARY OF THE REPORT

A. Scope of the Study

The specific purpose of this survey is to assess the feasibility of establishing an accreditable medical school in Maine. Additionally, if a medical school were not immediately feasible, the study was to make recommendations designed to improve the prospects at the earliest possible date.

Throughout the study, feasibility is presumed to have two important aspects.

First: Are the necessary conditions present or available to establish and maintain the institution itself and are there supportive and sustaining resources in the total professional, educational and industrial community? and

Second: Would a medical school achieve the purposes so earnestly espoused by its supporters and advocates?

In broader terms, the survey seeks to determine if and when a medical school in Maine might make a substantial contribution to the quality and availability of modern health services in Maine.

Whether or not a medical school were feasible in Maine, it is of first importance to understand that a medical school alone cannot be expected to increase substantially the numbers of physicians or of equally necessary health personnel in active practice in Maine. This is particularly true of those areas where recruitment is, and will be most needed.

Initial emphasis, therefore, is given in this report to a discussion of the nature of modern health services.

B. Modern Health Services in Relation to Health Education and Research

1. The advances of Medical Science in recent years have created infinite potential for Health Services to maintain the health of the people, to provide early diagnosis and comprehensive care, to rehabilitate and

restore individuals to maximum capacity for self-reliance, and to give comfort and supportive care to those with debilitating diseases for which science has yet no better answer.

2. Communities, states and the nation have steadily increased their support of health services generally - in terms of facilities, training programs for personnel and area-wide programs in environmental health and preventive medicine.

3. At the same time, the growth of voluntary health insurance, and of governmental programs for military and other Federal personnel, for special age groups in civilian life (child-hood and old-age), for special economic groups (the poverty agreas) and for special disease groups (mental illness and retardation etc.) - has extended the "ability to pay" for health services ever closer to universality, in the United States.

THE COMBINED IMPACT OF THIS IS TO CREATE A POTENTIAL FOR HEALTH SERVICE BEYOND THE RESOURCES OF HEALTH PERSONNEL TO BEGIN TO MEET IN THEIR PRESENT NUMBERS AND PATTERNS OF SERVICE AND PRACTICE.

4. This is true even though since World War II, health services have become the third largest "industry" in the United States, and, second to public education, the most rapidly growing.

5. This is true even though Health, Education and Welfare together account for the expenditure of 68 to 86% of General Fund appropriations in every state in the nation. Federal-state funds are annually increasing; and the area of most rapidly accelerating growth is likely to be Health.

6. This is true, particularly, because as Medical Science continues to advance and create more potential benefits to people, it also multiplies the number of professional skills and specialties, facilities and equipment, necessary to deliver these benefits; and it further requires that professional personnel keep up with advances through continuous education.

THE PROBLEM OF GROWING HEALTH PROFESSIONAL SHORTAGES CAN NOT BE MET BY SIMPLE MULTIPLICATION OF TRAINING PROGRAMS IN THE HEALTH FIELDS. EQUALLY IMPORTANT ELEMENTS INCLUDE:

* INCREASING STUDENT RECRUITMENT TO THE PROFESSIONS
* BETTER UTILIZATION OF PROFESSIONAL SKILLS ALREADY AVAILABLE, and
* BETTER DISTRIBUTION OF PROFESSIONAL SKILLS IN RELATION TO POPULATION.

7. Student Recruitment. Current training programs in many fields are operating now at less than their student capacity, for want of qualified applicants. Qualified students motivated to nursing and other fields turn to careers which require less time and cost for training in relation to rewards proportional to the length of training and the value placed by society upon their services. (See Section II, page 36)

8. Better utilization of professional skills already available calls for greater geographical concentration of health services and facilities, coordination of individual and group services and programs, and further distribution of health service duties among the professions themselves.

9. Better distribution of professional skills in relation to population depends upon the development of regional medical centers of education, research and referral care.

IF REASONABLE EXPECTATIONS OF THE PEOPLE FOR MODERN HEALTH SERVICES ARE TO BE FULFILLED, THESE SEVERAL ASPECTS OF THE RELATIVE SHORTAGE OF HEALTH PROFESSIONAL PERSONNEL MUST BEATTACKED SIMULTANEOUSLY THROUGH VOLUNTARY MOBILIZATION OF TOTAL RESOURCES.

ALL HEALTH AND HEALTH-RELATED GROUPS AND SERVICES, PUBLIC AND PRIVATE, WILL BE INEVITABLY INVOLVED IN COMPREHENSIVE REGIONAL HEALTH PLANNING - designed to:

* Correlate planning, program, facilities and personnel in all aspects of health service in the region - medical and dental, mental health and rehabilitation, acute, long-term and nursing home facilities, health education and research, and the many implications of environmental health;

* Consolidate facilities and concentrate skills to achieve maximum efficiency and versatility in relation to personalized patient needs:

* Describe conditions of work most conducive to professional satisfaction and appropriate reward - particularly in the fields composed predominantly of women who have completed three or four years of basic professional training.

* Develop programs of continuous education of the professions stressing the importance not only of their geographical availability to those in professional practice, but also the role of the public and of the many hospitals and similar institutions involved in accommodating their service needs to this essential educational experience.

* Acknowledge and assert the inevitability of the day when the minimal concentration of physicians for the practice of modern medicine in a community is likely to be three in number; and the significant factor of a patient's distance from a doctor is measured in minutes instead of miles.

* Establish patterns of health service communication and coordination between smaller communities and larger ones (and within the larger ones themselves) and develop regional centers of health education and research, strategically located in relation to these smaller communities and their accessibility by road and by air:

* Bring voluntary health services and health insurance carriers more effectively into the total picture;

* Assure round-the-clock coverage for emergency needs including acute needs for professional reassurance; and

* Appreciate the great significance to health services and their distribution of the quality of public education in the community (including elementary health education) and of the quality of roads between smaller and larger communities in the area. These relate not only to the recruitment of physicians to such communities, but also to the recruitment of Maine youngsters into the health professions.

C. Regional Health Services - a Maine Concept

There is probably no state in the nation with a greater background of experience so essential to comprehensive regional health planning than the State of Maine. Regional thinking about health services was a major theme of the address of the retiring president of the Maine Medical Association in 1896. The pioneering of the Bingham Associates in this area over more than thirty years has not only set the foundation for the more comprehensive step to be taken in Maine, but has also served as a model for other states and for supportive Federal legislation. Regional thinking and planning in State Health and Welfare programs and in the field of Mental Health particularly, have reached into every town and hamlet in the state. Maine was the second state in the nation to establish a state-wide Health Facilities Planning Council.

THERE ARE PRESENTLY FOUR, AND POTENTIALLY TWO OR THREE MORE, REGIONAL REFERRAL CENTERS IN MAINE WITH THE CONDITIONS NECESSARY FOR FULL DEVELOPMENT INTO REGIONAL MEDICAL CENTERS OF EDUCATION AND RESEARCH AND OF COMPREHENSIVE SERVICE TO PHYSICIANS AND PATIENTS IN THE REGIONAL AREAS.

Developing elements of such centers would include:

* A nucleus of full-time teaching staff of the calibre and qualifications of a medical school faculty, and a physical unit clearly designed for teaching and research;
* Teaching programs for interns, residents and practicing physicians;
* Development of a practice of "educational consultations" for the benefit both of physicians and patients in the smaller community areas:
* Fullest possible participation in Federal Programs of regional health service and education (e.g. Heart Disease, Cancer and Stroke)
*Regional mental health facilities and personnel including full-time psychiatrists
* Fully equipped units for dental care and service.

* Affiliations with institutions of higher education for expansion or establishment of associate degree and degree programs in nursing and other health fields.

Essential conditions for the establishment of such centers must include:

* Local initiative and approval to proceed on the program and a prospect of sufficient support within the region to get the project underway.
* A state program, with appropriations to the extent of 1/3 of the cost of operation and new construction, and with authority to cooperate with any regional medical center in seeking and receiving the balance of the costs from Federal and other sources.

SUCH REGIONAL MEDICAL CENTER PROGRAMS IN MAINE GIVE PROMISE NOT ONLY TO GREATER ACHIEVEMENT OF MODERN HEALTH SERVICES TO MORE PEOPLE IN MAINE BUT ALSO TO RECRUITMENT OF MORE PHYSICIANS AND EQUALLY NECESSARY HEALTH PERSONNEL TO ACTIVE PRACTICE THROUGHOUT MAINE THAN A MEDICAL SCHOOL ALONE. MOREOVER IF AND WHEN A MEDICAL SCHOOL WERE FEASIBLE, SUCH REGIONAL MEDICAL CENTER PROGRAMS ARE AN ABSOLUTELY ESSENTIAL PREREQUISITE.

D. Requirements for a School of Medicine in Maine

A number of conditions necessary for the establishment of a medical school are discussed in Chapter III of the report.

The Teaching Hospital of 400-450 Beds

The only existing hospital in the state of appropriate size and design for consideration as the major teaching hospital for a medical school is the Maine Medical Center in Portland. Current expansion substantially increases space and facilities for education and research, and raises to total beds to 515. In plan and program the Maine Medical Center is one of the outstanding Regional Medical Centers of the Northeast, with primary obligations for service, education and research in relation to the private practice community. For affiliation with a medical school its qualifications would be maximum; but integration of the

institution with a medical school, "administratively, financially and physically" would jeoperdize medical services not only essential to the community, but equally essential to the medical school. It must be concluded that a medical school in Maine would require new construction of a hospital unit to serve as its integrated teaching facility.

The University Base

The only institution of higher learning in the state granting doctoral degrees at the graduate level is the University of Maine on the Orono campus. First Ph.D. in at least 35 years was awarded in 1960, and to date the total is 24 in only 5 subjects. Strengthening of these programs is a first prerequisite to the establishment of a medical school; but an equally important consideration is their extension in depth and versatility in health related fields and at a site suitable for development of a medical school center. Rate of progress toward their achievement must be regarded as a major determinant of the prospects of feasibility of establishing a medical school in Maine.

Recruitment of Faculty

A large majority of the full-time faculty necessary for a school of medicine must be recruited from out of state. Few medical schools in the nation are as fortunate as a medical school in Maine would probably be, in the drawing power of their environment as a place to live and work. But other competitive factors must be considerably more equalized. Outstanding among these are the university base and variety of academic desciplines related to health, availability of technical personnel and skills, facility of transportation to the scientific centers of the nation, and the prospects of continuous support over the years of the growth-requirements in facilities and equipment at the fore-front of advancing medical knowledge. Decisive for many are other elements in the community itself, of which the most important are probably in the field of public education.

Student Potential in the Region

On the average, over a ten year period, 38 Maine residents applied to medical schools in the United States and 19 were accepted. Few, if any, of those rejected were qualified for admission to medical school. This is a totally inadequate base upon which to plan a medical school. The cost of the long preparation for a medical career undoubtedly has discouraged some Maine residents every year from even thinking of applying for admission to medical school. There is presently no way of estimating the numbers thus discouraged, but there is little to suggest they are very great. Opportunity for such students must be opened up by intensive recruitment, scholarship and loan programs in relation to expanding opportunities for contract students in New England - but it seems likely to be some years before the numbers substantially increase.

Priorities in the Use of State Funds

In the construction of a medical school and teaching hospital in Maine, the State share of the costs would be in the order of $10,000,000. For full operation of these units, the state share would be about 4.0 to 4.5 million dollars a year.

There are urgent needs at all levels of public education not only prerequisite to a medical school in Maine, but also fundamental to the health and welfare of the state: Elementary, High School, Vocational-Technical and Higher Education including Graduate Programs in teaching and research.

There is profound significance to the feasibility of establishing a medical school in Maine and to the effect such a school might have upon increasing the numbers of health and medical personnel in the state in the fact that only 31% of

the high school graduates in 1963 went on to college or to any kind of further educational experience. One major contributing factor to this picture - which places Maine lowest among the 50 states* - is the inadequacy of the preparation and motivation to college in the secondary public school system.

Training programs in all of the health professions require at least 2 to 4 years beyond the high school; several require, or increasingly advocate, a college bachelor's degree; medicine, osteopathy, dentistry and veterinary medicine prescribe courses of four to seven or more years beyond the college level!

Increasing the numbers of Maine residents entering medicine and the health professions must start in the high schools of Maine. The more students stimulated into good college-preparatory courses, the more will be qualified for health career training. The more effective the recruiting and the more realistic the scholarship and loan programs, the more of those qualified for health career training will be persuaded into these fields. If these statements are self-evident, and more easily expressed than implemented, they are no less crucial to the feasibility of ever establishing a medical school in Maine.

5. A Program for Maine

The proposals for action at this time and for development over the years are primarily directed to the achievement of

1. Comprehensive Regional Health Planning, throughout the state:
2. Regional Medical Centers of Health Education and Research and of comprehensive diagnostic and referral services;
3. Increased numbers of Maine students entering the health professions and expanded opportunities for rewarding health service careers in the state;

* National average was 51%; New England average 50%.

4. Strong Graduate Programs at the doctoral level in the Biological and Social Sciences; and

5. A leadership role for the University of Maine in the whole field of professional education and of research related to the patterns of health service and education in the state.

Toward each of these goals Maine is dedicated today, and is making some progress. In each of these areas there are relatively small numbers of individuals or groups working toward these goals under handicaps of inadequate financing and staffing, and of isolation from one another.

THE IMMEDIATE NEED IN MAINE TODAY IS FOR A STATE-WIDE AGENCY CHARGED AND AUTHORIZED TO STIMULATE, CORRELATE AND COORDINATE CURRENT PROGRAMS AND EFFORTS IN THE FIELD OF HEALTH EDUCATION AND RESEARCH AND TO ENCOURAGE AND SUPPORT NEW ONES.

A highly recommended element in the design of this agency is direct affiliation with the University of Maine in respect to the naming of three of its nine Board Members and to the nomination of its executive director.

Essential to the effectiveness of this agency will be an annual appropriation from the legislature to cover initial and continuing basic operational costs plus matching funds to support specific programs. With authority to seek and accept grants from public and private sources, it is probable that the total budget will excede the appropriation many times in a very few years.

It is proposed that this agency be designated The Health Education and Research Foundation of Maine, and that its functions include:

1. Promotion, planning and support of Regional Medical Center programs in cooperation with local or state-wide planning groups (such as Medical Care Development Inc.) - with appropriations sufficient to cover 1/3 of the cost of new construction and of annual operating budgets in medical education and research.

2. Promotion, planning, and support of voluntary planning efforts to strengthen nursing education in the state and achieve an orderly transition from hospital diploma programs to Associate and Baccalaureate Degree programs - particularly, but not exclusively, in relation to Regional Medical Centers.
3. Promotion, planning, and support of private planning, by organizations such as the Health Facilities Planning Council designed to coordinate large health facilities in metropolitan areas, not only to serve as a broader base for health education programs and for referral services, but also to aid in the conservation of the health professional personnel now in practice and to expand opportunities for rewarding health service careers in the state.
4. Supervision of allocation of state scholarship and subsidy funds for education in the health fields, and correlation of these efforts with private groups such as the Maine Medical Education Foundation and others to maximize the potential for matching funds - with additional appropriations to be recommended.
5. Cooperation with all existing agencies in the compilation and maintenance of a current roster of health and health-related personnel, and
6. Promotion, coordination and support of all planning efforts related to the establishment in the Portland area of a major complex of higher education, industrial research and development, and medical education, research and service.

RECOMMENDATIONS

For the foreseeable future, it is recommended that

THE POLICY OF THE STATE WITH RESPECT TO EDUCATION IN THE HEALTH FIELDS BE BASED UPON THE DEVELOPMENT OF REGIONAL MEDICAL CENTERS OF HEALTH EDUCATION, RESEARCH AND REFERRAL SERVICES, AND THE PROMOTION OF STATE-WIDE COMPREHENSIVE REGIONAL HEALTH PLANNING.

Many assets of the state combine to establish its unique qualifications for maximum benefit from the Federal Heart - Cancer - Stroke Program and from Federal Legislation currently moving in the Congress to provide very substantial funds to the states for comprehensive health planning.

It is further recommended that

THE STATE OF MAINE EXTEND ITS SCHOLARSHIP, LOAN AND SUBSIDY PROGRAMS IN SUPPORT OF HEALTH CAREERS FOR MAINE RESIDENTS IN TRAINING BOTH IN MAINE AND OUT-OF-STATE; SPECIFICALLY -

1. Increasing the amount of $62,500 now allocated for support of 25 Maine residents in the University of Vermont School of Medicine to $150,000 a year: providing for 30 students of medicine at Vermont, 20 students of Dentistry at Tufts School of Dentistry and 10 additional students if similar contracts can be made for education in Osteopathy and Veterinary Medicine outside the New England area.
2. Establishing loans for contract students in good standing in schools of Medicine, Dentistry, Osteopathy and Veterinary Medicine up to $1,200 a year, and to contract students in good standing in Hospital Administration, Pharmacy, Physical Therapy, and Mental Hygiene up to $800 a year; interest free until one year after completion of basic training; thereafter 3% annually until completion of consecutive

post graduate training; and thereafter 6% - <u>except that</u> the entire loan will be cancellable on completion of a period of active practice in Maine equal, in time, to the length of the basic period of training and

3. Establishing loans for students in good standing in accredited courses of training in Maine in the fields of nursing, medical technology, x-ray technology and dental hygiene in amounts up to $500 a year: interest free until one year after completion of the course: thereafter 3% annually; except that the entire loan will be forgiven on the basis of a year in full-time practice in Maine for each year in basic training.

Substantial Federal loan funds are presently available, and the prospects are great for their increase over the years. It is extremely unlikely for a considerable time, however, that they will extend beyond a percentage of total student enrollment or that they will have forgiveness benefits favoring the student origin.

Moreover state loan funds are likely to be valuable assets for Federal matching and state loan policies can be adjusted to fit state needs.

<u>It is further recommended that</u>

EXPANSION OF HEALTH EDUCATION PROGRAMS AND GRADUATE EDUCATION PROGRAMS AT THE DOCTORAL LEVEL IN THE UNIVERSITY OF MAINE BE REGARDED AS OF MAJOR IMPORTANCE TO THE DEVELOPMENT OF MODERN HEALTH SERVICES IN MAINE, AND THAT PARTICULAR CONSIDERATION BE GIVEN TO THE ADVANTAGES OF SPECIAL EMPHASIS OF THESE PROGRAMS ON THE PORTLAND CAMPUS.

Finally it is recommended that

HEALTH EDUCATION AND RESEARCH INVOLVE SO MANY PROFESSIONS, SOCIETIES, AGENCIES, AND INTERRELATIONS WITH GOVERNMENT AND WITH GENERAL EDUCATION, THERE IS URGENT NEED FOR A STATE-WIDE AGENCY CHARGED AND AUTHORIZED TO COORDINATE AND PROMOTE VOLUNTARY AND GOVERNMENTAL EFFORTS AND PROGRAMS IN THE BEST INTEREST OF THE STATE OF MAINE - ACCORDINGLY, THAT

THE HEALTH EDUCATION AND RESEARCH FOUNDATION OF MAINE BE CREATED AT THE EARLIEST POSSIBLE TIME, WITH AN ANNUAL LEGISLATIVE APPROPRIATION, AND AUTHORIZATION TO SEEK, RECEIVE AND ADMINISTER FUNDS FROM PRIVATE AND GOVERNMENTAL SOURCES, TO MAKE GRANTS TO INDIVIDUALS, INSTITUTIONS, AGENCIES AND COMMUNITIES IN HEALTH AND HEALTH-RELATED AREAS, AND TO UNDERTAKE STUDIES, SURVEYS AND SERVICES ON ITS OWN OR IN RESPONSE TO APPROPRIATE REQUESTS.

This Foundation would be responsible to a Governing Board of nine members of outstanding ability and recognized achievement, appointed for three-year terms, subject to only one reappointment without an interim of at least one year: six by the Governor, three by and from the Board of Trustees of the University of Maine. This board would appoint a full-time director on nomination of the University of Maine to assure his qualifications for an academic appointment in the University, if such appointment should be deemed appropriate.

Initially, the major efforts of the Foundation would be the support of voluntary initiative in the planning of health education and research programs in relation to the development of modern health services. It would administer the loan-scholarship and contract programs It would promote and cooperate with efforts to establish a graduate education, research and development complex in the Portland area.

In design and function, the foundation would be a particularly appropriate "single State agency" to act as "the sole agency for administering or supervising the administration of the State's health planning function"[1]; and to serve as the "State Health Policy and Planning Commission, responsible to the Governor".[2]

(1) Sec. 314 (a) (2) (A) of Senate Bill 3008 89th Congress reported out favorably from Committee in July 1966 with an appropriation of $5,000,000 a year for two years for comprehensive health planning by the states.

(2) Recommendation A-1, National Commission on Community Health Services - May 1966.

SECTION I

HISTORICAL SKETCH

An Act of the First Legislature of the young State of Maine established on June 27, 1820, the Medical School of Maine, "to be under the control of the Trustees and Overseers of Bowdoin College".(1) Fifteen hundred dollars were granted "for books, apparatus etc.", and "an annual payment of a thousand dollars" was authorized.

It was one of the very early schools in the history of the nation; and with the four New England faculties of that period (Harvard 1783, Dartmouth 1797, Yale 1819 and Vermont 1822) which are still in existence, it shared the notable distinction of being academically based on a college campus.

"To the material increase of the health and happiness of the people" its contributions have been immeasurable - extending far beyond the unhappy day of decision in 1921, when, after a century of service, the financial burdens of retaining its stature as a Class A school forced it to cease operation. For, today, virtually a half-life later, there are still a few of its more than 2,000 graduates over the years, actively practicing in Maine.

In these forty-five years since the Medical School of Maine closed its doors, there have been repeated efforts to revive interest and to explore possibilities of a medical school in the state. Studies and reports have accumulated over the years. They are interesting in their pertinence to the current study in many respects, but particularly in the impression that:

The insurmountable problems were ever in consideration of the cost and the appropriate academic base; and

Promotion and active participation by practicing Maine physicians has characterized all the reports available to this study.

(1) These and other quotations are from those cited in the Maine Medical Association Statement at hearings which lead to the authorization for this study.

This identification of Maine medicine with the public interest and concern about a medical school in relation to the quality and destribution of health services in the state is notable in itself. But its significance to the evolution of modern health services in Maine and appropriate patterns of health education and research is as promising as it is fundamental in this day of constant change in the meaning and the potentialities of Health to Man.

Scarcely 100 years ago, in perhaps the 45th year of the Medical School of Maine, Health was still hopefully "a soundness of bodie and mind for whiche the Lorde be thanked"; and so it had been for thousands of years until the approach of the twentieth century.

The practice of medicine was limited to recognition and treatment of the few acute conditions to which the physician's art and skills might bring some relief. At least theoretically, the doctors available to President Lincoln - and even up to McKinley, perhaps - could know all there was to know about medicine and could do all there was to be done. They generally did it all, too, because "trained assistance was then almost unknown."

First nursing school in the country was founded in 1861; and in 1866 there were only 173 "institutions for the bed care of the sick" in the entire United States!

By 1900, it began to be acknowledged that the doctor needed more and more for the care of his patients than was "portable in the little black bag". Hospitals appeared in many communities, often by conversion of large old houses. They were equipped with a sterilizing apparatus ("How it would bewilder an old time Doctor," wrote Dr. Lewis W. Pembleton of Portland in 1896*); and ether was beginning to be used

* These and other quotations which follow are from Dr. Pembleton's presidential address to the Maine Medical Association, June 3, 1896

more generally. But the big change was beginning in the growth of nursing service "multiplying many times the potential services of physicians."

Nationally, at the turn of the century, there were 432 hospital schools of nursing; of which at least five were in the state of Maine. And hospitals were beginning to become places to live and possibly get well, instead of just to die. Roentgen's discovery of the x-ray a few years before, was stirring the imagination of doctors in Maine, several of whom were "engaged in experimental work upon the possibilities it opens up".

There was even evidence of a "demand for District Hospitals -- not as rivals to the Maine General Hospital", but in relation to it as "of the ganglia to the brain, to assist it and to be assisted by it", in meeting the needs of the people!

In the first quarter of the 20th century, the ratio of physicians to nurses changed from 100 to 1 to 1 to 1 in the United States as a whole - and this was probably closely reflected in Maine as the number of hospital schools of nursing increased from five to 33 in the state. Hospitals increased proportionately and costs per patient per day for acute general care rose from #3.20 (in 1897) to $8.65 (in 1927). Nervous and mental hospitals, tuberculosis hospitals, and other special institutions began to dot the rural landscapes. Growth of health services in those days could be reasonably reflected in numbers, and there were steadily more doctors, more nurses, more hospitals, and more services every year; and generally speaking these could be recruited and trained, assembled and organized by the community, in the community, and for the community itself. To this point in time, a good medical school in Maine and a total of some 37 hospital schools of nursing seemed to assure a supply of active professional personnel in Maine consistant with the potential for service of the time and with the prevailing efforts of the New England area.

But this was not all that was happening in the field of health in those ebullient years. Public health services were initiated and developed in the areas of hygiene sanitation and vector control; Medical Education turned to the

Universities; and World War I became not only a turning point in medical research and health-professional teamwork, it brought hundreds of thousands of young men and women on to Main Street, Fifth Avenue and the Champs Elysee. America would never be the same again - but neither would health services, education and research.

As medical science advanced and medical knowledge expanded, professional training in health fields lengthened in time and became vastly more complex and expensive. This substantial cost factor was clearly the major reason for discontinuance of the medical school at Bowdoin - and later, for the gradual shutting down of a large number of nursing schools. But there was another factor of importance in the state of Maine as in many other states and parts of the nation. Migration of students most qualified for health professional training was steadily increasing in the direction of larger towns and cities and metropolitan areas often out of the state - for education itself, but more significantly for opportunity in the health professions and in the diversity of daily life

More doctors, more nurses, more health services in Maine can no longer be recruited and assembled and organized primarily at the local level of service and need.

Furthermore, modern health services are no longer sustained alone by doctors and nurses in appropriate numbers. They involve many more professions, teamwork skills, modern facilities and continuous education of all professional personnel.

In the forty-five years since Bowdoin Medical School ceased operation, a revolution has occurred in the whole field of Health. In a sense Health has found a place in the company of Education and Welfare as a universal expectation of American citizenship.

In only a few decades, the PHENOMENAL ACCELERATION OF RESEARCH into the nature of human health and disease has given promise of LIMITLESS HEALTH SERVICE to man.

Response over the nation to this promise has been formidable indeed:

* A five-fold increase in Health and Health-related personnel, characterized by development of new professions and technical skills, of specialties and subspecialties within the professions, and consequently, by a steady increase in the length and depth of basic professional training and in the need for continuous professional education.

*Construction, expansion and operational support of facilities for patient care, public health, health education and research, at the cost of billions of dollars.

* Extension of "ability to pay" for health services through private health and increasing governmental health coverage rapidly approaching universality in the nation; and

* Steadily growing involvement of Federal, State and Local Government in the subsidy of health education and research, and in the planning, financing and operation of health services generally.

Nevertheless, the chasm is widening between the steady advance of medical knowledge and the capacity of health services to make the benefits of these advances available to the people.

IT HAS BECOME INCREASINGLY APPARENT THAT ACHIEVEMENT OF MODERN HEALTH SERVICES FOR THE GREAT MAJORITY OF CITIZENS OF THIS NATION WILL NECESSITATE MORE FUNDAMENTAL ACTION THAN MULTIPLICATION OF TRAINING PROGRAMS, FACILITIES AND FUNDS.

More training programs do not insure the recruitment of full classes of qualified students. There must be a simultaneous increase of the numbers qualified for education in the health fields and in the numbers attracted to the health fields by their obvious satisfactions and rewards in competition with other opportunities and careers for youthful talents and abilities.

More graduates in the professions give little assurance to their appropriate geographical distribution in active practice or to their prospects of full-activity (in some professions) for more than a few years. There are factors of conditions of work and of environment for living and raising a family; and for the most part they are neither unreasonable nor unachievable in appropriate locations.

More facilities often compound the wastefulness of professional skills now in active practice. There are several areas in Maine where this is clearly demonstrable today.

> In short, recruitment of doctors, nurses and all others needed in the health professions today depends as much upon the patterns of modern health services, the opportunity for professional stimulation and reward consonant with length of professional training and value of these skills to society, availability of the tools and facilities and the total environment of health services - as it does upon increase and expansion of current training programs.

"THE MORE FUNDAMENTAL ACTION" TO BE TAKEN FOR THE ACHIEVEMENT OF MODERN HEALTH SERVICES FOR A MAJORITY OF CITIZENS CAN BEST BE DESCRIBED AS COMPREHENSIVE REGIONAL HEALTH PLANNING.

This is true for the nation as a whole, but it has particular applicability to Maine - (See Section II)

There are conditions and resources in Maine more favorable for comprehensive health planning at this time than in almost any other section of the nation.

SECTION II

HEALTH RESOURCES IN MAINE

Regional Health Services - a Maine Concept

At the turn of the century, there were some 1,200 doctors in Maine. With very few exceptions they were general practitioners of medicine and surgery. They practiced alone; and many were located in towns which today have found no successor to their beloved family physician.

Even at that time, however, it was evident to a few that this isolation severely limited the capacity of a physician in the care of his patients, and that the distribution of small towns over the expanse of the state called for District Hospitals* and for facilities of transportation so that "all parts of Maine will be easily accessible at all seasons of the year". Dr. Pembleton's feeling for regionalization of medical service was eloquently conveyed: "Our own Maxim, or some other Yankee, will have to perfect the flying machine, by which every hill shall be brought down, as now every valley is exalted by the railroad."

But the effective pioneering in the regionalization of medicine was undertaken by the Bingham Associates Fund, initially "to extend into small communities the medical advantages of a metropolitan center by direct and indirect contacts between these elements, arranged on a permanent working basis".(1)

Founded only ten years after the closing of the medical school at Bowdoin, the Bingham Associates Fund Program fulfilled some of the functions which the school might have continued to develop over these years; but in so doing, it evolved a concept of regionalization which would serve as a model for the nation.

Over more than thirty years, the Program has been a major influence in the evolution of referral centers in Maine and the concentration there of qualified

* See Section I, page 26

(1) Medical Care in the State of Maine 1956-62, W.G. Smillie and J.A. Curran

specialists and skilled assistants so essential to modern medical care. It has been equally effective in recruiting general physicians into communities which relate to those referral centers. Educational programs continue to grow not only for physicians but for nurses, technologists and other health personnel.

Regional thinking characterizes many phases of health in the state of Maine. Outstanding example over the years has been set by the philosophy and programs of the State Department of Health and Welfare. One aspect of this which is visable in all parts of the state is in the allocation of Hill-Burton Funds for hospital construction. It can be estimated with fair accuracy that there are fewer than 32,000 people in the state today residing more than twenty air-miles from an approved hospital and at least three practicing physicians. (See Appendix Table II A)

This is both an astonishing achievement, and a provocation for further development of regional planning. Three hospitals within fifteen miles of each other raise serious problems of cost and duplication of skills; and restrict the capacity of a region to support a Regional Medical Center with substantial programs in health education and research. Moreover, community hospitals constitute only one of the elements in comprehensive regional health planning, as regional studies have recently demonstrated so dramatically in the fields of Mental Health, Long-Term Care facilities, Nursing Homes, Rehabilitation Services and Teaching and Research Centers for Heart, Cancer and Stroke - for example.

The Supply and Distribution of Physicians

Glancing briefly at gross numbers - there were 1,206 physicians reported to be in Maine in 1900, when the state population was 694,466; or, one doctor to 576 people. In 1965, total physicians in Maine were 1,192 in number, and the state population an estimated 989,000; or one doctor to 830 people.

There is little information immediately available about the profession in 1900 as to the extent of their activity in practice or their distribution in relation to local population. Between 40 and 45% were graduates of the medical school at Bowdoin; the others undoubtedly reflected the wide variation in educational background of that

period. Regardless of training, the physician then saw far fewer patients than his counterpart today, and a substantial portion of his waking time was in travel on rough roads to the homes of his patients.

A good deal can be learned, however, about the 1,192 physicians reported to be in Maine today - and it is well to think that similar information would make the figures of 65 years ago more meaningful to the purposes for which such comparisons are sometimes made.

Of the 1,192 physicians, 986 are doctors of medicine and 206 are doctors of osteopathy. Again, of the total of 1,192, there were 110 reported as retired or inactive. Total active physicians in Maine in 1965 were 1,082; or one doctor to 916 people. Active physicians in the nation were in the ratio of one doctor to 702 people; and in all of New England, one doctor to 658 people.

Up to this point we are on relatively sound statistical ground; but the statistics are relatively meaningless, because the activity of physicians is no longer confined to direct-contact care of patients.

> Behind every 100 physicians actively delivering patient care in the United States today are 4 physicians equally active in medical education and research, 6 in hospital and health administration, 15 in public health and governmental health services; and then there are 23 more in training.

The importance of this group of 48 physicians to the 100 in private practice cannot be stressed too strongly. In the first place, a majority of those in training, in medical education and in governmental health services are giving direct-contact patient care to an extent comparable with many in private practice. Represented in this group are the major resources for stimulating the quality and comprehensiveness of medical care. But the largest group - the physicians in training - are the practicing physicians of tomorrow, and they tend to settle in practice in the vicinity of their internship and residency programs.

For Maine, it is therefore extremely important to assess the apparent imbalance of its physician pattern.

Behind every 100 physicians in Maine actively delivering patient care are a fraction of 1 equally active in medical education, 2 in hospital and health administration, 3 in public health and governmental health services, and 7 in training.

Practicing Physicians in Maine

Of 1,082 active physicians in Maine, 952 were engaged in the private practice of medicine: one doctor to 1,040 people in the state, precisely the national ratio.

> Their relatively favorable distribution throughout the state in respect to population and hospital facilities has already been noted. Comparison by age group to the national pattern is not quite so reassuring (See Appendix Table II B); but there is no question about the fact that increasing recruitment in the younger age groups is dependent upon the willingness of the state to acknowledge the changing patterns of medical family practice.

"Specialists" in a number of fields are carrying an increasing load in the area traditionally associated with general practice. Experience over the nation is demonstrating the tendency of group practice to increase the number of patients each doctor is able to see. Internists and pediatricians particularly are filling the need for family physicians so deeply etched in the medical tradition - and with general surgeons, obstetricians and psychiatrists they represent the doctors "of first contact" for millions of people.

Reference to group practice was volunteered in more than 50 of the questionnaires filled out by physicians in connection with this study, being second only to the need for greater contact with medical education and medical center facilities. All of these go together, of course, in the progress most likely to recruit physicians to Maine and to achieve greater distribution of modern health services.

The need for psychiatrists and mental health personnel is abundantly clear throughout the state.

Maine is one of only 16 states in the nation recording more than 200 osteopathic physicians, and one of only three in which doctors of osteopathy represent more than

20% of practicing physicians. (See Appendix Table II C)

In the past decade recruitment to the practicing profession in Maine has been at a somewhat slower rate for this group than for doctors of medicine, but it is notable that of 36 osteopaths under 45 years of age, 27 completed their hospital training in Maine; and of these, 24 were out-of-state residents who decided to settle in Maine. By contrast, only 74 of 196 practicing doctors of medicine under 45 years of age (1) took their hospital training in the state of Maine, and of those who settled here only 35 were from out-of-state.

Percentage-wise there are more osteopaths in towns of less than 2,500 population in the state than there are doctors of medicine, (total numbers, however, are 44 and 82 respectively). But with steady development of the broader scientific base of education for the osteopathic profession, there is little doubt among its leadership that the trend will accelerate to the centers where facilities and services can be concentrated.

The advances of medical science continue to extend the potential for modern medical service beyond the capacity of the medical profession to deliver unless they have easy access to modern facilities and equipment and unless they are able to collaborate singly or in groups with their colleagues in the profession.

If Maine is to preserve its remarkable pattern of physician distribution over the state, and enrich the quality of its medical services throughout, it must bring these facilities and services nearer to the people and their doctors.

The first need for Maine is substantial development of Regional Medical Centers of education, research and referral care - in several localities over the state. The implication of this to the long range possibility of a medical school is discussed in Section III.

(1) These data relate only to the 196 who answered the survey questionnaire. (See Appendix Table II D)

Nursing in Maine

Health personnel data are very generally riddled with arbiguities; but nowhere are the statistical vaguaries so baffling on a nation-wide scale as in the field of nursing. Maine has its due share of the national problem.

In 1962, Maine was ranked number eight among the 50 states in the nation in the number of professional nurses in practice per 100,000 population.(1) With 374 per 100,000 people, it compared favorably with the national ratio of 298 per 100,000, but lagged behind the New England ratio of 470 per 100,000. In 1966 Maine's ratio had increased to 409 active nurses per 100,000 population.(2)

In 1964, Maine ranked below the national ratio of total nursing personnel to patients in acute general hospitals.(3) Reported ratio in Maine was 243 to each 100 patients. Nationally the ratio was 247 to 100; in New England 273 to 100.

The 1966 study cited above reported 2,569 of the 4,050 active nurses (64%) as being employed by a hospital or other institution; and another 496 as private duty nurses.

Returns from 34 questionnaires to hospital administrators in Maine, representing approximately 73% of the total general hospital beds in the state, reported (as of April 1966) 1,588 Registered Nurses on duty, 182 budgeted vacancies, and the need for 126 more, if the budget permitted. That the need may be somewhat greater than the administrators indicated is strongly suggested by a review of the total nursing pattern reported in these questionnaires. There appears to be a definite trend to greater dependence upon lesser-trained personnel for professional nursing care.

This is further reflected in the dramatic increase in the numbers of students in the growing schools of practical nursing in the state, and in the numbers of practical nurses employed and reported as "needed" in these same questionnaires. In addition to

(1) American Nursing Association Research and Statistics Unit, 1965

(2) Unpublished data compiled by Health Facilities Council of Maine

(3) Journal American Hospital Association, Guide Issue, August 1, 1965

the 320 on duty in these 36 hospitals reporting (this includes many unlicensed practical nurses because this point was not made clear in the questionnaire itself), budgeted vacancies and needs totaled 254. Three respondants reported starting salaries for licensed practical nurses in their hospitals at levels exceeding the starting salaries for registered nurses reported from three other hospitals.

It is doubtful that a personal communication from a Board member of one of the larger hospitals in the state is an isolated instance in the total picture.

"In our hospital", he said, "the recommended staffing pattern is 44 registered nurses on general staff duty, 25 practical nurses and 17 nurses aides. At this moment we have 33 registered nurses, (half in laboratories, operating rooms etc., leaving 5 on duty a shift); 6 practical nurses, and 45 aides, whose qualifications are five weeks of training." This hospital was one of ten reporting their number of nurses aides to be equal to or exceed their total R.N.s and L.P.N.s.

There are no crisp, sure answers to this dilemma. When they are found - and they will be - it is certain they will be near at home and not "at the national level."

They will certainly involve salaries. One half of the responding hospitals in the questionnaire cited above reported starting R.N. salaries in the range of $1.50 to $1.75 an hour, the other half, from $1.76 to $2.00 an hour*. Top starting salary for a girl on completion of three to four years of study beyond high school is thus - $80.00 a week or $4,160 a year! It is discouraging to a lot of youngsters today in comparison with starting salaries in activities requiring a fraction of the length and expense of the training; or to many of those inactive "active nurses" in the state, in comparison with the cost of a companion for the children.

They will certainly involve working conditions. There is little point to increasing salaries unless they relate to the value of the work to be done, and the capacity of the person by character and training to do it well. It makes as little sense to

* This was 4 cents an hour more than the top starting salary for floor duty nurses reported in a 1964 state survey of nursing salaries.

waste the professional skills of a registered nurse in assignments which require minimal training and judgment, as to expect the registered nurse thus assigned to carry them out routinely with a feeling of professional satisfaction.

Above all they must involve recognition that the professional nurse is a keystone of the capacity of the health professions to extend the scope and availability of modern health services.

Nursing education nationally is in a period of expansion of programs and numbers of annual graduates; but the rate of growth has fallen short of the needs and expectations of many projections of some years ago. Reasons for this are financial and an extreme shortage of faculty, but they are compounded by two others which are of importance to Maine at this time. The numbers of qualified applicants for nursing today are not, in many instances, much in excess of available openings and this must be attributed in very large part to the conditions cited above.

The second factor concerns the present and the future of hospital schools of nursing which are three year courses in general hospitals, largely underwritten by patient-fee-income. Still representing 70% of the national source of nurses, (and currently 93% of the annual graduations in Maine) their costs are mounting, their service-benefits from students are decreasing, and they count themselves lucky if 20% of their graduates elect to join their own hospital staff. Federal subsidy grants are available to a maximum of about 18-20% of the nursing school budget; but most schools are eligible for far less than this and count the cost of application and compliance with certain requirements too close to the benefits to be gained.

Until the diploma schools in Maine can find appropriate colleges for affiliation in a two-year "Associate degree" program, their financial problem will predictably become more critical each year.

Other Health Professions

Time dictated that only Medicine and Nursing could be covered in any detail in this study. Yet the whole concept of modern health services depends upon all of the health professions, their development in quality and numbers and the capacity of the whole group for greater teamwork.

As in medicine and nursing, there are two aspects of the picture in these other professions: increasing the numbers of resident students entering the health fields, and increasing the numbers of graduates into practice in Maine.

The need for dental care in Maine is said to exceed the demand for it; but this current demand is clearly beyond the capacity of the 381 dentists in the state to meet as they would want to do. There are only 9 orthodontists and 2 oral surgeons in the entire state, and none of the other specialties are represented at this time. Only 13 hospitals have reported dental facilities. Four of these have approved dental departments. Most promising development in this field is the successful start of the course for Dental Hygienists at Westbrook Junior College. Studies at two dental schools have recently shown that one dental hygienist working with a dentist can increase his professional service 40%, and two of them up to 90%!

Among the professions covered by the hospital administrator questionnaire cited above, there were several in which there was virtually unanimous expression of need for additional personnel, and if possible, additional training programs in Maine.

Physiotherapists, Medical Record Librarians and Dieticians headed the list. Psychologists for their local mental health clinics were mentioned by 29 of the 34 respondants.

Visiting nurses, and Nurse Anesthetists were particularly mentioned.

The need for X-ray Technicians was expressed by 10 of the hospitals.

A Major Function of Regional Medical Centers of health education research and referral care in several areas of the state will necessarily be the development and expansion of educational programs in many professional fields. It is of the utmost importance therefore that planning in the area of Higher Education in the state be correlated with the needs for health education at such centers.

SECTION III

THE REQUIREMENTS FOR A MEDICAL SCHOOL

Perspective

There is no such thing as a small inexpensive medical school.

A medical school cannot function without a teaching hospital, or justify the costs of assembling outstanding talents and skills and of constructing expensive and complex facilities, unless it also:

* Includes graduate programs in the biological and medical sciences, and in the clinical specialties,
* Contributes substantially to medical knowledge through research,
* Serves as a referral center for the practicing profession.
* Is a major resource for continuing education of physicians.
* Encourages close association and increasing coordination with training programs in other health professions.

A medical school looking to the future will wisely anticipate in its basic design and in the selection of its site, the probabilities of increasing concentration of many health and health related activities in its immediate environs and coordinated operational program. For example (as in many communities today)

* Extensive public and private ambulant patient facilities and doctors' offices, not only for diagnostic and follow-up services, but assuring emergency and necessary supportive services to the community at all times.
* Intermediate and long-term care facilities for service and research, and for demonstration to other sections of the state:
* Other hospitals, private and government, seeking a new location;
* Regional or state-wide operational offices of public health and welfare, voluntary health agencies, health-insurance carriers, etc. etc.; and
* Government and industrial programs of Research and Development.

Basic Requirements

From the viewpoint of economy in operation consistant with versatility and depth in professional talents and qualifications, the minimal size of a four-year medical school has been fairly well established at the level of 64 admissions per year.*

> It appears quite obvious that for the foreseeable future, Maine would not possibly be justified in considering a student body larger than this. Therefore, unless otherwise noted, this discussion will relate to a school of medicine admitting 64 students to each freshman class, and averaging perhaps 225-240 medical students in all classes of the undergraduate curriculum.

To justify a decision to establish a new school of medicine, a number of conditions are necessary at the very start:

1. There must be a closely affiliated teaching hospital, with 450-500 beds, appropriately designed teaching areas, and educational qualifications for staff membership;
2. There must be a University base with graduate programs and a broadening spectrum of doctoral level programs in the basic and behavioral sciences related to health;
3. There must be reasonable prospects of recruitment of a faculty of recognized competence and performance;
4. There should be reasonable evidence to suggest that the new school will, in fact, offer opportunity or stimulus for educatior in medicine to substantially more Maine students than have been entering the profession or even applying for admission in the past.
5. There should be a location of appropriate acreage and ready accessibility in relation to population and to regional centers and community hospitals

* For a brief discussion of two-year schools, see Appendix III A

It is doubtful whether these conditions can possibly be met in the near future.

The Teaching Hospital

The teaching hospital is an integral part of a medical school. Its primary function is patient-care, but its approach to this mission is both enriched and complicated by equally important obligations to society: to educate new generations of physicians and health personnel, and to generate and sustain an atmosphere of constant inquiry into the nature of health and disease.

Education of medical students in the clinical years depends upon precept and example more than on lecture and laboratory instruction. There must be hundreds of 1 to 1 and 2 to 1 contact-hours between student and teacher, at the bed-side, in the clinic, in conference rooms, wherever, whenever opportunity permits.

A community hospital designed to meet the needs and obligations of private practice in the area does not easily lend itself or its professional and technical staff to the teaching of students at this stage of the educational experience. It can only serve this purpose well a) if it is integrated physically, administratively and financially with the medical school and b) if it is large enough to provide the number and variety of patients needed in good medical teaching.

Simply to meet the needs of a student body based on an admission class of 64, a teaching hospital of 450-500 beds is a reasonable minimum provided that there is an active ambulant patient service as well. The great majority of patients seeking medical care today do not need to be hospitalized for either diagnosis or treatment. In the education of medical students, moreover, they provide experience in all phases of disease problems from onset to recovery.

A hospital of this size and this commitment to service, education and research can provide comprehensive services for a surrounding community of 100,000 - 110,000 persons and also serve as a major referral center in the state. This latter function, however, must be rather carefully defined, not only to maintain a balance with the institution's equally important obligations in education and research, but also to recognize the fact that most complex diagnostic and treatment problems today can be handled in regional medical centers of the state. The existence of such regional centers is of vital importance to a medical school.

> There are only three existing hospitals in Maine with more than 300 short-term care beds and substantial outpatient services. Only one of these approximates the 450 required for a teaching hospital.

Eastern Maine General Hospital in Bangor has 308 general short-term beds and reported 60,092 outpatient visits in fiscal 1964. The Bangor region has a population sufficient to support a teaching hospital, but it is presently regarded as having 69 general beds in excess of the needs of its hospital service area.

The Veterans Administration Hospital in Togus has 330 general short term beds, plus 519 psychiatric beds and 60 long-term patients. In fiscal 1964, there were 21,806 outpatient visits. The Augusta-Waterville region combined has a population sufficient to support a teaching hospital, but it is presently regarded as having over 100 general beds in excess of the needs of the combined hospital areas.

The Maine Medical Center in Portland is currently operating with 392 general beds and 20 long-term beds; and 33,530 outpatient visits were reported in fiscal 1964. On completion of new construction now underway, general beds will total 449, including 48 pediatrics and 36 in obstetrics and gynecology, and additionally there will be 40 psychiatric and 26 long-term bed accomodations. In consideration of total population, the Portland area is clearly the location of choice for the support of a teaching hospital, and there is presently no excess of beds to meet current or

anticipated needs.

It is noteworthy also that in the master plan for the Maine Medical Center there has been specific inclusion of the possibility of a medical school development in the area; and in the new construction there is considerable space clearly designated for expansion of teaching and research.

Current teaching and research programs are impressive and productive. Internships and residencies have been fully accredited and well-filled for many years, and they have been becoming steadily more competitive with the best regional centers in the Northeast. The research staff, including 7 investigators at the doctoral level, has had national recognition, and its members are increasingly consulted by the medical staff in relation to recent scientific advances and technical matters related to patient care. The administration and leadership in the medical staff are well oriented to teaching and research.

Whether its role in relation to a medical school were to be that of the principal teaching hospital or of a closely affiliated hospital, there is no question about its present capacity to make substantial contributions to the total program.

Decision to serve as principal teaching hospital, however, would involve integration "physically, administratively and financially" with the medical school. It would involve infringement of the requirements of a full-time teaching faculty and more than 120 medical students upon the practice needs of many physicians in the area - even if neighboring Mercy Hospital were brought fully into the center program. Medical schools founded on the dislocation of primary medical services in the community have discovered the price to be exorbitant.

Wherever a school might be established in Maine, it would require new construction of an integrated hospital facility.

A Faculty of High Competence

In the last two decades it has become increasingly apparent that as medical knowledge advances, medical school curricula schedules become more exacting upon the time of both faculty and students. To meet these schedules and provide a tolerable experience for all concerned, full-time faculty dedicated to the task of keeping abreast of major advances and freed from demanding obligations to a private medical practice have come to assume most of the load of student-teaching.

For a class of 64 students, a full-time faculty of 80-90 is needed: 30-40 in the science departments, 50-60 in the clinical departments. For a medical school in Maine, most of these will have to be recruited from outside of the state.

Perhaps the most significant development in this past 10-15 years affecting the recruitment of faculty to a new medical school was the increasingly vast sums of Federal money made available for construction of research laboratories and services - not only to medical schools but to installations dedicated to special areas of research.

The increasing numbers of young men and women entering careers of medical education and research over the past 10-15 years are not only reasonably assured of a satisfactory income over the years, they are experiencing the rewards and satisfactions of teaching and research in modern well-equipped laboratories and facilities, in a University setting of scholars and students in many other health and health-related fields.

In those established centers - in the current patterns of operation and planning - there is a demonstrable need for more teachers and investigators. In the 86 currently operating schools of medicine alone, a total of 955 budgeted faculty positions were reported unfilled in the 1964-65 academic year(1)

(1) Journal of the American Medical Association, Education No. Vol. 194, No. 7, Nov 15, 1965 p. 746

For the faculties of 14 new medical schools planning to be fully operative by 1970, needs in the basic sciences may be conservatively estimated at an additional 800 full-time appointments; in the clinical departments a net increase of at least 1,800.

Today, the competition for able minds and teaching talents in full-time faculty appointments is even keener than ten years ago but income is now only one of the issues. At the critical point of decision to move to a new school appointment, salary is often a lesser consideration (if reasonably equal in amount) than versatility of colleagues, facilities and equipment. In short, how do the prospects for teaching and research in the new setting compare with the opportunities in his current appointment where his performance was sufficiently worthy to attract the attention of the new school?

These observations combine to draw a discouraging picture of the feasibility of assembling a first-rate faculty for a medical school in Maine in the near future.

Two other considerations are likely to be of some significance as time goes on.

Three out of four of the medical schools of the nation are in the center of great metropolitan areas. Urban and suburban life is the lot of faculty family life. If other factors were reasonably equal, the choice of where one wants to live and to bring up a family is becoming increasingly decisive. On this point, Maine has extraordinary assets and some correctable liabilities.

Climate, pace of life, shear beauty, and recreation, and the short distance between home and place of work are no mean considerations in preference for living as between Maine and the murky megalopolis which embraces most medical centers of the Northeast. This is a major sustaining factor in the vitality and productivity of the Jackson Memorial Laboratory

in Bar Harbor, one of the great centers of research in animal genetics in the world. It is manifest in the longing of former Maine residents active and creative in other states of the nation to return to Maine if there were some opportunity for the application of their talents: if there were a level of public education for their children geared to college entrance and full maturation of talents: and if there were transportation services providing convenient accessability to the great centers of the region, the nation and the world(1)

There are the still virtually untapped resources of Maine in the loyalties and talents of its summer population. For two or three months of every year there are medical educators and investigators in sufficient numbers and variety of disciplines and experience to compose one of the greatest faculties of medicine ever assembled. This is not to suggest that their period of rest be disturbed in any way, but only to speculate on the high probability of the pursuasion of a goodly number of them to work in Maine throughout the year, if a realistic opportunity were available in the state.

Few medical schools in the nation today can promise as much in respect to environment for faculty living (and breathing) from day to day.

One other consideration may have more immediate effect upon the development of medical education in Maine. The steady increase in numbers of full-time faculty in the medical schools of the nation has been noted. In many of the largest of these particularly, there tends to be a lag in the accommodation of this growth to optimum utilization in teaching assignments and research projects. Younger

(1) In the course of this study communications have come from 16 individuals generally affirming these points.

clinicians, restless in this predicament, often discover areas other than medical-student teaching in which their talents are equally challenged in the conduct of education and research. Such individuals are increasingly open to opportunities outside of the Medical School complex, under certain conditions. Principal among these are: comparable academic rank and conditions of appointment, directorship of a clinical service, and the chance for initiative and inventiveness in medical care and medical education as well as in research. As the larger community hospitals have come to realize this extraordinary opportunity to bring medical education into medical practice, the effect upon the quality of medical care has been very generally noted.

Substantially More Maine Students

The presence or proximity of a medical school is a stimulating factor of recruitment into the profession. There is a sizeable group of highly qualified young men and women over the nation for whom the decision against pursuit of a medical career is on the basis of cost, or at least of their information about the cost. For Maine students, a state-supported Medical School would undoubtedly offer a stimulus to enter medicine, and a far less expensive period of basic training.

The issue to be probed is whether a state supported medical school located in Maine would stimulate a sufficient number of additional students into the medical profession to justify the obligations implicit in its huge cost to the state, the region and the nation.

The number of Maine students who applied for medical school, who were accepted in medical school and who actually entered each year over the past ten years is charted in Appendix Table III B. By year and by decade, the record places Maine far down in the lowest quartile of states in the ratio of applicants, and of

acceptances, to total resident student graduates with a bachelors degree.(1)

In the ten-year period (Sept. 1955 - Sept. 1964), total Maine applicants to medical schools in the United States were 379: total acceptances, 193. This acceptance rate of 51% compared favorably with the national rate of 54%, although in three of the past five years it fell considerably below the national acceptance figure.

Averaging 38 applicants a year (ranging from 27 to 54) and 19 acceptances a year (from 15 to 29), the ten-year period just past gives little evidence of a substantial pool of medical students from Maine over the next ten years.

The past five years alone (Text Table A) reveals an even more discouraging picture: but it illustrates the importance of a sustained broad-based program of recruitment and medical school scholarships for a period of at least ten years to assess the true extent and depth of medical student potential in Maine

Text Table A

Medical School Admissions in the Fall of	MAINE RESIDENT STUDENTS # of Applicants	# Accepted	% of Applicants	# Enrolled	% of Applicants
1960	35	15	43%	(14)	40%
1961	34	20	59%	(18)	53%
1962	34	14	41%	(14)	41%
1963	54	29	54%	(27)	50%
1964	46	18	39%	(17)	37%
5-Year Totals	203	96	47%	(90)	44%

The 1963 story is of particular interest. It reflects the results of an intensive recruitment effort supported and largely carried out by the Bingham

(1) Based upon data from Education Numbers of the J.A.M.A., and Applicant Studies from the Journal of Medical Education 1955-1964.

Associates Fund over a period of years. The fruits of this effort may be seen by comparing 1963 totals with the average of the totals in the four other years: a 45% increase in the number of applicants; a 71% increase in the number of acceptances; and a 28% increase in the percentage of applicants accepted.

The difference between the number of applicants accepted for medical school admission and the number actually enrolled probably has significance beyond the evidence of these small numbers. There is reliable information reporting that for at least three of these, the cost of the course ahead was even at that late date decisive in their decision to withdraw.

It is notable that a large majority of Maine students accepted in medical schools over the past ten years attended private schools, and accordingly faced heavy tuition and maintenance costs. (See Appendix Table III C)

New opportunities in New England for Maine students, and proposals for subsidy and loan-scholarship funds will be discussed in Section IV.

The Location

In consideration of the primary mission of a medical school in service, education and research, and of the significance to new medical schools of visible assets in the keen competition for talent, resources and funds, the optimum location described itself in relation to:

A University base and total health facilities and resources

Population concentrations and patterns of growth

Accessibility to the whole region, to regional medical centers and to an international airport - by road, air, or modern rail

Industrial growth and development

Cultural opportunities and diversity

The University of Maine in Orono is more than 100 miles from the population, industrial, transportation and growth center of the State of Maine. In over 100 years of service to the state its strength has been greatest in those programs which are not dependent upon daily interaction with the forces and resources of its immediate environment. Orono is a town of 8,500 population, about 9 quick miles fron Bangor, a city of 40,000. Within a 25 mile radius of Bangor are another 56,000 people; but with the exception of Brewer, Orono and Old Town in the immediate periphery and Belfast on Penobscot Bay, there is no township of more than 5,000 population within 50 miles of Bangor. Dow Airforce Base is undoubtedly a major asset of the area. Civic leadership is alert and able, and city planning imaginative and practical. Their goals for the city and area appear substantial. One cannot doubt their prospects of progress. Medical resources are developing in versatility and depth, and the potential for Regional Medical Center Development is one of the most promising in the state.

Nearer the population, industrial, transportation and growth center of the state, and virtually <u>at</u> the geographical center, is the Augusta-Waterville area, with a 909 bed Veterans Administration Hospital at Togus, and the Colby campus 25 miles away. Three general hospitals in Waterville and one in Augusta total 447 beds serving the practicing profession of the immediate area. In relation to <u>either</u> of these two cities, however, a twenty-five mile radius would encircle a far smaller population than is necessary for a teaching hospital even if it were the only hospital in the region; and excessive beds are reported in both of these regions.

Clearly the location of choice for a medical school in Maine is the Portland area, if a school were feasible today; and projections of population and industrial growth suggest it will remain so for many years to come. This "commercial and industrial center of the state" is in the only area of Maine with population

projections even approximating the growth rate in the rest of New England.(1)52. In respect to all factors except the University base, the resources of this city exceed those of any other in Maine. But what are the possibilities for a University campus in or near Portland?

> This matter is in the province of the current Higher Education Study in the State of Maine. State Advisory Committee Members and Consultant Staff, however, are fully aware of the importance of a University base and a program in Graduate Education and Research to the feasibility of a medical school in Maine.

Expectations of a Medical School

There is little question about where the medical profession in Maine stands as to the need for a medical school, if feasible. Officially they are for it; and individually 77% of 623 practicing physicians responding to a recent questionnaire would favor its establishment "as soon as possible" or "within ten years". "Outstanding" was the anticipated effect of a medical school in Maine upon the opportunity for post-graduate education for the active profession; and "considerable" were its expected effects in meeting needs for patient-referral and consultation. "Doubtful to imperceptable", however, were their estimates of the effect of a medical school upon the numbers of physicians choosing to practice medicine in the state*, or upon their distribution in relation to population.

The record of history of many medical schools in the United States gives support to this view. It also gives little to encourage the hopes of a few

(1) Projective Economic Studies of New England - Arthur D. Little Inc. 1964-65

* It should be noted, however, that 94% of the respondants felt there was a definite need for more physicians in Maine.

physicians and of many citizens in the small towns and rural areas in the state that a medical school in Maine could dedicate itself to the recruitment and training of general practitioners who would "appreciate small town living" and by ingenuity and spunk learn to get along quite well in "old fashioned general practice".

Over the years there have probably been twenty schools of medicine either established or inspired by their popular sponsorship with this understandably nostalgic aim in mind; yet:

> There is no evidence to show that a medical school, however located or directed by its sponsoring agency to select and train students for general practice particularly in rural areas of the state, has ever been able to reverse the steady and compelling trend of doctors into specialties and into larger towns and cities where modern health facilities and versatile skills and services are supportable and justified.

To young men and women completing a period of four years in the environment of medical education and research where the diagnosis of a patient's illness is the subject of discussion and debate, and the variety of possibilities for treatment and recovery is deeply and appropriately impressed - it is self-evident that modern medical care depends upon teamwork relationships among the professions, upon skills and services available in a community hospital, upon accessibility to both physician and patient of the greater resources of a medical center, and upon periodic contact with medical education and research.

> In Maine, as in many states and regions in the United States, there are increasing numbers of small towns which will never have another doctor.
>
> Demands and needs for medical services and for health services generally excede the capacity of physicians and other health personnel to deliver in their present numbers and patterns of practice: and

As this inequity increases in both rural and urban areas it will be constantly embarassed further by the advance of medical science.

Attainment of quality and thoroughness of health services for ever-increasing numbers of people simply cannot be achieved by the health professions alone. Increasing numbers of training programs and of annual graduations will be fruitless in Maine, or anywhere, without popular acceptance of several propositions which acknowledge the impact of constantly advancing medical knowledge upon services designed to distribute its benefits to society:

* Organization of health services must make better utilization of the skills presently available in the health professions. Regional Health Planning would demonstrate the wastefulness of three small hospitals within fifteen miles of each other. Family group practice tends to increase the number of patients each doctor is able to serve. Physicians offices in the proximity of a hospital further saves in "commuting" time. In the case of those professions largely concentrated in hospital settings (this is particularly true of nurses) there must be salaries, job conditions, professional assignments and duties, acknowledging the degree of their training the value of their skills and their shortage in numbers.

* Medical education and research, and health education generally must be conveniently and constantly available to the professions.

*Society itself must come to live with the progress of medicine and accordingly recognize that the significant factor of distance from a physician today is measurable primarily in TIME. Twenty-five miles in the country is no further in TIME from a doctor than most patients in metropolitan areas are away from their larger and more concentrated resources of medical care.

This might be summarized more simply by suggesting that health education, research and services on the one hand, and society on the other, must find appropriate ways and means of meeting half way.

It is more than probable that progress in this quest in Maine will demonstrate that its achievement can be characterized by a sense of personalized family medical care.

SECTION IV

A Program for Maine

"If it is not feasible, when will it be and what steps should be taken to make it feasible?"

There are many steps to be taken by many people and many groups. They are all in the general direction of attainment of conditions necessary for a medical school: but they must not be regarded as following a sure, straight road to a medical school in Maine.

The Program for Maine has the same goal, however, which the Legislative Resolution H.P. 1174 set for a medical school: to "help relieve the present shortage of physicians and insure an adequate future supply of physicians and make conveniently available to Maine citizens the increasingly complex and effective facilities of a modern Medical School Center".

1. To Increase the Numbers of Maine Students Entering Medicine and the Health Professions Generally

This is not merely a critical factor in the justification for a medical school. It is an obligation to the people of the state and to the health of the nation.

There are three elements in the picture: The numbers of students qualified for training in the health professions, the numbers motivated to the health professions, and the availability of training programs and funds to cover their increasing costs.

Minimal basis for training in all of the health professions is a high school course which is primarily geared to the expectation of further educational experience after graduation.

In 1963, 10,883 students graduated from high schools in Maine. Only 3,381 (31%) went on to college or to any other course of formal education. Assuming relative stability of population state-wide, it can be estimated that this represents educational survival of only 19% of the class which entered the

fifth grade in school eight years before. If Maine had merely achieved the national rate in that year (51% of high school graduates continuing their education) there would have been 2,169 more Maine students in college or further training that fall! At the New Hampshire rate it would have been 755 more.(1)

There is no evidence to suggest that initial motivation toward the health professions is less than it ever was. It may well be greater. At the point of decision for qualified students, there is increasing awareness and influence of the factors of job satisfaction and income - particularly in nursing and similar professional fields. In all fields, but particularly medicine, dentistry and the longer course subjects, there are considerations of cost - all too often colored by incomplete information and without benefit of perspective in relation to alternatives. It is not the exceptional parent in Maine who doesn't know what higher education costs; but he knows one thing: "It costs too much".

Availability of training programs is a factor of recruitment to be carefully weighed, in several terms. There are current programs to be strengthened in Maine. There are new programs in Dental Hygiene and Associate Degree Nursing at Westbrook Junior College, for example, to be encouraged and supported in undergraduate recruitment and recruitment to practice in Maine. There is great promise in the proposal to establish a Department of Health Professional Education at the University of Maine in Portland; and with additional faculty strength there in the Arts and Sciences, a move of the School of Nursing from Orono to Portland would be highly desirable: combining the academic and clinical years in one place, improving prospects for faculty recruitment and serving as a stimulus to development of programs in other health fields.

(1) Department of H.E.W. Office of Education - Survey of Residence and Migration of College Students, Fall 1963

Psychology, Mental Hygiene and Physiotherapy are fields of urgent need in the state and the resources in being or in prospect in the Portland area give promise to early establishment of training programs. Schools for the training of medical librarians and medical dieticians would appear particularly promising for development in the near future.

For some time, however, there will be need for out-of-state training in many health professions; and the contract programs through the New England Board of Higher Education offer opportunities which Maine has only begun to realize. As of early spring 1966, the NEBHE office reported only 14 Pharmacy students, 8 in Physiotherapy, 5 in Occupational Therapy and 1 in Mental Hygiene, in addition to the medical students at Vermont.

Greater use of these programs can certainly be achieved by more intense recruitment in Maine, strengthened by a worthy scholarship loan program and by improvement of job opportunities in the state on completion of the training.

In respect to dentistry the prospects of an early contract with Tufts School of Dentistry in Boston should be implemented at the earliest possible moment.

In the case of medicine, greater use of the contract program over the next ten years can be a decisive factor in determining whether there are likely to be enough Maine students seeking a medical career to justify Federal and State investment in a medical school.

> Within the immediately foreseeable future, there will be 225 new freshman places in state medical schools in New England: 100 at the University of Connecticut, 100 at the University of Massachusetts and 25 additional at the University of Vermont on the basis of currently planned expansion.
>
> For New England as a whole the number of applicants to medical school has lagged behind the national rate for a number of years. Yet these programs together offer priority opportunities for the equivalent of a 50% increase in the number of New Englanders admitted to medical school each year.

This is the basis for a major recommendation of this report not only to expand the subsidy funds to support more students, but to press harder in recruitment and in substantial loan-fund support, and to provide a cancellation feature in return for active practice in Maine, year for year of the loan.

Extension of the contract to the new medical schools in New England has been informally explored with officials of each school, and with the staff of the New England Board of Higher Education. There seems no question about this possibility and its very probable approval, if and when action were initiated by the State of Maine. But, there are considerations which appear to favor expansion of the Vermont School contract as the major initial effort.

With the opening of the University of Massachusetts School of Medicine, it is conservatively estimated that there will be a loss to Vermont of some 200 Massachusetts applications, and of around $175,000 in Massachusetts contract support. Recently, applications to Vermont Medical School from <u>outside</u> New England have multiplied each year; yet admissions have been kept to less than 5%. It can be stated that Vermont wants to keep this high priority for New England students. The University needs a lot of help, if it is to hold to this view. Maine's best interest will be served if that view can be held, even in the face of the likelihood that the unit subsidy payment may have to increase.

2. <u>To Develop the Academic Base</u>

If the necessity for a sound academic base for a medical school can serve in some measure to stimulate and support graduate programs in the arts and sciences in Maine, it will open wider doors of opportunity for this state than merely those of medical education.

If the resources of the great private colleges in the state were to combine with the University of Maine in establishing a graduate campus and program, the base would be proportionately the stronger.

If this, and the development of a major University of Maine campus in the Portland area were to acknowledge the present and potential assets of physical proximity to the center of population and industrial growth of the state, to the concentration of initiative in Research and Development, and to the optimum location for a modern medical center complex, the time is at hand to select a site in the Portland area. Recent reports from Washington suggest another aspect to this picture. There is likely to be a point at which prudence and politics will join to affect a better geographical distribution of the Federal dollar. The "Have-not" States nearest to the "Haves" and best prepared to entertain their resources may find that great scientific centers can divide their campuses effectively.

As in the health fields, the New England Compact offers great resources to Maine in graduate education and research. They will be even greater, however, as the University develops more depth in the graduate field in Maine, and exchange benefits can become more equalized.

Three areas of distinction already attained by the University of Maine appear particularly suitable for further development in consideration of the broad field of health.

* Some years ago, the University established the first course of training in the nation for city managers, and more recently a course designed for town managerships. The need for new programs and training methods in the field of hospital and medical service administration today is staggering; and the era of health insurance, medicare, and regional planning has scarcely begun.

* Establishment of a Marine Biology Laboratory south of Damariscotta was recently announced by the University. The need for broad-based programs in the study of the biology of the sea is related not only to medical science, but to the food-potential for the world's exploding population.

* Equally pressing for research is the nature of health and disease in animals: not only in relation to food supply, but now in the discovery in many nations of the world of greater transmission of disease between animals and man, and in the increasingly difficult health problems of research animals today. In the School of Agriculture at the University is one of the few programs in the nation with research achievements and graduate work at the doctoral-level in the field of Animal Sciences.

3. To Promote and Support Local Efforts to Develop Regional Medical Centers.

The practice of modern medicine depends upon accessibility of the doctor and the patient to the facilities and teamwork skills of a modern medical center. Numerically, a majority of patient ills may be treated in the office and community hospital; but for increasing numbers of patients, the duration and outcome of an illness is dependent upon precision of diagnosis and the combined judgment and skills of a whole health team.

Predictably this dependence will continue to increase - and medical centers will become crucial not only to the practice of modern medicine but to the recruitment of specialists in the central area and of physicians in general or family group-practice into the surrounding smaller cities and larger towns.

Essential to the regional medical center concept - and a major asset in physician recruitment to the area - is an internship and residency program so clearly educational in character that it is highly recommendable to students. Each of the potential regional centers in Maine today has a nucleus of physicians both qualified and disposed to participate in such a program, but experience has shown the virtual necessity of full-time medical direction and participation to carry out the educational functions and hold the program together.

The Federal Heart-Cancer-Stroke Program will increase the need for full-time staff and "faculty", as its demands of service and education exceed the capacity of physicians in private practice to meet.

Increasingly critical to the effectiveness of modern health services is the retention of the identity of the private patient referred to the medical center. Full-time service chiefs primarily concerned with medical education have an immense opportunity for development of personalized contacts with referring physicians in behalf of the patient - and equally as a basis for a continuous educational exchange.

Essential to the medical center concept is suitable space for teaching and research, for library and diagnostic equipment and offices for the full-time staff.

Most stimulating to the medical center comcept is an academic affiliation - and with clear manifestation of an institution's commitment to a nucleus of full-time education and research appointments, this can be achieved, as it is being increasingly achieved in hospitals in the outer periphery of Boston.

For these and other center activities which would develop in time, the three necessary ingredients are initial interest in the concept, funds and sustained activity.

Federal grants are easily available for planning at all levels. Major hurdles are the funds for new construction and the early years of operation. At least three current Federal Programs with appropriations for new construction, another as yet without construction funds, and a fifth which passed the House last week by a vote of 364-0 - appear applicable in whole or in part to the necessary facility. For early operation, again there is potential in part from many sources.

But if the Federal share for each of these were not 50% or more, there will be a substantial balance to be covered. Medical education and research is scarcely less supportable by the state in regional medical centers than in a medical school; and for several communities, a state contribution of 1/3 of the costs of new construction and early operation will be the decisive factor in timing, and perhaps the critical factor in moving ahead at all.

As important as funds, however, is the element of sustained activity; and a very great need of Maine today is comprehensive health service leadership, on the firing line.

To Correlate and Expedite the Total Effort in Maine

Total effort in the achievement of modern health services in relation to health education and research, includes activities, programs, agencies and leadership in all segments of health and health-related affairs.

It involves many professional groups, societies and opinions; and the public, as consumers of medical care.

It involves three departments of state government at the primary level: Health and Welfare, Mental Health and Corrections, and Education: and several in important supporting roles, for example: Economic Development, Highway Department, Personnel, Federal-state relations and Transportation.

It involves several departments of the Federal Government and many of their subdepartments and agencies, for example; Health, Education and Welfare, Urban Affairs, Agriculture and the Poverty Program.

Correlation of these efforts at the state level has become a matter of considerable urgency. State-wide and regional plans and programs in elementary, secondary and higher education, in medical, dental and mental health services and facilities, and in health education and research are dependent upon each other for maximum achievement of their goals.

A correlating agency is needed primarily as a planning, educational and research instrument, but specifically charged with the task of concern for the total effort in relation to its many constituent parts.

Emphasizing this dissociation from operational programs and authority of any kind, the agency to be proposed would be designated The Health Education and Research Foundation of Maine.(1)

The Foundation would be responsible to a Governing Board of nine members of outstanding ability and recognized achievement, appointed for a three-year term, subject to one consequative reappointment: six by the Governor and three by and

(1) Cpr. New York State Science and Technology Foundation - Laws of New York Chapter 432

from the Board of Trustees of the University of Maine. This board would appoint a full-time director on nomination of the University of Maine to assure his qualifications for an academic appointment in the University, if such appointment should be deemed appropriate. Such a University affiliation considerably strengthens the drawing power for outstanding staff appointments. It stresses the educational and research functions of the Foundation; and it expresses the appropriate involvement of the University in health education programs in Maine.

In fulfillment of its primary functions of planning, education and research as described above, the Foundation, with an annual legislative appropriation and with authorization to seek, receive and administer funds from private and governmental sources would assist in the

1. Promotion, planning and support of Regional Medical Center programs in cooperation with local or state-wide planning groups (such as Medical Care Development Inc.) - with appropriations sufficient to cover 1/3 of the cost of new construction and of annual operating budgets in medical education and research.
2. Promotion, planning, support of voluntary planning efforts to strengthen nursing education in the state and achieve an orderly transition from hospital diploma programs to Associate and Baccalaureate Degree programs - particularly, but not exclusively, in relation to Regional Medical Centers.
3. Promotion, planning, and support of private planning, by organizations such as the Health Facilities Planning Council designed to coordinate large health facilities in metropolitan areas, not only to serve as a broader base for health education programs and for referral services, but also to aid in the conservation of the health professional personnel now in practice and to expand opportunities for rewarding health service careers in the state.

4. Supervision of allocation of state scholarship and subsidy funds for education in the health fields, and correlation of these efforts with private groups such as the Maine Medical Education Foundation and others to maximize the potential for matching funds - with additional appropriations to be recommended.
5. Cooperation with all existing agencies in the compilation and maintenance of a current roster of health and health-related personnel, and
6. Promotion, coordination and support of all planning efforts related to the establishment in the Portland area of a major complex of higher education, industrial research and development, and medical education, research and service.

In concept and operation, the Foundation would be the appropriate "single State agency" to serve as "the sole agency for administering or supervising the administration of the State's health planning function", as specified in the Comprehensive Health planning Bill (S 3008) just reported out favorably from Committee with a $10,000,000 appropriation for distribution among the 50 states. It would equally fulfill the first recommendation of the National Commission on Community Health Services (May 1966) to establish "a State Health Policy and Planning Commission, responsible to the Governor, to advise him on health planning for the state."

To Create the Health Education and Research Fooundation of the State of Maine.

R. S. T. 13. c. 95. additional. Tital 13 of the Revised Statutes is amended by adding a new chapter 95, to read as follows:

CHAPTER 95

HEALTH EDUCATION AND RESEARCH FOUNDATION

S3201. Policy

Health education and research, and related scientific and technological development, are basic to the state's future and its economic growth. New advances in health, science and technology have produced significant benefits to the people of the State, and it is essential that the State achieve appropriate leadership as a research and development center. It is therefore declared to be the policy of the State to encourage health, scientific and technological education, research and development in order to promote the general welfare of the people.

S3202. Creation

A public corporation is created, to be known as the Health Education and Research Foundation of the State of Maine.

S3203. Purposes

The purposes of the corporation shall be to encourage and promote:

1. Programs. Programs in health education in the State:

2. Research. Basic and applied research and planning in health and health-related fields; and

3. Regional Medical Centers of education, research and referral care; and

4. Correlation of health and health education planning and programs in the state

S3204. Board of directors

1. Board of directors. The corporation shall be governed and all of its corporate powers exercised by a board of directors which shall consist of 9 members, of whom six shall be appointed by the Governor with the advice and consent of the Council, and three shall be appointed by and from the Board of Trustees of the University of Maine. All members shall be of full age, citizens of the United States and residents of the State, and shall be appointed for terms of 3 years each, subject to one reappointment, and provided that of the members first appointed, two shall be appointed by the Governor, and one by the Board of the University of Maine for a term of one year, 3 in the same manner for a term of 2 years and three in the same manner for a term of 3 years. Any member appointed to fill a vacancy created otherwise than by expiration of term shall be appointed for the unexpired term of the member whom he is to succeed.

2. Chairman. The Governor shall, from among the members of the board of directors, designate a chairman and vice-chairman who shall serve as such at the pleasure of the Governor.

3. Meetings. The board of directors shall provide for the holding of regular and special meetings. A majority of the directors shall constitute a quorum for the transaction of any business and, unless a greater number is required by the bylaws of the corporation, the acts of a majority of the directors present shall be deemed to be the acts of the board.

4. Bylaws. The board of directors shall adopt bylaws for the corporation and may appoint such officers and employees as it deems advisable, subject to the Personnel Law, and prescribe their duties. Directors shall receive no compensation for their services but shall be reimbursed for their expenses actually and necessarily incurred by them in the performance of their duties under this

chapter. No director, officer or employee of the corporation shall be disqualified from holding any public office or employment, nor shall he forfeit any such office by reason of his appointment hereunder, notwithstanding any general, special or local law, ordinance or city charter.

5. Executive committee. The board of directors may elect an executive committee of not less than 5 members who, in intervals between meetings of the board, may transact such business of the corporation as the board may authorize from time to time. Unless otherwise provided by the bylaws of the corporation, a majority of such committee shall constitute a quorum for the transaction of such business and the acts of a majority of the members of such committee present at any meeting at which a quorum is present shall be deemed the acts of such committee.

S3205. Powers.

In furtherance of the purposes set forth in this chapter, the corporation shall have the following powers:

1. Research, etc. To foster and support health and health related research, development and education in the State, through contracts or other appropriate means, in cooperation with the Federal Government, the State Government and the political subdivisions thereof, educational institutions, nonprofit institutions and organizations, business enterprise and other persons concerned with scientific and technological research, development and education in the State.

2. Studies. To sponsor and conduct conferences and studies, collect and disseminate information, and issue periodic reports relating to scientific and technological research, development and education in the State.

3. Register. To maintain a register of scientific and technological personnel and facilities in the State.

4. Property. To receive, hold, invest, reinvest and use, on behalf of the corporation and for any of its purposes, real property, personal property and moneys, or any interest therein, and the income therefrom, either absolutely or in trust. The board of directors, with the concurrence of the Commissioner of Finance and Administration, may acquire such property or moneys for such purpose by the acceptance of gifts, grants, appropriations, bequests or devises from any source, including but not limited to the Federal and State Governments and agencies.

5. Suits. To sue and be sued in the name of the corporation, process in any action or proceeding may be served upon the Secretary of State, as agent for the corporation.

6. Seal. To have and use a corporate seal.

7. Rules and regulations. To adopt rules and regulations, not inconsistent with law, governing any matters relating to the activities of the corporation.

8. Corporate powers. To have and exercise all powers necessary or convenient to effect any or all of the purposes of the corporation.

S3206. Approval of Governor

No action taken at any meeting of the corporation shall have any force or effect until the Governor shall have had an opportunity to approve or veto such action in accordance with this section.

The corporation shall, in its bylaws, designate an officer of the corporation to deliver to the Governor, a certified copy of the minutes of every meeting of the corporation as soon after such meeting as such minutes can be written. The Governor shall, within 15 days after such delivery, cause such copy of the minutes to be returned to the corporation either with his approval, conditional or unconditional, or with his veto of any action recited in such minutes as having been taken by the corporation, provided that if the Governor shall not return such copy of the minutes within such period, then at the expiration of such period, any action recited in such minutes shall have full force and effect according to the wording of such minutes. If the Governor, within such period, returns such copy of the minutes with a veto of any action, then such action shall be void and of no effect.

The Governor may, in a writing filed with the corporation, relieve the corporation from the duty of procuring his approval of its action upon any particular matter or class of matters, and thereupon the corporation shall be relieved from reporting the same to him.

S3207. Debts

No obligation of the corporation shall be a debt of the State, and the corporation shall have no power to make its obligations payable out of any property or moneys except those of the corporation.

S3208. Public purposes.

The corporation is created and shall be operated exclusively for public purposes and not for pecuniary profit. No part of the net earnings of the corporation shall inure to the benefit of any private individual, and the corporation shall not engage in carrying on propaganda or otherwise attempting to influence legislation.

S3209. Contributions

Notwithstanding any general or special law or any certificate of incorporation, charter or other articles of organization, any corporation, association or person is authorized to make contributions to the corporation.

S3210. Exempt from taxation

The property, income and activities of the corporation shall be exempt from all taxes and assessments.

S3211. Report

The corporation shall make an annual report to the Governor and the Legislature not later than March first of each year.

S3212 Termination

The corporation and its corporate existence shall continue until terminated by law. Upon such termination, all the property and moneys of the corporation shall be vested in the scholarship funds of the University of Maine.

Sec. 2. Appropriation. There is appropriated from the General Fund to the Health Education and Research Foundation the sum of $300,000 for the fiscal year ending June 30, 1968 and the sum of $460,000 for the fiscal year ending June 30, 1969 to carry out the purposes of this Act. The breakdown shall be as follows:

		1967-68		1968-69
HEALTH EDUCATION AND RESEARCH FOUNDATION				
Personal Services	(4)	$55,000	(6)	$70,000
All Other		245,000		315.000
Capital Expenditures		--		75,000
		$300,000		$460,000

Appendix Table II-A - Population, practicing physicians and other data in relation to general hospitals in Maine. (Please read footnotes before reviewing the table)

Centers of 20 mile Radius	1960 Population	General Hospitals #	Beds Conf.	Beds Non-conf.	Beds Total	Practicing Physicians M.D.s	Practicing Physicians D.O.s	Practicing Physicians Total	Physician Ratio/Pop.
Group A									
1. Fort Kent	16,850	1	-	64	64	6	1	7	1-1870
1.a Van Buren	5,677	1	-	29	29	2	-	2	1-2840
2. Caribou-Presque Isle, Ft.Fair.	61,821	3	42	142	184	30	1	31	1-1990
3. Houlton	14,655	2	30	86	116	8	2	10	1-1465
4. Millinocket	11,661	1	-	34	34	6	1	7	1-1660
5. Dover-Fox.	26,827	3	-	86	86	10	5	15	1-1660
6. Lubec-Eastpt.	5,221	1	-	26	26	4	-	4	
7. Calais	10,033	1	32	-	32	5	-	5	1-2000
8. Lincoln	10,461	2	-	73	73	4	3	7	
9. BANGOR	97,639	3	205	262	467	85	16	101	1-980
9.a Machias	11,577		36	-	36	6	1	7	
9.b Ellsworth	22,453	3	35	99	134	16	7	23	1-980
9.c Belfast	12,462	1	-	75	75	7	1	8	1-1550
10. Bath-Rock.	60,190	5	125	154	279	54	16	70	1-880
11. WATERVILLE-Skowhegan-Farmington	98,608	6	319	115	434	87	25	112	1-880
12. Augusta	47,497	2	53	156	209	57	4	61	1-780
13. LEWISTON-Rumford Norway	139,404	4	399	222	621	115	13	128	1-1090
14. PORTLAND-Bruns. Bidd.,Kittery	280,795	14	638	553	1191	268	71	339	1-830
15. Fryeburg	3,871	(1)	(52)	(North Conway)		2	1	3	1-1280
	937,702		1914	2176	4090	772	168	940	1-1000
% of Column Tot.	97%		--	--	91%	--	--	99%	

(Table II A Continued on Next Page)

Centers of 20 Mile Radius	1960 Population	General Hospitals				Practicing Physicians			Physician Ratio/Pop.
		#	Beds			M.D.s	D.O.s	Total	
			Conf.	Non-conf.	Total				
Group B									
1. Island Falls	4,906	1	-	30	30	1	1	2	
2. Greenville	2,400	1	-	22	22	1	-	1	
3. Deer Isle - Stonington	2,537	-	-	-	-	1	-	1	
4. Kezar Falls	3,703	-	-	-	-	2	2	4	
5. Rangeley	1,365	-	-	-	-	1	1	2	
6. Kingfield	910	-	-	-	-	2	-	2	
	15,821			52	52	8	4	12	
Group C	10,042	-	-	-	-	-	-	-	
(Includes 7 towns of 389 to 2,853 population without a doctor or hospital within 20 miles)									
Group D (Less than 3 persons per sq. mile)	5,700	-	-	-	-	-	-	-	
TOTAL	969,265		1914	2228	4142	780	172	952	

Footnote - This table is purely schematic. It is compiled by drawing circles with a 20 mile radius around every hospital. Where circles are inextricably overlapping, as in line 14, the confluent totals are lumped. Physicians were counted in every circle; and in the sparsely doctored circles compass measurements were taken to sustain the allegation of three doctors within a 20 mile radius.

Appendix Table II B - Age Distribution - Active Physicians - National (M.D. only) and Maine

M.D. (1964) and D.O. (1965)

AGE GROUP	U.S.A. M.D.s (1)		Maine M.D.s (1)		Maine D.O.s		Maine Total		M.D. Response to Physician Questionnaire	
	#	%	#	%	#	%	#	%	#	%
65 and Over	12,077	8%	61	9%	27	(15%)	88	10%	39	(7%)
55-64	33,415	20%	153	21%	69	(37%)	222	24%	137	(23%)
45-54	47,383	28%	231	31%	54	(29%)	285	31%	200	(35%)
Under 45	75,310	44%	284	39%	36	(19%)	320	35%	201	(35%)
Total	168,185	100%	729	100%	186	(100%)	915	(100%)	577 (2)	(100%)

(1) A.M.A. Dept. of Economics - March 1, 1964

(2) A 74% sample only. Additional data unable to be processed in time for Survey release.

Appendix Table II C - States with more than 200 Doctors of Osteopathy, and percentage of total active physicians in these states, 1965.

State	Doctors of Osteopathy		Doctors of Medicine	Total Physicians
	Number	% of Total Physicians		
*Michigan	1,969	24%	6,150	8,119
*Penn.	1,487	12%	10,947	12,434
*Missouri	1,122	25%	3,438	4,560
*Ohio	1,025	11%	8,738	9,763
Texas	793	9%	8,101	8,894
New Jersey	588	8%	6,566	7,154
*Florida	558	15%	4,766	5,324
New York	548	2%	23,490	24,038
*Oklahoma	406	18%	1,801	2,207
*Iowa	404	16%	2,103	2,507
California	348	1.5%	22,039	22,387
Illinois	331	3%	9,723	10,054
*Arizona	255	16%	1,343	1,598
*Colorado	240	10%	2,020	2,260
Massachusetts	221	3%	6,037	6,258
*MAINE	204	21%	780	984
Sub-totals	10,499	8%	118,042	128,541
All Others	1,855	3%	56,643	58,498
TOTALS - U.S.A.	12,354	6%	174,685	187,039
Sub-total - New Eng.	619	3%	18,229	18,850
*Sub-total 10 states	7,670	15%	42,086	49,684
10 state % of TOT.	62%	--	24%	(27%)

Appendix Table II D 1 - Physicians (M.D.) under 45 years of age: by state or region of birth, and by selected county (10 or more new physicians)*

County	Total M.D.s	TOTALS		By Region of Birth -(%'s are of Total M.D.s)						
		Maine	Out of State	New Eng.	N.Y., N.J. Penn.	Other U.S.	Canada	Latin Am.	Europe	Other
Cumb.	56	21	35	13	6	8	0	1	5	2
Kenn.	27	8	19	7	2	1	0	3	5	1
And.	20	6	14	5	6	1	1	0	0	1
Penob.	20	8	12	3	3	4	0	0	2	0
Aroos.	14	7	7	0	0	0	4	1	1	1
Knox	11	2	9	2	1	2	0	0	2	2
Hanc.	10	3	7	3	4	0	0	0	0	0
York	10	2	8	2	1	3	1	1	0	0
8 Others*	28	7	21	8	5	1	1	-	4	2
Totals	196	64	132	43	28	20	7	6	19	9
%	100%	33%	67%	23%	14%	10%	3%	3%	10%	4%

* Somerset 6, Oxford 5, Lincoln 5, Sagadahoc 4, Franklin 4, Somerset 4, Washington 3, Piscataquis 1, Waldo 0.

Appendix Table II D 2 - Physicians (M.D.) under 45 years of age: by place of training and by place of birth.*

Place of Hosp. Train.	Total		By Place of Birth			
	#	%	Maine	%	Out of State	%
In Maine	74	(38%)	35	(47%)	39	(53%)
Out of State	122	(62%)	29	(24%)	93	(76%)
Total	196	(100%)	64	(33%)	132	(67%)

N.B. Both of these tables are based upon 196 (of a possible 284 in this age group) replies to the Physician Questionnaire.

APPENDIX III A

The Two Year Medical School

A few years ago there was a brief revival of enthusiasm for the idea of the two-year medical school. Stimulated by public and professional awareness of the need to increase the numbers of active physicians, it had the appeal of apparent economy of funds and of personnel, and particularly of the prospect of quick achievement of full operation.

At that time, 1959, there were three two-year medical schools (Dartmouth, and the Universities of North Dakota and South Dakota) the only survivors of 10 two-year schools operating in 1940. The others had expanded to four-year schools for very pressing academic and practical reasons, and Dartmouth has just announced its decision to add two more years.

Experience has shown that the two-year medical school cannot be just an enlarged college department of biology. It must have a real and genuine involvement in clinical teaching and research. Moreover, clinical teaching in the first two years is steadily increasing in most four-year programs, and accordingly the economy factor as to faculty and facilities of the two-year school is greatly decreased.

Transfer procedures are complicated not only by the period of student anxiety about his acceptability by another faculty, but by the widely differing problems of accommodations to four-year curricula in varying degrees of radical change over the nation.

Finally, the two-year medical schools contribute very little toward attracting new physicians to their states. The record is perfectly clear in this matter, and was one of the many stimuli to four-year expansion of seven two-year schools in the past 25 years.

Appendix Table III B - Medical School Applications, Acceptances and Enrollments of Maine Residents - All Schools, 1955-64 and University of Vermont 1955-1966

For admission in the Fall of	Total - All U.S. Schools				Vermont Medical School			
	Applicants	Accepted (1)	% Accepted	Enrolled	Applicants	Accepted (2)	% Accepted	Enrolled
1955	41	23	56%	22	20	8	40%	6
1956	41	23	56%	21	18	9	50%	5
1957	32	16	50%	16	19	7	37%	1
1958	27	16	59%	14	13	8	61%	5
1959	35	19	54%	18	22	13	59%	5
1960	35	15	43%	15	21	3	14%	3
1961	34	20	59%	14	21	5	24%	3
1962	34	14	41%	15	20	4	20%	4
1963	54	29	54%	27	23	9	39%	6
1964	46	18	39%	17	28	7	25%	4
TEN YEAR TOTAL	379	193		179	205	73		42
TEN YEAR AVGE.	38	19	50%	18	21	7	33%	4
1965	Not Available	Not Available	-	Not Available	36	6	17%	6
1966	Not Available	Not Available	-	Not Available	34	10	29%	(6)

(1) Accepted here means the school accepted the student and the student accepted the school prior to enrollment. Difference between accepted and enrolled is presumed to be for personal or financial reasons.

(2) Accepted here means only that the University of Vermont School of Medicine accepted the student. Several students chose to enter another medical school prior to enrollment.

Appendix Table III C 1 - a. Medical School admissions of Maine Residents by Public and Private Schools, by Region - 1955-6 through 1964-5 (10-year totals)

Region	Private Medical Sch.		Public Med. Sch.		Total		
	# of Schools	Total Students	# of Schools	Total Students	# of Schools	Total Students	% of students by region
New England	6	71	1	41	7	112	63%
N.Y., N.J. & Penn.	14	41	-	-	14	41	23%
Other	13	19	7	7	20	26	14%
Total	33	131	8	48	41	179	100%
% of Students		73%		27%			100%

Appendix Table III C 2 - Medical Schools enrolling 5 or more Maine Residents - 1955-1964

Region	Private Med. Sch.		Public Med. Sch.	
	School	Total Students	School	Total Students
New England	Tufts	42	Vermont	41
	Boston U.	10		
	Harvard	6		
New York	Columbia	11		
	Cornell	5		

REPORT OF THE MEDICAL SCHOOL AND SERVICES STUDY COMMITTEE

TO

LEGISLATIVE RESEARCH COMMITTEE OF THE 102ND LEGISLATURE

Concern over medical care facilities both in regard to plant and personnel needs motivated the Medical School Feasibility Survey. This has been spelled out in Legislative Order HP-1174 introduced by Representative Louis Jalbert in June, 1965 and approved by the House and Senate.

Before a medical school can be established, a feasibility survey must be done by a medical educator acceptable to the Association of American Medical Colleges and the Medical Education Section of the American Medical Association.

By Legislative order the Legislative Research Committee was given the task of determining if a medical school is now feasible. If a medical school is feasible, where should it be located. If it is not now feasible, when will it be and what steps should be taken to make it feasible.

Dr. John Truslow was the recognized expert to whom, with the advice of the Maine Medical Association Committee for a Medical School in Maine and with the highest recommendations of the Association of American Medical Colleges, the Legislative Research Committee turned for this survey.

Dr. Truslow, after a nine month period of study, reported in August that a medical school is not now feasible. He also told us what needs to be done to make a medical school feasible and what needs to be done to insure and improve the quality of medical care until a medical school will be feasible.

Because the success of the outlined program would involve the efforts of many groups of Maine citizens involved in education

and health services, the Legislative Research Committee appointed a study committee representative of these groups to bring in recommendations for the orderly implementation of Dr. Truslow's report to the 103rd Legislature.

These then are the recommendations of the Medical School Services and Study Committee:

1. The Medical School and Services Study Committee accepts the goals and objectives advanced by Dr. Truslow, but recommends that for the present they be approached through existing agencies and facilities.
2. There was unanimous agreement to accept Dr. Truslow's recommendation that a medical school for Maine is not now feasible. We feel, however, that Maine eventually will have a medical school and that the needs of such a medical school should be taken into account in future higher education and health facilities planning.
3. We recommend for the present the continuation of a Medical School and Services Study Committee which should be made up of people knowledgeable in the background material and programs related to medical school development and health services. It should be available for advice to the Legislature and the Governor.
4. We recommend that the University of Maine strengthen existing undergraduate programs in the basic sciences, create two year programs in the medical helping professions,

and strengthen and expand related graduate programs.

5. We recommend that the University of Maine continue to increase as repidly as conditions permit the programs offered in the Portland area.

6. We accept the idea put forth by the Academy of Educational Development for a state Higher Education Authority with the power to distribute Federal funds for programs at the state university and private colleges.

7. We urge the support of all reasonable measures which will improve the quality and availability of secondary school and higher education in the State.

8. We urge that the Legislature seek means of making fluoridization available to all Maine children since this single meausre will do as much or more to improve their dental health as doubling the number of dentists.

9. We urge the following measures to increase the number of Maine youth going into health career fields:

   a. <u>Measures to improve quality and availability of higher education</u>.

      We expect these measures will increase the number of Maine youth going on to higher educational experiences and also into health career fields.

   b. <u>Recruitment</u>: We feel that recruitment can be best carried out by the various health career fields.

However, we urge the greater involvement of the State Department of Education in this area through dissemination of information in the secondary school system and through the cataloging of the various scholarships, loans and grants in the health career fields and through the continued use of the Educational Television Services.

c. Scholarships: We recommend the broadening and expansion of the present state scholarship program to include the health career fields and to include also those in the health career fields who must go outside of the State to obtain training.

d. Compact Plan: We urge the expansion of the present compact plan and the inclusion of other recognized and needed health career fields and the inclusion of accredited schools outside of the New England area until the time such programs are available at the University of Maine.

e. Loan Programs: We feel that at this time we do not have sufficient information to make any recommendations on the need for a state loan program in the health career fields. This is a matter which merits further study. In the meantime, we suggest, as above, that the various loan, scholarship and compact plan programs be widely publicized so that the families

of youth interested in health career fields realize that any health career is within reach of the able student.

10. Regionalization: We favor regionalization as the primary responsibility of the hospitals and centers involved. However, the State has a valid interest and the progress of these programs should be reviewed at least every two years and reported to the Legislature.

11. Postgraduate Training: We believe that excellent internship and residency programs are at present the most promising means of attracting physicians to this State. We, therefore, urge those hospitals concerned to improve and expand these programs for we submit that postgraduate training is the primary responsibility of the hospitals and centers involved, but that the State does have a valid interest. We do recommend continued availability of the State Educational Television System for postgraduate training. We also recommend that means of improving medical library facilities for Maine be investigated.

12. Community Health Centers: Here again, we feel that these should be established by the communities involved. However, we feel that the proposed office of Coordinator and Planner for Health Affairs should assist these communities.

13. Foundations: We feel that the State should reiterate its support and interest in private foundations and as a token of these should make available to each recognized health career field the Attorney General's office for advice and help in setting up such foundations.

14. Evaluation of health personnel needs. We recommend that a continuing means for assessing the number and activity of those involved in health career fields be devised.

The adoption of these recommendations we are confident will extend to medical education and health services further benefits of the quiet revolution for citizen betterment which has for several years been underway in our beloved State.