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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
WASHINGTON, D.C.

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APPLICATION FOR FEDERAL ASSISTANCE
FOR CONSTRUCTION OF HEALTH
AND EDUCATIONAL FACILITIES

STATE

DHEW

Date Rec'd.

Project Number

GENERAL INFORMATION

<p>1. LEGAL NAME OF APPLICANT</p> <p>Regents of the University of Minnesota</p>	<p>2. ADDRESS OF APPLICANT (<i>street, city, country, congressional district, state, zip code, and telephone number</i>)</p> <p>University of Minnesota Minneapolis, Minnesota 55455 Hennepin County, 5th Congressional District (612) 373-2025</p>																				
<p>3. APPLICANT APPLIES FOR FEDERAL FUNDS FOR CONSTRUCTION UNDER THE FOLLOWING PROGRAM(S):</p>																					
<table border="1"> <thead> <tr> <th>(A) CODE NO. (See Program Instructions)</th> <th>SHORT TITLE</th> </tr> </thead> <tbody> <tr> <td>(1) 41</td> <td>Health Professions</td> </tr> <tr> <td>(2)</td> <td></td> </tr> <tr> <td>(3)</td> <td></td> </tr> <tr> <td>(4)</td> <td></td> </tr> </tbody> </table>	(A) CODE NO. (See Program Instructions)	SHORT TITLE	(1) 41	Health Professions	(2)		(3)		(4)		<table border="1"> <thead> <tr> <th>(B) GRANT AMOUNT</th> <th>OTHER (IDENTIFY)</th> </tr> </thead> <tbody> <tr> <td>\$ 245,000</td> <td>\$ ---</td> </tr> <tr> <td>\$ ---</td> <td>\$ ---</td> </tr> <tr> <td>\$ ---</td> <td>\$ ---</td> </tr> <tr> <td>\$ ---</td> <td>\$ ---</td> </tr> </tbody> </table>	(B) GRANT AMOUNT	OTHER (IDENTIFY)	\$ 245,000	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---
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(2)																					
(3)																					
(4)																					
(B) GRANT AMOUNT	OTHER (IDENTIFY)																				
\$ 245,000	\$ ---																				
\$ ---	\$ ---																				
\$ ---	\$ ---																				
\$ ---	\$ ---																				
<p>4. PROPOSED FACILITY AND PROJECT</p> <p>(A) Name and Type Community University Health Care Clinic (Outpatient clinic for community medical - social - dental - psychological care package)</p> <p>(B) Address (<i>street, city, county, congressional district, state, zip code</i>) 2016 - 16th Avenue South Minneapolis, Minnesota 55404 5th Congressional District</p>	<p>(C) Type of construction (<i>Check all that apply</i>)</p> <p><input type="checkbox"/> New facility <input type="checkbox"/> Expansion of existing facility <input checked="" type="checkbox"/> Remodeling <input type="checkbox"/> Acquisition <input type="checkbox"/> Equipment only <input type="checkbox"/> Other (<i>specify</i>)</p> <p>(D) Type of Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Other Nonprofit</p> <p>(E) Type of operational control in other than the owner <input checked="" type="checkbox"/> Public <input type="checkbox"/> Other Nonprofit</p>																				
<p>5. APPLICANT'S REPRESENTATIVE (<i>Name, title, address, telephone number</i>) C.T. Johnson, Assistant Vice President, Business Administration and Treasurer 302 Morrill Hall University of Minnesota Minneapolis, Minnesota 55455 (612) 373-2058</p>	<p>6. PROJECT ARCHITECT (<i>Name, address, telephone number</i>) Architect not selected yet. Design control by: University of Minnesota Planning Office 340 Morrill Hall (612) 373-2250</p>																				

HEALTH PROFESSIONS
EDUCATIONAL FACILITIES CONSTRUCTION

University of Minnesota
Health Sciences - Medical School

Remodeling for
Adult Primary Care
Community-University Health Care Center

March 17, 1975

PROGRAM INFORMATION

7. APPLICANT ELIGIBILITY AND NEED FOR FACILITY

(See program instructions for detailed requirements for this item)

See Page 21a.

8. OCCUPANCY DATA

(See program instructions for detailed requirements for this item)

See Page 24

9. DESCRIPTION OF PROGRAMS TO BE CONDUCTED IN FACILITY

(See program instructions for detailed requirements for this item)

See Page 29

10. DESCRIPTION OF FACILITY

(See program instructions for detailed requirements for this item)

See Page 111

FACILITY INFORMATION

11. APPLICANT'S FINANCIAL RESOURCES APPLICABLE TO THIS FACILITY

A. Cash and negotiable and non-negotiable securities.....\$ ---

B. Pledges: Face value: \$

Discounted Value.....\$ ---

C. Contingent gifts and bequests.....\$ ---

D. Bonds authorized but not yet sold.....\$ ---

E. Mortgage.....\$ ---

F. Appropriations:

Available (specify date) Anticipated (specify date)

State \$ \$

Local \$ \$

TOTAL.....\$ ---

G. Other (Specify)..... Foundations.....\$ 105,000

H. TOTAL.....\$ 105,000

12. OTHER FEDERAL ASSISTANCE FOR THIS PROPOSED FACILITY

	PROGRAM	FED. AGENCY	STATUS	AMOUNT	PROJECT NUMBER
A.					
B.	NONE	NONE	NONE	NONE	NONE
C.					

13. TOTAL DEVELOPMENT COST

(Sum of items 3, 11, and 12) \$ 350,000

14. SITE AND IMPROVEMENTS

A. Title or Other Interest in Site is or will be Vested in:

Applicant _____ Agency or institution which is to operate the facility

_____ Other (specify)

B. Indicate whether applicant/operator has:

Fee simple title _____ Leasehold interest _____ Other (specify)

C. If applicant/operator has leasehold interest, give following information: Not applicable

(1) Length of lease or other estate interest: ---

(2) Number of years to run: ---

(3) Is lease renewable? --- Yes --- No ---

(4) Current appraised value of land: \$ ---

(5) Annual rental: \$ ---

D. Attach an opinion from acceptable title counsel describing the interest applicant operator has in the site and certifying that the estate or interest is legal and valid.

Attached

E. Attach site survey, soil investigation reports and where applicable copies of land appraisals.

Not applicable

F. Where applicable attach certification from architect on the feasibility of improving existing structures.

Not applicable

G. Attach plot plan.

Attached - See page 12.

15. CONSTRUCTION SCHEDULE ESTIMATES:

A. Target dates for completion of drawings:

Schematics Completed Preliminary Completed Final July 1, 1975

B. Target dates for: Bid advertising Early November, 1975; Contract award November 31, 1975;

Construction completed March, 1976; Occupancy April, 1976;

16. BUDGET INFORMATION
ESTIMATED FACILITY BUDGET

A. Building identification: _____
(if more than one structure)

B. Budget Line	C. New construction/ Remodeling	D. Other (identify)	E. Total
1. Building work	---		---
a. General construction	\$ 67,000		\$ 67,000
b. Plumbing	31,000		31,000
c. Heating, air cond., ventilation	10,000		10,000
d. Electrical work	25,000		25,000
e. Elevators	80,000		80,000
f. Other building work (attach list and itemization of costs) Miscellaneous & Graphics	1,000		1,000
g. TOTAL FOR BUILDING WORK	214,000		214,000
2. Site work	---		---
a. Site preparation	5,000		5,000
b. Site development and parking facilities	---		---
c. Utility connecting lines	---		---
d. Special use items	---		---
e. TOTAL FOR SITE WORK	5,000		5,000

ESTIMATED FACILITY BUDGET (Cont'd.)

B. Budget Line	C. New construction/ Remodeling	D. Other (identify)	E. Total
3. Off-site work	---		---
a. Connecting lines to central utility plant	\$ ---	\$	\$ ---
b. Other items (list and itemize costs)	---		---
c. TOTAL FOR OFF-SITE WORK	---		---
4. Central utility plant (prorata share for this structure)	---		---
5. TOTAL-CONSTRUCTION COSTS	219,000		219,000
6. Built-in equipment	---		---
7. Architectural and engineering costs	24,000		24,000
a. Architect's basic fee	4,000		4,000
b. Supervision and inspection (project representative)	2,000		2,000
c. Surveys, tests, and borings	---		---
d. Other items (list and itemize costs)	---		---
e. TOTAL-ARCHITECTURAL AND ENGINEERING COST	30,000		30,000

ESTIMATED FACILITY BUDGET (Cont'd.)

B. Budget Line	C. New construction Remodeling	D. Other (identify)	E. Total
8. Movable equipment	\$ 80,000	\$	\$ 80,000
9. TOTAL COST FOR CONSTRUCTION FIXED EQUIP. A/E FEES AND MOVABLE EQUIPMENT	329,000		329,000
10. Contingency	21,000		21,000
11. Purchase of Land	---		---
12. Purchase of Buildings	---		---
13. Other (list and itemize)	---		---
14. Subtotal-Lines 9 to 13 incl.	---		---
15. Works of Art	---		---
16. TOTAL DEVELOPMENT COST	\$ 350,000	\$	\$ 350,000

17. SPACE ALLOCATION BY GRANT PROGRAM

A. Building identification (if more than one structure) _____

B. Gross area in facility 12,740 S.F. C. Net area in facility 10,500 S.F.

Alternate I	GRANT PROGRAMS				APPLICANT SPACE
	1) 41 H.P. PROGRAM CODE	2) PROGRAM CODE	3) PROGRAM CODE	4) PROGRAM CODE	
D. Net area by program(s)	10,500 SF	SF	SF	SF	SF
E. Cost allocation ratio by programs (D/C X 100—to two decimals)	100 %	%	%	%	%
Alternate II					
F. Gross area by program(s)	12,740 SF	SF	SF	SF	SF
G. Cost allocation ratio by programs (F/B X 100—to two decimals)	100 %	%	%	%	%

18. COSTS ELIGIBLE FOR FEDERAL PARTICIPATION
(BY PROGRAMS)

A. Budget line	B. Total cost (col. E, item 16)	C. Total eligible cost	D. Amounts eligible for Federal participation (for each grant program)			
			1) Program code 41, 70 % from item 17E or 17G	2) Program code , % from item 17E or 17G	3) Program code , % from item 17E or 17G	4) Program code , % from item 17E or 17G
1g. Building work	\$ 214,000	\$ 214,000	\$ 214,000	\$	\$	\$
2e. Site work	5,000	5,000	5,000			
3c. Off-site work	---	---	---			
4. Central utility plant	---	---	---			
6. Fixed equipment	---	---	---			
7e. A/E costs	30,000	30,000	30,000			
8. Movable equipment	80,000	80,000	80,000			
10. Contingency	21,000	21,000	21,000			
11. Purchase of Land	---	---	---			
12. Purchases of Building(s)	---	---	---			
13. Other	---	---	---			
15. Works of Art	---	---	---			
16. TOTALS (1g. through 15)	\$ 350,000	\$ 350,000	\$ 350,000	\$	\$	\$
17. Amount of Fed. Assist Requested			\$ 245,000	\$	\$	\$
18. Fed. Share Request-- Percentage			70 %	%	%	%

19. ASSURANCES

The following assurances are divided into two parts. Part A assurances are required for all applicants applying for construction program support including the acquisition of facilities where applicable, from the Department of Health, Education, and Welfare. Part B assurances are ones which relate only to individual construction grant or loan programs. Signature by the applicant's representative will indicate that the institution agrees to all Part A assurances and to the Part B assurances required by the program or programs to which it is applying for support.

The applicant gives assurance that:

Part A.

1. It possesses legal authority to apply for and receive the grant or loan, and to finance and construct the proposed facilities; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing board, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
2. It will comply with the provisions of the National Environmental Policy Act, PL 91-190; Executive Order 11296, relating to flood-plain elevation and necessary controls; and Executive Order 11288 relating to the prevention, control, and abatement of water pollution.
3. Sufficient funds will be available to meet the non-Federal share of the cost of constructing the facility, and that sufficient funds will be available when construction is completed to assure effective operation and maintenance of the facility for the purposes for which constructed.
4. Approval by the HEW Secretary or his designee* of the final working drawings and specifications will be obtained before the project is advertised or placed on the market for bidding; that it will construct the project, or cause it to be constructed, to final completion in accordance with the application and approved drawings and specifications; that it will submit to the Secretary or his designee for prior approval changes that materially alter the scope or costs of the project, use of space, or functional layout; that it will not enter into a construction contract(s) for the project or a part thereof until the conditions of the construction grant or loan programs have been met.
5. Except as otherwise provided by State/local law, all contracting for construction (including the purchase and installation of built-in equipment) shall be on a lump sum fixed-price basis, and contracts will be awarded on the basis of competitive bidding with award of the contract to the lowest re-

sponsive and responsible bidder. The provision for exceptions based on State and local law will not be invoked to give local contractors or suppliers a percentage preference over non-local contractors bidding for the same contract. Such practices are precluded by this assurance.

6. Except as otherwise provided by law, all laborers and mechanics employed by contractors and subcontractors on all construction and minor remodeling projects will be paid wages at rates not less than those prevailing as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5) and 29 CFR Part 1, and shall receive overtime compensation in accordance with and subject to the provisions of the Contract Work Hours Standards Act (40 U.S.C. 327-332); that such contractors and subcontractors shall comply with the provisions of 29 CFR Part 3; and that all construction contracts and subcontracts shall incorporate the contract clauses required by 29 CFR 5.5(a) and (c). Such contracts shall also include the applicable provisions of Executive Order 11246, as amended (Nondiscrimination in Construction Contract Employment), and the applicant shall otherwise comply with the requirements of section 301 of said Executive Order. The contractor shall furnish performance and payment bonds, each in the amount of the full contract price; and provide, during the life of the contract, for adequate fire, public liability, property damage, and workmen's compensation insurance.
7. It will provide and maintain competent and adequate architectural engineering supervision and inspection at the construction site to insure that the completed work conforms with the approved drawings and specifications; that it will furnish progress reports and such other information as the Secretary or his designee may require.
8. An assurance of compliance with Title VI of the Civil Rights Act of 1964 (Form HEW 441) applying to the facility described in this application was filed or is attached to this application.
9. It will maintain grant or loan accounting records (identifiable by grant or loan number), including all records relating to the receipt and expenditure of Federal grant or loan funds and to the expenditure of the non-Federal share of the cost of a project, for three years after the completion of the project if an audit is conducted by or on behalf of the Department within that period, or in the case where no audit is performed, for five years; except that should audit questions arise with respect to the grant or loan, the records will be maintained until all such questions are resolved. Representatives of the Federal Government shall have access at all reasonable times to the grantee's records and to work whenever it is in preparation or progress, and the contractor shall provide proper facilities for such access and inspection.
10. The facility will be operated and maintained in accordance with the requirements of

*The term Secretary or his designee shall mean Commissioner of Education with respect to Office of Education programs.

applicable Federal, State and local agencies for the maintenance and operation of such facilities.

- 11. The applicant will require the facility to be designed to comply with the "American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped," Number A117.1-1961, as modified by other standards prescribed by the Secretary of HEW or the Administrator of General Services. The applicant will be responsible for conducting inspections to insure compliance with these specifications by the contractor.
- 12. The applicant will cause work on the project to be commenced within a reasonable time after receipt of notification from the Secretary or his designee that funds have been awarded, and that the project will be prosecuted to completion with reasonable diligence.
- 13. Any Federal funds received pursuant to a grant or loan will be used solely for defraying the development cost of the proposed project.

Part B.

1. Hill-Burton, Community Mental Health Centers, and Mental Retardation Facilities.

- a. That it will conform to all the applicable requirements of the appropriate State plan and the regulations pertaining thereto.
- b. That all portions and services of the entire facility for the construction of which, or in connection with which, aid is sought, will be made available without discrimination on account of creed, and no professionally qualified person will be discriminated against on account of creed with respect to the privilege of professional practice in the facility.
- c. That the facility will furnish a community service and:
 - (1) will furnish below cost or without charge a reasonable volume of services to persons unable to pay therefore; or
 - (2) will NOT furnish below cost or without charge a reasonable volume of services to persons unable to pay therefore, because of the justification which is attached.
- d. The facility will be used for the purposes for which it is constructed for not less than 20 years after the completion of the construction.

2. Community Mental Health Centers:

That the services to be provided by the facility, alone or in conjunction with other facilities owned or operated by the applicant, will be made available for a program providing principally for persons residing in a particular community or communities in or near which

such facility is to be situated, at least the essential elements of comprehensive mental health services-i.e., inpatient services, outpatient services, partial hospitalization services (including at least day care services), emergency services provided 24 hours per day, and consultation and education services available to community agencies and professional personnel.

3. Health Professions and Allied Health Professions Teaching Facilities, Nurse Training Facilities, Medical Library Facilities, and Health Research Facilities.

- a. The facility will not be used for sectarian instruction or as a place for religious worship.
- b. The Health Professions Teaching facility is intended to be used for the purpose set forth in this application.
- c. The Allied Health Professions Teaching facility or Health Research facility will be used for the purpose for which it is constructed for not less than 10 years after the completion of construction.
- d. The Nurse Training facility or Medical Library facility will be used for the purpose for which it is constructed for not less than 20 years after the completion of construction.
- e. The Health or Allied Health Professions Training facility or Nurse Training facility will provide for increased enrollment as set forth in the program instructions and in this application.

4. School Construction under P.L. 81-815:

- a. It is a local educational agency having administrative control and direction of free public elementary or secondary education in the applicant school district, or a State agency which has the responsibility for providing school facilities.
- b. It is a local educational agency created and authorized to construct and maintain school buildings under constitutional, statutory, or charter provisions; and that it may accept and disburse Federal funds to aid in financing the cost of constructing school buildings in accordance with constitutional, statutory, or charter provisions cited:

Legal Classification:

Citation:

- c. The applicant has or will have title to the site or the right to build the school facilities on the site and to maintain them on the site for at least twenty years.
- d. The applicant's school facilities will be available to the children for whose education contributions are provided with funds under Public Law 81-815, as amended, on the same terms, in accordance with the laws of the State in which applicant is situated, as they are available to other children in applicant's school district.

- c. The applicant will cause due consideration to be given to excellence of architecture and design of project and to the inclusion of works of art the cost of which does not exceed one percent of the Federal share of the cost of the project.
- 5. Higher Education Facilities under Titles I, II, III of the Higher Education Facilities Act.
 - a. No part of the eligible areas included in the proposed project: (1) is intended primarily for events for which admission is to be charged to the general public; (2) is especially designed for athletic or recreational activities other than for an academic course in physical education; (3) will be used for sectarian instruction or as a place for religious worship or primarily in connection with any part of the program of a school or department of divinity (as defined in P.L. 88-204); or (4) will be used by a "school of medicine," "school of dentistry," "school of osteopathy," "school of pharmacy," "school of optometry," "school of podiatry," or "school of public health" as these terms are defined in section 724 of the Public Health Service Act, or by a "school of nursing" as defined in that Act under section 843.
 - b. The applicant is fully cognizant of the requirements regarding economical methods of purchase of movable equipment in accordance with sound business practice as set forth in the applicable regulations, (45 CFR 170.4), and all movable equipment, the cost of which is to be charged to the project, will be procured in accordance with such regulations. It is understood and agreed by

the applicant that the eligible project development cost and the Federal grant or loan amount may be reduced at settlement by the Commissioner of Education based on the amount of any costs claimed under the project which are for elaborate or extravagant equipment items.

- c. It is understood and agreed by the applicant that the Commissioner of Education may, from time to time, after execution of a grant or loan agreement for the project, and prior to final settlement under the grant or loan agreement, make downward amendments in the grant or loan amount to adjust to a reduction in the cost of the facilities, the identification of ineligible costs, or a reduction in the size of the project.
- d. The applicant has reviewed the academic and financial requirements for operation of the facilities upon completion, and considers the plans for operation of the facilities to be practical and within the financial capabilities of the institution.
- e. The facility will be used as an academic facility for not less than twenty (20) years after completion of construction (unless otherwise approved by the U.S. Commissioner of Education), or for so long as the Government holds any of the bonds pursuant to a loan from the Government, whichever is longer.

20. CERTIFICATION BY APPLICANT

The applicant hereby certifies that the foregoing information in this application (including all assurances and all attachments) are correct to the best of its knowledge and belief.

University of Minnesota
(Legal Name of Applicant)

Minneapolis, Minnesota 55455
(Address)

Clinton T. Johnson
(Signature of Authorized Officer)

(Address if different than above)

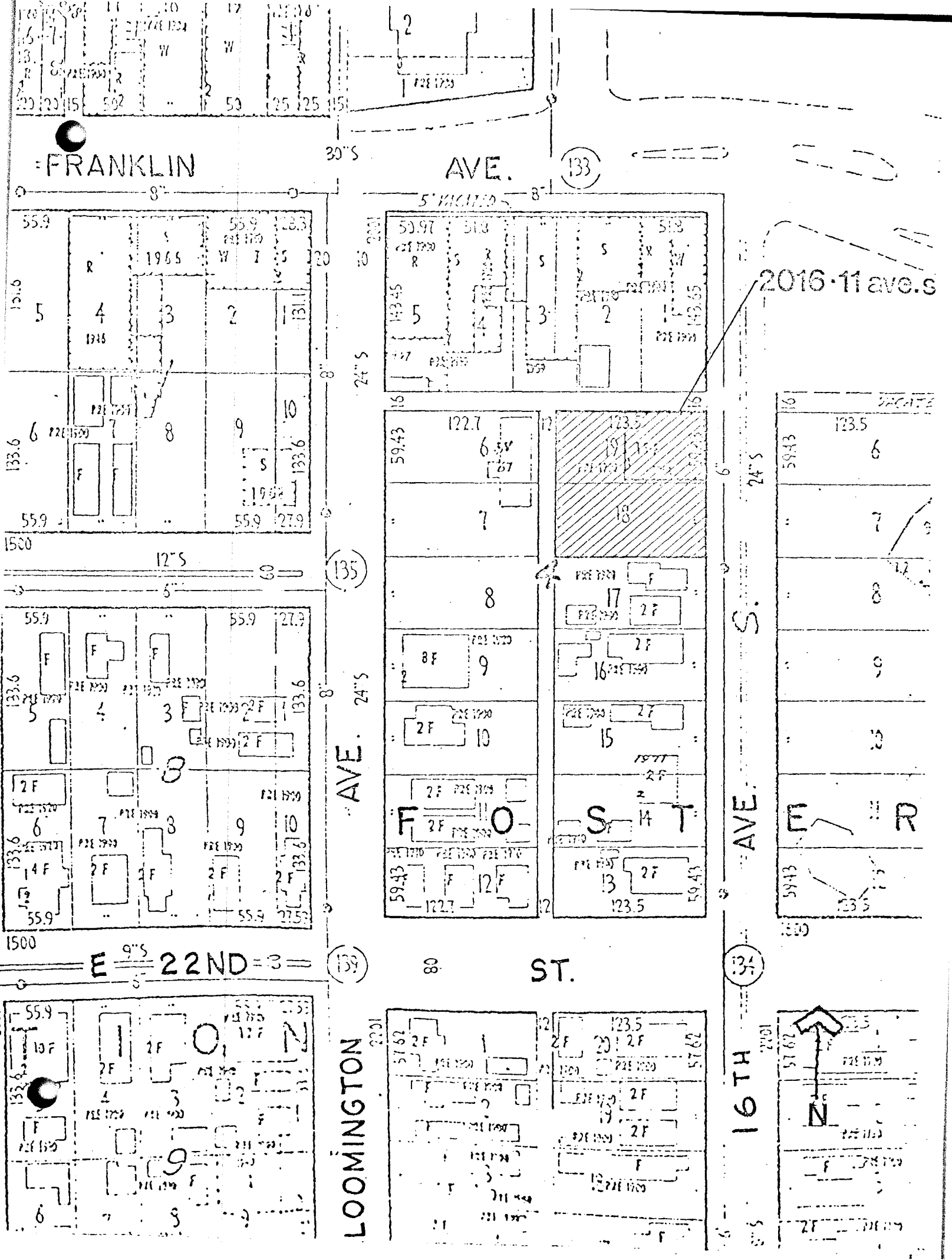
Clinton T. Johnson, Assistant Vice President, Business Administration and Treasurer

March 17, 1975

(Typed Name and Title of Authorized Officer)

(Date of Application)

James F. Drinkerhoff, Vice President for Finance, Planning and Operations

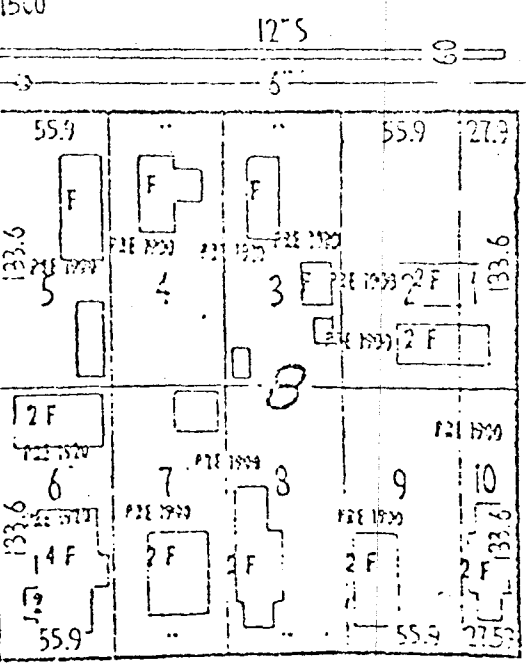
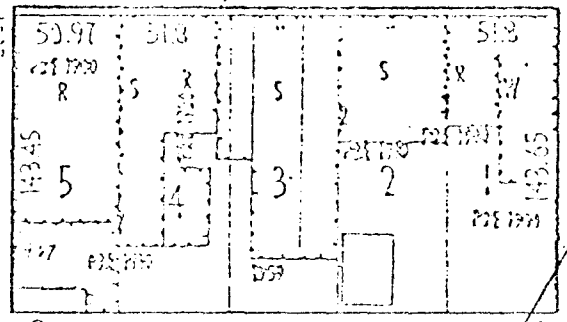
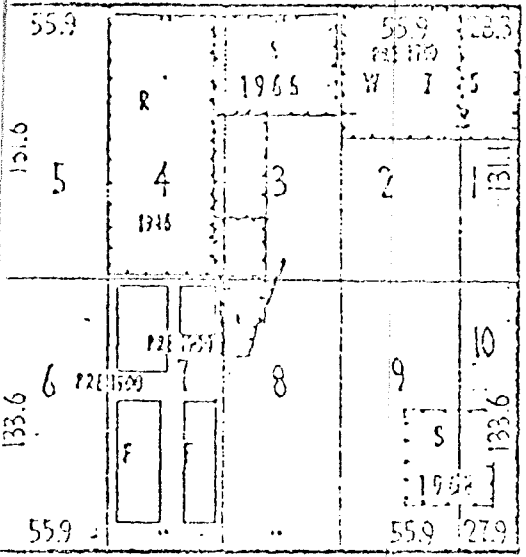


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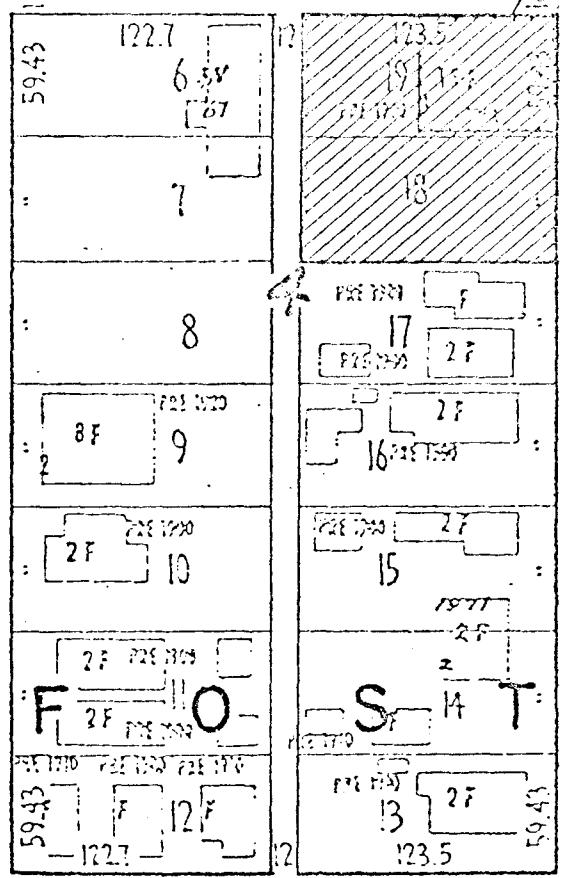
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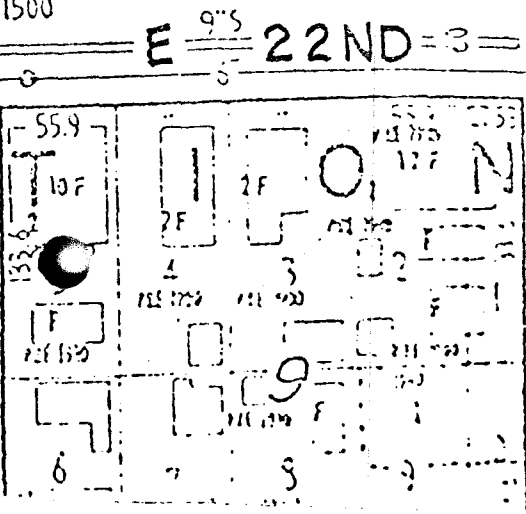
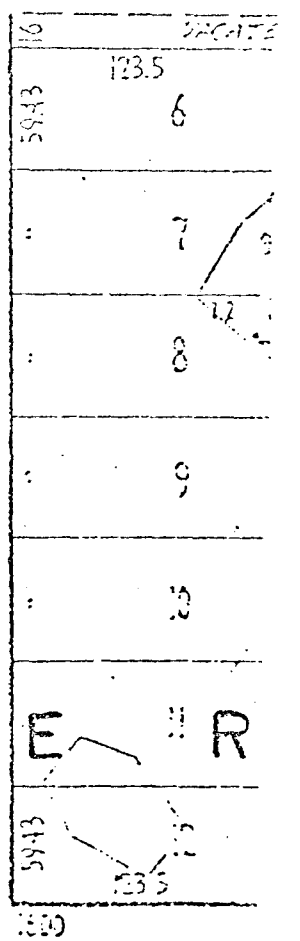


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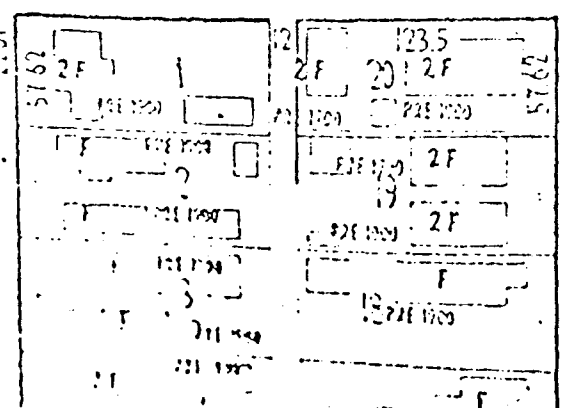
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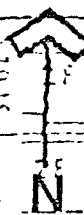
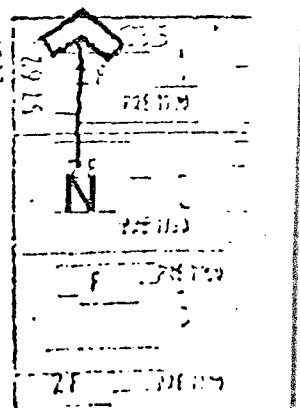
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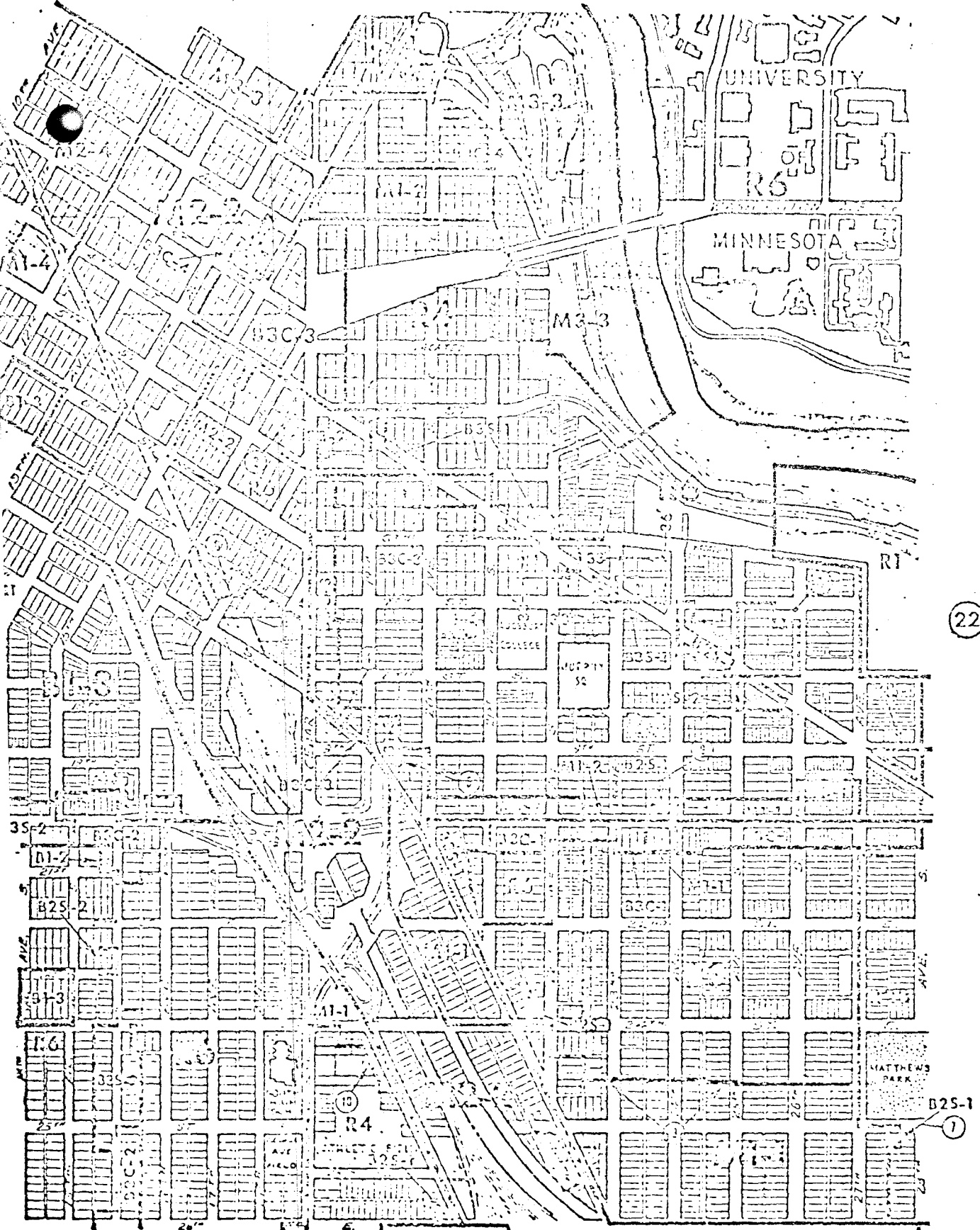
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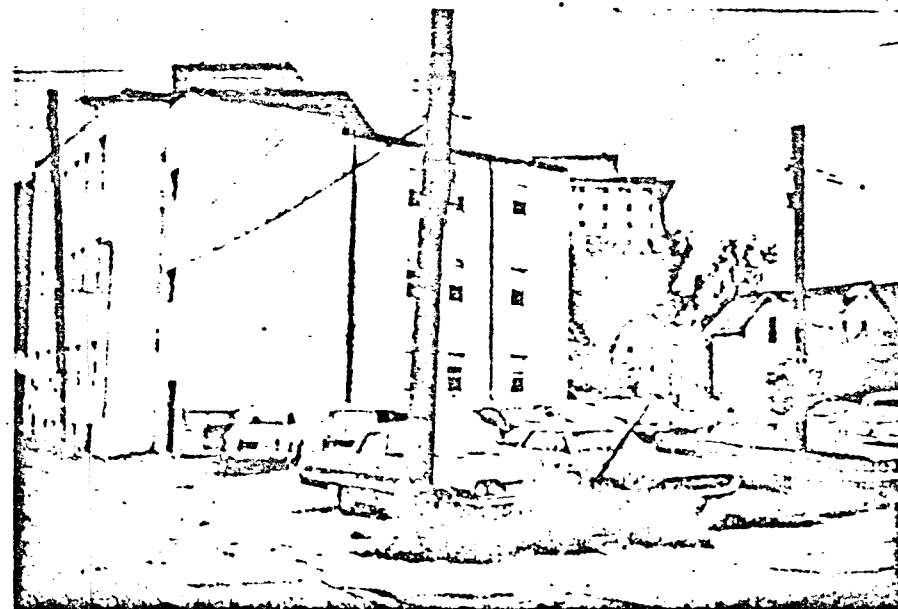
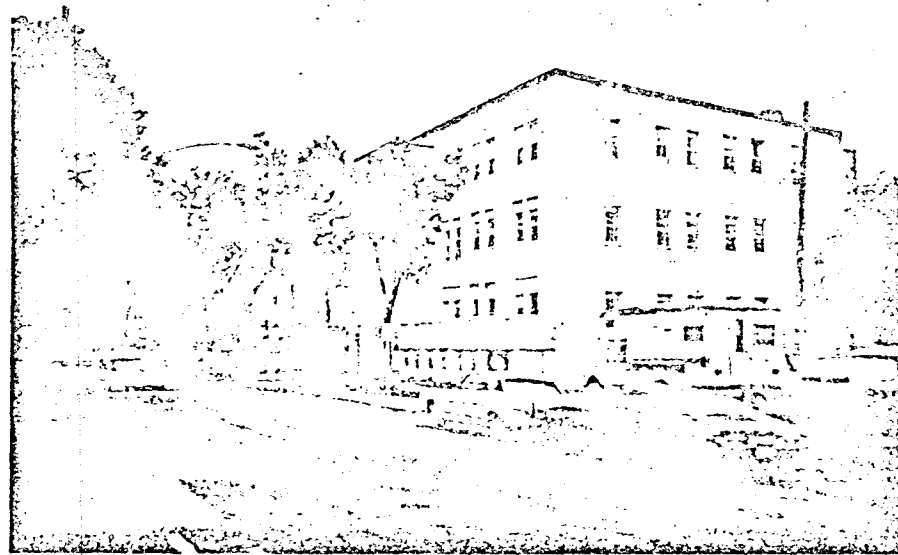
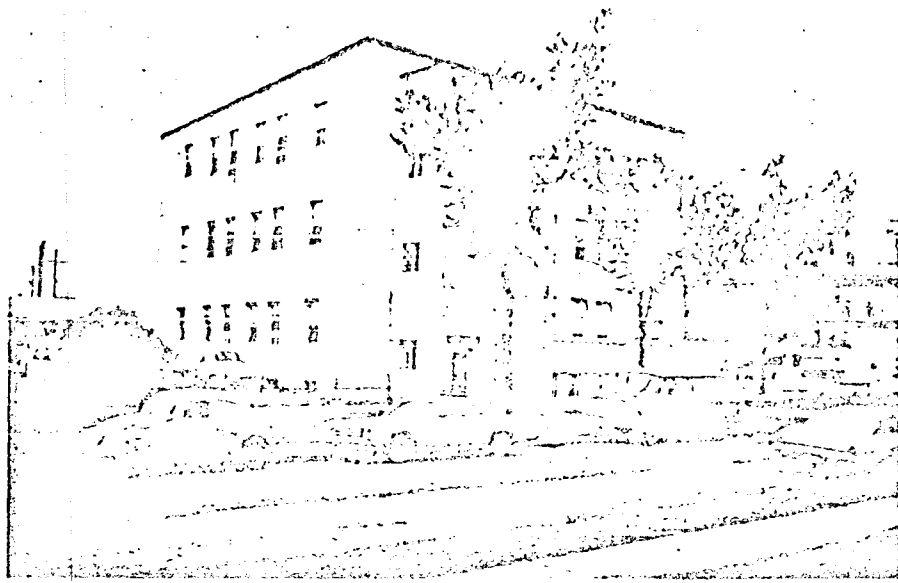
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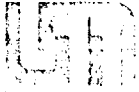
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- OFFICE-RESIDENCE DISTRICTS
 - 01-1,2,3
- COMMERCIAL BUSINESS DISTRICTS
 - 02-1,2,3,4
 - 03-1,2,3,4
- COMMUNITY BUSINESS DISTRICTS
 - 04-1,2,3,4
 - 05-1,2,3,4
- INDUSTRIAL MANUFACTURING DISTRICTS
 - 06-1,2,3,4
- GENERAL MANUFACTURING DISTRICTS
 - 07-1,2,3,4
- HEAVY MANUFACTURING DISTRICTS
 - 08-1,2,3,4







UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the University Attorney
330 Morrill Hall
Minneapolis, Minnesota 55455
(612) 373-3446

March 12, 1975

Regents of the University of Minnesota
Morrill Hall
Minneapolis, Minnesota 55455

Attention: Duane A. Wilson, Secretary

Re: Title Opinion
Community University Health Care Center
2016 16th Avenue South
Minneapolis, Minnesota

Gentlemen:

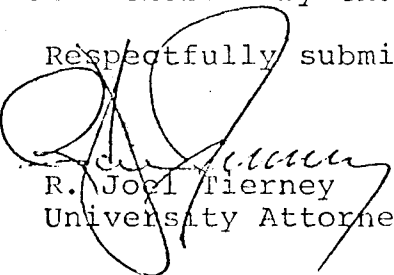
I have investigated and ascertained the location of the site, rights-of-way, and easements being provided by the Applicant for the facilities in its application for Federal Aid identified above to be constructed, operated and maintained thereon, described as follows:

Lots Eighteen (18) and Nineteen (19), Block Four (4), Foster's Addition to Minneapolis According to the plat thereof on file and of record in the Office of the Register of Deeds in and for said Hennepin County.

I have examined the records of ownership of the above site and the applicant will hold fee simple title pursuant to the Contract for Deed dated November 15, 1972, with all current encumbrances to be discharged by Contract for Deed vendor.

In my opinion, the Applicant has sufficient legal interest in the said site or sites, rights-of-way, and easements to permit the construction of such facilities thereon and to permit the operation and maintenance of such facilities thereon by the Applicant.

Respectfully submitted,



R. Joel Tierney
University Attorney

RT:ls

Category for Special Funding Consideration

1. Family Medicine - Primary Care

The facility presently being utilized is a four story converted apartment building containing approximately 10,000 square feet. Functional efficiency has been minimally possible for primary pediatric care, however, expansion to total family care with appropriate teaching resources is not feasible in the present structure. The University is committed to training at a remote site and this catchment area with a concentration of high risk, low income Native American population is ideally located for the education of medical students.

The alternative to this project is relocation of the program to another site, which would escalate costs drastically, possibly making it economically unfeasible. There are no other suitable buildings in the area and land costs range from \$5.00 per square foot upward.

The project objectives include maximization of primary care training opportunities and utilization of allied health professionals in a multidisciplinary teaching program. The ultimate goal is to change the disease patterns of a high risk population.

Abstract of the Proposal

The Community - University Health Care Center was founded in 1967 as one of 59 children and youth projects in the United States that provides continuing comprehensive health care for children. Funding is provided through Title V monies with matching amounts from the University of Minnesota. At the center, parents are encouraged to have children complete a health assessment as the entry point to the comprehensive health care cycle. The cycle is composed of many elements or services provided to attain the optimal well-being of each child. These services include: screening, preventative, diagnostic, and treatment elements. The clinic offers a total medical-social-dental-psychological care package with the agency.

The center (hereafter referred to as CUHCC) serves a low income, high risk population in South Minneapolis. In the fiscal year 1975, 2350 registrants received care. 40% of these children were Native American Indians, 5% Black Americans, 52% White Americans, and 3% of other origin.

CUHCC works hand in hand with the local community toward local direction, coordination, and provision of neighborhood health care services. An Advisory Council was established in 1968 to facilitate the process. This group became highly motivated to seek total family care and incorporated as a non-profit corporation under Minnesota law in May 1972. They have worked actively to establish an HMO for the CUHCC catchment area and today have a state planning grant for this purpose.

The present CUHCC site is a vintage four-story apartment building selected in 1967 as being most economical and proximate to the target population. Some minor remodeling converted living areas to examining and treatment rooms which are serviceable for children, however the opportunity for effective instruction of medical students is still severely lacking. The remodeling which is now proposed will enable expansion to adult care and provide new experiences in the other primary care specialties of Ob/Gyn and Internal Medicine.

The University of Minnesota Medical School currently lacks the facility and the diversity offered by training in a primary care setting. The education of medical students will indeed be seriously jeopardized without the proposed remodeling of Community - University Health Care Center.

CUHCC currently has seven examining rooms, a small reception area, a small combination laboratory/pharmacy area, a three chair dental suite and five interview rooms which accommodate 14,000 pediatric visits each year. In order to accommodate the 1200 parents of CUHCC children, the building will need an elevator to service four floors, a room for basic radiology procedures, four adult examining rooms, and an improved reception area. In addition, many equipment items essential for student training (i.e., electrocardiograph) must be installed. The proposed funding of the project will cover these basic needs and provide an excellent remote training site.

CONSTRUCTION ASSISTANCE EVALUATION

1. Effectiveness of the project to provide increased training opportunities.

Completion of this remodeling project will open the doors for all of the University of Minnesota Health Sciences students at a primary care training site. The University will be able to place three Phase D medical students and three internal medicine or pediatric post-graduate students at the center each quarter. Up to this time, the opportunity has been open to only one medical student each quarter in pediatrics. In addition, the project will provide increased opportunities for graduate students in pharmacy, nursing, nutrition, dentistry, health education, psychology, social service, and health care administration in a multidisciplinary approach to primary health care. The total increase in students at this site should approximate 30 per quarter. See page 17 & 70.

2. Effectiveness of the project in accomplishing the purposes of the programs at the least relative cost to the Federal Government.

The University of Minnesota Health Sciences has no other primary care training site. The total cost of remodeling this vintage apartment building will be \$350,000 or roughly \$35 per square foot. The alternative to remodeling UHCC is new construction at a different site. Land acquisition and construction would double this proposed amount, at a minimum.

The cost per student, in the first year, will be roughly \$12,000. Useful life of the building should be 20 years which reduces the cost per student to \$600.00. The Federal Government's share of this project would be \$262,500; approximately \$26 per square foot, or \$8500 per student. See page 16.

3. Extent to which the project may be instrumental in stabilizing institutions who are in precarious circumstances.

The project will have a positive impact on institutions in this region. Opening a total family primary care training center will alleviate inadequate space conditions in affiliated training sites. Implementation of the Health Sciences program, with emphasis on interdisciplinary training will resolve many of the student needs in this area. The proposed center will permit exemplary, efficient, care to a high risk, low income population - an essential education for students. There is no substitute experience available within the University complex. See pages 71 & 72.

4. Availability of resources to operate the program over useful life of the facilities.

The University Medical School has a long record of consistent funding and growth to meet the medical needs of this state and region. The University of Minnesota Health Sciences has a firm commitment to training in primary care. The statements of Income and Expenditures show a long history of

growing resources. The magnitude of patient growth at this primary care site indicates demand which can readily be met by University resources. The fact that this center has attracted substantial community support (see abstract of proposal) gives further strength to funding over the useful life of the facilities. Very recently, (2-14-75) Blue Shield of Minnesota has indicated an interest in developing a research project at the center to evaluate the cost efficiency, of primary care health delivery. We are very confident of adequate resources, now and in the future. See pages 29 & 109.

5. Effectiveness of the planned utilization of the proposed facility.

Utilization of Community-University Health Care Center incorporates all of the elements essential to primary care training. Students will be exposed to and participate in the unique multidisciplinary team approach to health care. Allied health faculty will be on site providing instruction for all disciplines. This faculty includes; dentistry, nursing, health education, social work, psychology, pharmacy, nutrition, and hospital and health care administration.

Specific to the medical students, completion of this project will provide total basic training resources on the site, and not fragmented throughout several facilities. Radiology, laboratory, pharmacy equipment will be effectively utilized within a 10,000 sq. ft. building. This centralized unit will not only enhance education, but provide more complete, efficient service to the patients. See pages 29, 68, & 111.

6. Effectiveness of the project to achieve a more equitable regional and national geographic distribution of training opportunities for qualified applicants.

The project site is in an urban area with a high Native American population. It may be the only setting in the United States where medical students are exposed to the special needs of this high risk population. At this writing, two former minority paraprofessional employees of the center are in a pre-medicine track at the University of Minnesota in Duluth. We are fully confident that increased emphasis on training in a primary care site will motivate students toward careers in underserved areas. The Medical School's regional relationship with the medical schools of North Dakota and South Dakota will further provide a regional opportunity for students in this setting. See pages 70 - 108.

7. Effectiveness of the current utilization of present facilities by the applicant. See pages 68 & 69.

The present training facilities at CUHCC are severely limited. The center has no radiological equipment, very minimal laboratory equipment, no classroom or seminar space, no effective transport system for in-firm patients, insufficient reception space, and actually a setting which mitigates against proper medical training. Classrooms are generally established in small offices. The lack of equipment has resulted in a "make-do" program, and created tremendous logistical problems for students and patients.

Completion of this project will fully alleviate these barriers to effective medical education.

8. Effectiveness of the consideration and selection of alternative means for consummation of the project resulting in lower cost with minimum compromise of scope or quality.

The alternatives to this project are very costly. The University has no other primary care training site. Land acquisition and construction would double the cost at a minimum. The project further is accessible, acceptable, and highly utilized by 1000 Native Americans. If a new site were to be considered, it is doubtful if student exposure to this number of high risk Indians would be possible. This learning experience should be an essential ingredient in primary care training, if effective care for the Native Americans is to remain one of our major goals. See pages 16 & 22 & 23.

9. Impact of the project on supporting the applicant's efforts in providing more opportunities for students from under-represented segments of the population.

CUHCC emphasizes career lattice training programs for minority employees and students. (Note criterion #6) The Medical School has experienced a marked increase in minority enrollment during recent years. (Reference to Jim Nelson's data on recent enrollment) The predominant minority group at CUHCC is the American Indian. Currently nine of the 40 employees are Native Americans. One of these people, also a woman, has progressed from a beginning level community health worker, to Mental Health Specialist, and now is Director of the Community Health Worker Functional Unit. During this period of time, she earned an A.A. degree and is now working through extension courses toward her B.A. In addition, one B.S. nurse will shortly be entering graduate school in microbiology. Expansion to adult care at the center will substantially increase these opportunities. See pages 102 - 108.

10. Impact of the project in supporting educational programs which are designed to promote the effectiveness of health care delivery.

The project site has been utilized as a Children and Youth Program for 8 years. These Title V programs have a record of innovation leading to effective use of health care systems. All children eligible for care obtain a complete health assessment upon entry into the center and/or at crisis prone developmental stages. The ultimate goal is then to have every registrant attain a state of well being, or, in Children and Youth vernacular, health supervision. The expansion to adult care will provide the means to embellish upon the present training. This program stresses effective health care, that is not especially treating disease, but promoting good health. Students will learn the effective use of health manpower and resources in the delivery of health care to a high risk, inner-city population. They will also learn the concepts of interdisciplinary planning, community outreach, and use of resources to change the disease patterns of the population. See pages 117 & 22 & 100 - 101.

11. Relative emphasis of the project in effecting the distribution of program output into areas of critical health manpower needs.

This project will support not only the increasing demand for primary care physicians, but the production of allied health manpower in areas of critical shortage - specifically the inner city low income, high risk census tracts. Present accommodations for training at CUHCC tend to de-emphasize the importance of primary care. Completion of the project will demonstrate the Federal Government's and the University's commitment to quality education in a primary care setting. The visibility of this program will enhance the desirability of similar locations for health professional practice. Pages 70 - 108.

12. Relationship and compatibility of the project to state, regional, or area plans for health manpower training as they relate to health care delivery needs.

The CUHCC remodeling project has been discussed with the Metropolitan Health Board and the Chairman of the State Health Board. It has the verbal approval of these agencies and certainly meets plans to decentralize ambulatory care programs. This project is further a division of the State Title V programs and the major facility (of Title V programs) providing educational experiences for students. Very strong statements have been made during the past few years on health manpower problems in high risk, low income populations. The need for increased numbers of physicians in these areas has been addressed cogently by educators, politicians, and legislators. The University of Minnesota intends to respond to the expressed need through this project. See pages 70 - 108. Also page 17.

13. Effectiveness of the project in promoting broad health objectives.

Community-University Health Care Center is working cooperatively with an incorporated community group (CHI - see abstract of proposal) in an effort to establish a Health Maintenance Organization for this South Minneapolis area. These efforts were acknowledged by the Minnesota Department of Health, when a feasibility grant was awarded to Community Health in June, 1974. These efforts continue to date. Two Hundred local residents were surveyed in the Fall of 1974 and a majority indicated a desire to utilize CUHCC as their primary care agency, if an HMO is developed. CUHCC also has affiliation agreements with the Minneapolis Health Department and the Minneapolis School Board providing for cooperatively funded educational programs in the schools and at the Center. See pages 68 - 108. Also pp. 29 - 38.

14. Effectiveness of the project in promoting the training of personnel in current shortage skills and disciplines.

Each of the University of Minnesota Health Science Units has responded to national and state objectives for increased manpower by increasing the number of enrollees in each of the disciplines. Total enrollment has increased from 3170 in 1969 to 3806 in 1974.

When this project is completed, CUHCC will enable increased training of shortage disciplines (e.g., primary care internists, primary care pediatricians) by attracting students interested in these specialties through a fully implemented curriculum. Page 17, 29 - 38.

LIAISON COMMITTEE ON MEDICAL EDUCATION

Council on Medical Education
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

January 7, 1970

Executive Council
Association of American Medical Colleges
One Dupont Circle, N.W.
Washington, D.C. 20036

Malcolm Moos, Ph.D.
President
The University of Minnesota
Minneapolis, Minnesota 55455

Dear President Moos:

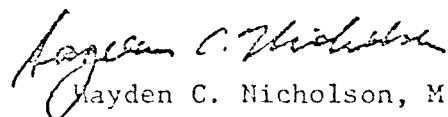
It is a pleasure to transmit to the University of Minnesota formally the final report of the team representing the Liaison Committee on Medical Education, which visited the University of Minnesota Medical School in January of 1969. As you know, this committee represented the Executive Council of the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association. The purpose of the visit was to accredit the program in undergraduate medical education at the University of Minnesota Medical School.

The report recommends continuing accreditation of the program in undergraduate medical education at the University of Minnesota Medical School, effective the date of the survey, January 23, 1969, and continuing Institutional Membership in the Association of American Medical Colleges. The report calls attention to certain problems at the Medical School and asks that the Dean of the School submit reports dealing with these problems one and three years after the survey visit.

A copy of the report is being sent to Dr. Robert E. Howard, Dean of the Medical School. If there are any questions about this report, any of its parts, its implications or uses, I am sure that you will get in touch with this office.

The report is considered confidential. However, it is for the use of the University and the Medical School as dictated by their best judgment. Characteristically, it has not proven advantageous to release the contents of these reports to the public press.

Sincerely,


Hayden C. Nicholson, M.D.
Secretary, Liaison Committee
on Medical Education

RCN:jnz

cc: Robert B. Howard, M.D., Ph.D.
Cheves McC. Smythe, M.D.

Statement of Need for Facilities

The CUHCC building, while very accessible to the target population, is not designed to treat all presenting patient disabilities. The services are provided throughout four stories and access to the upper floors is only possible via rather narrow stairways. This poses occasional transportation problems for pediatric clients, but will undoubtedly be a severe impediment for an infirm, older population. The addition of a four story elevator, capable of handling stretchers and wheel chairs, will ameliorate, if not eliminate, the problem. If effective health care training is to be provided for the entire family, at this remote site, there is no alternative to installation of a suitable elevator.

The health assessment program at CUHCC consists of a variety of screens and assessments developed by the dental, medical, nursing, nutritional, psychological, and social service functional areas. The purpose of the health assessment program is to determine the current state of well being of every registrant. In order to facilitate the implementation of the program, several of the screens and assessments from one functional area have been combined with those of another functional area. For example, nutrition, dentistry, psychology, communicology, and social services have developed screens for their areas that are used and implemented by both nurses and well child workers in the Well Child Program (children between 0-6 years of age). All problems and/or conditions identified via a health assessment are resolved by center staff or through an appropriate referral and follow-up. The medical staff cannot complete assessments in one visit for basically one reason - lack of radiology equipment. Patients must be referred to other facilities for this screen. Frequently this causes considerable delay in the process which is not only irritating to patients, but a severe hindrance to medical education. The proposal therefore includes a request for a basic radiology room (remodeling of existing space) and equipment. This addition will be the most salient training tool enabling total primary care education within the walls of CUHCC.

There are, of course, other features necessary. The proposal suggests total health examination for the entire family. CUHCC seeks to add three examination rooms and appropriate equipment such as - electrocardiograph, sigmoidoscope table and equipment, microscopes, and base blood testing equipment.

In the process of assessment, very few patients will actually be seen by all functional areas. Because of the way screens and assessments were designed, all registrants benefit at least indirectly from the multi-disciplinary input however. Another way in which registrants benefit from the comprehensive nature of the program is through Chart Review, which is also an excellent training device for students. This committee meets daily to note intake of new registrants, hear progress reports on selected cases and develop care plans on registrants who have had either initial or recall assessments on the previous day. The committee is chaired by a physician, includes the persons responsible for bringing each registrant to assessment, the intake worker and a person from each functional area (social work, psychology and communicology represented by a single person).

A Chart Review presentation includes the patients name (with proper caution for confidentiality), age, type of assessment(s) received and the findings. At this time input from the committee is solicited, the care plan is developed, and recorded in the front of the chart. A treatment sheet is completed and the status report changed accordingly. If treatment is complete at the time of assessment, the patient is put into the recall system. If further assessment or treatment is needed, the patient's name will be put on the Chart Reveiw calender for a progress report at a later date.

The center has no classroom or appropriate seminar space for teaching services of this type. Remodeling funds will be used in part to provide appropriate teaching atmosphere in the clinical setting, apart from the treatment areas.

CUHCC's reception area is located in the basement of the building and is a bare walled, 600 square foot room, maldecorated by open heating conduit and poor lighting. The remodeling funds would be utilized in part to improve the reception area with appropriate interviewing rooms and waiting area for both children and adults.

1. Present Enrollment as of October 15, 1974

Medical School - M.D. Curriculum			Public Health		
A	Undergraduate			Pre-degree Grad	
	1st Year	239+8	1st	0	X
	2nd Year	237	2nd	0	
	3rd Year	266 (+35)*			
	4th Year	216			
	5th Year	---			
	6th Year	---			
TOTAL	966 (+35)*				
B	Graduate	Basic Health Sciences	Clinical Sciences	Total	389
	Degree	204	397**	601	
C	Continuing Education	2532	Course and program registrants, 1973-74		239

* Through an inter-institutional contractual arrangement, 35 medical students enrolled at the University of North Dakota School of Medicine are fulltime students during their third year in clinical externships at the University of Minnesota Medical School, Minneapolis.

** Includes only post-M.D. graduate students registered for advanced degree in the Graduate School of the University of Minnesota.

2. Enrollment Base

A. Highest undergraduate first year enrollment in the five years preceding the year of application (1969-1973)	<u>239</u>
B. First year enrollment assured as the result of a previous Health Professions Construction grant	<u>254</u>
C. Statutory first year enrollment required under the capitation grant program	<u>239</u>
Enrollment Base (highest of above)	<u>254</u>

3. Assured Enrollment Increase (Entire student increase must be assured in the first year, except for major expansion).

A. Number of Students - 0 -

Year after Completion	Academic Year	First-year Undergraduate	Advanced	Continuing Education
1st	*			
2nd				
3rd				

* See Item 15B of application for date of occupancy.

B. First-year undergraduate student enrollment increase (for 10-year period of commitment) over highest enrollment shown in No. 2: - 0 -

4. No Enrollment Increase

- 25 -

- (A) The facilities are so obsolete as to require the school to substantially curtail its enrollment: **
- (B) The facilities are so obsolete as to require the school to substantially curtail the quality of training: **
- (C) The school has a current waiver under the expansion of enrollment requirement for capitation aid:
- (D) Not applicable

* If applying under no enrollment increase provision, supportive narrative must be included in the "Occupancy Data" (Item 8) section.

** Only acceptable if the proposed project is entirely for the renovation or replacement of existing facilities.

5. Maximum Grant Participation Requested (80%)

- (A) New school (first class not graduated as of date of application)
- (B) School received a waiver under expansion of enrollment requirement for capitation aid
- (C) Major expansion
- (D) Unusual circumstances*
 - (i) School is located in a geographic area with a critical shortage of health professions manpower
 - (ii) Project is necessary to prevent curtailment of enrollment
 - (iii) Project is essential to the maintenance of accreditation
 - (iv) Other relevant factors consistent with purposes of the Act.
- (E) Not applicable

* If unusual circumstances are claimed, a justification must be included in the narrative for "Occupancy Data" (Item 8)

Justification of Request for Waiver of Enrollment Increase

It is expected that the three projects proposed by the Medical School for consideration under the funding consideration category of Family Medicine - Remote Site, will provide an important added dimension to the quality of medical education at this University.

Proportionately, the number of interns and residents and/or undergraduate students who can be accommodated in the proposed community clinic settings is relatively small in comparison with the total scope of this School's program which currently provides for 834 interns and residents and 1001 undergraduate medical students. It is therefore expected that the basic education of medical students in the traditional sense will be continued without serious jeopardy to the basic quality medical education.

More important than the impact of these projects as they relate to volume, is the

- 1) importance of providing a variety of viable educational opportunities for medical students.
- 2) response to national health objectives, particularly in the promotion of professionals for current shortage skills, i.e., primary care physicians.
- 3) providing student experience in population pockets of underserved urban communities.
- 4) response to needs of the State and Region, which is largely a rural area and in need of primary care physicians for clinics such as those proposed in the School's three projected facilities.
- 5) providing clinical experiences in an environment that is more typically a setting which parallels that which a student will encounter.
- 6) development of a variety of clinical sites in different settings to provide a balanced educational experience for students opting to pursue a career of family practice.
- 7) provision of educational programs and clinical experiences which reflect the changing emphasis from inpatient to outpatient care.
- 8) opportunities for interdisciplinary learning experiences in appropriate clinic environments.
- 9) opportunities to put into practice the concepts of interdisciplinary team training, particularly in primary care settings.

In the summary of current and proposed space to be utilized in the educational programs of the Medical School it is demonstrated that no expansion of teaching space is planned. Rather, the reduction of space is reflected in major teaching hospitals. The intent of this reduction is not to discontinue educational programs in the teaching hospitals but is a response to the trend from inpatient teaching to outpatient emphasis. The relinquishing of the utilization of inpatient space will in no way detract from the quality of the School's educational program but in fact will serve to strengthen the total program.

UNIVERSITY OF MINNESOTA

Office of the Assistant Vice President and Treasurer
302 Morrill Hall
Minneapolis, Minnesota 55455

February 11, 1975

Metropolitan Council
300 Metro Square Building
7th Street and Robert Street
St. Paul, Minnesota 55101

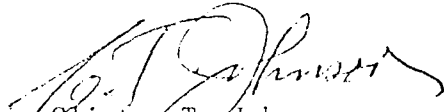
Attention: John Boland, Chairman

Dear Mr. Boland:

In accordance with the procedure established under OMB Circular A-95, enclosed please find copies of notification forms which have been sent to the State Planning Agency indicating the University's intent to apply for federal construction funds for the following projects:

Unit F - College of Pharmacy - School of Nursing
Primary Care Clinic
Community University Health Care Center
Smiley's Point Family Practice Clinic
Chicago Avenue Family Practice Site
Basic Science Remodeling

Sincerely,


Clinton T. Johnson
Assistant Vice President
and Treasurer

CTJ/ct

Enclosures

Form 505

Please Read Instructions on the back of this form

Print or Type

DO NOT USE

State Clearinghouse No. 18

Card Type 9

State of Minnesota
NOTIFICATION OF INTENT TO APPLY FOR FEDERAL AID

10 Applicant Project Name 12 71
 01 Community University Health Care Center

02 Applicant Agency 12 45
 University of Minnesota Medical School

03 Applicant Address (Street) 12 45
 1360 Mayo Memorial Building

04 Contact Person 12 45
 N. L. Gault, Jr., M.D., Dean

05 12 71 Project Description - Nature, Purpose and Beneficiaries (Use 6 lines if needed)
 Additional remodeling, upgrading of facilities, addition of elevator, and examing rooms

06 12 71
 necessary for expansion of the Community University Health Care Center (CUHCC) program,

07 12 71
 at 2016 - 16th Avenue South, Minneapolis 55404 to adult care in accordance with the

08 12 71
 Health Sciences plan to develop educational programs in Medicine, OB-Gyn, Pediatrics and

09 12 71
 Psychiatry.

11 Project Location City 12 45
 Minneapolis

Project Location County 46 79
 Hennepin

FEDERAL FUNDS		MINNESOTA MATCHING FUNDS		OTHER	TOTAL
(A) Grant 12 19	(B) Other 20 27	(C) State 28 35	(D) Local 36 43	(E) Funds 44 51	(F) Funds 52 60
262500		0		87500	350000

13 Type of Other Federal Funds (B) 12 45
 Foundations

Type of Other Funds (E) 46 79
 Foundations

14 Federal Program Title 12 66
 Part B Title VII Section 729

Federal Catalog No. 67 71
 A-95 Part I of OMB Circular

15 Federal Agency Name 12 45
 Dep

Federal Sub Agency 46 79
 Public Health Service - Health Resources

TYPE OF APPLICANT (CHECK (X) ONLY ONE BOX)

State <input type="checkbox"/> 12	Inter State <input type="checkbox"/> 13	County <input type="checkbox"/> 14	City <input type="checkbox"/> 15	School District <input type="checkbox"/> 16	Special District <input type="checkbox"/> 17	Community Action <input type="checkbox"/> 18	Sponsored Organization <input type="checkbox"/> 19	Other <input type="checkbox"/> 20
--------------------------------------	--	---------------------------------------	-------------------------------------	--	---	---	---	--------------------------------------

TYPE OF ACTION (CHECK (X) BOXES WHICH APPLY)

New <input type="checkbox"/> 21	Supplemental <input type="checkbox"/> 23	Increase Duration <input type="checkbox"/> 24	Increased Dollars <input type="checkbox"/> 27
Continuation <input type="checkbox"/> 22	Cancellation <input type="checkbox"/> 26	Decrease Duration <input type="checkbox"/> 25	Decrease Dollars <input type="checkbox"/> 28

Is State Plan Required?
 Yes 29 No 30

Has Regional Agency been Notified?
 Yes 31 No 32

Is Project under A-95 Jurisdiction?
 Yes 35 No 36

DO NOT USE Environmental Impact Statement
 Yes 37 No 38

Estimated Date Applicant Expects To Submit Formal Application March 17, 1975
 (Date)

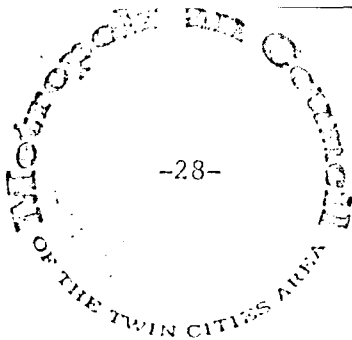
State Fund Code 62700 14 211

Signature Clinton T. Johnson Date February 11, 1975
 Clinton T. Johnson, Asst Vice President, Business Administration and Treasurer

SUBMIT TWO (2) COPIES OF COMPLETED FORM TO:

State Planning Agency
 Capitol Square Building
 550 Cedar Street
 St. Paul, Minnesota 55101

COMMENTS



Handwritten notes:
A. J. Johnson
DRP
CP



300 Metro Square Building, 7th Street and Robert Street, Saint Paul, Minnesota 55101 Area 612. 227-9421

February 28, 1975

Mr. Clinton T. Johnson
Assistant Vice President
Office of Assistant Vice President and Treasurer
302 Morrill Hall
Minneapolis, Minnesota 55455

- RE: Unit F - College of Pharmacy - School of Nursing
Metropolitan Council Referral File No. 2500
Primary Care Clinic
Metropolitan Council Referral File No. 2501
Community University Health Care Center
Metropolitan Council Referral File No. 2502
Smiley's Point Family Practice Clinic
Metropolitan Council Referral File No. 2503
Chicago Avenue Family Practice Site
Metropolitan Council Referral File No. 2504
Basic Science Remodeling
Metropolitan Council Referral File No. 2505

Dear Mr. Johnson:

The University of Minnesota project notification for HEW funds to assist in the projects described above were received by the Metropolitan Council on February 18, 1975.

These projects will be reviewed in accordance with procedures of the Office of Management and Budget which require that the Council notify potentially affected units of government, neighborhood organizations, and human rights commissions and inform them that they have an opportunity to comment upon these projects.


Mr. Clinton T. Johnson
February 28, 1975
Page Two

Should the Council need more information before completing the review, the staff will write or call your office.

Thank you very much.

Sincerely yours,

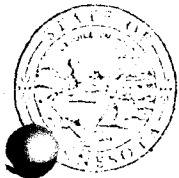
METROPOLITAN COUNCIL



John Boland
Chairman

JB:emp

cc: Thomas Harren, Office of Local and Urban Affairs, State Planning Agency
Ms. Joan Campbell, Metropolitan Council District 6
Alton J. Gasper, Metropolitan Council District 8



STATE OF MINNESOTA

STATE PLANNING AGENCY
100 CAPITOL SQUARE BUILDING
550 CEDAR STREET
ST. PAUL, 55101

March 13, 1975

Mr. Clinton T. Johnson
Assistant Vice-President
Business Administration and Treasurer
Morrill Hall
University of Minnesota
Minneapolis, Minnesota 55455

RE: Community University Health Care Center
SCH # 75031305

Dear Mr. Johnson:

This is to certify that the Minnesota State Planning Agency has in accordance with the Project Notification and Review System (PNRS) procedures, established by the Office of Management and Budget Circular A-95, reviewed the Community University Health Care Center proposal noted above. State agencies which may be interested in or affected by this proposal have been notified by our office.

This letter represents the final action of the State Planning Agency's review of the proposal in its performance of the function as the State Clearinghouse under the PNRS procedures. University of Minnesota is, therefore, authorized to submit its application without further notice or review by this agency. A copy of this letter should be attached to said application.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas H. Harren".

Thomas H. Harren
State Clearinghouse

Programs to be conducted in the facility

The various units within the Health Sciences have submitted proposals indicating their program participation in the expanded Community-University Health Care Center (CUHCC). These various proposals are as follows:

School of Nursing

Introduction:

This proposal is in three parts. The first part describes the kind of clinical facility we most need for student experience in primary care. The second part is addressed to the clinical experience needs of graduate students in nursing (masters and soon doctoral students). The third section is addressed to the needs of undergraduate students in nursing.

The CUHCC Expansion of Services:

A large part of the research and service missions of the School of Nursing focus on the further development of the role of nursing in primary care, particularly those facets known as health promotion, disease prevention, and early detection. Obviously a major focus of our teaching mission then also further develops that nursing role.

Hence, the School of Nursing requests that CUHCC expand its services to include adult primary health and medical care and that all ages served have the possibility of access to health promotive, disease preventive, and early detection care by the nurse serving in a variety of roles. This could include the hiring of a nurse-midwife, an adult-care nurse practitioner, a psychiatric mental health nurse, and a public health nurse to complement the existing nursing staff. We would urge you to especially consider inclusion of nurse-midwifery services in your expansion plans. Joint appointments between CUHCC and the School of Nursing should be considered as a means of meeting both the service and education missions of both units.

Further, we request full administrative support for the development of health promotive services for all ages, similar to the thrust of the neon-infant program now being further developed and evaluated by the CUHCC nursing staff, with ample allowance for flexibility in experimenting with new approaches to nursing care delivery in a primary care setting.

Graduate Nursing Student Needs for Clinical Experience:

Graduate students, in developing the various nursing roles in primary care, have need for a clinical site which affords opportunity for direct nursing care practice, research, teaching, and/or administration, depending on the particular combination of courses and interests they have. In developing their nursing care practice, each graduate student chooses an area for

clinical concentration from among the following options:

- a. health promotion and disease prevention for families, sometimes with particular focus on either the adults or the children in the family.
- b. nurse-midwifery
- c. psychiatric mental health
- d. public health
- e. adult care nurse practitioner
- f. pediatric care nurse practitioner

We would request that specified numbers of graduate nursing students have opportunity for the following kinds of experience at CUHCC:

- a. Opportunity to spend at least one quarter, but preferably one academic year at the CUHCC facility.
- b. Opportunity to participate in an interdisciplinary team effort.
- c. Opportunity to specify their objectives for nursing care with clients. These may include development of clinical skills such as in physical assessment or in health counseling, or they may focus on research, student teaching, or administration. Hence, in some cases the "client" may not be a patient, but rather a group of nursing students or the nursing staff. (In all cases where clients are patients, the student would expect to collaborate with others of the health team and to contract with the patient for their services to be offered.)
- d. For direct patient services we would hope that at least the following numbers of graduate nursing students be placed at CUHCC:
 1. Adult Care: 8-10 students
 2. Child Care: 8-12 students
 3. Psychiatric Mental Health: 4 students
 4. Nursing-midwifery: 8 students
 5. Maternity Care: 8 students

Undergraduate Nursing Student Needs for Clinical Experience:

The need for a more controlled learning experience with more direct supervision is obvious when considering the clinical experience needs of undergraduate nursing students. In a relatively small clinical setting such as CUHCC, feasibility of offering a meaningful experience that allows for the above considerations is a serious question. However, students must have opportunity to see this important facet of health care and to participate to the extent possible in the provision of primary health care.

Two possibilities for providing limited numbers of undergraduate nursing students with experience at CUHCC would seem to be worth consideration:

- a. Increasing nursing faculty participation in direct care such as through joint appointment. These faculty then could serve as preceptors for the undergraduate student and provide the direct supervision necessary.

- b. Graduate students placed at CUHCC for extended lengths of time for clinical experience could serve as preceptors for the undergraduate student and also provide the necessary supervision.

We would request that at least six undergraduate nursing students have opportunity at CUHCC to:

- a. work with at least one client-family for the entire three years of their undergraduate nursing program, with increasing responsibility for the nursing care provided as their skills and abilities increase.
- b. participate with other members of the health team in the provision of primary care to the assigned families.

We would also request that opportunities for a limited observation experience be available to as many additional undergraduate nursing students as possible. Though there are obvious problems in potentially overloading the system with too many students, we hope that this unique interdisciplinary effort at primary care delivery will be as open as possible to students of all health science disciplines.

School of Dentistry

The proposed CUHCC Expansion Effort would afford the opportunity for the establishment of a new and innovative approach to an ongoing graduate program, both in Pediatric and Adult Dental Care.

We envision the possibility of pediatric dental care being provided by regular graduate students from the Pediatric Department of the School of Dentistry, who would be blocked into a regular rotation through the CUHCC Dental Clinic. The possibility of an expansion to a four chair layout would lend itself ideally to the implementation of a TEAM configuration delivery system approach to providing dental care for the children served by CUHCC.

Since the expansion proposal also calls for providing dental care to adults in the area, the concept of a TEAM configuration delivery system has much merit and is highly feasible. This, in all probability, could very well be worked into the TEAM Clinic curriculum in the Division of Health Ecology of the School of Dentistry--more or less an outreach clinic approach.

The Pediatric Dental Care Department and the Division of Health Ecology are most anxious to train graduate students and undergraduate students in dental care program planning in situations of limited budgeting along with having experience in diagnostic, treatment planning, preventive, restorative and surgical services. The expansion of CUHCC very readily lends itself to this concept.

School of Pharmacy

The essence of any clinical practice is patient care. Clinical medicine involves taking care of patients and their diagnosis; clinical pharmacy is taking care of patients and their treatment.

The attempt to list the responsibilities of a clinical pharmacist in a primary health care clinic, utilizing interdisciplinary groups, will hopefully seed the idea and then develop into concrete responsibilities which will have been compiled from the ideas of the various disciplines, as they interact with the clinical pharmacist. The responsibilities of the clinical pharmacist should be the results of specific problems and interactions in specific clinics and should not be established until such environmental factors are considered.

In reviewing the specific needs and desires of the Community-University Health Care Center, the following is offered as the Pharmacy Unit role:

Pharmacy involvement would be patient oriented rather than drug oriented. The primary concern of the pharmacist would be the evaluation of the indications, actions and effectiveness of drugs in patients. This eliminates some of the primary traditional tasks that have been performed by the majority of pharmacists in the past. The function of preparation of pre-made medicines from prescriptions would be altered, utilizing the patient's chart rather than the prescription, and also this process would utilize technicians for the tasks of typing, filling and general administrative work. This would be done under the supervision of the pharmacist. The primary use of the pharmacist in such a clinic would be to monitor and evaluate patients diagnosed with acute or chronic illness, whom require prolonged usage of medication. Such patients usually have many medication problems and require frequent evaluation. In such an evaluating system, if work-ups or examinations are required, the nurse-practitioner would be utilized. The physician would receive the evaluations and suggestions and then exert his or her expertise as to the overall plan of care. Such a plan utilizes the knowledge of the team with enough organization to minimize time and to allow checks on all disciplines concerned.

The second primary area of pharmacy involvement would be in education. Since such a clinic will be utilized for education, the pharmacist would be expected to devise a system or systems for the adequate training of all disciplines in the area of pharmacology, pharmacokinetics, biopharmaceutics, etc. The patient would also be taught on an individual basis as to the reasons they will be taking a drug or drugs for their specific diseases.

This presentation is only a small part of the total involvement desired by pharmacy on the health care team. The responsibilities listed were applied only to the interactions between the pharmacist, the physician and the nurse, but the basic idea can be incorporated into all other disciplines as well. Again, I state, responsibilities are situation dependent, and the establishment of protocol can only be realized after the

team has worked together in an individual setting. It is hoped that all health professionals will seek out the clinical pharmacist and utilize his expertise, as he will seek out and utilize the expertise of his fellow health professionals.

Patient or Consumer Orientated Pharmaceutical Services

The following is a brief, general guide to patient orientated services that can be preformed by the pharmacy of a health care center. The general nature of the report is dictated by such variables as unknow pharmacy size and location and the potential for interaction between the health professionals. However, it should be recognized that the ultimate implementation and continuance of services rest upon the acceptance of and the benefit for, the health care consumer.

I. Traditional Pharmacy Services

These include pharmacy administration in accordance to the various laws and regulations and dispensing and refilling.

II. Maintaining Patient Profiles

Using patient interviews to obtain information on drug histories, sensitivities and allergies. Utilization of the profile could prevent drug-drug, drug-food, and drug-lab interactions. Also the profiles will be used in the other service areas.

III. Determine chemotherapeutic approach with prescriber and patient.
Find the rational medication and schedule acceptance to both.

IV. Prescription and OTC drug counseling

Oral and written directions. Med card with directions for administration of certain drugs (like ear, eye, or nose drops). Wallet sized cards with condition, meds, and allergies for chronic therapeutic patients.

V. Clinic Screening

Evaluation of medication, dosing and schedules with patient response of the chronic therapeutic patients. Referrals to other professionals. Checking for adverse drug reactions or toxicity. Compliance determinations. Also suggesting treatment of non-serious, self limiting conditions (such as poison ivy).

VI. Public Education

Drug abuse education, talks to community groups, films, leaflets on prescription drugs or disease states, etc., there is much potential for educating the patient about their health and needs.

The above guide, by no means all inclusive, represents services that can be performed with a minimum of time and space. The services can easily be included in the present structure (registered treatment, etc.) of CUHCC.

School of Public Health

As previously mentioned to the committee, and has been discussed by the Dean and Dr. Jean Smelker, it is the School's intention to continue financial support of present personnel engaged in joint activities with CUHCC. In addition, we would like to continue the exploration of opportunities which would again allow the involvement of many of our programs which in the past have had successful faculty/student projects or relationships with CUHCC. Some of the programs which would fall into the categories above are Health Education, Public Health Nursing, Biometry, Hospital and Health Care Administration, Environmental Health, and other programs of the School to some lesser degree.

In addition to past areas of involvement which we plan to maintain, continue, and strengthen where possible, we also wish to pursue the potential of placement of an adult nursing practitioner on the CUHCC staff to provide service on a part-time basis and supervise practitioner students who might utilize CUHCC as a training site. The reciprocal character of this arrangement would need to be explored because, in addition to providing service and placing students at CUHCC, it would be necessary for our practitioner students to receive some medical supervision and medical teaching while in that setting.

A second potential new area for School involvement is in the areas of Maternal and Child Health. The new director of this program will need to discuss the potential for faculty/student/CUHCC interaction and experience, yet we believe this to be a viable future option.

We believe the past mutual relationships between the School and CUHCC have been productive from the viewpoint of both parties. We are interested in continuing such endeavors in the future. From our comments above, however, it must be noted that we are unable to make many specific comments or predict staffing inputs with great precision. This is in large part due to the need for our faculty to evolve point in-time relationships which are meaningful in light of our student numbers and their needs, as well as the character and size of the patient population at CUHCC, the development of adult programs, and the changing balance between adult and pediatric activities under the auspices of CUHCC

Medical School

The Medical School recognizes the potentials that will accrue for its various programs through greater affiliation with the CUHCC. To date several clinical departments have performed limited activities in this Center. With reorganization, expansion of the program to include adults, remodeling of the facilities, and adequate financial resources, this Center's programs can contribute substantially to the Medical School's mission. Furthermore the Medical School's contributions will make it possible for the Center to fulfill its mission in the community.

In order to achieve dedicated involvement and clarification of roles by the personnel of the Medical School's clinical departments, a joint committee similar to the Veterans Administration Dean's Committee will be organized. This group, to be known as the CUHCC Dean's Committee, will be a policy decision body regarding educational and research activities.

in support of the service program at the Center. It is recommended that this Committee be comprised of nine members; four from CUHCC representing the functional areas, four from the clinical departments of the Medical School--Pediatrics, Medicine, Obstetrics and Gynecology and Psychiatry, and a CUHCC representative such as its director. Proposed educational experiences at the Center will be reviewed and approved by this group only after the programs have been planned sufficiently to guarantee quality control and warrant expectation of success. This group should also be intimately involved in recruiting qualified physicians for service in the Center. All grant or contract proposals of the Center, if they involve educational or research activities, should have the approval of this group. The Committee should meet at least quarterly beginning in November, 1974, and more often in the early stages of program expansion.

In addition the Medical School recognizes a need for the development of a medical staff structure for the clinic. The CUHCC Dean's Committee will be responsible for the quality of medical services rendered; the Chairman of this group, to be selected by the members, will be a major spokesman in all educational and research transactions of the Center. The Chairman will be the Medical representative in the Health Sciences CUHCC Committee. The responsibility for the administration of the Center should remain with the Office of the Vice President for Health Sciences.

In the area of pediatrics the Department can provide the essential professional competency for infants and children in CUHCC by an appropriate integration of academic clinical staff and clinical trainees. All of the Department's special consultative resources for specific problems in pediatric patients can be utilized at both the ambulatory and inpatient levels. These services will be dependent on appropriate administrative organization of CUHCC and fiscal support.

The Department of Obstetrics and Gynecology, already rendering some services to CUHCC, is anxious to expand its programs at the Center. The adult population is recognized as a high risk group in need of the very best medical skills available. It is estimated that support for a faculty position at 20% time will provide appropriate coverage of service and educational needs.

Psychiatry, already has a substantial involvement in serving CUHCC. It is proposed that an adult psychiatrist (25% time) be recruited for the Center. With appropriate funding, the Department believes this expansion to be needed for its programs at the Center.

In Medicine, there is too little known specifically about the potentials of the Center for the development of an adult medical service. For this reason, as a first step, the Department is prepared to recruit an appropriately experienced, primary care-oriented internist to work 50% time in developing this service. Funds will be required by the Department to support this first on a 50% time basis, and then, it is expected, on a full-time basis.

Although several of the above programs have been operating at CUHCC to varying degrees in the past, it is anticipated the proposed staffing pattern will provide a nucleus of faculty that will identify and structure more definitive educational experiences than has been the case heretofore. It is expected that the CUHCC Dean's Committee will review and approve the timely implementation of courses and experiences for undergraduate and graduate education.

Undergraduate and Graduate Medical Education Opportunities at the
Community University Health Care Center

During the past 8 years since the beginning of CUHCC medical students have elected clinical experience in this center. The Department of Pediatrics has published the following description of this offering:

"Peds. 5-513 Out-Patient Externship at CUHCC, 2016 16th Ave. So.
6 weeks Offered all periods

The student will provide primary care to an inner city segment of the population. In this elective the student may also study alternative patterns of health care delivery. Students and staff from a dozen or more health and allied health fields are involved in providing care at CUHCC. The student should have some experience in doing physical exams on well and sick children. The pediatric practice and didactic sessions will enable the student to become competent in managing common pediatric problems, well child care, immunizations, and infectious diseases."

As a Child and Youth Program, the enrolled persons give this clinic an excellent opportunity to provide assessment of health in a large population in a defined inner city area. Outreach from the clinic to this panel of persons to their homes and schools provide experiences for the medical students and other health professions' students accompanied by experienced staff that no other setting in the Medical School offers. It provides a "real life" experience in health assessment, health care, preventive care, and an understanding of the implications of the family constellation, the cultural and societal influences, and the economic status on the maintenance of health. It provides an actual living experience for the student to learn how the various caring professions combine their talents to impact most favorably on the sometime simple but often complicated health problems of the persons involved.

Because of the success of the service given the children and youth, the parents of this area have asked that similar health care services be provided for adults. The consumers of health care services of the area have organized into a group named Community Health, Incorporated and have negotiated with CUHCC and the University to provide expanded services for adults in CUHCC. CHI is organizing a prepaid health care plan and hopes that CUHCC can serve their panel of consumers.

With the expanded role the Medical School expects to staff CUHCC with faculty in internal medicine, obstetrics-gynecology, and psychiatry. The services will follow the pattern of health assessment of adults with remedial care given at CUHCC or the University of Minnesota Hospitals and Clinics. Initially enrollment of adults will be restricted to adults of the households which qualify for care of children and youths at CUHCC. This plan obviously has significant educational opportunities in that health problems in any member of a household can be examined and managed in respect to all members of the household.

Elective courses for medical students in the final five quarters of their curriculum will include:

"Med 5-5.. Health Assessment and Care at CUHCC
6 weeks Offered all periods

This elective will provide the student with education and training in determining the health status of a defined adult population, correction of health problems, and correlation of health problems with those of members of the family and socio-economic as well as environmental factors. Activities will be pursued with a complete team of health professionals."

"Obst. 5-5.. Community Obstetrics-Gynecology at CUHCC
6 weeks Offered all periods

The medical student will learn the role of providing primary ambulatory care of women as it relates to the reproduction process and gynecological conditions. The student will integrate patient care with associated health professionals such as nurses, nutritionists, social workers, and others particularly as care relates to the family involved."

"AdPy 5-5.. Community Psychiatry at CUHCC
6 weeks Offered all periods

The student will participate as a physician member of a multi-discipline team composed of health science students and mental health professionals. Students will learn to identify emotional problems, gain greater understanding of treatment modalities, establish realistic therapeutic goals, and under supervision participate in counseling, and individual and group therapy. Students will also have an opportunity to gain first hand experience with community mental health resources and in conjunction with the staff, participate in consultations to community professionals such as clergy, teachers, probation officers, physicians, public health nurses, etc."

The plan calls for the enrollment of 600 adults in the first year. Further enrollment will be accomplished thereafter to meet needs and within the resources available to give excellent comprehensive care to the adults. So in this year it is envisioned that a maximum of four (4) medical students can elect these courses during any of the eight (8) six week periods in the year. Graduate medical students enrolled in the University of Minnesota will elect experiences in the above four specialties if they are interested in primary care; periods of involvement will range from 3,4 to 6 months. Both undergraduate and graduate medical students will introduce their patients to the University of Minnesota Hospitals and Clinics for special consultations and therapy not made available at CUHCC. This will maintain continuity of care for the patients. Initially four (4) graduate medical students will be active at CUHCC on a 50% time assignment. As the clinic load increases it will afford increased educational opportunity for our students.

Utilization of Clinic Examining Rooms for Medical Education

Daily Work Load of Medical Students, Housestaff and Faculty in Clinic Examining Rooms

In 1979-80, on the average, one-half of the examining rooms will be utilized by Phase D medical students who, at their various levels of limited experience and educational background, are able to function significantly less efficiently and rapidly than more experienced housestaff and faculty. In a teaching environment, a Phase D student will usually need about 1.5 hours to perform adequately a complete "workup" on a University Hospital patient, plus an additional 1.0 hour for teaching review with or by one or more staff members, further consultation with the patient and appropriate disposition of the clinical problem. Thus, occupied 2.5 hours per average teaching outpatient, one student examining room accommodates about 3 such patient workups and related teaching exercises in 7.5 hours, leaving about one-half hour in an eight-hour day for room preparation and changes of occupants.

In the remaining one-half of the examining rooms, housestaff physicians (interns and residents) and medical faculty will be simultaneously learning, teaching and providing medical service as they care for an average of 7 patients per day per room. Generally these more experienced physicians work in the outpatient setting considerably more rapidly and efficiently than do medical students, although, due to intermingled teaching activities and frequently very complicated patient problems, less so than many experienced physicians in a non-teaching practice.

At the Health Sciences Center educational setting, an average of 10 outpatients will be cared for in each 2 examining rooms of the 156 available rooms in 1979-80, providing service for a total of 210,000 patient visits during the year. Working in this manner in the clinic, on a daily average basis, will be 10 Phase A and B medical students, 91 Phase D medical students, approximately 40 housestaff physicians and 20 faculty physician-teachers, for a total of 161 medical personnel in 156 examining rooms.

The following outline will graphically show the current and projected overall utilization of the total clinic examining rooms available to the medical school for its educational program. This assumes completion of the (3) remote site clinics.

	<u>Current (1974/75)</u>	<u>Proposed (1979/80)</u>
Total Number of Exam Rooms Available	623	654
Total number of Medical Students using the available exam rooms		
Undergraduate	408	429
Graduate	<u>309</u>	<u>359</u>
Total	717	788

For brevity, this analysis of educational use of clinic examining rooms has focused only on undergraduate medical students, and, to a lesser extent, on clinical graduate students and related faculty. This analysis does not consider the extensive but variable use made of clinics in educational programs by numerous other health science students, including students of nursing, clinical pharmacy, occupational therapy, physical therapy, clinical psychology and other allied health fields, as well as their related faculty teachers.

ORGANIZATIONAL STRUCTURE

1. Health Sciences

The University is governed by a board of twelve regents elected for six year terms by the State Legislature. By tradition, eight of the regents are elected from congressional districts and four are elected on an at large capacity. The Regents of the University of Minnesota are by constitutional definition (reaffirmed by court decision) an autonomous body. Responsibility for academic matters has been directed by the Board of Regents to the respective collegiate faculties with all University matters in this area managed through a representative elected Senate of faculty and students.

The President of the University is a member of the Board of Regents. Under his authority are six vice presidents with responsibilities as follows: Vice President for Academic Administration, Administrative Operations, Finance, Health Sciences, Institutional Planning and Relations, Student Affairs.

The Vice President for Health Sciences has responsibility for developing goals and operational plans in conformity with the missions of the Health Sciences and for developing inter-unit collaboration in fulfilling the missions of the Health Sciences.

The Medical School, the School of Dentistry, the College of Pharmacy, the School of Public Health, the School of Nursing, and University Hospitals comprise the Health Sciences of the University of Minnesota. Each unit is represented by a dean or director reporting directly to the Vice President for Health Sciences. Recognition of the mutually important affairs and activities of the College of Veterinary Medicine is expressed in the adjunct status of this collegiate unit in the Health Sciences. A Council of Deans and Directors from the Health Sciences units and the College of Veterinary Medicine serve the Vice President in a cabinet capacity.

The Vice President for Health Sciences has several assistants for functional areas that affect all units. Examples of this include a Coordinator of Affiliations, a Coordinator of Continuing Education, a Coordinator for Allied Health Programs, A Coordinator for Health Care Systems Research and Development, a Coordinator of Learning Resources, and a Coordinator for Health Sciences Student Advising. A Health Sciences Constitution currently in the final stages of development will not materially alter the present organizational structure of the Health Sciences or the Medical School.

UNIVERSITY OF MINNESOTA
MEDICAL SCHOOL

Utilization of Clinic Examining Rooms
for Medical Education

A projection is made to 1979-80 concerning the anticipated utilization at that time for medical educational activities in clinic examining rooms available to the Medical School for its teaching program. University of Minnesota Hospitals has projected a need in 1979-80 for 156 examining rooms based on approximately 210,000 patient visits anticipated during that year, including an average of 5 patient visits per examining room per day of clinic operation.

Enrollment of Undergraduate Medical Students

The following table provides data on medical student enrollment at the University of Minnesota Health Sciences Center during the current year, 1974-75.

<u>Medical Student Year</u>	<u>Medical Student Class</u>	<u>Current Enrollment 1974-1975</u>
First	Phase A	247
Second	Phase B	237
Third	Phase D ₃	517 301*
Fourth	Phase D ₄	216
Total medical students		1001

*Includes 35 third year North Dakota students.

Utilization of Clinic Examining Rooms by Medical Students

Phase A and Phase B medical students utilize examining rooms intermittently during the first and second years of medical school in their clinically-related courses entitled Introduction to Clinical Medicine and Student as Physician. For this analysis, we estimate that, on the average throughout the year 1979-80, approximately 10 student equivalents from Phase A and/or B will be involved in outpatient clinical activities in the examining rooms of B/C.

The great bulk of day-by-day medical student utilization of clinic rooms is by students in Phase D, who are assigned, essentially on a full-time basis, in block periods of time to clinical activities, a significant portion of which relates to outpatient experience. We assume that, on the average in 1979-80 as is now the case, 28 percent of Phase D students will be assigned to clinical activities at University of Minnesota Hospitals. We further assume that in 1979-80 approximately 60 percent of the clinical experiences of medical students so assigned will be in the outpatient units, utilizing clinic examining rooms in Building B/C. In the projected enrollment for 1979/80, we project that we will have 539 Phase D students. Of these, on the average 151 will have continuing daily educational experience at University Hospitals; of that number, 91 Phase D students will utilize 91 B/C clinic examining rooms. These numbers of Phase D students in residence at the Health Sciences Center and utilizing clinic rooms represent a 23% increase over comparable figures for the current year.

2. Medical School Organization

The Medical School is headed by the Dean of the School. He is aided in his responsibility for academic administration and management by an associate dean and one assistant dean. In addition, one associate dean and two assistants aid the Dean of the School in student affairs and planning. One assistant dean aids in the area of curriculum. The Faculty Advisory Council, an elected committee of the Executive Faculty of the Medical School, advises the Dean in matters of policy for the Medical School.

MEDICAL SCHOOL COMMITTEES

Administrative Board of the Medical School

It shall be responsible for overseeing the administration of the policies of the Executive Faculty relating to educational matters and shall be advisory to the Dean with respect to budgetary and other aspects of the administration of the Medical School. In particular, the Dean will discuss with the Administrative Board all aspects of the preparation of the annual budget, including policies governing the allocation of funds for salary increases and general policies concerning the allocation and expenditure of the various resources of the Medical School not designated for specific purposes.

Faculty Advisory Council of the Medical School

In recognition of the need of the Dean for a small, responsible group of advisors who can meet with him frequently, regularly, and on short notice when necessary, there shall be a faculty Advisory Council that shall include members elected by the Executive Faculty. On policy matters the Faculty Advisory Council shall, through the Dean, make recommendations to the Administrative Board and/or the Executive Faculty, as may be appropriate. It shall take definitive action only with respect to such matters for which responsibility has been delegated to it by the Administrative Board or Executive Faculty. Such delegated responsibilities shall be defined in the Bylaws.

Committee on Committees of the Medical School

The Committee on Committees shall review the scope of the various standing Committees of the Executive Faculty. It shall, after consultation with the Dean, recommend for the consideration of the Executive Faculty at the October meeting each year a slate of candidates for election to each of the various other standing committees of the Executive Faculty. The Committee on Committees shall make a report concerning its activities to the Executive Faculty at least once each year.

MEDICAL SCHOOL COMMITTEES continued

Educational Policy Committee of the Medical School

The Committee on Educational Policy shall be responsible for continuing review and evaluation of the undergraduate and graduate educational programs of the Medical School and for making appropriate recommendations to the Executive Faculty for additions to or modifications of the educational programs of the Medical School. The Chairman of this Committee serves as a member of the Health Sciences Educational Policy Committee. A report of Educational Policy Committee activities is made to the Executive Faculty at least once each year. Recommendations reported to the Executive Faculty for action shall be subject to prior consideration by the Administrative Board as described in Section D of the Bylaws of the Medical School.

Medical School Admissions Committee

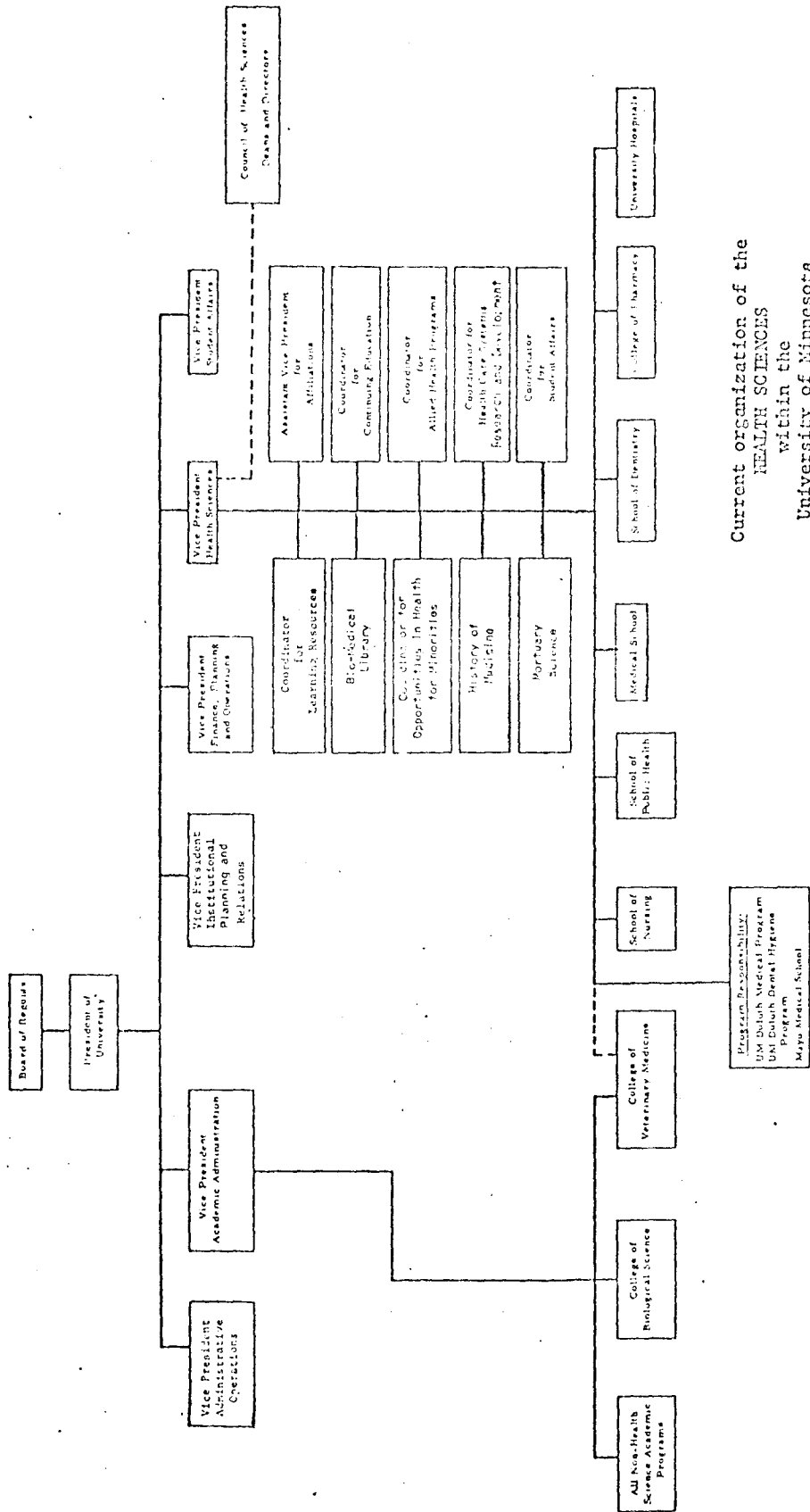
The Medical School Admissions Committee shall be responsible for the selection each year of the students who will carry out studies toward the degree Doctor of Medicine.

Faculty Academic Promotions Committee of the Medical School

Review of recommendations for faculty promotion made by the various Medical School departments to the Dean's Office; notification to the Dean of the Medical School of the Committee's recommendation concerning each proposed promotion; general advice to the Dean of the Medical School concerning policies and procedures for Medical School faculty academic promotions, in accord with the Academic Promotion Policy of the College of Medical Sciences adopted by the General Faculty of the College on November 7, 1968.

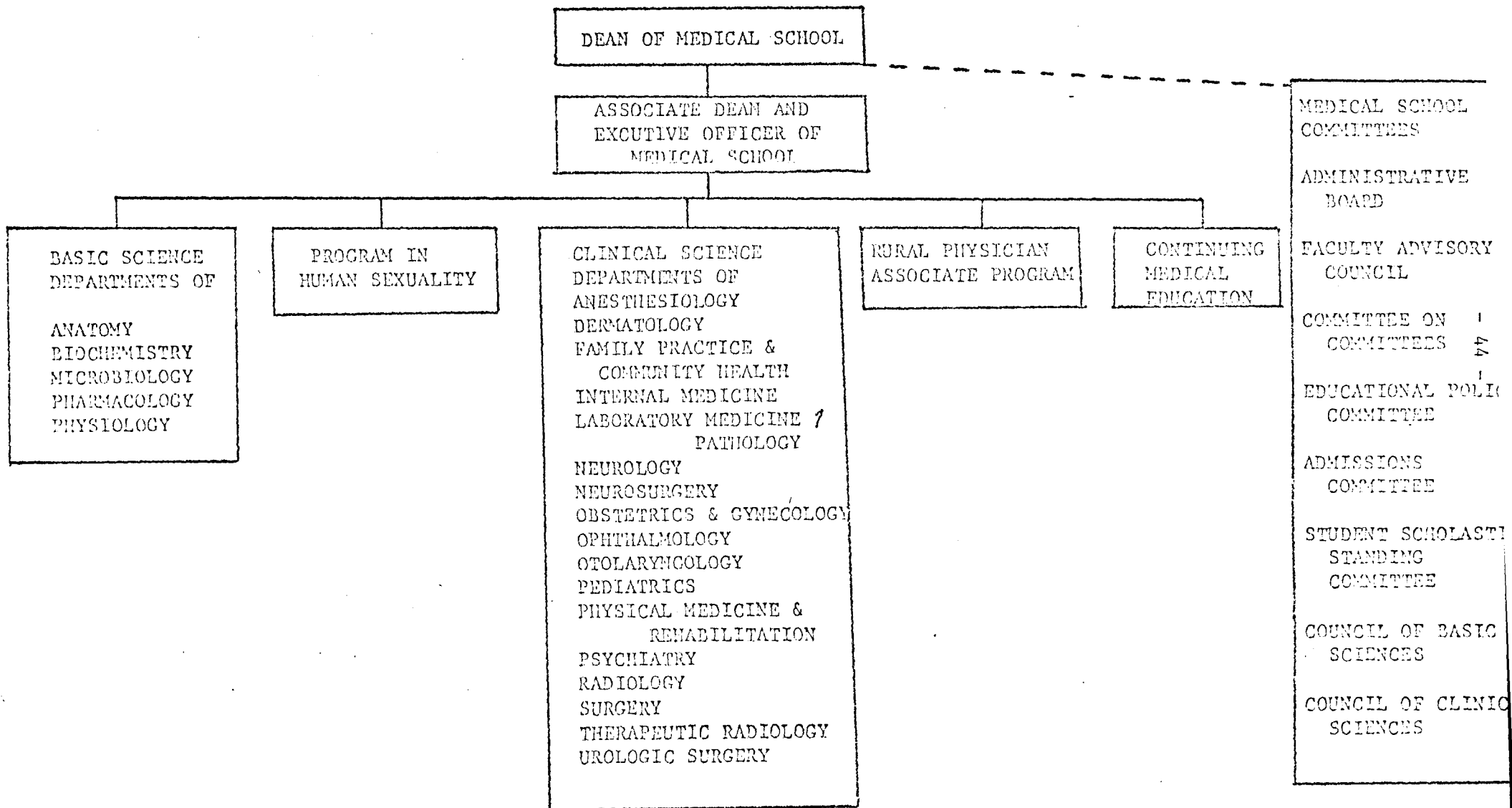
Committee on Student Scholastic Standing of the Medical School

This Committee will consider the cases of students doing unsatisfactory Medical School work at the end of each academic quarter and recommend appropriate disposition of each case. Acting for the Executive Faculty, it shall be responsible for recommending to the Dean those students eligible for advancement and those students eligible for graduation with the degree Doctor of Medicine. Policy matters not satisfactorily resolved by the usual procedures of the Committee will be referred for final determination to the Executive Faculty as a whole, which shall hold a special meeting for this purpose at the request of the Committee. In any event, the Committee on Student Scholastic Standing will report on its activities to the Executive Faculty at least once each year.



Current organization of the
HEALTH SCIENCES
within the
University of Minnesota

10/74



CURRENT ORGANIZATION OF THE
 MEDICAL SCHOOL
 WITHIN THE
 UNIVERSITY OF MINNESOTA
 FEBRUARY, 1975

Health Sciences full time equivalent faculty - 1974-75:

Medical School	- 544.0
School of Dentistry	- 160.0
School of Nursing	- 54.0
School of Public Health	- 68.0
College of Pharmacy	- 42.0

Existing faculty vacancies:

Medical School - Vacancies exist in the Department of Biochemistry and Obstetrics and Gynecology. A Search Committee has been appointed for both the Biochemistry and Ob/Cyn vacancies and it is expected that these search committees will complete their efforts within the next few months.

Faculty members of the Health Sciences units perform instructional duties in addition to and outside the unit's curricula as follows:

Medical School	- 916.0 FYE students
School of Dentistry	- 0
School of Nursing	- 0
School of Public Health	- 164.0 FYE students
College of Pharmacy	- 25.0 FYE students

In most cases, facilities used for instruction are shared classrooms, seminar space and auditoria of Unit A. The Basic Science teaching of all health sciences students by the Medical School faculty takes place in the Basic Science facilities partially provided in Unit A with the rest in the Jackson-Owre-Millard complex. Facilities to complete the Basic Science space requirements are planned in space to be renovated in the Jackson-Owre-Millard building which is the basis for this grant proposal.

The Medical School's responsibility for instruction of students other than medical students includes:

Dental students	- 196 FYE
Pharmacy students	- 84 FYE
Nursing students	- 60 FYE
Allied Health students ¹	- 259 FYE
Other Health Sciences students ²	- 105 FYE
Non-Health Sciences students ³	- 212 FYE
TOTAL	916 FYE

¹Medical Technology, Occupational Therapy, Physical Therapy, Radiologic Technology, Dental Hygiene, Radiation Therapy Technician, Respiratory Therapy Technician, Urological Assistant Technician.

²Public Health, Mortuary Science, Veterinary Medicine

³Agriculture, Forestry, Home Economics, Business, Education, Biological Sciences, Liberal Arts, University College, General College.

Projected Faculty

Projected faculty required to operate the facility for its intended purpose is presented in tabular form on page 46, by department for the Medical School.

MEDICAL SCHOOL FACULTY AT HEALTH SCIENCES CENTER

DEPARTMENT	Total Faculty 1974-75	Total Projected Faculty 1980-81
Anatomy	21*	28*
Biochemistry	10*	16*
Microbiology	19*	22*
Pathology Faculty, in the Department of Laboratory Medicine & Pathology	12*	15*
Pharmacology	20*	23*
Physiology	<u>21*</u>	<u>24*</u>
Total, Basic Health Sciences	103	128
Anesthesiology	14	16
Dermatology	5	7
Family Practice & Community Health	34	36
Internal Medicine	45	52
Laboratory Medicine Faculty, in the Department of Laboratory Medicine & Pathology	40**	47**
Neurology	25	30
Neurosurgery	9	11
Obstetrics-Gynecology	21	30
Orthopedic Surgery	7	9
Ophthalmology	8	11
Otolaryngology	14	20
Pediatrics	45	53
Physical Medicine & Rehabilitation	36**	54**
Psychiatry	47	48
Radiology	29**	31
Surgery	35	38
Therapeutic Radiology	9	14**
Urology	<u>11</u>	<u>7</u>
Total, Clinical Sciences	434	514
TOTAL, ALL DEPARTMENTS	<u><u>537</u></u>	<u><u>642</u></u>

Projections are for faculty of rank, assistant professor or higher. In some instances, wherever appropriate, instructors and research fellows are included. Projections are based upon the assumed availability of all facilities in the Health Sciences Development Program, and the full complement of increased enrollment to be realized by 1981.

* Although administratively within the Medical School, faculty in the Basic Health Science departments are responsible for the instruction of students including Dental, Pharmacy, Nursing, Allied Health, Mortuary Science, Veterinary Medicine and other students. Instruction is also provided by the Basic Health Sciences faculty for graduate students and non health science students.

** Faculty in these Medical School departments are responsible for the administration and instruction of substantial programs in the Allied Health Fields, including Medical Technology, Physical Therapy, Occupational Therapy, and X-Ray Technology. Therefore, current faculty and projected faculty in these departments include several positions designated for instruction in those programs.

Intramural Practice Program

Until several years ago the clinical faculty of the Medical School engaged in a geographic full-time system of medical practice. Under this system the individual faculty member received a basic salary from the University which he augmented by funds from private practice. Three years ago a strict full-time system was developed and was made available on a voluntary basis.

Under the strict full-time system, an individual receives a total University salary which is thought of as consisting of two components. "Basic salary" is a salary comparable to that received by other people of comparable rank and stature in various other parts of the University, for example, the Basic Science departments, the Department of Psychology, and the Arts College, etc. This segment is subject to the same kind of considerations and negotiated in the same manner as are all University salaries. The second segment is known as a "commutation allowance", which the individual receives in lieu of private fees directly received. This segment is also negotiated each year, but the basis of negotiation is different from that applied to the "basic salary". The commutation allowance is influenced by the particular specialty of the individual and by the nature and extent of his clinical activities within the department. The basic salary and commutation allowance together constitute the individual's University salary for the year in question. The department on the strict full-time basis thus has a substantially higher University salary scale than the department on the geographic type basis.

Commutation allowances are derived from a number of sources, but a good measure comes from the departmental fee pool, into which fees resulting from the professional services of faculty members are placed. Instructional funds provided by the state are not ordinarily used for commutation allowances. Currently the Department of Pediatrics, the Department of Physical Medicine and Rehabilitation, the Department of Family Practice and Community Health, the Department of Obstetrics and Gynecology, the Department of Medicine, and a group within the Department of Surgery serve on a strict full-time basis. Certain administrative officers serve on a strict full-time basis as individuals.

Faculty on a geographic full-time basis also receive a basic University support salary. As a general rule, income augmentation does not exceed this basic salary, in accordance with a University Regents Policy decision of 1963, modified in 1966.

There are no intramural practice areas, as such, in the University Hospital. All patients are admitted to the outpatient and inpatient services for teaching purposes regardless of whether their faculty physicians serve on a geographic full-time or strict full-time basis.

Student-Faculty Ratios

Based upon an enumeration of all full time faculty of the Medical School, with rank of assistant professor and above, and the numbers of medical students currently enrolled, the student-faculty ratio is approximately 2 to 1. This ratio will probably remain relatively constant as both faculty size and total medical student enrollment increase commensurately in the next few years.

The ratios, however, do not take into account the much larger total student body taught by Medical School faculty and are an inadequate reflection of the extensive teaching activities of the faculty. A large number of other undergraduate health professional students, at the doctoral and baccalaureate degree level, are taught by the same faculty members. Graduate education and the larger number of graduate students, both basic health science and clinical, are not portrayed in the ratios. Neither is continuing education represented. Listing of faculty does not indicate source of funding or relative portion of faculty effort devoted strictly to teaching activities.

THE MEDICAL SCHOOL CURRICULUM

At the end of 1968 the Executive Faculty of the Medical School approved a new curriculum, implemented September, 1969. This approval followed several years of intensive planning by faculty and students under the auspices of the Educational Policy Committee of the Executive faculty.

Goals formulated by the Educational Policy Committee to be satisfied in the new curriculum include:

Flexibility

To achieve this goal, a three-fold approach has been incorporated: 1) a curriculum consisting of a core of basic medical and clinical science knowledge constituting a part of the medical education of all physicians, followed by continued study and training along "tracks" planned by the student and his advisor from elective offerings related to the student's individual interest; 2) elective courses taken concurrently with the later quarters of the core curriculum; 3) selected students are given the option of completing medical school in three calendar years.

Student Participation

To achieve this goal, provision has been made for the student to be involved early in his student career by selecting certain experiences, such as those relating to the early introduction to the patient, on an optional basis. Later, in Phase B he must not only select a certain minimum number of elective offerings but must to a great extent plan and structure his day to maximize opportunities for studying and learning. In Phase D, the student must select and develop a program in one of six alternative tracks.

In order to augment the development of this goal, the student is provided with alternative ways of obtaining and using course integrated learning resources. The newer methods of instruction require that the student be given the ability to utilize resource materials that are specifically designed for self-instruction and incorporated delivery devices reflecting advances in technology. This will function to stimulate student decision-making concerning his learning experience. It will also free the instructor from the role of teacher-presenter and enable him to be a teacher-manager. More of the instructor's time can then be spent in monitoring student learning problems and in counseling the student so the student can make responsible decisions about his learning program. Much of the print and non-print materials will be used in a Learning Center environment.

Relevance

Relevance of the medical education to the ultimate goal of patient care is dramatized in the experiences of instruction to the patient where clinical problems in a variety of settings are shown to students from the very start of their medical education. Relevance and importance of the basic medical sciences to clinical medicine are built into the basic clinical correlations used as examples in Phase A, in interdisciplinary teaching sections in Phase B, and in basic science electives in Phase D.

Improved Communication Among Faculty and Between Faculty and Student

The most powerful mechanism for bringing the faculty together and improving communication between individuals with similar interest in several departments is the teaching section method of curriculum planning and presentation in Phase B. The advisor system helps to bridge the gap between student and faculty.

Preparation for the Future of Medical Practice

Medical education must provide the future practitioner of medicine with the basic tools of biomedical information upon which the practitioner can add new knowledge as well as the mechanisms by which the practitioner may apply this information in several possible settings in the practice of medicine. The curriculum has been established to place this information in a patient-care oriented setting and to enhance and encourage the students' awareness of preventive measures in medicine and of the integral relationships of psycho-social- economic factors and disease states. Thus students will be well suited to function within practice settings including solo practice, multi-specialty group practice, pre-paid health maintenance organizations, community oriented public health medicine, and hospital-oriented specialty practice. Most importantly, these methods will encourage the students' orientation to a life-long career of self-education in medicine.

Humanism in Medical Practice

To this end the student is exposed early to man and will develop an understanding of his inner psychological workings and his relationship to society. This involves early exposure to the behavioral sciences and early exposure to patients in a setting which places emphasis on an understanding of their human problems.

Features of the curriculum designed to attain these objectives include:

1. Small groups of student learners; tutorial teaching.
2. Numerous optional and elective courses.
3. A Learning Resource Center designed to encourage and facilitate self-instruction.

4. Extensive student involvement in curricular planning and in feedback and evaluation.
5. Six alternative pathways (tracks) of special emphasis in the elective final phase (D).
6. An optional three-year shortened curriculum.
7. An optional nine or twelve-month Physicians Associate Program.
8. An integrated, systemic approach to "core" curriculum in the second phase (B).
9. Combined and correlative clinical-basic science instruction.
10. Infusion of behavioral science knowledge and skills.
11. Opportunities for clinical experience with practicing physicians.
12. Opportunities for interdisciplinary activities.

GENERAL DESCRIPTION OF THE CURRICULUM

The curriculum for the Doctor of Medicine degree is organized into a core program for all students composed of a Phase A of 4 academic quarters and a Phase B of 4 academic quarters in length. On completion of the core program, the student begins an individualized program ("pathway" or "track") which will be 3 academic quarters or 5 academic quarters in length, depending on the span of the student's entire program. The standard curriculum for the degree of Doctor of Medicine is 13 academic quarters, to be completed in less than 4 calendar years. Students will be considered, at their request, for completion of work for the M.D. degree in 11 academic quarters in less than 3 calendar years with the stipulation that the first post-graduate M.D. year will be taken at a University, or a major affiliated, teaching hospital.

Phase A

Phase A is planned for 4 academic quarters beginning in the fall. The major emphasis of the Phase A curriculum is a presentation of a core of material in 6 basic medical sciences, anatomy, biochemistry, pharmacology, physiology, microbiology, and general pathology. In addition, there is course work in behavioral sciences and introductory experiences with patients. The content of the quarters is as follows:

- Fall Quarter 1973 and Winter Quarter 1974 (A-1 and A-2)
 - Gross Anatomy (Anat 5-100/5-101)
 - Human Histology (Anat 5-103/5-104)
 - Embryology (Anat 5-106/5-107)
 - Medical Biochemistry (MdEc 5-100/5-101)
 - Introduction to Clinical Medicine (InMD 5-100/5-101)
 - Behavioral Science (AdPy 5-107/5-108)
 - Social Behavior (AdPy 5-111/5-112)
 - Medical Genetics (InMD 5-111)
- Spring Quarter 1974 and Summer Quarter 1974 (A-3 and A-4)
 - Medical Physiology (Phs1 5-100)
 - Pathology (Path 5-101)
 - Neuroanatomy (Anat 5-111)

Student as Physician (InMD 5-103)
Microbiology (MicB 5-205/5-206)
Pharmacology (InMD 6-110)
Introduction to Clinical Medicine (InMD 5-102)
Physiology (Phs1 5-111)

All courses stress small group teaching and use of various audio-visual and self-learning aids in addition to lecture-laboratory format. Special emphasis is placed upon tutorial teaching in the Introduction to Clinical Medicine, Behavioral Science and Student as Physician courses. Patient contact, often in an outpatient setting, is initiated early in this phase of the curriculum.

Phase B

The 4 quarter sequence of Phase B begins in the fall. There is an emphasis on correlated, interdepartmental teaching designed to highlight fundamental principles and stress pathophysiologic concepts. The courses are organized in relation to 18 organs, systems, or topics. Additional courses, such as Student as Physician and Behavior of Man in the Phase B sequence are important courses designed to increase the student's clinical skills and knowledge, to enhance awareness of psychopathology and psychological factors related to illness, and to broaden perception of the physician role and the relationships of patients and their medical and health problems to the community.

The Phase B program is not traditionally organized and required classes are reduced to a minimum. "Core" didactic lectures related to specific organ system or topic and "Student as Physician" tutorials comprise approximately 70 percent of the student's daytime schedule. The remaining 30 percent will be "free" or unscheduled time in which the student arranges his own activities with maximum opportunities for independence and maturity in the learning process. This arrangement affords the student the opportunity to order his own activities and develop maturity and independence as he seeks to broaden his medical knowledge and skills and develop professional attitudes and interests. The student may utilize this time in optional activities or he can study in the Learning Center, participate in clinical experiences, or take elective courses available to students in Phase B. The formal Medical School activities in Phase B are thus divided into three categories:

PHASE B

FALL	WINTER	SPRING	SUMMER
* Cardiovascular Respiratory Sex Behavior Pharmacology	* Community Pharmacology Gut Blood Skin Fluid Kidney	* Reproduction Endocrine ENT Eye	* Nervous System Bones, Joints **
OPTIONAL ACTIVITIES	OPTIONAL ACTIVITIES	OPTIONAL ACTIVITIES	OPTIONAL ACTIVITIES
STUDENT AS PHYSICIAN	STUDENT AS PHYSICIAN	STUDENT AS PHYSICIAN	STUDENT AS PHYSICIAN
			12 hours per week 12-16 hours per week 12-16 hours per week

* Organ System Courses

**Summer 1974 Phase B required course Statistics and Epidemiology

Optional Activities include elective courses as well as supplementary scheduled activities such as lectures (expanding didactic material offered in Core Time), films, clinical experiences, laboratories, surgical experiences, demonstrations, clinical rounds, teaching rounds, clinical-pathological conferences.

Student as Physician tutorials:
(from 2 to 4 half-days per week)

- Medicine - 18 weeks (including 2 weeks (PM&R))
- Surgery - 6 weeks
- Pediatrics - 6 weeks
- Obstetrics - 4 weeks
- Neurology - 6 weeks
- Psychiatry - 6 weeks
- Family Medicine - One day per month

The required program in Phase B consists of the following Interdepartmental Medicine (InMD) courses:

REQUIRED PHASE B COURSES

	FALL	WINTER	SPRING	SUMMER
	B-1	B-2	B-3	B-4
Student as Physician	5-202	5-203	5-204	5-205
Behavior of Man		5-212		
Basic Pharmacology	5-111			
Cardiovascular	5-220			
Respiratory	5-221			
Fluid and Electrolytes	5-222			
Kidney and Urinary Tract	5-223			
Endocrine and Metabolic			5-224	
Reproduction			5-225	
Blood		5-226		
Skin			5-227	
Ear, Nose, and Throat			5-228	
Eye			5-229	
Nervous System				5-230
Gut		5-231		
Bones, Connective Tissue, and Joints				5-232
Human Sexuality		5-233		

TYPICAL WEEKLY SCHEDULE--PHASE B
Spring Quarter, 1974

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:15 -	Core	Core	Core	Student as Physician	Core	Examinations or Optional Activities
9:15 -		Optional Activities or Electives			Optional Activities or Electives	
10:15 -	Optional Activities or Electives					
11:15 -						
12:15 -						
1:15 -	Student as Physician	Core	Student as Physician	Student as Physician	Core	
2:15 -		Electives				
3:15 -						

All courses utilize audio-visual aids. Strong emphasis is placed upon small group teaching. Certain courses such as Student as Physician, and Behavior of Man, are tutorial courses with low student to faculty ratios. These courses stress learning in doctor-patient relationships in an inpatient, and whenever possible, in an outpatient setting. The free time allocated to the student is especially designed for self-learning experiences predominately in the Learning Center.

Phase D

The new curriculum affirms that it is no longer desirable to educate all medical students in an identical fashion. Fundamental knowledge and concepts common to the needs of all who will be physicians are identified and included in Phases A and B. Beyond these minimum requirements, opportunities in Phase D allow students from a variety of backgrounds and with a variety of talents and interests to pursue their goals along different pathways.

Required electives are different in the several tracks but, in general, each student is urged to include at least 12-18 weeks in an internship type experience in an inpatient and outpatient setting in his program. The opportunity to return to basic science subjects in each of the tracks after some exposure to clinical medicine is one of the attractive features of Phase D. The balance of the individual programs is planned by the student with his advisor from the extensive elective offerings listed by each Medical School department.

Each pathway is under the supervision of a review committee made up of the faculty involved in the pathway and including at least one member of a basic science faculty in each committee. The committees, which also have representation from the student body and from the junior faculty are appointed by the Educational Policy Committee and have the responsibility of reviewing and approving each student's program on the specific pathway.

Tracking is not specializing. But it does insist that the student, with advice, plan in relation to desirable goals in medical school in relation to the student's career goals.

Consider the alternative: modern day medical education recognizes that all physicians will take post-M.D. specialty training (e.g. the phasing out of "free standing" internships by 1975). Students must do long-range planning in medical school or they will not be prepared to make a choice of the next stage of their training. In other words, waiting to plan for the future during a rotating internship year is no longer an alternative.

Thus, students should not confuse their need to select one of the Tracks with their eventual practice. Inspection of the Track models described reveals considerable overlap and conformity about the essential elements leading to any kind of practice.

TRACKS

- TRACK 1 Medicine-Pediatrics, Medical Specialties, including
Obstetrics
- TRACK 2 Surgical Specialties
- TRACK 3 Psychiatry and Behavioral Science
- TRACK 4 Neurological Sciences
- TRACK 5 Family Medicine
- TRACK 6 Medical Sciences

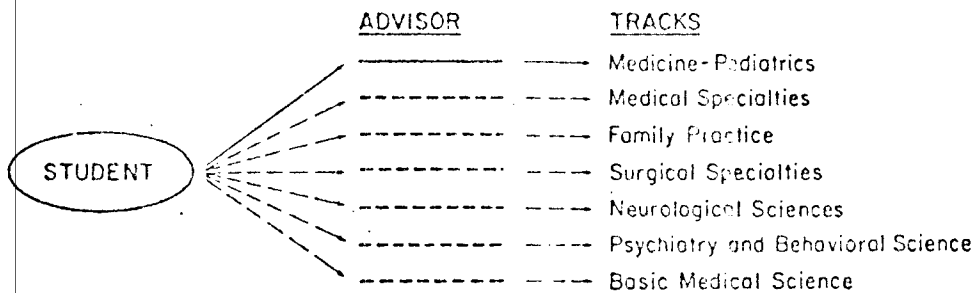
The length of Phase D is determined by review of the student's personal needs. Some will plan careers which no longer require an internship, or at least one with classical content; these students probably will prefer a 5-quarter Phase D. Others may see that their educational continuum beyond receipt of the M.D. includes activities likely to duplicate substantial parts of the standard 5-quarter Phase D and these students may opt for a 3-quarter program. Students desiring to complete Phase D in three quarters must make satisfactory progress in their course work and must provide evidence that they will spend their first postdoctoral year in a university or other major affiliated teaching hospital. There are no restrictions on type of first-year training program for students graduating in four years, in the 13-quarter curriculum.

The Phase D program emphasizes clinical training of the student and, as such, is conducted in an inpatient and outpatient setting. Small group teaching is the rule and tutorial teaching is widespread. Depending upon the elective, audio-visual and other teaching aids are used extensively. The Phase D students utilize the Learning Resources Center extensively, especially to review materials and to expand their own self-learning experiences and aptitudes.

PHASE D

	FALL	WINTER	SPRING	SUMMER
YEAR 3	D	D	D *	Free
YEAR 4	Free	D	D **	

* 3-year option
** 4-year option



Graduate Education - Medical School

Virtually all specialties of Clinical Medicine and the Basic Sciences are represented by Graduate Programs in the School of Medicine. A somewhat unique feature is the opportunity for students to register in the Graduate School of the University of Minnesota. This includes fellows in the clinical specialties who may be eligible for a degree of Master of Science or Doctor of Philosophy in the clinical specialties. Basic Science graduate students obtain the M.S. or Ph.D. degree in the specific field. Curriculum, plan of study, and thesis work are determined by the student and his advisors. In the case of the clinical specialties, curriculum and study plan are consistent with Specialty Board requirements.

The newest field of graduate work and the largest of the graduate programs is the specialty of Family Practice.

The primary objective of the Department is to train well-qualified family physicians to meet area needs and to provide continuous comprehensive, personal care to patients within the context of the individual's family and community.

The Department stresses the training of physicians who must understand patient care responsibilities within the context of their families and communities.

The Department has organized programs which include affiliations with six local community hospitals. Practicing physicians of the community hospitals, hospital staff, allied health personnel and hospital administration have joined together with the University to develop the largest Family Practice Training Program in the country. This program, combined with University Family Practice Training Programs based at Hennepin County General Hospital and St. Paul-Ramsey Hospital will provide an output of approximately 60 family physicians per year by 1975 (University Affiliated Program - 40 per year, St. Paul-Ramsey - 8 per year, Hennepin County General - 12 per year.)

Continuing Education in the Health Sciences

The rich history of continuing education in the Health Sciences dates back to the early 1930's. For almost 30 years, the programming was of a very traditional nature, using the short course and lecture technique. As educational methods have matured and each of the Health Sciences disciplines have become more clinically oriented, some changes have taken place. It has become necessary to take many programs off-campus because of inadequate facilities. This, in turn, restricts the use of advanced educational techniques. At this time, we have been unable to fully develop our goals of interdisciplinary programming and demonstration of the team approach to health care since neither the support services for the use of advanced educational techniques, nor the facilities for using these techniques are available within the Health Sciences.

The office of the the Health Sciences Coordinator for Continuing Education was formed in January of 1972. This office is charged with adapting the interdisciplinary training and health team concept to the professional-in-practice audience through continuing education programs. Given the constraints of funds, physical distances, personnel resources and the energy crisis, methods must be found to deliver educational experiences to our widely scattered clientele. At the same time, the Metropolitan area clientele must be served in the most efficient and educationally sound manner. The proposed Learning Resources Center in Unit B/C will be a focus for continuing education program development. In this Center, the content expertise of the faculty can be transferred to formats which will be replicable at many sites throughout the Health Sciences service area. These sites are already developed in many instances, through the efforts of Health Sciences Continuing Education personnel. The availability of adequate teaching space within Unit B/C will provide the site for Metropolitan area participation. In fact, it is proposed to utilize live presentations to Metropolitan health professional audiences for direct or delayed transmission to out-state audiences. Immediate feedback mechanisms will provide for access to faculty expertise and for immediate reinforcement and response to questions.

Two grants, functioning through Health Sciences Continuing Education are currently providing pilot experience for these concepts. Acting as a response organism to the 7 Community-based Health Education Consortia, the Health Sciences are working with regionalized embryonic learning centers throughout the State. With appropriate and accessible central support services, this program could well provide the "oases-for-learning" which are necessary to attract health professionals to outstate practice sites. A second grant deals with health professionals' responses to chemically dependent patients. Its experimentation with media use will prove to be a model for future continuing education development.

One additional example illustrates the potential for development which might be expected with adequate facilities and learning resources support. The Pharmacy television lecture series uses an interdisciplinary faculty and meets the needs of an interdisciplinary audience. It will be viewed by well over 1,000 health professionals in Minnesota and then by additional thousands in other states. Other Health Sciences units will be able to program in this fashion if resources and facilities such as those proposed for Unit B/C are available. Limitations of resources currently restricts the potential for this development.

Specific Continuing Education programs for the individual units include the wide range of activities in the Medical School program which attract registrants from all 50 states plus Canada and foreign countries; however, the principal aim of the program is to offer the educational resources necessary to physicians practicing in Minnesota and surrounding areas in order that they might maintain and increase their professional knowledge and skills and thus render the best attainable level of patient care. During the 1973-74 year, over 2682 physicians participated in 24 formal continuing medical education programs.

A listing of Medical School Continuing Education offerings for the 1974-75 year is contained in the brochure which is attached to the back cover of this book.

CONTEMPLATED OR PLANNED CURRICULA

Opportunity is currently provided for the student to be a physician member of a comprehensive health care team; providing primary care to a 0-18 year old population. Remodeling will expand training to total family care as a part of the students' program, adding the Internal Medicine and Ob/Gyn disciplines to the spectrum of care.

Approximately two-thirds of the medical student's time will be allocated to direct primary care activities (including continuity of care for the occasional hospitalized patient). The other third of the students' time will be basically elective. Some time will be spent with the other functional areas of dentistry, nutrition, social service, psychology, nursing, and health education. Additional options will include planning projects with staff and students of one or more of these disciplines during the rotation.

Residents in community Pediatrics, Internal Medicine and Ob/Gyn will also spend a portion of time in supervised learning through direct service and similar to the undergraduates, will have an opportunity to learn the skills of program planning, operation and management of an alternate form of health care delivery system serving a high risk, low income population.

One of the unique features of the curriculum offered at CUHCC is the opportunity to learn techniques essential to delivery of health services to a Native American population. Approximately 40% of the 2,400 registrants are Indian and the catchment area is in the center of the largest concentration of urban Indians in the country today. CUHCC's close relationship with the community enhances the opportunity to develop an understanding of the special problems and needs of the high risk Native American population in a meaningful way.

The attached chart, Table I, provides outpatient statistics for the clinics now under construction.

In considering the projected patient population which will be served in the outpatient facilities, it is not possible to project specifically and with total accuracy what the origin patterns will be. This is due to a variety of factors including the impact of socioeconomic factors, geography, transportation, financing, etc., upon referral and utilization; a changing emphasis from inpatient to outpatient care; changes in medical technology; and the large service area of the University. What can be provided at this time, however, is the best possible information on the basis of historical trends and considered judgment of the impact of changes in health care.

In considering patient origin, a distinction is made between primary care and specialty care resources. Family practice, as the major provider of primary care, can be expected to continue to draw the majority of its patients from the immediate environs of the University and thus serve as a local community health resource. On the basis of current projections family practice will, for the 1980-81 year, have approximately 39,000 patient visits.

The remaining clinics will continue to provide services primarily to a patient population referred by other health providers.

The patient origin statistics (excluding family practice) reflect that approximately 58% of outpatients are from the seven-county metro area, 29% from the remainder of Minnesota, and 13% from outside the state or country. On the basis of these figures, past trends and the increasing emphasis on outpatient care, it is anticipated that an increase of about 134,000 patient visits in those clinics relocating to the new facility, will take place by 1981, reflecting substantially the same patient origins with a slight increase from out-state areas. Patient origin figures remaining stable, an additional 6,000 patients will be from the metropolitan area.

Table II, attached, provides outpatient data for major metropolitan hospitals with which the University maintains affiliation agreements. These figures include all clinics - both those relocating to the new facility and those remaining in their present locations.

Table III, provides occupancy information for the major affiliated hospitals. Most hospitals have experienced a significant trend toward decreasing length of patient stay, and increased use of outpatient facilities.

Table IV, provides a tabulation of teaching beds by hospital location and by service.

Table V, provides a tabulation of outpatient exam rooms which will be replaced by the new facility and related census.

ACTUAL AND PROJECTED CLINIC VISITS - Clinics to be Moved to Building B/C

SERVICE	Actual					Projected							
	-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82
Audiology	3,824	4,030	4,119	4,363	4,640	4,810	5,050	5,302	5,832	6,415	7,056	7,761	8,537
Cl. Psych	674	774	1,613	1,365	1,304	1,411	1,453	1,554	1,709	1,879	2,057	2,273	2,500
Dental Cl.	7,267	7,447	7,266	3,879	5,033	5,234	5,443	5,660	5,886	6,121	6,365	6,619	6,883
Dermatology	3,312	2,983	4,410	5,331	6,201	8,328	9,993	11,991	14,389	17,266	20,719	23,826	26,208
ENT	6,564	7,273	8,836	10,232	10,889	11,433	12,000	12,600	15,120	18,144	21,772	25,949	25,826
Eye	16,885	17,351	19,401	20,665	19,989	21,449	21,928	22,366	25,049	28,054	30,298	32,721	34,684
Fam. Practice		325	2,821	4,056	5,593	8,527	10,658	13,322	19,316	28,008	39,211	39,000	39,000
Medicine	10,408	11,157	12,397	12,071	13,777	14,465	15,188	15,947	18,339	21,089	23,197	24,820	26,557
Neurology	5,516	5,558	7,252	7,196	6,993	7,782	8,093	8,416	9,678	11,129	12,241	13,465	14,811
Neurosurgery	3,016	3,404	3,857	4,193	3,548	3,725	3,911	4,106	4,516	4,967	5,463	5,845	6,254
OB-Gyn	12,647	15,732	15,077	15,639	18,448	19,000	19,570	20,157	21,164	22,222	23,333	24,499	25,723
Orthopedics	3,685	4,129	4,467	4,452	4,686	4,722	4,863	5,009	5,610	6,283	6,794	7,326	7,912
Pediatrics	10,593	11,961	14,460	14,126	14,585	14,985	15,434	15,897	19,076	22,891	26,325	30,272	34,812
Proctology	893	975	1,183	1,254	1,456	1,516	1,668	1,835	2,201	2,641	3,169	3,644	4,190
Psychiatry	5,120	5,490	5,288	4,544	3,582	3,689	3,873	4,144	4,558	5,013	5,514	6,065	6,671
Surgery	5,046	5,291	6,290	7,307	7,419	8,680	9,461	10,312	12,168	14,358	16,224	18,333	20,716
Urology	3,854	2,900	3,133	3,461	4,465	4,688	4,922	5,168	5,529	5,916	6,330	6,773	7,179
TOTAL	99,304	106,780	121,870	124,134	132,608	144,444	153,508	163,786	190,140	222,396	256,068	277,191	298,465
% Change from previous year		7.6%	14.1%	1.9%	6.83%	8.93%	6.28%	6.7%	16.09%	16.95%	15.14%	8.24%	7.67%

TABLE I

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OUTPATIENT VISITS

<u>Service</u>	<u>University of Minnesota Hospitals</u>		<u>Hennepin County General Hospital</u>		<u>St. Paul-Ramsey Hospital</u>		<u>Veterans Administration Hospital</u>	
	1972-73	1973-74	1973	1974	1973	1974	1972-73	1973-74
Audiology	4,363	4,460						
Clinical Psychology	1,365	1,304						
Dental Clinic	3,879	5,033	6,849	9,813	2,357	1,715		
Dermatology	5,331	6,201	3,833	4,942	4,266	5,113	2,450	3,955
Ear, Nose & Throat	10,232	10,889	7,293	9,479	5,242	5,161	3,950	3,890
Eye	20,665	19,989	10,425	11,436	8,481	8,460	4,380	6,220
Family Practice	4,056	5,593	5,924	6,995				
Medicine	13,663	15,701	18,453	23,464	22,153	13,325	22,375	24,355
Neurology	7,196	6,993	2,814	2,775	3,287	3,733	2,070	2,140
Neurosurgery	4,183	3,548	997	1,000			1,025	1,425
Obstetrics and Gynecology	15,684	18,440	10,557	9,939	13,659	15,960		
Orthopedics	4,452	4,686	5,218	5,372	8,631	8,870	3,603	4,643
Pediatrics	15,894	16,253	15,611	15,084	10,143	12,334		
Proctology	1,254	1,456	1,320	1,311	510	551	1,035	1,130
Psychiatry	4,544	3,582	28,808	28,405			13,115	20,625
Surgery	6,178	6,477	6,533	5,796	7,059	7,753	6,340	5,610
Urology	3,461	4,465	3,394	3,274	4,971	4,626	5,760	6,495
Cardiac								
Emergency Receiving	19,776	20,036	75,293	75,739	73,434	76,871		
Physical Medicine & Rehabilitation	3,042	3,394	6,307	6,301			1,315	1,315
Vascular			901	832				
Other	352	455	*4,311	4,406 (Birth Control)			9,270	13,190 (alcohol & drug treatment)
Radiation Therapy	1,152	1,604						
Tumor	1,035	942	943	993				
Oncology (Masonic)	5,477							
Trauma			4,359	4,827				
Prothrombin			731	1,511				
<u>TOTAL</u>	<u>157,233</u>	<u>167,885</u>	<u>233,934</u>	<u>249,656</u>	<u>164,193</u>	<u>173,950</u>	<u>76,690</u>	<u>94,995</u>
			*13,060	16,008				
			(Red Door)					

TABLE II

1973 AVERAGE INPATIENT OCCUPANCY RATE

<u>Univ. of Minnesota Hospitals</u>	<u>Hennepin County General Hospital</u>	<u>St. Paul Ramsey Hospital</u>	<u>Veterans Admin. Hospital</u>	<u>Mount Sinai Hospital</u>	<u>North-western Hospital</u>
72.6%	82.5%	62.7%	75.7%	75.1%	81.3%

1974 AVERAGE INPATIENT OCCUPANCY RATE

70.6%	78.1%	80.0%	79.7%	*72.2%	81.8%
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* For Fiscal Year October 1, 1973 - Sept. 30, 1974

TABLE III

AVAILABILITY OF RESOURCES FOR CLINICAL STUDIES

EXISTING TEACHING BEDS

<u>Service</u>	<u>Univ. of Minn. Hospitals</u>	<u>Hennepin County General Hospital</u>	<u>St. Paul- Ramsey Hospital</u>	<u>Veterans Admin. Hospital</u>	<u>Mount Sinai Hospital</u>	<u>Northwestern Hospital</u>
Anesthesiology	4					
Clinical Research	11					
Dentistry	3					
Dermatology	8	5				
Family Practice	12					
Gynecology	43	12				
Medicine	130	138	128	269 ¹	50 ¹	150
Neurology	38	24		84		
Neurosurgery	31	4				
Obstetrics	20	31	18			
Ophthalmology	24	4				
Orthopedics	28	40				
Otolaryngology	16	6				
Pediatrics (general)	126	55 ³	44 ³			
Pediatrics (newborn)	31					
Physical Medicine (adult)	20		14*	38*		
Physical Medicine (peds)	20					
Psychiatry (adult)	49	20*	85	107*		
Psychiatry (peds)	18					
Radiation Therapy	5					
Surgery	129	59	170 ²	374 ²	45 ²	
Urology	23	10				
Nursery		24				
Other			8(TB)			
TOTAL	789	432	467	872	95	150

1-Includes Medical Specialties

2-Includes Surgical Specialties

3-Includes Newborn

* Indicates combined total adult and child

TABLE IV

OUTPATIENT EXAM ROOMS SCHEDULED TO RELOCATE TO UNIT B/C*

	<u>Present Exam Rooms 1972-73</u>	<u>Present Patients 1972-73</u>	<u>Rooms to be Completed Immediately 1977-78</u>	<u>Projected Patient Visits 1977-78</u>	<u>Proposed Capacity</u>	<u>Optimal Utilization</u>
I. General Clinic Modules	77	80,929	89	117,280	161	201,250
II. Specialty Modules (Eye, ENT, Audiology)	18	39,139	37	53,123	37	58,750
III. Family Practice	7	4,056	30	19,316	30	37,500
TOTALS	<u>102</u>	<u>124,124</u>	<u>156</u>	<u>189,719</u>	<u>228</u>	<u>297,500</u>

TABLE V

* Approximately another 32 rooms are scheduled to remain in their present location due to functional relationships with inpatient facilities or equipment.

NATIONAL HEALTH OBJECTIVES

The Health Sciences units of the University of Minnesota have specifically responded to the national and state objectives of increased health manpower by increasing the numbers of enrollees in each of the disciplines as well as in allied health fields. The total enrollment of Health Sciences students for the 1973-74 year, represents an increase over the 1969 enrollment of 2056.

SPECIAL PROGRAMS

Training Courses in Current Shortage Disciplines

Physicians Augmentation Program

In September 1970, the University of Minnesota Medical School commenced a major program of enrollment expansion in conjunction with the national emphasis during that year on the Physicians Augmentation Program through the Special Projects Grant program of the National Institutes of Health. Documentation of the Medical School's very substantial increments in numbers of entering medical students, graduates, and total medical student enrollment is provided in detail in the tabular data recorded earlier in this application.

The considerable magnitude of this large enrollment increase, requiring the rapid marshalling of significant additional resources in personnel, facilities and funding, is emphasized by several statistics and comparisons. As of September, 1969, the base figure for entering medical class size at the University of Minnesota was 163. The increment of 65 additional entering places in the fall, 1970 freshman medical class represents an impressive 40% augmentation in a single year on the input side of an already relatively large institution devoted to high quality physician education. By absorbing this increment, this medical school accounted for 7% of the total increase in entering medical students in all United States medical schools for the year 1970 (there were 938 new places in the nation's 1970 entering medical class). That increment of 65 students in the University of Minnesota Medical School's entering class represented the largest class increase by any one medical school in 1970, as well as the largest increment funded through the Physicians Augmentation Program for that year, and exceeded the total increment that year for all other state-supported medical schools in Big Ten institutions. Clearly, this augmentation program initiated

at Minnesota in 1970 represents a major contribution by one institution in "significantly increasing the supply of adequately trained personnel in the health professions needed to meet the health needs of the Nation."

There were two strongly motivating considerations which propelled the University of Minnesota forward in this Medical School enrollment project. These were:

1. The realization that a disturbingly large number of qualified Minnesota resident students aspiring to careers in medicine were being declined admission due to limitations in the number of available places in the entering class. These qualified young persons were thus being unfairly denied fulfillment of their legitimate professional career objectives at a time when the state and nation were calling insistently for more physicians.

2. A well-documented shortage of physicians, both in the nation and the Upper Midwest region, demanded acceleration of efforts of enrollment expansion on the part of medical schools able to respond to the pressing needs for more physician manpower.

This substantial expansion of Medical School enrollment and contribution to the supply of trained physicians, as a portion of a larger Health Sciences expansion program at the University of Minnesota, will continue during the decade of the 1970s. The specific enrollment projections for medical students through 1975-76 are tabulated elsewhere in this application.

Program in Family Practice and Community Health

In 1967, the University of Minnesota Medical School established a training program in Family Practice and Community Health as a Division in the Department of Medicine. In November of 1968, the Program in Family Practice and Community Health was elevated to full departmental status within the Medical School. The Department now includes 23 full time faculty members housed within the University of Minnesota Health Sciences Center and operates a primary, comprehensive health care clinic, called the Family Practice Clinic, in the outpatient section of University of Minnesota Hospitals.

The Department of Family Practice and Community Health is heavily involved in several instructional programs, both undergraduate and graduate (residency) training. The faculty participates in all three phases of teaching in the M.D. curriculum, beginning with the course of Introduction to the Patient and Clinical Medicine in the first weeks of Phase A. Several Family Practice instructors provide tutorial instruction in the "Student As Physician" segment of Phase B during the second year. One of the six pathways or tracks available for selection and emphasis in the completely elective program of Phase D (third year, fourth year) is entitled "Family Medicine" and is under the direction of faculty advisors in the Department of Family Practice and Community Health. Approximately 40 students of 469 in the 1973-74 Phase D class have selected the Family Medicine pathway as the major special focus for constructing their elective sequences in Phase D, either 3 or 5 quarters in length. Of the 1973-74 graduating class, 81 of 263 students selected Family Practice residencies.

At present, the Department of Family Practice has the largest graduate training program in the United States.

Clinical Pharmacy Program

The profession of pharmacy is clinical by its very nature and thus all students must be appropriately trained. The College of Pharmacy is committed to this concept. Accordingly, all students are required to take designated courses in this area as indicated in the previous section of this application outlining current curriculum.

The College does not, however, believe that for all students this requires 6 years of formalized education (Pharm. D. degree). A majority of the needs for our Health care delivery system can be met through the B.S. graduate who has had appropriate training in clinical areas (in addition to the basic pharmacy curriculum).

The six-year Doctor of Pharmacy graduate is a clinical specialist with more refined expertise. This drug information specialist will provide manpower for a variety of shortage areas. Included here are clinical teaching roles, drug therapy advisors for specialized medical areas, i.e., infectious disease, and applied clinical pharmacology.

The College's commitment to this training can be seen by the present number of F.T.E. clinical faculty (16.5 out of a total of 41.8) and the projected number of F.T.E. clinical faculty for 1977-78 (31.5 out of a total of 79.0).

The clinical pharmacy programs consist of a core of basic behavioral and clinical knowledge as part of the education of all pharmacy students. This is followed by sequenced study and training which the student selects from certain elective offerings and is designed to provide the opportunity to pursue further study in those areas of greatest interest to him.

The courses offered can be separated into three distinct groups. The first group encompasses those courses which are required of all pharmacy students. This includes social and administrative orientation covering the general concepts in dealing with people and the application of these concepts (along with basic pharmaceutical knowledge) to a clinical situation. The second group includes courses which are elective in nature and are meant to provide depth to the basic clinical knowledge and experiences. The third group provides the basis for the Doctor of Pharmacy degree.

As a part of the planned program, a new proposal for hospital based clinical education was developed in 1971. This proposal is based on the need for the student to be exposed to direct decision making involvement in patient care. This is facilitated by formulating a learning hierarchy in which faculty are responsible for Pharm. D. residents who in turn are responsible for senior students who are responsible for junior students. Each person in this hierarchy has specific responsibilities for patient care and each is involved in teaching-learning. This experience if instituted, will replace clinical conferences and some of the clerkships. It should be pointed out that this is a long range proposal and as such is purely in the speculative scope of our program as seen for the next several years. New integrated facilities will promote this concept of this program.

Public Health Programs

Students in all 13 programs in the School of Public Health are training for shortage areas in public health disciplines. All of the training programs in the School utilize interdisciplinary training and represent unique, highly skilled

professions which address very intense areas of national need. Represented on this list are the rapidly emerging nurse practitioners, trained health administrators, long-term care administrators, and specialists in environmental protection, including radiologic health, occupational health, air pollution protection, water quality specialists to name a few. The School of Public Health recently enrolled 10 students who are training to be adult nurse practitioners. Two years ago the School received a grant to train approximately fifteen pediatric nurse practitioners and this program is currently in progress.

Graduate Programs in Nursing

There is a significant shortage of nurses trained for leadership positions. In Minnesota alone it is estimated that 750 graduate level nurses will be needed in the next five years to meet demands for teaching, administration and the delivery of care as nurse clinicians and nurse practitioners. In response, the School of Nursing has expanded its commitment to graduate level programs, increasing enrollment from 23 in 1969 to 76 in 1974. The division between graduate level programs is as follows: 34 medical-surgical; 24 psychiatric; and 18 child-bearing/child-rearing.

Interdisciplinary Training

A key objective of the establishment of the Health Sciences Center at the University of Minnesota has been the encouragement of interdisciplinary educational effort among the various collegiate units of the Health Sciences. Consumer-oriented health professionals will require a working knowledge of health care teams and an awareness of group processes involved in team problem-solving behavior. In order to foster the health team concept as a basis for mature and responsible participation in the health care process, it is necessary that appropriate educational experiences be provided in the crucial early phases of professional development when cooperative attitudes, inter-professional respect, and common objectives are most readily established. The Health Sciences faculty has been among the most innovative in the nation for developing integrated curricula. Interdisciplinary courses encourage flexibility in resource utilization, increase the permeability of disciplinary boundaries and foster the mutual respect among disciplines which is essential to effective teamwork.

A Health Sciences Educational Policy Committee, consisting of faculty and student representatives from each of the Health Sciences Schools has been examining alternative models for augmenting and expanding interdisciplinary education. The committee is designed to foster specific curriculum initiatives among faculty and students as a basis for translating the Health Sciences concept into curriculum formats which interrelate the activities of the various units of the Health Sciences complex. Relevant activities extend from orientation of pre-Health Sciences students to team-training of health professionals at all levels of competency. A sequence of new interdisciplinary courses is now operational. These have stimulated excitement in both students and faculty. Evaluations have been consistently positive. The following summaries give a flavor of their breadth and content.

Introduction to Health Care Delivery (PubH 3-790)

This course is offered to all undergraduate students who are interested in exploring career avenues in the Health Sciences. It is presented as a seminar with about fifteen students per section. Students select a topic with relevance to health care delivery. After conducting a literature search, a summary statement and implications are presented to the class by the student. Students are also required to complete three field experiences in some agency involved in health care delivery either in the Twin Cities area or in the out-state area. The objectives of this

course include the development of the team concept and preparation for effective participation in the interdisciplinary sequence after entry into a Health Sciences education program. Up to 100 students can be currently accommodated.

Interdisciplinary Team Training and the Health Care Delivery Process (HSU 5-001)

This course is directed at Health Sciences students who have entered professional programs and seek substantive interdisciplinary experiences. By subdividing the student body into interdisciplinary collaborating teams, the students learn each discipline's functions and roles. This approach deliberately produces an educational climate which is designed to bring the team concept to life in a relevant and practical sense. Since the student team is responsible for functioning as a unit and for presenting as a team, the emphasis in this learning experience is on team process as it relates to content of the topics under consideration. Some of the latter include drug and alcohol abuse, disability and rehabilitation, health maintenance strategies, involvement of the consumer in the health care delivery process, mental health and illness, population control, environmental health, and death and dying. The objective of this course is that of encouraging personal and professional commitment to the health team approach as a result of experiential and behavioral participation in group process. Class size has been limited to 150, despite great student interest, insofar as availability of team space units is extremely limited.

Allied Health Roles in Health Care Delivery (HSU 5-200)

This course complements the experiential interdisciplinary approach above by providing an account of the roles of allied health professionals at all levels of care. The objective of this course is to generate consumer-oriented models of how problems are solved by health teams in specific, circumscribed clinical contexts. The course was designed to place the contributions of allied health professionals into a total health delivery perspective.

Statement of the problem is followed by an interdisciplinary presentation including the etiological determinants, pathophysiological manifestations, psychopathological complications and longitudinal

monitoring of a delineated health delivery challenge. An interdisciplinary faculty panel then discusses implications and strategies for diagnosis, treatment, rehabilitation, maintenance, and prevention. Emphasis throughout is placed upon the problem of how the consumer-patient can be assimilated and utilized as a member of the team in health maintenance and care delivery.

The clinical problems examined include the child dying of leukemia, the stroke patient, the brain damaged child, the cardiac patient, and the patient whose life style or sociocultural milieu complicates effective utilization of health services. Progressive increases in enrollment could reach 500 within the next two years, but a shortage of space limits foreseeable enrollment to 150 per quarter.

Patient Rights and Professional Responsibilities (HSU 5-002)

This course was designed with the assumption that the patient would be better served by allied health professionals with appropriate knowledge of themselves and the patient, within the psychosocial and sociocultural framework of a rapidly changing health care system. Self knowledge should contribute to the establishment of a humanistic value system, realistic role identifications and development of professional ethics. The course emphasizes:

1. Normal behavior as viewed by various subcultures and ethnic groups.
2. The role of prejudicial attitudes and beliefs in patient-professional interaction.
3. Descriptive psychopathology-manifestations of major forms of deviant behavior, including film demonstration.
4. Coping with atypical, new or unexpected behavior.
5. Personal and professional value systems.
6. Ethical guidelines for professional conduct.

The course is expected to serve large numbers of Health Sciences students after the pilot presentation and initial evaluation have been completed.

Interdisciplinary Health Seminar (Nurs 8-062)

An interdisciplinary faculty group provides a collective statement of the current state of knowledge at the beginning of each seminar period for the topic under discussion. The student group then forms interdisciplinary discussion groups which meet with selected faculty members. This seminar is directed at graduate students and practicing professionals to encourage the assimilation of the health team concept among a wide range of disciplines. The seminar provides a natural extension of the integrated course sequence to graduate and inservice educational programs.

Drugs and Society (HSU 5-285)

This interdisciplinary course of study presents concepts and provides experiences applicable to the solution of drug problems encountered in the practice of health-related professionals. Students are encouraged to apply these concepts in a variety of community practice settings as well as in small, interdisciplinary discussion- and task-oriented groups. Approximately 600 students from medicine, nursing, pharmacy, occupational therapy, physical therapy, hospital administration psychology, counseling, education, law, mortuary sciences, institute of technology, audiology and speech pathology and communications have enrolled in the course. Future enrollments are limited by current spatial constraints, but student interest has been exceedingly high.

The Basic Health Sciences (i.e., Pharmacology, Physiology, Pathology, Microbiology and Anatomy) are taught by the Medical School and are common components of each unit's curriculum. Another common link between health science disciplines is the University Hospitals which serve as the clinical laboratory for all health science students. Finally, CHIP--the Council for Health Interdisciplinary Participation-- is a health science student organization dedicated to the health team concept.

Existing space is insufficient for implementation of an expanding team-education program. Furthermore, more effective interdisciplinary learning environments will need to be provided in the future. Necessary consumer educational technologies and team-delivery strategies will also require new spatial designs.

Among educational institutions in the upper Midwest, the Health Sciences of the University of Minnesota has the most comprehensive capability for developing and evaluating team-education curricula and team-delivery models. It is anticipated that the most productive changes in the health care delivery systems will result from the cooperative consumer-oriented behavior of health professionals who have a working knowledge of health care teams and an awareness of themselves and of the group processes involved in team problem-solving behavior.

The School of Dentistry is one of the largest producers of dental auxiliary personnel in the nation. Enrollment in these programs has undergone remarkable upward change with 300 undergraduate Associate Degree and 75 baccalaureate Degree students currently enrolled. The undergraduate programs will be expanded to 150 each in dental hygiene and dental assisting to match the 150 enrollment in dentistry. These corresponding numbers will allow systematic team-training of student triads representing the various levels of the dental health delivery team. The advanced baccalaureate program provides instructional personnel for other dental auxiliary programs in the state and region. The programs are a key component of our efforts to provide effective preventive dental health care for the state and region since no other program of this size or capability exists in the upper Midwest.

At least 500 allied health students from academic programs which are administered elsewhere on the campus or in the community rotate through Health Sciences units for the supervised clinical training. These students require considerable Health Sciences space and faculty support. Such feeder programs include the health-related curricula of almost every professional program on the campus including the General College (human services generalist, community health worker, urological assistant, biomedical electronics technician, orthotics and prosthetics technician), the College of Liberal Arts and Graduate School (clinical psychology, counseling psychology, audiology and speech pathology), and the School of Social Work (medical social work, psychiatric social work).

Allied health programs within the Health Sciences which are well into their planning and design stages include a comprehensive Instructional Personnel Development Sequence for all the disciplines to prepare teachers for the allied health programs of the other post-secondary educational systems of the state and region. Programs which will utilize this core sequence include the four year programs in dental hygiene and assisting, nursing anesthesia, and respiratory therapy and emerging programs in histotechnology, cytotechnology, electron microscopy technology, biocommunicator, emergency room associate, and radiation therapy technology.

A number of potential feeder programs have expressed strong interest in relating to the Health Sciences for participation in interdisciplinary courses (see listing below), supervised clinical experiences, the instructional personnel development curriculum, and research. Such new relationships involve programs in the School of Education (educational psychology, recreational therapy), and the General College (vocational education, career latticing into Health Sciences programs for human services generalists).

Distribution of Health Professions Personnel

Each school and college of the University of Minnesota Health Sciences Center recognized its responsibility to provide health manpower to meet the needs of the state of Minnesota. Each has undertaken significant steps from recruitment and admissions policies through curriculum design and integration of clinical experience to encourage students to consider health career opportunities in Minnesota.

In an effort to build more active liaison between outstate communities and graduating students from all health science disciplines, the Health Science Center holds an annual Minnesota Opportunities Day. Representatives from many outstate communities come to the University to present to graduating health professionals information about their community and its health care needs.

The Area Health Education Center is another health science initiative to effect the distribution of health manpower. An important thrust of AHEC is to develop educational programs in areas of health scarcity. Residents of the area can participate in local health training programs which prepare them to respond to community health needs.

Medical School

Within the Medical School, 60 percent of the 1973 graduating class selected internships in Minnesota. This compares with 55 percent of the graduating class the previous year, and 38 percent in 1969.

The Medical School developed the Rural Physician Associate Program in an effort to aid the distribution of physicians into the rural areas of Minnesota. RPAP provides interested third-year students with extensive exposure to clinical medicine in a rural community under the direct supervision of a practicing physician. For 9-12 months, the physician associate sees and experiences life as a physician in a small town. The program accepts 40 student-physicians annually.

The University provides extensive supervision and support to these students and liaison with their physician-preceptors. The program directors spend 80-90 percent of their time in the field. Regular monthly visits are made by specialty faculty from the Health Sciences Center who are available as teacher-consultants for the day to the participating community. Marriage counseling seminars have been initiated to teach principles and concepts for creative problem solving for troubled families. Interview technique taping sessions have been implemented to help students learn to extract valid information during history taking and physical examinations. Student interest in this alternative has surpassed expectations.

In addition, the Department of Family Practice sponsors a six week elective course of preceptor training for medical students in extramural settings. Also, the University Health Science Center now accepts 44 first year residents in Family Practice. As of July, 1974, the total number of Family Practice residents in training will be 109. This promises to significantly increase the pool of qualified physicians available to meet the health needs of Minnesota communities.

A significant shift in admissions policies has also taken place within the last few years. Previously, up to 20 percent of the entering class were from states other than Minnesota. For the 1973-74 entering class, 94 percent of the students were Minnesota residents. This shift has not affected the commitment of the Medical School to accept third-year transfer students from the Dakotas. The number of transfer students from North and South Dakota has increased from 18 to 44. The Medical School views the change in admissions policies as a means to better serve the health manpower needs of the state and the upper midwest.

School of Dentistry

The School of Dentistry is undertaking a major effort to affect the distribution of dental care personnel in Minnesota. Some of the projects of the School are carried out within the School while others are done in cooperation with the Minnesota Dental Association and the Minnesota State Board of Dentistry.

The Rural Dental Program is designed to send our dental students into rural areas to become oriented to the advantages of practicing in rural communities and to provide students with an opportunity to appreciate the need for their services in rural areas. The Rural Dental Program began in 1967. During the first few years, seventy-four practicing dentists provided one to one training opportunities for students.

At the urging of the dental professions and the rural communities the program was expanded in 1972 to a full 10 week summer program with additional adjunct staff and full time faculty for program development, instructional research and coordination of the service effort. The program has now been extended to North Dakota and Montana and includes dental hygienists and dental assistants.

The Dental Information Service Center is a research and service center which applies computer technology and information systems analysis to a broad spectrum of health manpower problems. All of the Center's activities are directed toward two basic objectives:

First: To provide individual dental professionals and para-professionals with manpower information services which will assist them in their efforts to provide more and better dental services to the consumer.

Second: To provide health service planners and administrators with comprehensive, reliable manpower analyses which are appropriate to the requirements of decision-making and policy development.

The Center's research and service facility is located in the Division of Health Ecology in the University of Minnesota School of Dentistry. Research conducted under the auspices of DISC includes such projects as psychological investigation into practice location decision-making, dental marketing research, continuing dental education program planning, and dental demand and productivity studies. The services provided include the Continuing Dental Education Records Service, a comprehensive dental manpower placement service, and a Practice Location Search Service. A wide variety of specialized manpower analytical reports can be generated, depending on user requirements. For example, DISC has developed accurate profiles of some 300 communities in Minnesota to help students and practitioners in selecting practice locations.

This system was developed as one of several research and service components in a \$174,800 federal contract to develop a Health Manpower Information System. The success of this program clearly provides a base methodology which can be expanded to other Health Science disciplines. This ambitious program has received national attention and could very well serve as a national model.

The School of Dentistry has initiated a placement service for prospective graduates and practitioners--dentists, dental hygienists and dental assistants.

The School of Dentistry is considering geographic distribution in the selection of students for admission. While this needs to be done with care, the rationale is based on records which show that dental students whose homes are in rural communities tend to return to rural communities for practice.

Some evidence of the positive results of efforts to help solve the distribution problem are the decisions of our 1972 graduating class for practice locations in Minnesota. Of those starting practice in Minnesota, 76 percent chose rural areas, while 24 percent elected to practice in urban communities. In contrast, of the 1968 graduates, 57 percent went to urban communities while 43 percent went to rural areas.

The programs developed at the School of Dentistry are designed to respond to the dental health care needs of Minnesota. They consider the need to provide new methods of dental care, to train additional personnel for the underserved areas of Minnesota, to help educate the public on the value of good dental health, and to train sufficient dental personnel for replacement needs and allowance for population growth and increased demand for dental care.

School of Public Health

In an effort to encourage distribution of health professions in areas of need, the School sought and received special state support to develop an outreach continuing education program for nurse practitioners which is currently training nurses in ten Minnesota communities. In addition, we are operating an interdisciplinary course through the Area Health Education Center to provide team interdisciplinary training for the health professions in rural Minnesota communities. All Health Education students, 15 settings and our pediatric and adult nurse practitioners are, likewise, trained utilizing community clinical facilities.

College of Pharmacy

No data is available to indicate the geographic distribution of graduates. Approximately 75 percent of the graduates of the College of Pharmacy remain in the State of Minnesota after graduation.

The emphasis being placed on the clinical aspect of community, pharmacy will hopefully promote an understanding of the needs, wants, and relationships occurring in the smaller communities. This sensitization could not occur with a clinical component that was exclusively institutionally based. Biases for the institutional setting and misunderstandings about the role of the community pharmacist undoubtedly would have developed.

As a broader clinical program (community and institutional) is developed, an effort is being made to incorporate part of the licensure internship requirements into the College's program. The College is actively promoting such a concept. The State of Minnesota requires that one year (approximately 2000 hours) of internship be acquired prior to licensure. The National Association of Boards of Pharmacy (NABP) has recommended recently that up to 400 hours of this total time required could be derived from approved clinical pharmacy programs. No action has been taken in the State of Minnesota to allow such internship time credit. Hopefully, such action will be taken in the near future. With this occurrence, the College will be in a much improved position to encourage the distribution of pharmacists into areas of critical health manpower needs.

Health Professionals Auxiliaries Training

Program Objectives and Directions

The allied health programs of the Health Sciences have produced a rich flow of line delivery personnel and have been the primary source of competent faculty for entry- and middle-level allied health curricula of the state colleges, junior colleges, and vocational-technical institutes of the state and region. The allied health sciences are being programmed on the basis of the assumption that allied health personnel who can function at differentiated yet interrelated levels of professional competency are essential to implementation of the health team concept. The expanding health-related technological and knowledge base has stimulated rapid and complex changes in the health services roles of the allied health disciplines. Consolidation of the Health Sciences resources for the education of allied health professionals has yielded curricular innovations and new program initiatives which are consistent with the evolving interdisciplinary orientation of Health Sciences.

The Allied Health Programs are contributing heavily to the development of interdisciplinary educational opportunities. Team-education is considered to be essential for preparing students to become more responsive to needs of the consumer-patient. Similarly, such training will improve the effectiveness with which allied health professionals interact on health care teams. Curriculum and clinical strategies which bring integrated faculty and student teams into closer relationship will be required. Interdisciplinary education will serve the objective of teaching allied health professionals to help the consumer to participate more actively as an integral member of the health care team. This would enable the consumer to contribute more knowledgeably to his own care, make more valid health-related decisions, and utilize health services in a timely manner.

The Allied Health Programs are developing an educational model which is designed to introduce economies of cost while it strengthens the quality of its educational products. A bio-behavioral core curriculum, relevant new interdisciplinary educational experiences, and specific program pathways are being synthesized as a basis for launching a School of Allied Health Sciences. The evolving educational model is expected to produce allied health professionals with a humanistic value orientation, dedicated to the coordinated provision of health services to individuals.

Major program objectives include improved career mobility for allied health professionals so that entry-level personnel

trained elsewhere in the state and region can find access into the middle- and upper-level professional programs of the Health Sciences. Career mobility provides a guiding value, for both the developing student and the public, on the assumption that the increasing public need for the services of allied health professionals will be maximally met by competent personnel who are not locked into a designated level by inflexible academic policies which do not recognize changing career orientations and aspirations. The interdisciplinary learning and exposure to multiple role levels afforded by additional space would provide opportunities for the discovery of latent aptitudes and abilities and the attainment of new skills. Such latticing channels are expected to contribute to acceptance of responsibility for continual renewal and elaboration of competencies on the part of allied health professionals trained in the Health Sciences. Major activities of such professionals will involve primary health care, management of chronic disease, modification of psychosocial barriers to the availability and utilization of health care, prevention of disease, maintenance of health, and emergency care.

Allied Health Education: Degree Granting Programs

Estimations of the space required for allied health sciences students must be derived from consideration of the multiple academic sources through which these students come to the Health Sciences complex. More than 1,000 allied health students are sponsored by the various collegiate units which make up the Health Sciences. Current programs include medical technology, occupational therapy, physician therapy, radiologic technology, clinical psychology internship, and counseling psychology internship.

The Medical School has traditionally provided quality programs at the baccalaureate and masters degree level in medical technology, occupational therapy, and physical therapy. Current enrollment of these programs are 120, 60, and 60 undergraduate students respectively. All are located in the Health Sciences complex except for brief periods of rotation through the affiliated hospitals for some of the students. It is anticipated that enrollments in medical technology will increase substantially during the mid- and late-70's as specialty tracks in histotechnology, cytotechnology, and electron microscopy technology are developed. In addition, statewide demand for instructional personnel in these disciplines for the state colleges, community colleges, and vocational-technical institutes, will be met by graduate programs of these disciplines.

Several of the above programs have combined resources of the Health Sciences and the General College. For example, the human services generalist program involves a two-year curriculum in mental health and personal services leading to an associate of arts degree. The primary purpose of this curriculum is the upgrading of middle level personal services workers to provide increased psychosocial skills in the delivery of mental health and the related services for the state of Minnesota. The program will graduate up to 120 students per year during the next few years.

The General College of the University of Minnesota and the Department of Radiology of the University of Minnesota Hospitals have jointly sponsored a program of training leading to certification and registration in radiologic technology and an associate of arts degree. This is the first program in the state of Minnesota in which the radiologic technologists obtain a broader academic background through a general college curriculum.

A comparable relationship between the Anoka Vocational-Technical Institute, the General College, the Department of Anesthesiology of the Medical School, and the Department of Respiratory Therapy of the University Hospitals has produced a new respiratory Therapy Career Development Sequence from entry at the technician level (certificate) and subsequent laddering to the therapist (associate degree), and therapist educator level (baccalaureate degree). The supervised clinical learning experience of 20 (30 by 1975) students yearly for this sequence is provided by the University Hospitals, while the didactic components are given by the above participating academic units.

COMPLEMENTARY PROGRAMS

A major emphasis in the re-organization of the units in the Health Sciences in 1970 was the establishment of a collaborative method of responding to health concerns of the people of the State and to National health objectives. Combining the Schools of Medicine, Dentistry, Nursing, Public Health and Pharmacy into a single structure provided a mechanism for multidisciplinary development of health science education and response to changing needs in health care delivery.

The important missions related to "outreach" efforts which the Health Sciences Center recognized as attainable through this structure include:

Special and increased emphasis should be given to research and development of innovative systems for delivering optimum health care, which will serve all areas and all people in the State.

Sponsor cooperative efforts in Minnesota with professional groups, hospitals, educational institutions and community organizations and all agencies concerned with health care.

Remain in the closest contact with the people of the State to perceive their health needs in their own terms.

The University Hospitals and other health science clinics should provide the facilities and resources through which exemplary models of health care programs can be tested and the delivery of comprehensive health care services can be used as a teaching laboratory and demonstration model for all health professions.

A wide variety of activities, which respond in part to these objectives have been developed over a period of years through departmental arrangements or through the efforts of interested individual faculty members.

The scope of many relationships between the University and the Community it serves range from faculty members who voluntarily contribute their time and talent in community programs to major affiliated hospital teaching programs in which several health science disciplines are involved.

Several programs are briefly described here to demonstrate the effectiveness of a comprehensive approach to University involvement with and responsiveness to "outside" activities.

The first is a University Area Health Education Center (AHEC) based in St. Cloud, Minnesota. As one of 11 such centers in the nation, AHEC provides public education and increased educational opportunities for

residents in the area, relating the educational system to the health service system. AHEC serves the 14-county Planning Area D section of the State, an area identified by the Carnegie Commission as having substantial shortages in terms of health manpower. The center, in operation since 1972 is a five year \$3 million federally funded contract with the Bureau of Health Manpower Education.

The Health Sciences AHEC supports the innovations of interdisciplinary training leading to team care, increased emphasis on ambulatory care and real integration between health services delivery and health education.

The second program, which is illustrative of interdisciplinary involvement in health service resources, is the Community-University Health Care Center (CUHCC) located at 2016 - 16th Avenue South, in Minneapolis. CUHCC provides continuous comprehensive health care for children under the age of 18. Episodic services and preventive care is provided on a team concept basis utilizing the services of nurses, social workers, physicians, dentists, nutritionists, psychologists, speech therapists, health educators, community workers and other necessary health disciplines on a parallel basis. CUHCC, a Children's and Youth Project in operation since 1966, serves eligible children in three elementary school districts in South Minneapolis. The University has provided the matching funds for the C&Y Project since 1966, the first year of operation.

Phase D medical students can choose a six-week learning experience at CUHCC for elective credit. Dental ecology students, nutritionists, social work students and health education students receive instruction at the Center on a structured basis. The Center currently has 2200 children registered and has recorded 13,490 patient/staff encounters for the year ending 1973.

The University of Minnesota Health Sciences Center currently operates a 24 hour a day statewide integrated medical information service. There are four component services currently available to Minnesota physicians, dentists, nurses and pharmacists via a single toll free telephone number. The services consist of (1) Dial Access Tapes, (2) Drug Information Service, (3) Minnesota Medical Information Service (MMIS), and (4) Medical/Dental Specialty Advice. Twin City metropolitan residents may also address the Center for drug information or Dial Access Tapes.

The objectives of each program element are:

1. Dial Access Tapes - To continue to provide authoritative "core" taped information on multiple subjects related to patient care.
2. Drug Information Service - To extend personalized drug information service and to serve as a back up medical information resource to health professionals in Minnesota.

3. Minnesota Medical Information Service - To meet the informational medical library service needs of health professionals when hospital libraries are inadequate or nonexistent.

4. Medical/Dental Specialty Advice - To improve patient care by providing the practitioner with person to person medical or dental advice from an appropriate specialist from the faculty of the University of Minnesota Schools of Medicine or Dentistry or the Mayo Clinic.

There are over 500 medical subject tapes in the dial access library. The University of Minnesota Hospitals' Pharmacy Drug Information Center serves as a quick information retrieval resource for health practitioners who have specific questions. MMIS provides a means for non-University health professionals to utilize the MEDLINE service available through the Bio-Medical Library as well as receive photocopies of specific journal references. The Medical/Dental Specialty Advice is designed to provide a practicing physician or dentist with telephone advice from an appropriate specialist about a patient-care problem. The specialists consist of participating physicians and dentists from the faculty of the University Schools of Medicine and Dentistry and the Mayo Clinic.

The tape library consists of approximately 500 single concept tapes designed to provide the physician or other health professional with up to date medical information. The tapes vary in length from four to ten minutes with an average of about five minutes. Tapes range from general information, such as a discussion of a group of drugs or upper respiratory infections in children to very specific topics, such as the treatment of ventricular septal defects or the management of mesenteric arterial embolism.

The Drug Information Center (DIC), with its specialized resource material, is designed to serve as an additional resource for health professionals.

The Bio-Medical Library will provide a photocopy of an article if the librarian in the local hospital is unable to obtain the specific journal reference desired.

The Library has installed a new service, MEDLINE (MEDLARS on-line). This system makes it possible for the library to provide computerized bibliographic searches of the medical literature published since January, 1969.

The Medical/Dental Specialty Advice service is designed to provide a physician or dentist with telephone advice from an appropriate specialist about a patient-care problem. The specialists are the approximately 1,000 participating physicians and dentists from the faculty of the University Schools of Medicine and Dentistry and the Mayo Clinic.

COMMUNITY SERVICES

This office completed its fourth full year of service in 1972-73, making available to health care agencies throughout the state the resources of the University Hospitals and, cooperatively, the Health Sciences. All programs have been conducted without charge. Salary support for the coordinator and travel expenses are provided by State appropriations.

This program is designed to build relationships between communities and the University by assisting community agencies or institutions in a broad range of programs which bring Health Sciences staff to the communities involved. Community Services has increasingly served as a coordinator of resources to provide access to assistance in any area of Health Sciences capability.

Following a pattern noted in past years, problem-solving requests usually have related to organization or development of specific hospital services, such as Pharmacy, Nursing, or Physical Therapy. In each case, the response to the request has been tailored to the agency's particular need. Requests for educational programs have covered a broad range: a medication review course presented by the Pharmacy staff to nurses; joint programs for medical and nursing staff dealing with specific problems such as care of the high risk infant and mother in labor and delivery; and classes or workshops on nursing care plans, interpersonal communication, and leadership skills.

COMMUNITY HEALTH EDUCATION CENTER PROJECT (CHEC)

The University of Minnesota CHEC, funded through the Northlands Regional Medical Program, operates in a response and stimulus mode to the outstate Community Health Education Centers and cooperates with the Mayo CHEC. In the response mode, the objective is to meet continuing education and consultation needs as identified by outstate CHECs. Constant communication, by telephone, mail and publication of continuing education offerings facilitates the meeting of this objective. In the stimulus mode the objective is to provide specific programs which are developed in cooperation with outstate CHECs. Training in educational methods with emphasis on audio visual use is provided for inservice educators of health care institutions to upgrade their skills in preparing or selecting educational materials. A management training program is being developed which will prepare health care administrators to function as change agents in their institutions. This program will complement the inservice education activity as well as equip the administrator with modern management skills. Both of these activities are actively marketed in an attempt to provide concurrent stimulation in all CHEC areas so that the meta objective of improving the quality of health care delivery throughout the state may be achieved.

THE HEALTH PROFESSIONALS DRUG ABUSE EDUCATION PROJECT

Organized under the National Drug Abuse Institute, a Training Grant awarded to Health Sciences Continuing Education program promotes health professionals' interest in drug abuse problems, provides training in the handling of drug-related problems, and encourages involvement in community drug abuse efforts. The target area covered by the project includes western Wisconsin, northern Iowa, North and South Dakota and Minnesota.

All health professionals with an interest in drug abuse problems are eligible for involvement in project activities. This includes physicians, nurses, pharmacists, dentists, social workers, veterinarians, health educators, counselors, as well as other allied health and helping professionals.

The overall goal of the project is to enhance the utilization of the health professional's resources in order to promote more effective and appropriate responses to the existing and potential drug problems in their communities by:

- encouraging a more responsive attitude toward drug users
- teaching basic skills for drug-related treatment and referral
- promoting involvement in the community
- demonstrating the need for effective interdisciplinary responses to drug problems.

MEDICAL SCHOOL

During the 1973-74 year, portions of the clinical training program for medical students are provided by ten Metropolitan community hospitals affiliated with the University.

In addition, a number of undergraduate students are involved in the Rural Physicians Associate Program. The RPAP, now in its third year, offers third year medical students the opportunity to spend 9 to 12 months of their medical education in an outstate community, working and learning the principles of primary health care delivery under the preceptorship of a practicing family physician. The RPAP was developed as a step toward emphasizing family practice as a career choice and to encourage medical practice in rural communities by exposing students to life in these communities.

Phase B students are placed with a practicing family physician in the Metropolitan area for one day every month for their entire second year and the Phase D Preceptorship Program places 60 to 80 students per year with a family physician for a six week period of time.

As mentioned earlier, the Medical School's relationships with other health resources are often the result of individual and/or departmental efforts. An exhaustive listing of all activities has not been compiled since, not only is there a wide range of activity, but constant change makes impossible a status report of the large numbers of public service commitments, planning assistance efforts, telephone consultations, service contributions, participation in state, regional and national professional organizations, seminars and speaking engagements. Ongoing departmental efforts however provide the scope of Medical School activity. For example, consultation programs are conducted by the Department of Otolaryngology at the Minnesota Regional Hearing Center and Anoka State Hospital. The Department of Medicine provides programs upon request anywhere in the State and the Hematology Section provides faculty for community hospital staff meetings and regional medical meetings. The Department of Neurosurgery provides weekly consultative service to St. Cloud and the Department of Orthopedics has arrangements for on-site education and consultation in Austin, Albert Lea and Hibbing. Psychology interns are present at CUHCC and Gillette Hospital through the Department of Psychiatry. Several departments, most notably, the Department of Urology are engaged in teaching/consultations in Planning Area D in cooperation with AHEC. Dermatology involves practicing dermatologists, in its teaching program at all levels and in its weekly departmental conferences. The Department of Laboratory Medicine and Pathology is involved in extensive collaboration with hospital clinical laboratories and independent pathologists.

The Medical School's Continuing Medical Education program is one of the most significant examples of response to need outside the University. In assuming the responsibility for maintenance of the capability of Minnesota's practicing physicians through continuing education, each year's program is designed to promote life-long learning and responsiveness to professional needs.

During the 1972-73 year, over 4000 physicians participated in 26 formal continuing medical education programs. There were 593 outstate Minnesota physicians and 1809 participants from all other 49 states. (594 of those from the Region V area, Wisconsin, Illinois, Indiana, Ohio and Michigan) and 107 foreign participants made up the total paid registration of 2,402. The remaining participants, mostly Twin Cities physicians, were University clinical faculty and residents to whom all continuing medical education courses are offered without charge.

Other departmental programs which occur regularly afford opportunities for personalized continuing education for practicing physicians who have interest in a particular field. Many departments conduct weekly conferences which are open to practicing physicians.

SCHOOL OF NURSING

Some of the most significant progress in the School of Nursing in building relationships with other health resources has developed in that unit's continuing education programs.

Two thousand practicing nurses from hospitals, schools, clinics, industry, nursing homes, public health nursing education and private duty nurses have participated this year. Programs are presented in two ways. One is through workshops, institutes or seminars presented at locations throughout the state, and the second is the telephone conference call (telelecture) programs which are directed to 32 listening sites.

These programs demonstrate how the School of Nursing is successfully expanding its goals and direct service to non-University and outstate groups, and establishing important communication links between the University and the community it serves.

New Programs

The School of Nursing faculty is currently devoting substantial planning efforts to respond to an increasing demand for the development of degree credit courses for registered nurses who wish to get their degrees but want to remain in their own geographic location and continue practicing. Two programs which may be operational next year include:

Rochester, Minnesota - Planning is currently underway between the School of Nursing and the Consortium of southern Minnesota institutions of post-secondary education to develop a program for an estimated 25 registered nurses seeking degrees.

St. Cloud, Minnesota - In cooperation with St. Benedict's College, the only institution in that region offering a baccalaureate in nursing, a program for 30 registered nurses is being planned.

Current Undergraduate Programs

Consistent with the School's objectives to provide contact with the learning in a variety of settings, the School has greatly expanded the number and kinds of agencies in which students are placed. Many of these agencies are located where the people have easy access to service. School of Nursing faculty accompany students to provide teaching.

In response to demands for a more flexible master's degree in nursing, the School of Nursing has recently submitted a grant proposal requesting funds to develop such a program. The request has been submitted with the endorsement of the Rochester Consortium, the groups in Grand Forks, North Dakota through the University of North Dakota and Eau Claire through the University of Wisconsin.

SCHOOL OF PUBLIC HEALTH

The School of Public Health is involved in community programs in the Minneapolis-St. Paul metropolitan area as well as in rural settings in Minnesota. A significant aspect of the education experience for many students in Public Health Nursing, Health Education, Nutrition, Hospital Administration, Occupational and Physical Therapy, and Environmental Health is their clinical residency and/or field work experiences. The School of Public Health has affiliation with over 90 health care organizations which assist in carrying out the field training experiences of the students. Full time faculty members as well as over 100 preceptors supervise these learning experiences.

The School's commitment to train practicing health personnel in Minnesota is seen in its continuing education programs. Over 300 individuals are trained annually in the School's Chemical Dependency Counseling program. As a certificate program the course work and student experience is designed to prepare persons whose work brings them in contact with alcoholics and drug abusers in the basics of alcoholism, drug abuse and counseling. The program offered by the School of Public Health through the University's Continuing Education and Extension Department of Pharmacology of the Medical School and the School of Social Work, consists of nine credits of basic courses and nine credits for a six-month rotating placement in a variety of settings such as inpatient treatment facilities, residential aftercare facilities and educational, referral and other community agencies. In addition, hospital and health care administrators throughout Minnesota have available to them independent study programs. This year (1973-74) 20 individuals are enrolled in the Patient Care Administration program. The School has recently inaugurated an educational program for trustees of hospitals.

The Public Health Nursing program has initiated several unique educational opportunities for nurses. The Adult and Geriatric Nurse Practitioner program is designed to train nurses to function as associates to physicians in delivery of primary care. The program expands the nursing role to provide increased preventive and health care services to the adult population, particularly in those geographic areas where health care services are limited. The course differs from traditional offerings in that the student gains clinical practice at her place of employment rather than at formal educational institutions. The classroom material is provided by traveling nurse faculty members who bring the material to the students at selected sites around the state. Taking an educational program out to the student rather than bringing the student to the program allows more nurses around the state to participate in advanced education pursuits and encourages their remaining to practice in these rural sites.

The Public Health Nursing program has also inaugurated a post-Baccalaureate program for nurses. The Pediatric Nurse Practitioner program is designed to enable nurses to assume a primary role in ambulatory child health care. The members of the Public Health Nursing faculty and the pediatric faculty in the School of Medicine conduct the program.

The Laboratory of Physiological Hygiene helped initiate and is centrally involved in three large-scale studies in the community concerned with the detection and possible prevention of complications to hypertension and atherosclerosis, i.e., strokes and heart attacks. They are large-scale research studies. The NHLI Hypertension Detection Follow-up program recently completed a door-to-door hypertension detection program in about 16,000 households in South Minneapolis, St. Louis Park, and Golden Valley, finding over 800 men and women hypertensives who were confirmed on a second visit to the Mt. Sinai Hypertension Clinic. The study is set up to compare special care in that clinic with usual care in the community, for mildly and moderately elevated blood pressure. The NHLI Study of the Prevalence of Lipid Abnormalities is nearing completion of its goal of 6600 men, women and children in Census tracts in Richfield; those with elevated blood lipids are referred to other programs or to their private physicians. The NHLI Multiple Risk Factor Intervention Trial is screening approximately 25,000 middle-aged men to detect over 600 considered at high risk of coronary attacks due to the combined risk factors of elevated blood pressure and serum cholesterol and cigarette smoking habit. Again, usual care after referral for high risk will be compared with an intensive intervention program to answer the urgent public health question whether such health measures are truly effective in heart attack prevention.

These are mass clinical trials aimed at testing major hypotheses and delivery methods for use by the medical profession and community. The L.P.H. is directly and heavily involved in community activities through consultations with Pilot City, the Y.M.C.A., State and Local Departments of Health and Industry, and through activity on the community service committee of the Minnesota Heart Association, the State Medical Association, and the many professional and public education enterprises.

COLLEGE OF PHARMACY

This unit of the Health Sciences has developed a curriculum demonstrating the "core" concept of education for health professionals. During the early years, students obtain their education in University based programs. The seniors and Pharm D students, receive much of their clinical training in off-campus programs chosen to provide learning experiences in active work situations.

The senior students' experience in community based health resources is structured into segments designed to provide exposure to inpatient, clinic, community pharmacy, and hospital pharmacy settings.

The Philosophy for clinical pharmacy education at the University of Minnesota is based on the application of basic health and pharmaceutical services in the environments in which pharmacy is practiced. Accordingly, students plan their training from elective offerings in relation to individual interests. This sequenced study provides an early introduction to the patient where clinical problems occur.

Those students choosing a community practice clerkship elect two sites. The student spends six hours weekly for five weeks in each of the two ambulatory patient care settings involved in patient monitoring, interviewing and consultation. St. Louis Park Medical Center, Appel Pharmacy, University of Minnesota and Veterans Administration Outpatient Pharmacies and multiple community pharmacy settings provide these clerkships.

Inpatient Clerkships are provided for twelve hours weekly for a ten week period at University Hospitals and community hospitals.

REGIONAL PLANNING AND COORDINATION

The faculty and staff of the University of Minnesota Health Sciences serve in leadership roles in many local, regional and state planning efforts.

Comprehensive Health Planning

The Dean of the College of Pharmacy was Chairman for the Advisory Committee to the Minnesota Comprehensive Health Planning Program, 314-A agency, during its first years, 1969-1972. The Dean of the School of Public Health was a member of the Metropolitan Health Board, the health planning body for the 314-B agency, from 1970-1973. During this period, the Dean served as Chairman of the subcommittee for developing the Health Chapter of the Metropolitan Development Guide. A nurse with University Hospitals serves on the Metropolitan Council, parent committee of the Metropolitan Health Board.

State Board of Health

The General Director of University Hospitals has been re-elected for a third term as President of the State Board of Health. Among its many responsibilities, the State Board of Health carries out the following planning and coordination activities: the state plan under Hill Burton; final review under the state certificate of need law for the construction of hospital facilities; and coordination of the credentialing functions of professional licensure boards under a grant of authority from the State Legislature.

Northlands Regional Medical Program

University of Minnesota Health Sciences participation in Northlands Regional Medical Program (NRMP) is extensive. As one of the nine-member Board of Trustees, the University is a grantee. Dean Lee Stauffer,

School of Public Health, is Chairman of the Board of Trustees. The initial NRMP project at the University of Minnesota Health Sciences Center began in 1970 with a core staff of four full-time equivalent positions and an annual budget of \$150,000. The program established a statewide system of medical audit in community hospitals to enable physicians to determine their continuing education needs. In 1972, the program was transferred to the central NRMP office. Through short term project grants, NRMP funds additional activities at the University such as dial access tape cassettes, library services, development of nurse-clinical programs, and pilot model health systems.

The current NRMP sponsored program is the Community-Based Health Education consortia (CHEC) initiated in 1972. The University Health Sciences Center, together with Mayo Clinic, Rochester, Minnesota, serve as response organizations to seven outstate CHECs. The project mobilizes the resources of the University to respond to the continuing education and consultation needs identified by the seven outstate CHECs.

Regional Health Care Programs

The Medical School and University Hospitals are involved in a growing number of regional health programs. (1) The State Legislature funds an emergency fly-in service for children with acute health problems that require emergency or specialty treatment not available outstate. (2) The Department of Laboratory Medicine has organized an outreach program for community hospitals outstate. The program will provide direct line communications between pathologists at outstate hospitals and the University laboratories, and will provide continuing education for participating pathologists and laboratory technicians. (3) The regional chronic dialysis/kidney transplant network is organized by University Hospitals, the Veterans Administration Hospital, Hennepin County General Hospital and Mayo Clinic. The network is funded by NRMP and administered by the Kidney Foundation of the Upper Midwest. Its purpose is to develop supplies of frozen blood for transplantation, to produce and disseminate educational programs on kidney disease for physicians, patients and the public, and to provide education for physicians and hospital personnel on organ acquisition.

Various consultation programs are also available to bring the tertiary care resources of the University Health Sciences Center to outstate physicians. These programs are discussed in a previous section on complementary programs.

Area Health Education Center

The Area Health Education Center, discussed in the section on complementary programs, is a program for long range health manpower planning and development. Faculty from the University Health Sciences Center work together with provider and consumer groups in the 14-county

Planning Area D to define health manpower needs and plan for creative response. AHHC is dedicated to regional planning and the coordination of resources for delivery of health care and education of health manpower.

Hennepin County Health Care Coalition

The University of Minnesota Health Sciences Center also participates as a member of the Hennepin County Health Care Coalition. Two representatives from University Hospitals Administration work with the Coalition in planning to meet the primary health care needs of the people of Hennepin County. The Coalition presently has a grant to study the health care delivery needs of the elderly and recommend a program for implementation. The Coalition is an unusual pluralistic planning group including representation from hospitals, third party payors, health professionals, and three consumer interest groups--community clinics, unions and the community at large.

Relation of Project to Area Health Plans

"Regulations for Certificate of Need Act," Chapter #628 of Minnesota Statutes, 1971, establishes the process necessary for review of the out-patient facilities component of Unit B/C. The Metropolitan Health Board considers the project with respect to the health care delivery needs of the Metropolitan area. The Metropolitan Health Board makes recommendation to the Metropolitan Council, 314-B agency, which makes recommendation to the State Board of Health. The procedures outlined have been followed for issue of the initial certificate of need in 1972 and issue of the extension to the certificate of need in 1974.

The following documents demonstrate consideration and approval of Unit B/C with respect to area health plans:

- Certificate of Need (1972)
- Letter from State Comprehensive Health Planning, 314-A (1972)
- Extension of Certificate of Need (1974)
- Comments and Approval by Metropolitan Council, 314-B (1974)
- Notification of Intent to Apply for Federal Funds (1974)
- Letter from State Planning Agency, A-95 (1974)
- Letter from State Comprehensive Health Planning Agency, 314-A (1974)

INTERINSTITUTIONAL PARTICIPATION IN TRAINING PROGRAMS

Regional

The commitment to accept 35 University of North Dakota third year medical students beginning in 1975, is a recent example of the regional cooperation in training programs. Third and fourth year medical students from South Dakota are regularly accepted at the University of Minnesota as a result of interstate cooperative arrangements that exist between Minnesota, North Dakota and South Dakota through the Midwest Board for Medical and Allied Health Education developed for the purpose of facilitating transfers of Health Sciences students. This Board is composed of legislators and representatives of the various Health Sciences schools involved from the three states.

The Medical School faculty continuously provides liaison and consultation with the faculty of the University of Minnesota Medical School Program - Duluth. As a two-year program, the Minneapolis campus Medical School is committed to the acceptance of 24 third year students each year for their third and fourth years of training.

The Duluth Medical School Program serves the Tri-Region of Minnesota, Northern Wisconsin and Peninsular area of Michigan.

State

The Mayo Medical School in Rochester, Minnesota provides University of Minnesota M.D. degrees and graduate degrees for its medical students. The cooperation between institutions, particularly in curriculum coordination since the Mayo Medical School began its training program in 1972, continues to increase.

HEALTH CARE DELIVERY

One of the basic, major objectives of the Health Sciences organization at the University of Minnesota is to encourage and develop concepts of the team approach to increase the effectiveness of health care delivery. The Health Sciences Development Program provides for integrated Health Sciences educational facilities as an outstanding model for this approach. The programs described under the section, Interdisciplinary Training, are indicative of the trend to offer courses which stress the team approach to health care delivery. The Chairman of the Health Sciences Education Policy Committee, a Professor in the Medical School, and Coordinator of Allied Health programs in the Office of the Vice President for Health Sciences is responsible for the coordination of development and evaluation of interdisciplinary training courses.

Specific research in health care delivery in the Medical School includes programs under the auspices of the Department of Family Practice. For example, the department is undertaking an in-depth medical and sociological study of a small community in Minnesota in an attempt to determine what kind of health care professionals and how many might be necessary to provide optimal health care in this prototype rural community. A field study of health care in army reserve training center during summer camp will be undertaken to determine some of the sociological and psychological factors responsible for consumer choices of health care professionals. Various physicians, nurses and other health professionals, sociologists, and psychologists are performing studies of health care delivery currently in the clinical setting in the Department of Family Practice. The medical students, participating with other Health Sciences students, are intensely interested in this area and are actively engaged in programs of health care education for consumers. The very active organization of Health Science students, known as CHIP (Council for Health Interdisciplinary Participation), has sponsored numerous highly effective student projects in health care delivery and consumer or student education. These include programs on venereal disease education for secondary school students, several free community clinics, and minority-disadvantaged student recruitment.

The Health Sciences Development Program, including Unit B/C, has been designed to encourage interdisciplinary teaching and the team approach to health care delivery. When completed, the various teaching units of the Health Sciences will be closely integrated in facilities which provide optimal interchange among various Health Sciences faculties and students leading to increased interdisciplinary cooperation in health care delivery. The outpatient facilities are particularly adapted by the nature of their modular arrangement to programs of interdisciplinary health care delivery. The Family Practice Clinic is specifically designed to promote this concept, with space to be provided in that unit for various health professionals and supporting personnel such as sociologists and psychologists. The

evolving programs of the Health Sciences in the team approach to health care delivery will be greatly augmented by the provision of the B/C facilities, which in their design integrate the Health Sciences and provide the appropriate settings in which to do applied research in health care delivery. In addition, the facilities, because of their flexibility, will be adaptable to any evolving system of interdisciplinary or team approach to health care maintenance, disease prevention, and correction.

COMPOSITION OF THE STUDENT BODY

Medical School; Academic Year 1974-75

Class Year	SEX		ETHNIC BACKGROUND							Total
	Male	Female	Black	Amer. Indian	Amer. Spanish Surname	Asian Amer.	(Other) Mainland Puerto Rican	Foreign	Amer. Caucasian	
1st	205	42	11	0	9	3	0	1	223	239+8
2nd	192	44	15	2	3	2	0	1	213	236
3rd	230(+33)	37(+2)	6	1	0	0	2	1	257(+35)	267(+35)
4th	183	28	5	2	3	1	0	4	201	216
Post Grad.	--	--	--	--	--	--	--	--	--	--
TOTAL	815(+33)	151(+2)	37	5	15	6	2	7	894(+35)	966(+35)

Numbers in parentheses () refer to 35 medical students from the University of North Dakota School of Medicine, who, through an inter-institutional agreement, are enrolled fulltime during their third year in clinical externships at the University of Minnesota Medical School.

 Medical School, 1970-71 through 1974-75
Ethnic Background of First Year Class

First Year Class	Black	American Indian	American Spanish Surname	Asian American	Other including (Mainland Puerto Rican)	Foreign	American Caucasian	TOTAL*
1974-75	11	0	9	3	0	1	223	239+8
1973-74	16	1	6	1	0	1	219	239+5
1972-73	7	2	0	0	2	1	231	239+4
1971-72	10	0	3	0	1	2	215	227+4
1970-71	7	4	0	4	0	1	213	227+2

* First figure (e.g., 239 of 239+8) is the number of newly-entered first year students; second figure is the additional number of previous students (e.g., repeaters) enrolled in the first year class.

QUALIFIED APPLICANTS FOR ADMISSION

Medical School

<u>Year</u>	<u>No. of Applicants</u>	<u>No. Accepted</u>
1974-75	1898	239
1973-74	1638	239
1972-73	1716	239
1971-72	1653	227
1970-71	974	227
1969-70	833	164

GEOGRAPHIC DISTRIBUTION OF ENROLLEES

(Current Year and Preceding Five Years)

	<u>Medical School</u>					
	<u>1974-75</u>	<u>1973-74</u>	<u>1972-73</u>	<u>1971-72</u>	<u>1970-71</u>	<u>1969-70</u>
Minn. Residents	860	811	734	716	663	613
Non-Residents	99(+35)	140	127	116	95	80
Other Countries	7	6	7	6	6	5

GEOGRAPHIC DISTRIBUTION OF GRADUATE STUDENT

(Basic Health Sciences Departments only)

	<u>Medical School</u>					
	<u>1974-75</u>	<u>1973-74</u>	<u>1972-73</u>	<u>1971-72</u>	<u>1970-71</u>	<u>1969-70</u>
Minn. Residents	164	149	180	162	153	138
Non-Residents	35*	29	35	17	28	14
Other Countries	5	3	3	4	--	1

* Estimate

ADMISSIONS POLICY

The most significant change in admissions policy for the Health Sciences within the last five years has been an increased emphasis upon recruitment of minority or disadvantaged students. This aspect of admission policy is discussed in the following section.

Since the University of Minnesota is a state supported institution, its Medical School has a primary obligation to accept for admission legal residents of this State. In 1974-75, 95 percent of the medical students enrolled in the first year class are legal residents of the State. Non-residents who may be given relative preference for admission include residents of a state in the upper Midwest area where, until very recently, there has been no four-year medical school (South Dakota, North Dakota, and Montana); or non-residents who have had previous residence in Minnesota or have attended college in this state. In general, these criteria of residency have not applied to acceptance of minority applicants for Medical School admission.

During the past five years there has been a large increase in the number of applicants for Medical School admission, with a corresponding increase in over-all qualifications of applicants. There is no shortage of qualified Minnesota or non-resident applicants.

The University of Minnesota is guided by the principle that there shall be no difference in the treatment of persons because of race, sex, creed, color, or national origin and that equal opportunity and access to facilities shall be available to all. This principle is applicable in the admission of students in all colleges, and in their academic pursuits. It is also applicable in University-owned or University-approved housing, in food services, student unions, extra-curricular activities, and all other student services. It is a guiding policy in the employment of students either by the University or by outsiders through the University and in the employment of faculty and civil service staff.

Medical School Enrollment

The Medical School has experienced an increase in enrollment of Minnesota residents. During the 1960s, up to 20 percent of the entering class were residents of states other than Minnesota. In the 1974-75 entering class, 96 percent of the first year students are Minnesota residents.

Selection of resident students from Minnesota reflects statewide geographic balance. About one-half of the students are from relatively rural out-state areas, while the remaining one-half are residents of the urban communities of the state. The establishment of the two-year Medical School at the University of Minnesota, Duluth, provides an added emphasis on the recruitment of students from rural areas whose career orientation is directed toward serving the needs of rural populations.

Seventeen percent of students enrolled in the 1974-75 entering medical class are females, while 19 percent of 1973-74 entrants were females. These figures represent a marked increase from approximately 10 percent five years ago. Correspondingly increasing numbers of well qualified women are now applying to the Medical School for admission.

The third year class for 1974-75 includes 34 transfer students, 24 of whom represent the first transfer class from the 2-year medical educational program at the University of Minnesota, Duluth. Nine third-year students transferred from the University of South Dakota, in continuation of a long-term transfer agreement with that institution. In addition, through a recently completed inter-institution contractual arrangement, during 1974-75 35 students enrolled in the "2-1-1" medical educational program at the University of North Dakota are full-time students in clinical externships at the University of Minnesota Medical School.

STUDENT RECRUITMENT: MINORITIES AND DISADVANTAGED

Medical School

For several years, the University of Minnesota Medical School has conducted an increasingly effective program for recruitment and education of disadvantaged students. Although the program was initially designated as concentrating on disadvantaged students, within two years from its inauguration, the designation was changed to "Special Educational Program for Minority Students". The committee active in this field felt that the most urgent priority for action among disadvantaged groups resided in the pressing social, economic, and educational problems of minority persons. Prior to the advent of this recent program, the University of Minnesota Medical School had graduated less than a dozen black physicians in the last half century.

Concern for the Medical School's role of providing educational opportunities for minority students in medicine and other health professions was expressed increasingly among faculty and students in 1967-68. In the fall of 1968 a committee of the Executive Faculty of the Medical School was asked to develop a proposal in this field for early consideration by the faculty. That proposal, presented to the Executive Faculty in April, 1969, outlined an extensive program calling for the encouragement, recruitment, admission, counseling, and financial support of minority individuals for medical education at the University of Minnesota. The program was adopted unanimously by the Executive Faculty in spring of 1969 and the implementing committee was modified to include adequate participation by students, persons from minority groups, and knowledgeable consultants.

A substantial initial advance was made with the enrollment of nine minority students in September, 1970, followed by subsequent annual increases. Currently in the 1974-75 academic year, enrollment of minority students includes 23 in the first year medical class and a total of 65 in all Medical School classes, approximately 7 percent of the total medical student enrollment. Thirty-seven of these minority medical students are black-Americans, 15 are Mexican-Americans, 5 are American Indians and the remainder are American-Orientals or mainland Puerto Ricans. The Medical School intends to maintain the minority admissions program at a level of approximately 24 students annually in each of the next several entering classes. Nine minority persons received the M.D. degree in the most recent graduating class in June 1974.

The Medical School has joined forces with other health science units in a joint program for recruitment and education of disadvantaged students in the several health professions. Considerable emphasis has been placed on both a short-range and long-range program directed toward the special socioeconomic and educational problems of the American Indian, since the State of Minnesota contains a relatively large population in this category. An inner-city area of Minneapolis, only a few miles from the site of the Health Sciences Center, is frequently cited as containing the largest urban concentration of American Indians in the United States.

In 1969 the Medical School also initiated a program referred to as Career Opportunities in Health Sciences (COHS). Especially during summer months, COHS provides jobs for high school students from minority backgrounds in the laboratories of research investigators at the University Health Sciences Center. Participation in a variety of research and learning opportunities introduces the students to careers in medicine. In several instances, participants have co-authored professional papers and attended professional conferences. Initially funded by the Minnesota Medical Foundation, the Minnesota Heart Association and the Office for Economic Opportunity, the COHS program is now a component of Opportunities in Health for Minorities.

The Medical School provides tutorial services, on request or as needed, for all students, with special emphasis on assistance to minority students in major courses in basic health sciences during the first two years of the M.D. curriculum. During the past two years, special efforts have been expanded by the Medical School faculty, by the Office of Medical Student Affairs and by special counselors to extend and improve academic and personal counseling for minority medical students. In Fall 1974, the Dean of the Medical School added to the Medical Student Affairs staff an Assistant to the Dean, on a 25% basis, who is a competent black physician and surgeon, and who has been especially effective in establishing rapport with and providing counseling support for minority students.

It has been necessary to provide extensive additional financial aid to minority medical students, especially since more than two-thirds of these students are not Minnesota residents and therefore must pay tuition and fees to the University of Minnesota at non-resident rates, about \$4600 per student per year. In addition to the usual institutional state and federal loans and grants available to any medical student who demonstrates financial need, minority medical students have received a disproportionately large portion of student aid funds provided by the local Minnesota Medical Foundation (MMF). This funding of minority medical students includes more than \$125,000 in 1973-74 from MMF, especially from a dedicated grant to the Medical School from the Robert Wood Johnson Foundation.

Recently the President of the University has taken an intense personal interest in financial needs of minority medical students and has been instrumental, during the fall of 1974, in securing an additional \$200,000 directed specifically to financial support of minority medical students.

Both the University of North Dakota School of Medicine and the University of Minnesota-Duluth School of Medicine (UMD) have special projects for the identification, orientation, and selection of American Indian students into health careers in general and into medicine in particular. Essentially all students in the UMD two-year program, including minority students in that program, transfer to the University of Minnesota Medical School, Minneapolis for the third and fourth years of their medical education in clinical fields. Annually, through an inter-institutional contract arrangement, 35 students from the University of North Dakota School of Medicine, including

minority medical students, complete the entire third year of their medical education curriculum in clinical externships at the University of Minnesota Medical School and its affiliated teaching hospitals in the Minneapolis-St. Paul metropolitan area.

During recent years, substantially increasing numbers of women have applied and have been accepted for admission to the University of Minnesota Medical School, Minneapolis. In the current 1974-75 first year class of 239 medical students, there are 42 women, or 18 percent. There are 151 women in all classes of the medical student body (966 students), equivalent to 16 percent. These percentages accent the marked increases which have occurred during the past five years; prior to 1970, about 10 percent of students enrolled in each entering class and a comparable 10 percent of applicants were female.



UNIVERSITY OF MINNESOTA

Office of the Vice President for
Finance, Planning and Operations
301 Morrill Hall
Minneapolis, Minnesota 55455
(612) 373-5940

March 10, 1975

Lyle A. French, M.D.
Vice President for Health Sciences
432 Morrill Hall
East Bank Campus

Dear Doctor French:

My office has prepared the financial information for the Health Sciences Medical School for the years 1971-72, 1972-73 and 1973-74 from the information contained in the University of Minnesota Financial Report and other internal records.

Our projected budget for 1974-75 approximates a 9% increase over 1973-74. Based on previous expenses, 1975-76 and 1976-77 are projected using a 10% rate. For 1977-78 through 1979-80, 8% increases in costs are projected. The increases of the first three years are generally larger than those of the later two years which reflect our five-year estimates of costs.

In terms of the format of this Financial Report, tuition estimates are shown as part of the income, even though tuition is collected centrally and is not credited to college accounts. Indirect costs such as maintenance and operation of University buildings, central administration and library expenditures are not shown in the collegiate summaries but are funded centrally.

We will be happy to supply any further information that may be needed for the applications.

Sincerely yours, .

A handwritten signature in cursive script, appearing to read 'J. Brinkerhoff'.

James F. Brinkerhoff

JFB:vma

Enc.

UNIVERSITY OF MINNESOTA
MEDICAL SCHOOL
Statement of Expenditures and Source of Funds

SOURCE OF FUNDS	<u>1972-73</u>	<u>1973-74</u>	<u>Projected 1974-75</u>	<u>Projected 1975-76</u>	<u>Projected 1976-77</u>	<u>Projected 1977-78</u>	<u>Projected 1978-79</u>	<u>Projected 1979-80</u>
State Government	\$ 5,268,209	\$ 5,686,996	\$ 6,200,000	\$ 6,820,000	\$ 7,502,000	\$ 8,102,000	\$ 8,750,000	\$ 9,450,000
Student Tuition	899,331	1,441,384	1,571,000	1,728,000	1,901,000	2,053,000	2,217,000	2,395,000
Sponsored Research								
Government	12,385,259	12,614,380	13,750,000	15,125,000	16,639,000	17,968,000	19,405,000	20,958,000
Non-Government	3,754,221	3,438,815	3,748,000	4,123,000	4,535,000	4,898,000	5,290,000	5,713,000
Non-Research & Student Aid								
Government	6,303,984	7,184,154	7,830,000	8,613,000	9,473,000	10,233,000	11,052,000	11,936,000
Non Government	5,414,933	6,504,633	7,090,000	7,799,000	8,579,000	9,265,000	10,006,000	10,806,000
Miscellaneous--Temporary Investment Overhead, Department Income and Other	<u>347,288</u>	<u>312,959</u>	<u>340,000</u>	<u>374,000</u>	<u>411,000</u>	<u>444,000</u>	<u>480,000</u>	<u>518,000</u>
Total Funds	\$34,373,225	\$37,183,321	\$40,529,000	\$44,582,000	\$49,040,000	\$52,963,000	\$57,200,000	\$61,776,000
EXPENDITURES								
Instructional	\$							
Salaries & Wages	\$ 5,718,079	\$ 5,887,221	\$ 6,418,000	\$ 7,060,000	\$ 7,765,000	\$ 8,386,000	\$ 9,057,000	\$ 9,782,000
Supplies, Fringe Benefits, Expenses, Materials, Services	691,974	1,430,490	1,559,000	1,715,000	1,887,000	2,038,000	2,201,000	2,377,000
Equipment	104,775	123,628	134,000	147,000	162,000	175,000	189,000	204,000
Sponsored Research								
Salaries & Wages	8,772,289	8,853,951	9,651,000	10,616,000	11,678,000	12,610,000	13,618,000	14,707,000
Supplies, Fringe Benefits, Expenses, Materials, Services	6,138,340	6,385,545	6,960,000	7,656,000	8,422,000	9,096,000	9,824,000	10,610,000
Equipment	1,228,851	813,699	887,000	976,000	1,074,000	1,160,000	1,253,000	1,354,000
Non-Research & Student Aid								
Salaries & Wages	7,822,974	9,782,081	10,662,000	11,728,000	12,901,000	13,935,000	15,050,000	16,253,000
Supplies, Fringe Benefits, Expenses, Materials, Services	3,618,837	3,412,754	3,720,000	4,092,000	4,501,000	4,361,000	5,250,000	5,670,000
Equipment	<u>277,106</u>	<u>493,952</u>	<u>538,000</u>	<u>592,000</u>	<u>650,000</u>	<u>702,000</u>	<u>758,000</u>	<u>819,000</u>
Total Expenditures	\$34,373,225	\$37,183,321	\$40,529,000	\$44,582,000	\$49,040,000	\$52,963,000	\$57,200,000	\$61,776,000

Description of Facilities

The present structure; a vintage apartment building of four floors, has been partially remodeled to serve a pediatric population of 2400 children and youth in a teaching situation. Training of adult practitioners in both Internal Medicine and OB/GYN specialties will require expansion of some areas within the building and addition of others.

The major additions will be: 1) An elevator to service all four floors and 2) a basic radiology service. Since there is, at present, no ground level entry to the building, access for the handicapped and elderly is extremely difficult. Modification of the entry way and accompanying elevator installation, will enable service and training for all age groups and disciplines, yet not reduce existing office and clinic space. The ground floor of the building can be readily modified to include a radiology service. While it has been possible to serve a pediatric population without X-ray, the expansion to adult patients cannot be implemented in the absence of some.

Expansion of existing areas would be in the areas of pharmacy, laboratory, examining rooms, and reception area, with remodeling of conference areas for classroom space and library facilities. Finally, inherent in most remodeling projects, changes in the heating, ventilating, and electrical systems will be required to accommodate the physical changes.

The remodeled facility would include four floors as follows:

- A. Ground level with large reception area, waiting rooms, medical records, interview rooms, stenographic area, outreach worker office, radiology rooms, nutrition and health education demonstration room, and space for hearing, vision and speech assessment.
- B. First floor with 10 medical examining and treatment rooms, dental suite with 30 peratories, office space for students and professionals, pharmacy and laboratory.
- C. Third floor with 4 interview/examination rooms, mental health reception area, conference room, one-way vision room for clinical teaching, 6 staff office rooms.
- D. Fourth floor with 2 student/staff rooms, library room, conference/classroom, administrative area, employee lounge.

Outpatient Examination Rooms

	<u>Present Exam Rooms</u> <u>(Includes B/C)</u>	<u>Additional Requested</u> <u>in this Proposal</u>	<u>Total</u>
I. General Clinic Modules	89	12	101
II. Specialty Modules (Eye, ENT, Audiology)	37	-	37
III. Family Practice	<u>30</u>	<u>-</u>	<u>30</u>
	156	12	168

Summary of the Number and Location
of the Undergraduate and Graduate Medical Students

CURRENT 1974-75

<u>Students</u>	<u>No. at Health Science Center</u>	<u>Number at Affiliates</u>	<u>(1) No. at other com- munity Resource</u>	<u>No. at Remote Site Clinics</u>	<u>Total</u>
Undergraduate (includes 35 3rd year North Dakota students)	423	348	229	1	1001
Intern	29	87	-	-	116
Resident	193	423	100	2	718
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	645	858	329	3	1835

PROPOSED 1979-80

Assumes Completion of the (3) Remote Site Clinics

Undergraduate (includes 35 3rd year North Dakota students)	445	357	244	14	1060
Residents	222	502	100	10	834
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	667	859	344	24	1894

(1) The space at these community resources is not controlled by the Medical School.

CURRENT
SUMMARY OF SPACE CONTROLLED BY THE MEDICAL SCHOOL
AT MINNEAPOLIS CAMPUS

	<u>Net Assignable Square Feet (NASF)</u>			<u>Number of Student Stations</u>	
	<u>Total</u>	<u>Total Utilized</u>	<u>Usable by Program</u>	<u>Total</u>	<u>Usable Program</u>
Classroom-type instructional space	10,425	8,209	8,209	3,809	2,528
Laboratory-type instructional space	81,360	43,983	43,983	1,265	460
Library space	3,051	3,051	3,051	---	---
Auditoriums	3,123	3,123	3,123	300	300
Administrative Office and Areas	88,050	88,050	88,050	---	---
Faculty Offices	84,554	72,723	72,723	---	---
Research and Research Training Space	271,061	247,400	247,400	---	---
Animal Facilities	41,406	41,406	41,406	---	---
Support Space	74,905	68,990	68,990	---	---
Other Space	3,000	3,000	3,000	---	---
TOTAL (Exclusive of patient Care Facilities)	660,935	579,935	579,935	5,374	3,288

Summary of Space controlled by the
 Medical School (Mpls. Campus) Showing
 Patient Care NSF, including Major Affiliated Hospitals

A Current Teaching NSF	B Patient Care NSF including the University Hospitals and major Affiliated Hospitals	C Total NSF	D Remote Site Patient Care space requested to replace NSF at affiliated Hospitals	E Balance of NSF at affiliated Hosp. After Completion of Projects	Total Column A, D + E
657,935	1,370,200	2,028,135	14,700	1,355,500	2,028,135

PROPOSED
SPACE UTILIZATION FOLLOWING COMPLETION OF PROJECT

	<u>Net Assignable Square Feet (NASF)</u>			<u>Number of Student Stations</u>	
	<u>Total</u>	<u>Total Utilized</u>	<u>Usable by Program</u>	<u>Total</u>	<u>Usable by Program</u>
Classroom-Type instructional space	10,425	8,209	8,209	3,809	2,528
Laboratory-type instructional space	81,360	43,983	43,983	1,265	460
Library space	3,051	3,051	3,051	---	---
Auditoriums	3,123	3,123	3,123	300	300
Administrative Office and Areas	88,050	88,050	88,050	---	---
Faculty Offices	84,554	72,723	72,723	---	---
Research and Research Training space	271,061	247,400	247,400	---	---
Animal Facilities	41,406	41,406	41,406	---	---
Support space	74,905	68,990	68,990	---	---
Other space	3,000	3,000	3,000	---	---
TOTAL (Exclusive of patient Care Facilities)	660,935	579,935	579,935	5,374	3,288

Summary of Space not controlled by the Medical School but Jointly used
with other Health Science Units

CURRENT

<u>Type</u>	<u>Net Sq. Ft.</u>
Auditoriums	16,000
Classrooms	11,000
Seminar	<u>2,000</u>
TOTAL	29,000

PROPOSED

<u>Type</u>	<u>Net Sq. Ft.</u>
Auditoriums	16,000
Classrooms	11,000
Seminar	<u>2,000</u>
TOTAL	29,000

Summary of Patient Care Space
Currently Controlled by the Medical School
Including Major Affiliates

<u>Location</u>	<u>Net Sq. Ft.</u>
University Hospitals	223,000
Hennepin County Hospital	275,000
St. Paul Ramsey Hospital	320,000
Veteran's Administration Hospital	485,000
Mt. Sinai Hospital	67,000
	<hr/>
Total	1,370,000 NSF

Summary of Proposed Patient Care Space
Which is Controlled by the Medical School,
Assuming Completion of the (3) Remote Site Clinics

<u>Location</u>	<u>Net Sq. Ft.</u>
University Hospitals	223,000
Hennepin County Hospital	271,000
St. Paul Ramsey Hospital	315,000
Veteran's Administration Hospital	480,000
Mt. Sinai Hospital	66,300
3 Remote Site Clinics	14,700
	<hr/>
Total	1,370,000 NSF

Summary of the Number of Examination Rooms
Controlled by the Medical School

C U R R E N T

<u>Location</u>	<u>Number</u>
University Hospitals	156
Major Affiliates	460
Community-University Health Care Clinic	<u>7</u>
TOTAL	623

P R O P O S E D

<u>Location</u>	<u>Number</u>
Universtiy Hospitals	156
Major Affiliates	460
Community-University Health Care Clinic	increased to: 12
Primary Care Clinic	12
Chicago Avenue - Family Practice Clinic	<u>14</u>
TOTAL	654

As indicated on the chart shown on page 113a, there is no anticipated increase in the net square feet of space controlled by the Medical School as a result of the three proposed primary care clinics. However, an emphasis on out-patient teaching rather than just the traditional inpatient teaching program is reflected in the increase in the number of examination rooms available to the Medical School at these remote sites to enable us to accomplish this goal.

FYE Graduate Medical Students in training at Patient Care Facilities controlled by Medical School

<u>Students</u>	<u>Current Number FYEs</u>	<u>Proposed Number FYEs</u>
Interns	116	116
Residents	<u>618</u>	<u>618</u>
Total	734	734

An additional 100 residents are in training at Patient Care Facilities in other community resources, whose space is not controlled by the Medical School.

Hours per year Spent by a Typical Full Time Student
in Areas Controlled by the Applicant School

	<u>A</u>	<u>B</u>	<u>C</u>
	Total Columns B & C	Classrooms	Instructional Laboratories
First year undergraduate	1600	1000	600
Second " "	1100	1000	100
Third " "	300	300	-
Fourth " "	300	300	-
Fifth " "	-	-	-
Sixth " "	-	-	-
Graduate Students enrolled for degree	<u>1900</u>	<u>500</u>	<u>1400</u>
Total	5200	3100	2100
	<u>Academic Year</u>		
	1 & 2	3 & 4	
Number of weeks in the Academic Year	<u>48</u>	<u>48</u>	
Number of hours in the Academic Week	<u>40</u>	<u>40</u>	

UTILIZATION OF INSTRUCTIONAL CLASSROOMS AND LABORATORIES
(Following Completion of the Project)

Hours per year Spent by a Typical Full Time Student
in Areas Controlled by the Applicant School

	<u>A</u>	<u>B</u>	<u>C</u>
	Total Columns B & C	Classrooms	Instructional Laboratories
First year undergraduate	1600	1000	600
Second " "	1100	1000	100
Third " "	300	300	-
Fourth " "	300	300	-
Fifth " "	-	-	-
Sixth " "	-	-	-
Graduate Students enrolled for degree	<u>1900</u>	<u>500</u>	<u>1400</u>
Total	5200	3100	2100
	<u>Academic Year</u>		
	1 & 2	3 & 4	
Number of weeks in the Academic Year	<u>48</u>	<u>48</u>	
Number of hours in the Academic Week	<u>40</u>	<u>40</u>	

DESCRIPTION OF FACILITY

Present and Future Use of Facilities to Carry Out Educational Programs

The physical means by which the Medical School is carrying out its current educational programs is best reviewed by expansion of information related to curriculum detailed in item 9.

<u>Phase A</u>	<u>Current Location</u>	<u>Future Location</u>
Gross Anatomy		
lecture	Unit A	Unit A
laboratory	Jackson Hall	Jackson Hall
Human Histology		
lecture	Unit A	Unit A
laboratory	Jackson Hall	Owre Hall
Embryology		
lecture	Unit A	Unit A
laboratory	Jackson Hall	Owre Hall
Medical Biochemistry		
lecture	Unit A	Unit A
laboratory	Unit A	Unit A
Introduction to Clinical Medicine		
lecture	Unit A	Unit A
clinical experience	Multiple locations on and off campus	Unit B/C and University Hospitals
Behavioral Science	Unit A	Units A and B/C
Social Behavior	Multiple locations in the Health Sciences Center and elsewhere on campus.	Units A and B/C
Medical Genetics	Unit A	Unit A
Medical Physiology		
lecture	Unit A	Unit A
laboratory	Unit A	Unit A
Pathology	Owre Hall	Unit A
Neuroanatomy		
lecture	Unit A	Unit A
laboratory	Jackson Hall	Owre Hall

Student as a Physician		
lecture	Unit A	Unit A
laboratory	Multiple locations on and off campus	Multiple locations on and off campus
Microbiology		
lecture	Unit A	Unit A
laboratory	Unit A	Unit A
Pharmacology		
lecture	Unit A	Unit A
Physiology		
lecture	Unit A	Unit A
laboratory	Unit A	Unit A
 <u>Phase B</u>		
18 courses on organ systems and selected topics	Botany 6	Unit B/C
Student as a Physician	Multiple locations on and off campus	Unit B/C and University Hospitals

NOTE: The lack of adequate physical facilities since the implementation of this curriculum has required the dispersal of Phase A and B students to multiple locations in the Metropolitan area, including physicians' offices, for clinical experiences in Introduction to Clinical Medicine and Student as a Physician. Clinical assignment of medical students to such locations before they have had adequate clinical experiences in the core curriculum taught by full time faculty does not maintain the quality of education required. Therefore as soon as physical facilities are available in the Health Sciences Center these experiences will be offered in great part by the full time faculty.

Phase D at the Health Sciences Center (28% of students)

12-18 weeks internship (type experience)	University Hospitals Predominately inpatient	University Hospitals and Unit B/C 60% outpatient 40% inpatient
Return to Basic Sciences	Owre Hall	Unit B/C
Electives	University Hospitals Mayo	University Hospitals Unit B/C Mayo

Phase D at Affiliated Hospitals

Remainder of medical students in Phase D are assigned for various periods for internship type experiences to the major affiliated hospitals:

St. Paul-Ramsey Hospital	}	- 43%
Hennepin County General Hospital		
Veterans Administration Hospital		
Mt. Sinai Hospital		

Other Community Health Care Facilities - 29%

Phase D - Rural Physicians Associate Program

This program places 40 medical students into rural areas for 12 months practice experience with preceptors immediately after completion of Phase B. This activity will have its administrative and educational offices in Unit B/C.

For information concerning other Medical School educational programs refer to Programs to be Conducted in the Facilities, page 74.

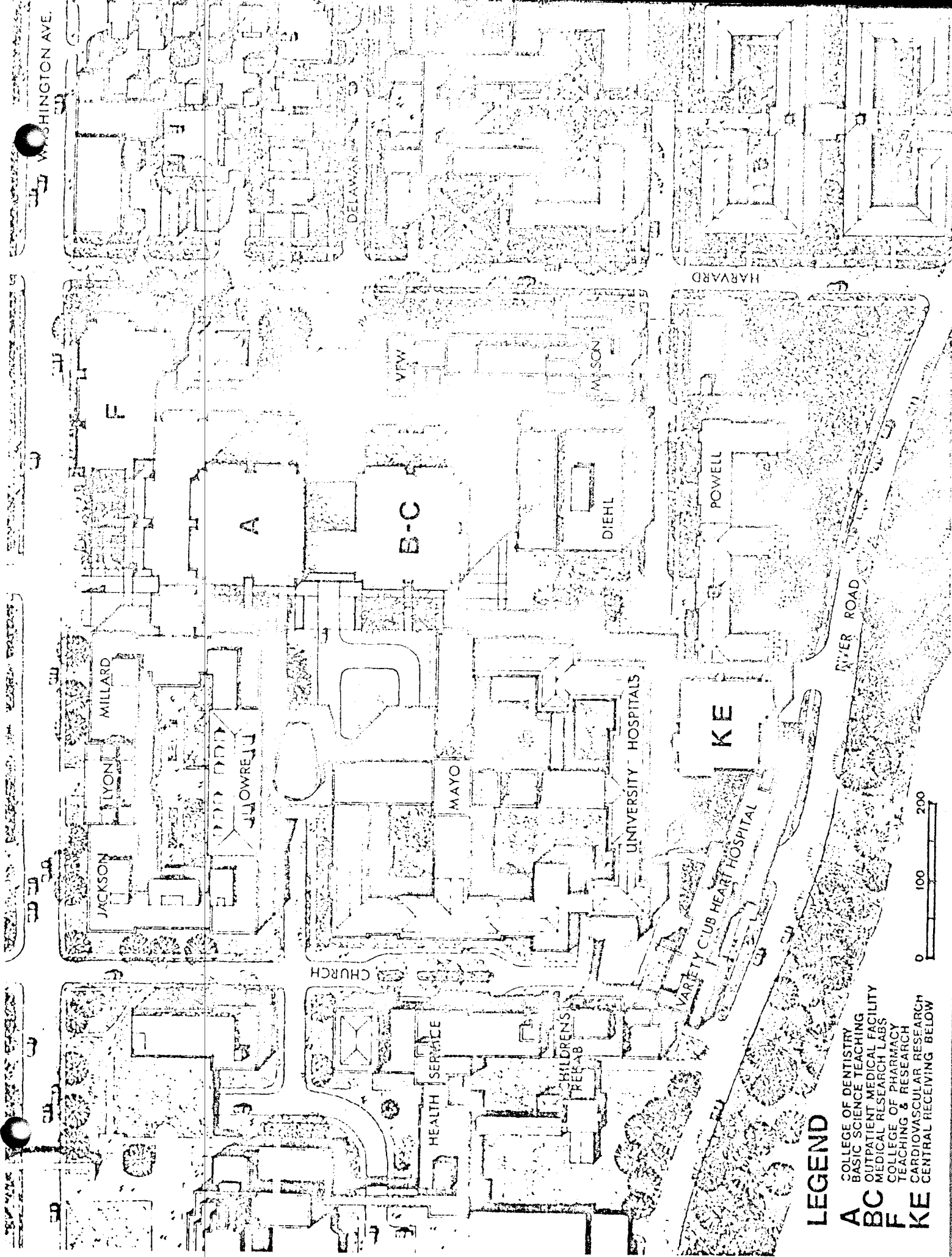
FUTURE EXPANSION

Following completion of Unit B/C, now under construction and remodeling of vacated space, first priority of future Medical School construction will be finishing areas in Unit B/C.

These facilities will be used to house Medical School faculty needed to teach the total enrollment of the Medical School. The approximate scheduling of construction is planned between 1976-1981. At present we are not requesting Federal participation for completion of these facilities; however, depending upon the status of eligibility under the Health Manpower Act, future Federal participation may be requested. It is expected that funds for construction might be obtained from private sources, departmental funds or specific research funds.

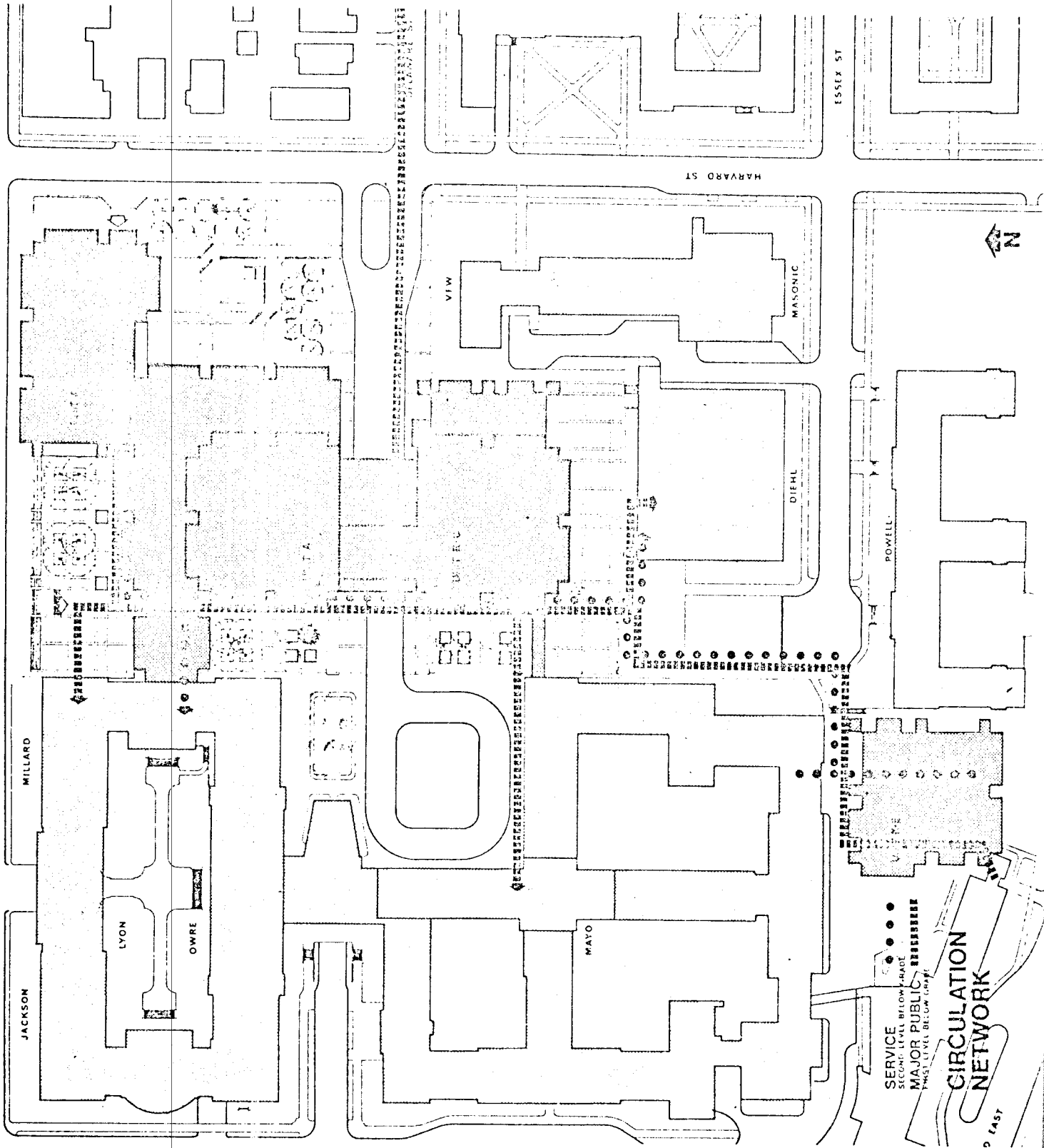
Health Sciences expansion includes Unit F which will house the College of Pharmacy and School of Nursing is planned for completion by 1979.

Foreseeable expansion of the Health Sciences beyond 1980 and 1985 would include: Remodeling of vacated space for the School of Public Health, and a new hospital, Units J and H, to replace beds. Space vacated by these beds and other hospital functions will be remodeled and used for expansion in the areas of clinical teaching and research; student study spaces; faculty and administrative offices.



LEGEND

- A** COLLEGE OF DENTISTRY
- BC** BASIC SCIENCE TEACHING
- F** OUTPATIENT MEDICAL FACILITY
- KE** MEDICAL RESEARCH LABS
- COLLEGE OF PHARMACY
- TEACHING & RESEARCH
- CARDIOVASCULAR RESEARCH
- CENTRAL RECEIVING BELOW



●●●● SERVICE
 ○○○○ SECOND LEVEL BELOW GRADE
 ■■■■■ MAJOR PUBLIC
 ■■■■■ FIRST LEVEL BELOW GRADE

CIRCULATION NETWORK

THE MASTER CAMPUS PLAN

The University of Minnesota Health Sciences Expansion provides facilities for the consolidated units of the Health Sciences: School of Medicine, University Hospitals, School of Dentistry, School of Public Health, School of Nursing and the College of Pharmacy.

The complex of new and remodeled existing buildings comprising the Health Sciences facilities is the Architects' response to the University's goal of physical and curricular integration of the Health Sciences units with each other and the rest of the Minneapolis campus of the University.

The problem as defined by this goal was to develop a high density building system on a tight urban site with strong relationships to major existing facilities. This system needed to respond to the initial phase of expansion as well as to the continuing need for growth and change inherent in health sciences units.

The Architects' initial effort was to develop a master plan which provided for short and long term expansion and responded to the integrated relationships called for in the program. This master plan serves as a framework for growth by establishing the major paths of circulation knitting together new and existing buildings. A centralized receiving unit (Unit E) is the focus of a separate service circulation network connecting existing buildings and new construction two floors below grade. The centralized receiving with material distribution tunnels to Health Science areas will replace 18 widely dispersed receiving areas. The master plan also provides for an eventual major pedestrian spine with branches to existing buildings and new construction to the 2,000 car parking ramp providing the capability of moving to all parts of the Health Sciences without being exposed to the frequently severe weather (see site plan, following pages).

The master plan is comprised of Units A, B/C, K/E and F as shown on the site plan attached.

Unit A houses the School of Dentistry, Basic Sciences teaching laboratories, Auditoria, and programs from the Schools of Public Health and Medicine. Construction was completed on this unit in November, 1973.

The general criteria which established the basic planning framework are as follows:

- 1) Because of the great investment from public and private sources in existing facilities, the plan must conserve and enhance the desirable characteristics of the present Health Sciences Center.

- 2) The plan must be adequate in scale to serve all contemplated programs of the Health Sciences Center-- programs that include substantial enrollment increases in all areas.
- 3) The plan must facilitate and, in fact, encourage interaction among persons in all Health Sciences programs.
- 4) The plan must provide maximum flexibility for adaptation to anticipated but unspecified changes in programs in the wake of social and scientific progress.
- 5) The plan must be compatible with other aspects of University development and enhance the involvement of the Health Sciences with the rest of the University and the community.
- 6) The plan must provide opportunity for development beyond any programs now contemplated.

Unit B/C, now under construction, is primarily a Medical School facility and will include auditorium and general classrooms, a Learning Resources Center, outpatient clinics and seminar rooms, faculty offices and teaching faculty research and support space. Unit B/C is designed as a continuation of the recently completed Unit A, both physically and functionally.

Unit E, as previously mentioned, constitutes the centralized receiving unit for the Health Sciences. Above Unit E, Unit K houses a Cardiovascular Research Center.

Unit F will house the College of Pharmacy and School of Nursing.

The current B/C program consists of two parts. One part will be completely finished space. The other part will be shell, or unfinished space at present. The finished space will include auditorium and general classrooms, a Learning Resources Center, outpatient clinics and seminar rooms, faculty offices and teaching faculty research and support space.

Unit B/C is designed to integrate the education of medical students with patient care through more effective use of outpatient clinics as well as providing the usual teaching and office facilities. A total of 228 examining rooms is planned for the new outpatient area. As part of this proposal a total of 156 examining rooms are scheduled to be completed. Also included in the clinic modules are seminar

rooms to allow increased interaction for faculty, student and patient. It has been recognized that the patient, as well as the students and faculty, must be easily and comfortably accommodated within the clinic complex to provide the type of interaction needed for both effective teaching and effective health care for the patient.

The Health Sciences Expansion project is bounded almost entirely by existing University dormitories, libraries, hospitals, and classroom buildings. The notable exception is an area to the North and East of the site along Washington Avenue. This contains some commercial and housing functions, part of the area has been considered a logical direction for long-range future expansion. The University has initiated discussions with the community regarding future land acquisition in the area so that property owners are apprised of the time-table well in advance of any University acquisition. In 1967 the Regents of the University established official boundaries for the campus.

With the exception of the area mentioned and the space discussed in this application, future expansion of the Health Sciences will involve remodeling and renovating vacated space, most of which is of the early 1900 vintage and must be updated for use as health progression training facilities, but is structurally sound and ideally located within the Health Science complex.

ENVIRONMENTAL ANALYSIS OF THE PROJECT

The Environmental Impact Analysis required in accordance with the National Environmental Policy Act of 1969 (Public Law 91-190) is submitted with this application as Part II of the grant request.

The analysis has been prepared in detailed response to the Initial Criteria as outlined in Chapter 30-15 HEW General Administration Manual-Environmental Affairs.

Project Cost Estimate - Community-University Health Care Center

To determine the amount of federally eligible monies for this project recognizing that 50% of the space requested must be utilized for instructional purposes, the following eligible cost analysis has been developed.

$$\text{Project Cost } \frac{\$350,000}{10,500} = \$33.33 \text{ G.S.F.}$$

Cost to Federal Government

It is estimated that the total assignable square feet of the total clinic used for instructional purposes by the Medical School departments of Medicine, Obstetrics and Gynecology as well as improved facilities for Pediatrics will represent 50% of the available N.S.F. of this community clinic.

The Federal dollars requested for this project total \$245,000.

$$\frac{\$245,000}{5,250 \text{ N.S.F.}} = \$46.67/\text{N.S.F.}$$

Primary Medicine Area