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N. Y.
HOSPITAL

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January 29, 1973

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Mr. Richard H. Comstock, President
Board of Managers
Tompkins County Hospital
Ithaca, New York

Dear Mr. Comstock:

We are pleased to present the Report of the Long Range Planning Committee outlining its findings and recommendations for a plan for the future development of Tompkins County Hospital.

This plan has been prepared for further presentation to the Board of Representatives on such a date as agreeable to them. At that time, the committee is prepared to present this report in person as well as distribute copies for further study, review and appropriate action.

Very truly yours,

KING & KING, Architects

Frederick R. Frank

LONG RANGE PLANNING
COMMITTEE, TOMPKINS
COUNTY HOSPITAL

Arthur Cleaveland, Chairman

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Tompkins County, N.Y. Hospital.
Long Range Planning Committee.
Report [Development plan:
Tompkins County Hospital]

DATE	ISSUED TO

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CONSULTANTS

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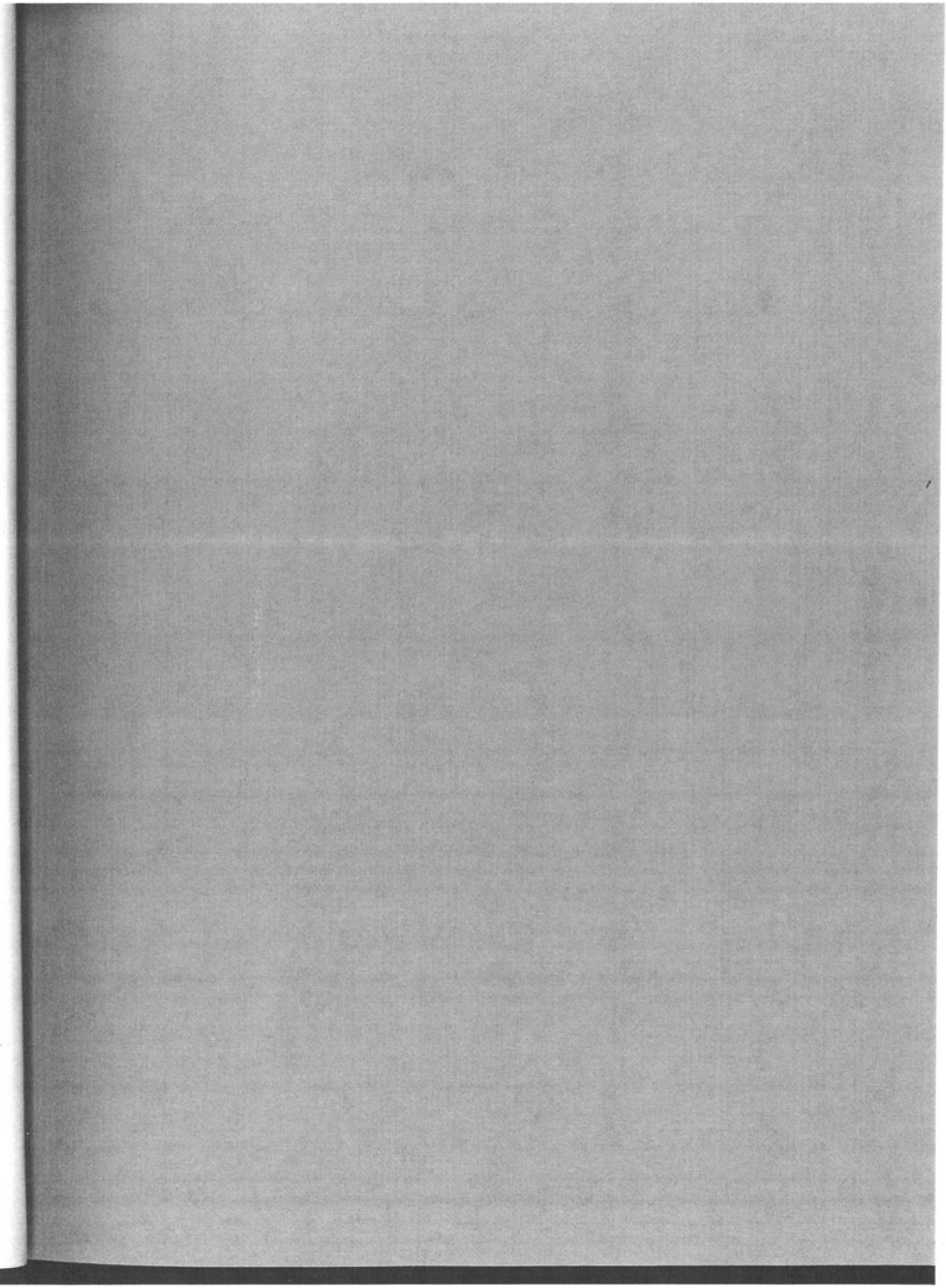


SECTION I INTRODUCTION

King & King Architects were commissioned by Tompkins County Hospital, Ithaca, New York to prepare a long range master plan for the future development of the institution. The specific charges to the planners as defined by contract are:

1. An analysis of the past and present activity of the Hospital and identification of its service area.
2. An evaluation of existing facilities and their relationship to the service area.
3. An analysis and definition of existing hospital programs.
4. Determination of future needs.
5. The development of a long range plan to accomodate established needs.
6. Recommendations for the implementation of the plan.

In order to properly accomplish this assignment, it was deemed necessary that the following additional tasks be undertaken.

1. A determination of the needs for health services as defined by the community at large and the total spectrum of health and health related professionals.
2. The establishment of policy by the Board of Managers of Tompkins County Hospital to define the role of the hospital in meeting these needs.
3. The formulation of recommendations for positive activities on the part of the hospital to continue the planning process to achieve goals not immediately achievable.

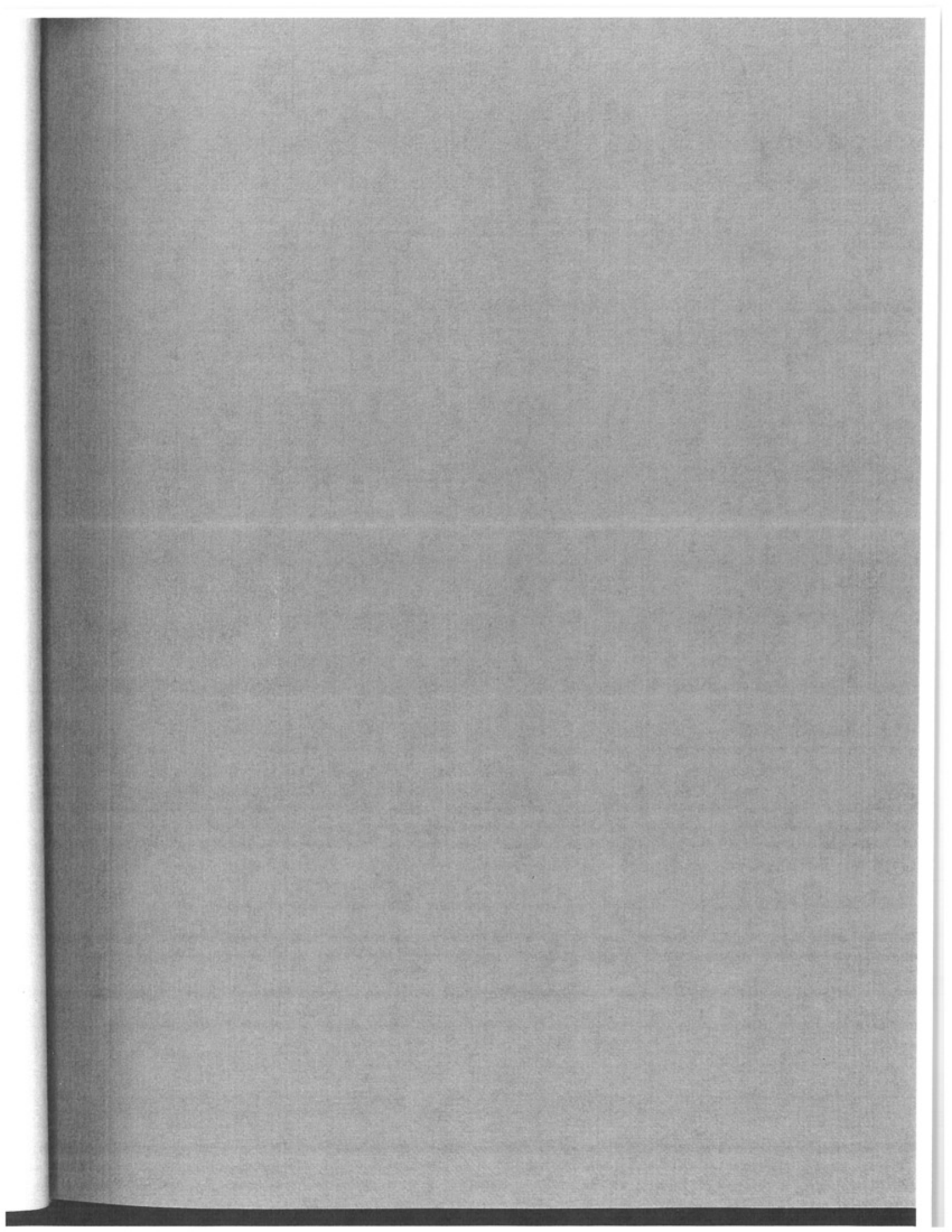
4. The formulation of recommendations for positive activity on the part of other agencies to achieve goals not considered within the scope of responsibility or within the means or the jurisdiction of the hospital.

The planners felt that effective planning cannot be accomplished by an outside agency independently of the hospital's staff, management and board. It was further felt that communication with other agencies in the community charged with the delivery of various other elements of health service was essential.

Therefore, a long range planning committee was formed by the hospital comprised of members of the Board, the staff and other community representatives. All active planning was accomplished in meetings of this board, with their active involvement and participation.

Meetings were also held with representatives of the Tompkins County Comprehensive Health Planning Council, the Departments of Health and Mental Health and Cornell University.

Presented herein is the report of the results of this deliberation and discussion. It encompasses a positive plan whose aim is the achievement of a comprehensive system for the delivery of health care services to the community. This plan is not the end of a process but the beginning. Should those involved in its conception and charged with its implementation be lulled into complacency, the committee makes one more recommendation: that their committee be retained and formed into a continuing advisory body which can communicate with other similar groups in the community, all of whom shall be advisors to a formal committee on Comprehensive Health Services of the Board of Representatives.



SECTION II RECOMMENDATIONS

The Long Range Planning Committee makes the recommendations summarized hereafter to the Board of Managers of Tompkins County Hospital for their review and consideration:

A HEALTH SERVICES

1. The institution of a comprehensive health care system starting with the development of two primary health care centers, one located at the present hospital site and one located to the East in the general vicinity of the Intersection of Route 13 and Route 366. The Institution of a system that will focus on continuity of care, preventive care, health maintenance with family practice orientation and will also provide diagnostic, theraputic, and procedural services and appropriate levels of inpatient care at Tompkins County Hospital.

   Further exploration of sources of payment and coordination in and with the system of the efforts of various social agencies and the Departments of Health and Mental Health. The establishment of an outreach program. Involvement of the community in an advisory capacity in the establishment of the health care system.

2. The establishment of a Community Mental Health Center at the existing hospital site as defined in Community Mental Health Centers Act of 1963 (Public Law 88-164) to include: Inpatient and outpatient care; partial hospitalization services; emergency, consulting and educational services; diagnostic, rehabilitative, precare and after care services and training, research and evaluation programs. The development of this center in concert with the Tompkins County Department of Mental Health.

3. The development of a Patient Control Center responsible for the control of patients and patient data through the comprehensive health care system, to and from other public and private, health and social agencies to effect continuity of care and service.

4. The expansion of the Education Program cooperatively with other agencies and institutions to provide clinician and technical training, institution of new and expansion of existing public education programs and the development and expansion of intern-extern training programs.

B FACILITIES

1. Construction a 383 bed total replacement facility for the existing Tompkins County Hospital on the existing site including 210 medical-surgical beds, 20 pediatric beds, 30 obstetrical beds, 18 special care beds, 15 psychiatric care beds, 30 transitional or extended care beds and 60 long term care beds, of such capacity to be at optimum utilization in 1982.

2. Construct this facility capable of flexibility, adaptability and expansion in the future and in which the techniques of system-ization of hospital operation can be implemented.

3. Construction this facility with the necessary diagnostic, theraputic, procedural and supporting facilities capable of meeting the projected demands of both inpatient and outpatient services of the total health care system in the future and including one of the two family practice centers.

4. Utilize temporary facilities as available for the establishment of the East Primary Care Center and seek to construct permanent

facilities within several years.

C TRANSPORTATION

1. Utilize every community resource to apply pressure to seek the construction as soon as possible of the proposed Route 96 Connector from Route 13 to the existing hospital site essential to the successful development of the health system.

2. Explore the development of a transportation system to satisfy rural and suburban needs of those incapable of or without self-transportation as part of the primary care program.

3. Reinstitute public transportation to and from the center of the City of Ithaca to the hospital site interconnected to the existing city public transportation system.

D IMPLEMENTATION

1. Seek the most advantageous methods of financing to minimize the cost of capitalization to the consumer of the health system and to the community, considering both term and cost of financing and time to implement the finance program.

2. Authorize the commission of a qualified consultant firm to execute a preliminary financial feasibility study to determine the effects and limitations of the proposed program.

3. Consider every legal technique of construction administration to minimize time of planning and construction, to effect maximum economy, minimize escalation of cost and to offer the earliest possible occupancy.

4. Proceed with the authorization of funds necessary to continue planning and for detailed program review and evaluation so as

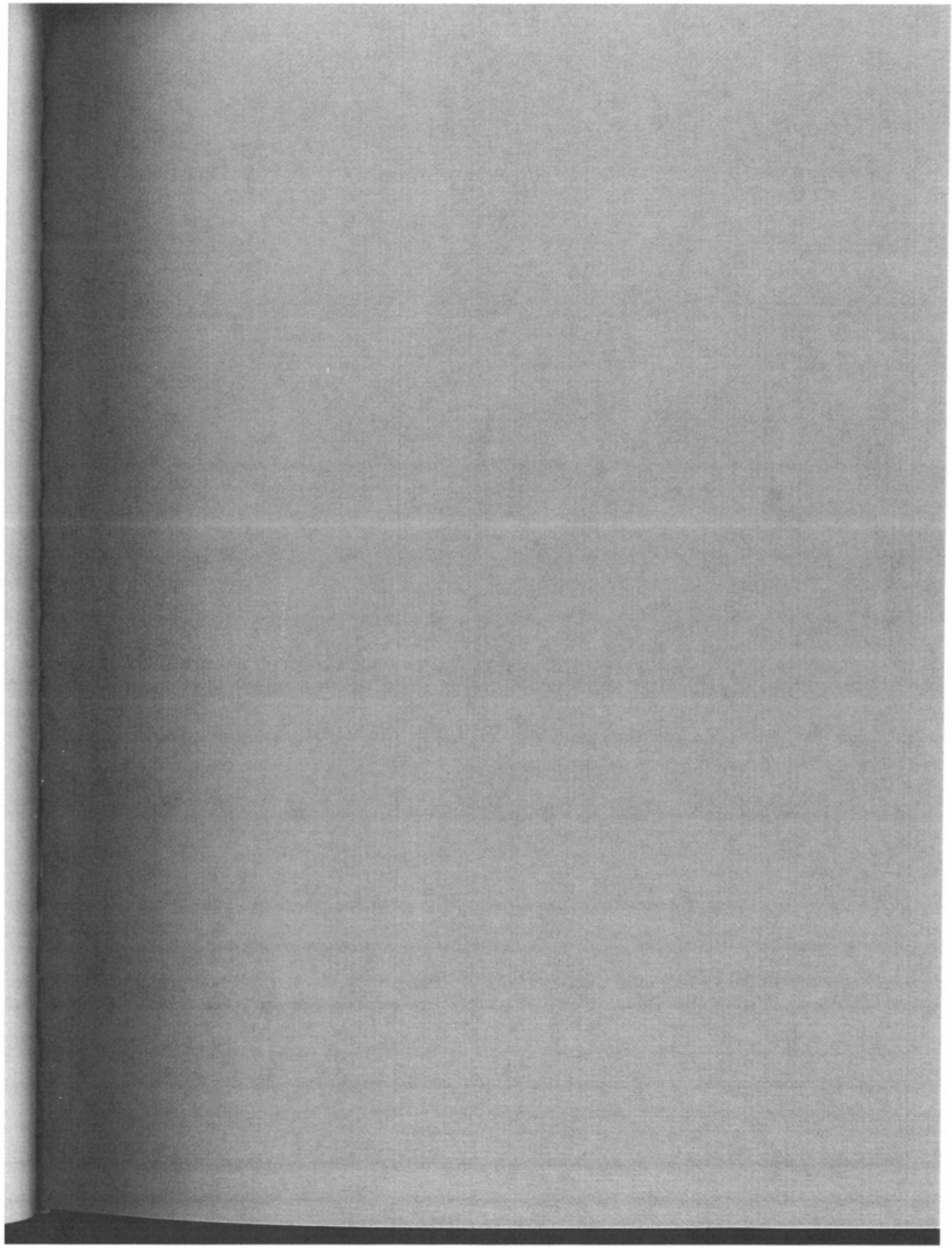
to enable use of effective facilities development management techniques at the appropriate time.

E PLANNING

1. Establish a permanent Committee on Comprehensive Health Care of the Tompkins County Board of Representatives to whom all health groups and committees can advise.

2. Maintain the Long Range Planning Committee of the Tompkins County Hospital as a continuing group for planning and evaluation and as an advisory group, through the Board of Managers of Tompkins County Hospital, to the Comprehensive Health Committee of the Board of Representatives.

3. Expand and formalize the recently established Committee on Health Education as an advisory group to the Comprehensive Health Committee of the Board of Representatives with representation from the area educational institutions and primary health services institutions.



SECTION III CHRONOLOGY OF EVENTS

A. INITIAL PLANNING FOR TOMPKINS COUNTY HOSPITAL

It has been evident for more than a decade that expanded and improved facilities were needed at Tompkins CountyHospital. Originally constructed as a sanitarium and converted to a hospital, its design is representative of a long past age of architecture for health care. Nevertheless, it has served well the acute care needs of several generations of community residents largely through the efforts of a concerned staff and community.

In the mid-sixties the need for improvement became too severe to ignore. It is important to review the events that occurred since that time relative to the planning process to gain the proper perspective of the problem.

1965 Board of Managers received a report from the Cannon Partnership showing alternatives to expand this building, and their architectural concepts of the expansion. The plan used this basic building with additions for beds, without increasing ancillary services.

1965 - 1968 There was an effort to determine the needs of the community and the ability to meet those needs with this building plus additions. After discussions with Regional Planners, it was decided that a complete report detailing the needs and the ability of the present facilities to be adopted to those needs was required.

Sept. 1968 The firm of Anthony J. J. Rourke was engaged to conduct the feasibility study.

March 1969 The "Rourke Report" was received. This report has become the central theme of further planning efforts. Briefly, based upon demographic data, professional activity, population projections, and evaluation of the physical plant the Report recommended:

1. 300 acute beds by 1975 (400 by 1985)
2. Eventual total replacement of existing building for patient care.
3. Recognition of "other" health needs in community, including Mental Health, outpatient, Long Term Care, continuity and accessibility of care (physician's offices on premises).

April 1969 A "letter of intent" (the first step in obtaining NYSHD approval of a project) was filed, and subsequently approved as follows: (Construction of a new acute care hospital, with the existing facility to be used for long term care, psychiatric care and administrative offices. The result -- a 432 bed institution, to include 80 Long Term Care beds, 50 Psychiatric beds and 302 Acute Care beds (236 Med/Surg, 30 Obstetrical, 18 Pediatric and 18 Intensive and Coronary Care).

"Approval in principle of the replacement of the existing acute care facility up to 302 acute care beds, subject to further determination of the size

of the proposed replacement unit and subject to study of the use of the existing facility."

"Deferral of the increase in Long Term Care beds from 48 to 80 as the estimated need for the County appears met by existing conforming beds and approved construction."

Some of the details of the proposal have been adjusted (i.e., 50 psychiatric beds changed to 10 beds) but the basic need is still essentially the same.

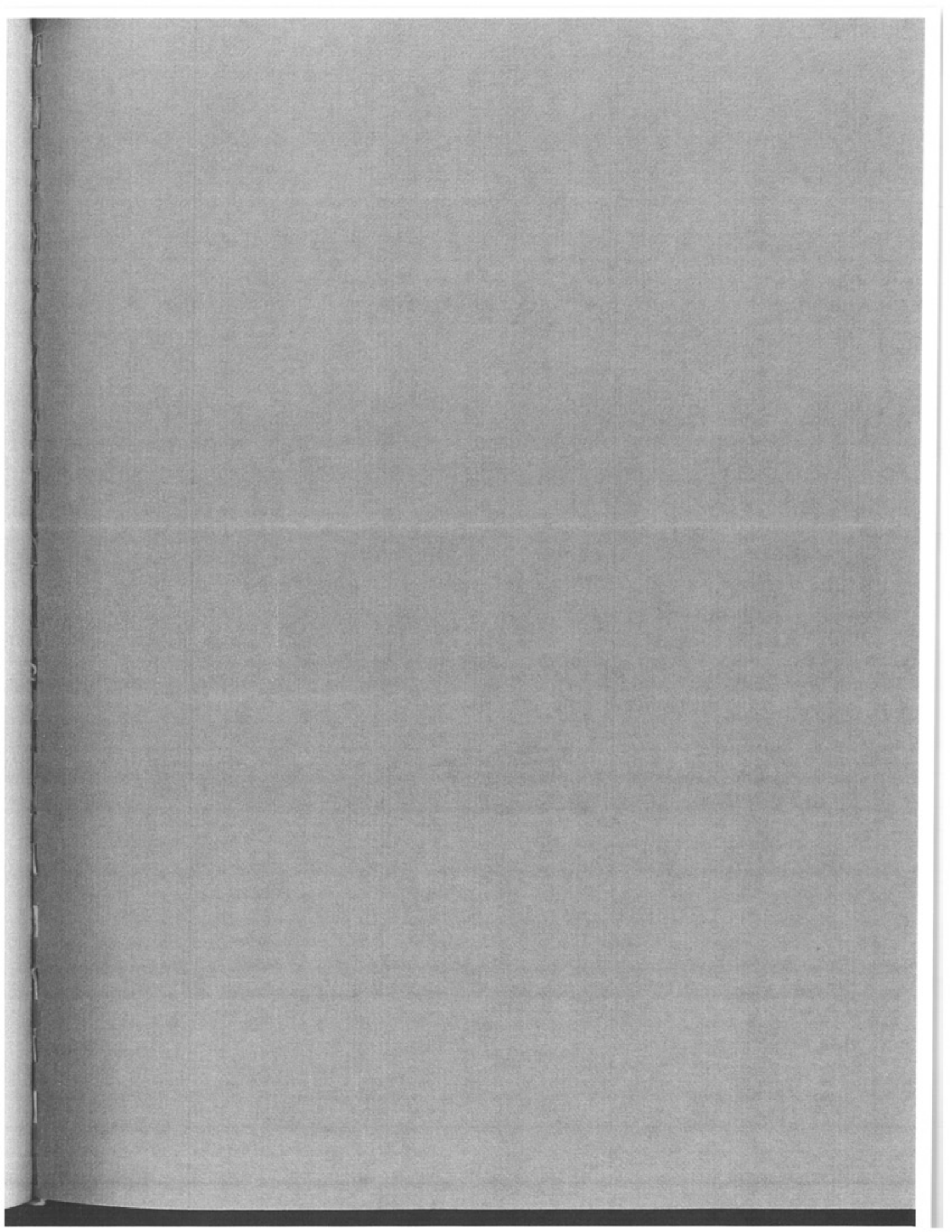
During the following year, financing as well as implementation was discussed. In September of 1969, the Board of Managers decided to contract with Wood & Tower to provide 1) Programming, 2) Cost Control during the design phase. This contract was signed in June 1970, following approval by the Board of Representatives.

June 13, 1972 — The Board of Representatives upon the recommendation of the Board of Managers approved the selection of the firm of King & King Architects to provide long range master planning services.

June - July 1972 — Meetings were held by the Planners and Planning Committee and representatives of other health care service agencies and groups.

July 1972 — Open Hearings were held under the sponsorship of the Tompkins County Comprehensive Health Planning Council attended by the Planners and representa-

	tives of the Planning Committee to elicit the views of the community of their health care needs.
Aug - Nov 1972	Planning Committee work sessions were held regularly, each meeting focusing on a particular aspect of the problem.
Jan 1973	A preliminary presentation of the form of the final report was made by King & King to the Planning Committee for review and refinement.
Jan 29, 1973	The Report of the Planning Committee was presented to the Board of Representatives.



SECTION IV STATEMENT OF POLICY

The Planning Committee of Tompkins County Hospital formulated a policy upon which the programming and planning of their future development was based.

The Planning Committee feels that it is incumbent upon Tompkins County Hospital to assume a major role in developing a comprehensive system for delivering health care to the residents of Tompkins County, a position they have traditionally held. The basic responsibility of the Board of Managers at Tompkins County Hospital is limited to the operation of the Hospital, a short-stay acute care facility with the necessary attendant diagnostic, procedural, emergency care and auxillary functions. This limitation notwithstanding, the Committee feels that it should review its future development in the broadest definition of its responsibility that it should seek to generate ideas and concepts and promote and aid efforts of those with broader scope of responsibility to create the aspects of a comprehensive health care system that transcend the physical and functional limitations of the Hospital. The Committee has established the following guidelines:

1. That a comprehensive system for delivery health care to the community must include all aspects of care, from birth to death, for all segments of the population in its service area embracing the full spectrum of health and health related services. An excellent definition of a comprehensive health care system has been provided by the Tompkins County Health Planning Council in stating: "A comprehensive range of services is required in order to prevent disease, to detect disease and disability in its earliest stages, to diagnose and treat the patient, as well as to rehabilitate him to his fullest capacities. Included in a

comprehensive scope of personal health services should be in-patient hospital care, extended and nursing home care, primary (routine health care) and specialty ambulatory care, dental care, mental health care, personal preventive medicine, rehabilitation, pharmaceuticals (medicines), prothestic devices (e.g., a false leg) and other equipment including eyeglasses and dentures (false teeth), and transportation to health facilities. The services should be coordinated so that they are easily reached by the patient when they are needed. They should be of high quality and personally acceptable to the patient."

2. That a comprehensive health care system administered and operated by a single organizational entity should not be initially sought but rather that the existing health care organizations in Tompkins County, both public and private, be coordinated to provide the breadth and continuity of care necessary; that the ways and means of creating a more formal organization in the future be sought by a Committee of the Legislature appointed for this specific task.

3. That many of the basic elements needed for this system already exist in the community but require expansion, systemization and coordination for more effective utilization; that this could be the most economical and efficient means of immediately providing more comprehensive care to the community.

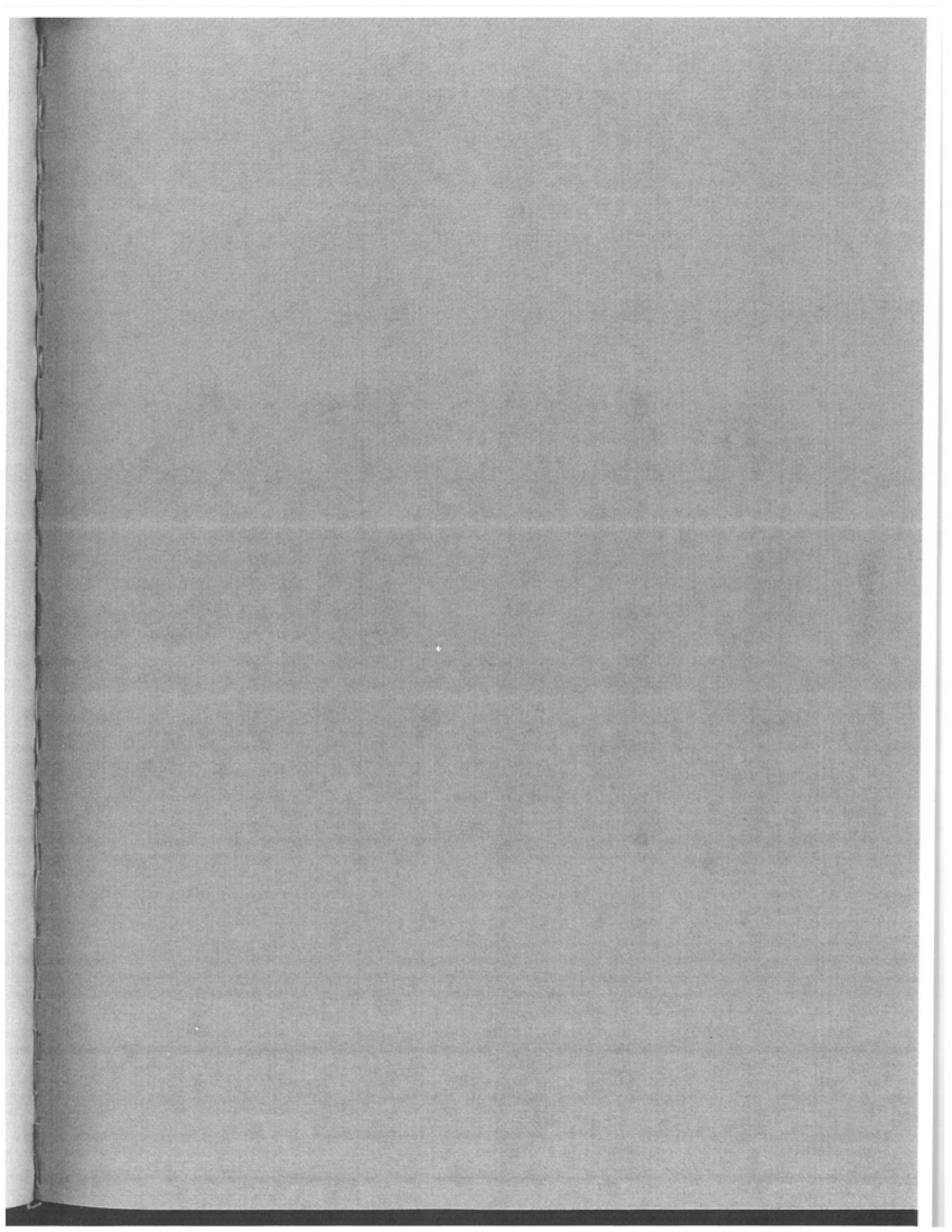
4. That any health care system cannot be limited to or necessarily match the physical boundaries of a political subdivision but should realistically provide for the needs of those within a natural geographic and economic area; that this system should interelate

with other comparable and other broader systems.

5. That the plan for a system, in order to be comprehensive cannot forsake one segment of care for another, however, the efforts and resources of those responsible for each segment of the care system should be maximized to improve and broaden their area of responsibility.

6. That the plan for a comprehensive health care system seek an ultimate direction and be accomplished in phases of development that can be reasonably accomplished within the limitations of the community's resources.

7. That the plan be flexible and receptive to changes in methods and concepts of delivering health care and that the mechanism for evaluation be established concurrently with the implementation of the plan.



SECTION V EXPANSION OF SERVICES

A statement of policy is more significant further defined in terms of New Programs and Services which the hospital proposes to offer to the community. All existing services are to continue and must obviously be expanded to meet the needs of the community in terms of patient volume and in breadth and sophistication of medical program. These needs are generated from a multitude of sources and will further increase if new programs are developed that achieve greater reach into the community.

The hospital does not intend to develop diagnostic, therapeutic, or procedural services that would generate minimal activity, require extensive staff and facilities and are already provided at other medical centers within reasonable distance. Included in the category would be such services as Open Heart Surgery, Transplants, and Deep Radiotherapy. With only this practical limitation it is expected that the practice of the hospital should, if it does not already, include the broadest possible medical spectrum.

A. OUT-PATIENT SERVICES

Primary care in the hospital service area is provided at the present time by either physicians in private practice or the Emergency Room at Tompkins County Hospital. In 1972, a study of the utilization of the Emergency Room was done which showed several significant factors:

1. An analysis by attending physicians indicated that only about 10% of those patients utilizing the Emergency Room were diagnosed as true emergencies.
2. Although more than half of the patients utilizing the Emergency Room felt their condition was serious enough to warrant immediate attention, less than 14% selected the Emergency Room for treatment because "they perceived an emergent condition."

3. A significant number of patients utilized the Emergency Room because it was the most convenient source of care, because they had not other source of care or because their physician was not available.

It is obvious that the vast majority of these patients could be treated in an out-patient clinic or a speciality service within the hospital, or in a physicians office. The emergency room is not providing comprehensive physicians office care but is rather attempting to react to patient complaints. It is providing "Crisis Care". The emergency room is therefore serving a multitude of purposes which interferes with the true purpose of the service and results in an inefficient emergency room operation. For the patients treated in this manner, the result is a lack of continuity and comprehensiveness of care.

In July of 1972, the Tompkins County Comprehensive Council sponsored open hearings throughout the county. These hearings were designed to elicit input into the health system and specifically in the long range planning program at Tompkins County Hospital. It was found that the overwhelming concern expressed by the citizens of the county was the lack of primary medical care services available to all members of the family. Tompkins County like most rural areas has experienced a gradual erosion of primary care services brought about by the retirement of physicians located outside of the urban center and the inability of these small communities to attract replacements to a solo practice setting. This has contributed to the demands being placed on the emergency room service of the hospital. In order to meet these needs, the Planning Committee of the hospital proposes to develop a comprehensive coordinated primary care system. This effort is embodied in the Tompkins County Rural Health Proposal outlined as follows:

1. PROJECT OBJECTIVES

OVER - ALL SCOPE: The goal of the porject is to increase the quality and quantity of primary health care services to the rural segments of Tompkins County, New York by developing a comprehensive coordinated primary care system. This system would expand upon the existing hospital based back-up serivces and would offer high quality primary health care to areas of the county now unserved. It would privide two entry points into the health care system, one to be located at the hospital in the western portion of the county and one in the now underserved and inaccessible eastern portion. The system would include a complete primary care team and primary care services and an appropriate organized referral system.

SPECIFIC OBJECTIVES: The specific objectives to be achieved during the project period and upon which the success of the project will be measured are as follows:

a. To utilize a variety of medical and paramedical primary care personnel in a delivery pattern delivery pattern designed to maximize the potential of each staff member to contribute to the health and welfare of the individual patient.

b. To inform and educate members of the general and medical community with regard to the demonstration project including its objectives, scope of coverage, relationship to other segments of the medical system and its relative costs.

c. To coordinate all health resources needed by the individual patient, including assumption by the family physician of responsibility for continuity of patient care with referral to specialists as needed.

d. To develop economy and efficiency of administration and operation while maintaining an emphasis on health maintenance and quality of care.

e. To establish an effective system of patient record keeping which will aid in the comprehensiveness and continuity of medical care.

f. To provide appropriate back-up services including x-ray, laboratory, rehabilitative, administrative and financial support.

g. To arrange for in-patient acute hospitalization, long term care and other services for all project patients as needed.

h. To explore and utilize all sources of payment in order to maximize the financial independence and potential for self-support of the project's operation.

i. To develop a transportation system to be operated on an on-call basis which assure accessability of service to patients in all areas.

j. To coordinate the various other related social services with the proposed health project.

k. To cooperate with other professional groups in the community in a joint venture to provide staff education, teaching and research in the area of delivering comprehensive primary medical care.

FIRST YEAR DEVELOPMENTAL AND OPERATIONAL OBJECTIVES

1. Establish a broadly representative consumer advisory panel to assist in the planning, operation and evaluation of the project.

2. Locate an appropriate temporary site for operation of the outreach clinic for the eastern portion of the county.

3. Employ a qualified project staff including skilled physicians and a sufficient number of other technical and administrative personnel to deliver the agreed upon services.

4. Engage in an educational effort designed to acquaint all potential users of the service with its objectives, scope of service, etc.

5. Make available to the designated service areas a comprehensive program of services including emergency care, diagnostic services and care for acute conditions, continued care for chronic conditions, and preventive care such as periodic physical examination, vaccinations and immunizations.

6. Provide or arrange for the provision of back-up services, related social services, health education and home care.

7. Develop appropriate referral patterns to specialists in the community and to acute and long-term care institutions and organizations.

8. Engage in a formalized evaluation of activities on an ongoing basis, inviting feedback from various consumer and provider groups.

SECOND AND THIRD YEAR OBJECTIVES

In addition to continuing all phases of the program developed in the first year:

1. Develop an adequate financial base to insure delivery of the health program on a self-supporting basis as well as providing for long-term planning and operation.

2. Explore possible sources of capital for constructing permanent facilities, acquiring additional equipment and personnel, and other costs.

3. Assess the need for additional primary care centers in other portions of the county.

4. Explore possibilities for multi-county or areawide cooperation in delivering primary care services.

5. Determine the feasibility of offering additional services or specialties on-site.

6. Study various innovative methods of delivering and financing comprehensive care.

2. METHOD OF PROCEDURE

PROJECT SERVICES

A broadly comprehensive program of services will be available to the community from the start of project operation. Coordination to insure continuity of care will be provided by the project team. This primary care team includes the family practice physicians, nurse clinicians, outreach workers and back-up ancillary personnel. Accessibility of care will be enhanced by the creation of two additional points of entry to the health system and a transportation component. The program offered will include care for acute conditions, continued care for chronic illness, provisions of such preventive care as periodic physical examinations, vacclinations, and other immunizing techniques.

It is anticipated that utilization of services will occur through direct appointments to the services, individual walk-ins, referrals from physicians, community nurses, hospital emergency room staff and community health and social agencies. In addition, outreach work trhough personnel employed by the project will encourage utilization of services.

Patients who have special requirements such as extensive rehabilitative services, long term psychiatric consultation, dental care or other specialized services not provided by project personnel will be referred to community resources, but responsibility for the long term observation and quidance of such patients will remain with the project's family physicians.

The Tompkins County Hospital will provide the project with a full range of ancillary and inpatient services such as access to full scale rehabilitation, x-ray and laboratory departments, emergency room care, intensive care, acute care, transitional and extended care, as well as administrative and

and fiscal services. This program will provide the community with a continuous, coordinated health care system starting at the community based, easily accessible ambulatory care level on to and including, as appropriate, all other levels and methods of care. Access to specialists and other consulting services will be maintained through a direct communication system from the outreach site to the Tompkins County Hospital.

It is anticipated that after a year's experience in operating the proposed system, additional specialists and other services may be offered on-site as integral parts of the comprehensive system.

The operating cost of the program will be met by customary and reasonable fees for service, with reimbursement from Medicare, Medicaid and other third party payers at established rates.

CONTINUITY OF CARE

Presently, those who are the target population of the project get primary care on an episodic basis in the Tompkins County Hospital Emergency Room. The proposed centers will have a unit system of patient record keeping which will assure continuity of care as well as confidentiality of the patient's medical history. The records will be kept at whichever center the patient chooses to use. Contained in the patients record will be a chronological report of all those who see the patient and what actions were taken. Included in this will be all consultative reports, both from consultants to the clinics as well as from consultant services outside the scope of this project. This system of record keeping will facilitate the primary care physician's and/or other team member's treatment of a new or recurring illness and will help to maintain a high quality of care. The records will be used for periodic utilization review of the services offered

and for help in determining future needs. A copy of the records will be shared with Tompkins County Hospital as need arises.

Continuity of care will also be assured through links to referral and back-up services. The facilities proposed in this project will be closely tied to the sponsoring Tompkins County Hospital which has 211 acute care beds and 48 long-term care beds. The primary care team will also have access to ancillary services at the hospital including x-ray, laboratory, and rehabilitative facilities. The sponsoring agency has transfer agreements with area extended care facilities and nursing homes, as well as a close working relationship with the Tompkins County Health Department which is a Social Security Administration home nursing care provider. In addition, the hospital's social work department would be available for referrals to aid in providing for the social needs of the patients. This department would also be used for access to other community social and quasi-medical agencies such as drug therapy centers.

COMPREHENSIVENESS OF SERVICES

Physician and nurse clinician services will be available at the two centers for diagnosis and treatment of illness with referral to the acute care facility or other specialists as necessary. The team of primary care workers available at the center will also provide such preventive care as immunizations, well-baby care, and periodic examinations.

The satellite clinic will also have on site emergency care with direct communication and transportation to the full scale emergency room at Tompkins County Hospital.

Services will be based on the concept of a single entry point for care. The practitioners will do initial diagnosis with referrals where necessary and

appropriate. Because of the great need for primary care in the county most cases will not likely need further referral. In neighboring Chemung County it was found in the summer of 1972 when primary care was offered in the rural areas that 80 per cent of the cases needed no further referral.

Comprehensiveness is assured because of the close links of the project with Tompkins County Hospital. The close relationship of the hospital with the other agencies such as the long term care facilities and the health department will assure accessibility to ancillary services. From the single entry point at either family practice unit, the patient will have access to the full range of medical services. Ambulatory Care will be provided by the two family practice units; emergency care by both the satellite clinic and the hospital emergency room; acute care by the Tompkins County Hospital; and extended care, home care and other services by referral to ancillary agencies in the community.

Complete backup services for the project will be provided by sponsoring Tompkins County Hospital. These services include use of the x-ray, laboratory, and rehabilitative capabilities of the hospital as well as clerical, administrative, and financial support. The family practice physicians will have admitting privileges at the hospital and be able to plug into existing referral arrangements there.

AVAILABILITY AND ACCESSIBILITY OF CARE

In addition to the outreach aspects of the two centers which have been described under project services, two outreach workers will be employed. These workers are primarily responsible for liaison with individuals, groups, and organizations in the community. A complete description of the functions of the outreach workers can be found in the project staffing section.

In addition to these two employees, however, coordination and cooperation will be maintained with existing social service and outreach programs. The Department of Social Services, the Tompkins County Health Department, and other private organizations such as Senior Citizens or Planned Parenthood, will be contacted to inform them of the project's services as well as to explore the possibility of formal channels of communication.

The project will provide an on-call transportation system to the two family practice units. In addition to transporting the patients to the primary care services, there will be transportation between the satellite clinic and the hospital to carry both patients who need more extensive testing or treatment, and specimens or blood which need to be analyzed at the hospital's laboratory. This transportation will be provided by a minibus owned by the project and the possibility of coordinating other voluntary transportation services in the county such as Blue Bus of Caroline and the Senior Citizens Minibus will be explored.

Payment will be on a fee-for-service basis. Medicaid, Medicare, and other third party payment will be sought whenever appropriate for all those services which are covered. Although this project is greatly concerned with reaching those who are poor, there will be no policy of excluding those who are able to affort medical care. The target population is all those who are underserved, regardless of income status.

It is anticipated that the facilities will be open at least two nights per week as well as Saturday mornings to enable those who work easier access to care. The schedule will be flexible, however, to meet the needs of the population being served. If experience demonstrates that different hours are necessary, they will be adjusted. A system of twenty-four hour service will be arranged with someone on call when the centers are

closed. In addition to physicians and nurse clinicians on call, the Tompkins County Hospital's emergency room is open 24 hours a day for supplemental services.

Two family practice physicians will be recruited through ads in medical journals and professional magazines. In the past the county has been successful in recruiting physicians to the kind of setting being established while having difficulty attracting physicians to rural private practice. The structure of the project will be such that the doctors will be able to have peer contact and hospital backup as well as time off for vacations and continuing education.

ADMINISTRATION

Tompkins County Hospital will provide a director of project operations for the two family practice units through an Assistant Hospital Administrator. A complete description of the responsibilities of the director of project operations is in the project staffing section and in Appendix V.

The hospital is licensed as a Public Health Law, Article 28 facility. It is currently applying for an amendment of its certificate of operation to allow for operation of one on-premises and one satellite ambulatory care center.

Quality control of the hospital is exercised by the Tompkins County Hospital Medical Board. This board will also be responsible for quality control of the two proposed clinics. Fiscal accountability of the entire hospital operation is to the New York State Audit and Control Department.

The Tompkins County Board of Representatives, elected offices of the county, appoint a Tompkins County Hospital Board of Managers who function

as the governing body of the hospital and would also be responsible for the governing of any outreach aspects of the hospital.

REIMBURSEMENT FOR SERVICES

Payment for services will be on a fee-for-service basis. For those services which are covered by Medicaid, Medicare, and other third party payers, reimbursement will be sought. The project will use the business office of the sponsoring Tompkins County Hospital for all billing purposes. The project will add two clerical workers to the business office to cover the added load of the two family practice units. The hospital business office will channel the reimbursement requests to Medicaid, Medicare and other third party payers from the project through the usual mechanisms used by the hospital.

3. LOCATION OF PROPOSED PRIMARY HEALTH CARE CENTERS

With the aid of the Tompkins County Department of Planning, the following brief evaluation was developed to provide guidance as to the most appropriate location of the two primary health care centers. A suggested service area for the centers is shown on the attached map, and roughly divides the County into two equal population portions of 38,500+ each.

TOMPKINS COUNTY HOSPITAL SITE (WESTERN AREA)

For several reasons, including the already existing hospital based back-up services, it seems to be appropriate to locate one of the primary health care centers at the existing Tompkins County Hospital. This site is readily accessible to residents in the southern and western portion of the City of Ithaca, and the Towns of Ulysses and Enfield, and, to a somewhat lesser extent, accessible to residents in the Towns of Newfield and Danby. There is, however, need for improvements in the highway systems leading to the hospital, particularly in reference to the "Octopus" where five roads come together at the foot of Route 96 hill within the City, and in reference to the need for a new and second bridge crossing the inlet flood control channel. Planning for these improvements is underway by the State Department of Transportation. The project commands a high priority. Since no public transportation is available (except within the City of Ithaca), transportation must be by private automobile. Travel distances to the extreme portions of the service area are as much as 16 miles with travel time of a minimum of 20 to 25 minutes. Therefore, we feel that it would be necessary to include a transportation component as part of the program especially for the residents of Danby and Newfield. At some later date it may be necessary to reevaluate the accessibility of care to this area.

EASTERN SERVICE AREA

The second service area includes the Towns of Lansing, Groton, Dryden, Caroline, a portion of the population within the City of Ithaca, the Village of Cayuga Heights, and the north and east portion of the Town of Ithaca. The population served is again about 38,500. It would seem that the most appropriate location for this demonstration project, is in the vicinity of the intersection of Routes 13 and 366 near the New York State Electric and Gas headquarters at Etna. Nearly all major roads running north and south in this area Intersect Route 13 or Route 366 and thus the accessibility of the site seems to be quite appropriate. A maximum travel distance is again about 16 miles (Towns of Lansing and Caroline) with travel time of 20 to 25 minutes.

The map shows the primary and secondary road systems of the County and it is evident from an inspection of the map that the location seems to be quite appropriate. In addition, new population growth in the County is in the direction of the suggested location so that as time goes on, the site becomes more and more accessible to more and more people.

TCH DEVELOPMENT PLAN

SUGGESTED LOCATION OF PRIMARY HEALTH CARE CENTERS

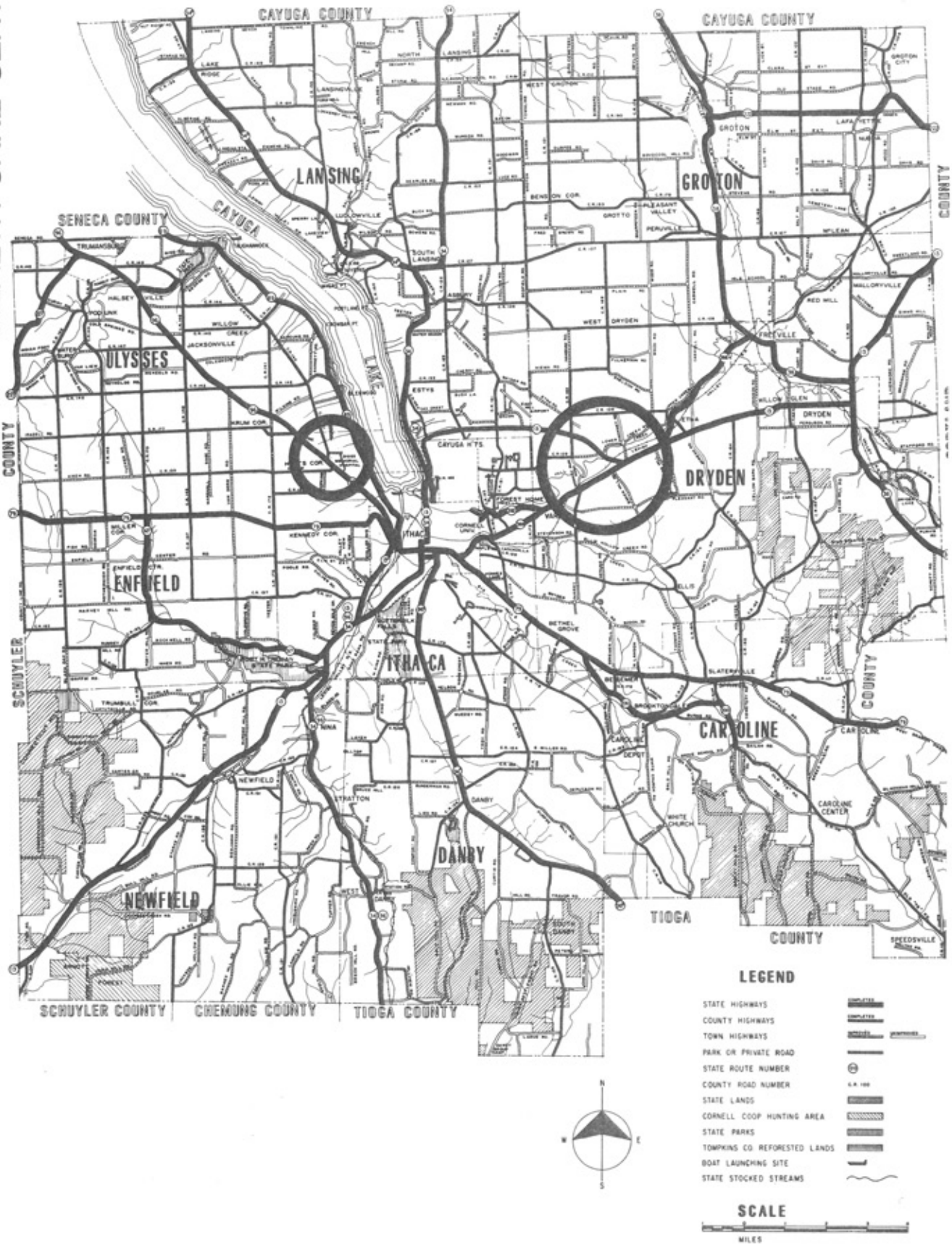


FIGURE 1

PRIMARY HEALTH CARE CENTERS

POPULATION IN SUGGESTED SERVICE AREAS

EASTERN SERVICE AREA	POPULATION ESTIMATES
Lansing (T)	5,972
Groton (T)	4,881
Dryden (T)	9,770
Caroline (T)	2,336
Ithaca (C)	7,431
Ithaca (T)	8,131
TOTAL	38,521

WESTERN SERVICE AREA	
Ulysses (T)	4,500
Enfield (T)	2,028
Newfield (T)	3,390
Danby (T)	2,141
Caroline (T)	200
Ithaca (C)	18,795
Ithaca (T)	7,489
TOTAL	38,543
GRAND TOTAL	77,064

4. PROJECT STAFFING

PROJECT DIRECTOR

The project director will be an experienced assistant hospital administrator on the staff of Tompkins County Hospital who will devote approximately 50% of his time to the primary care project's operation. The responsibilities of the project director will include:

1. Over-all direction of the implementation phase of project operation.

2. Hiring of staff

3. Coordination of existing efforts by arranging for the appropriate referral patterns and back-up services necessary to project operation.

4. Meeting with consumers, providers, third-party payers etc. to establish and maintain working relationships and satisfaction with project operation.

5. Other administrative duties as required (see job description Appendix V)

FAMILY PHYSICIANS

Two Family Practitioners licensed to practice medicine in New York State with family practice education and/or experience will see patients of all ages in a primary care delivery pattern and will provide screening, diagnosis, treatment, and preventive medical care, making appropriate

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in original

5. Provides care in the home, and when appropriate counsels patients during office visits.

6. Participates in staff-patient conferences to plan follow-up care.

7. Makes routine referrals to staff physicians and other clinics such as mental health.

8. General responsibility for outreach workers.

It is anticipated that Registered Nurses who are residents of the community will be recruited to receive training enabling them to function as nurse clinicians. Their education will be sponsored and supervised by the Tompkins County Health Department; recruitment and training will begin in the immediate furture in order that they will be available for the beginning of project operations.

OUTREACH WORKERS

The outreach personnel will be a substantial phase of the over-all operation of the clinic. Recruitment will be from among the population to be served, and general supervision will be the responsibility of the nurse clinicians assigned to the two clinic sites. Major duties of the outreach workers will include the following:

1. To acquaint members of the community with the services provided at the clinic sites.

2. To orient community members to the health and health related services offered by other organizations and institutions in the county.

3. To encourage people to use available health opportunities and to emphasize preventive care and early treatment of illness.

4. To report medical problems and conditions found during the course of their community work to other members of the health team for follow-up.

5. To follow-up patients visiting the clinic to see whether prescribed treatment and suggested courses of action were understood and have taken.

6. To aid the instruction of patients in basic health education principles.

The outreach workers will also serve to improve the acceptability of the primary care services offered by functioning as a liaison between the patient and the other members of the health delivery team and will participate in staff-patient conferences to plan follow-up care.

Job descriptions for other supporting and clerical staff appear in Appendix V.

5. PARTICIPATION OF OTHER AGENCIES

The Tompkins County Hospital will assume over-all responsibility for the proposed project and for organizing and coordinating the health services agreed upon. This will include (1) contracting with a medical staff that would provide a comprehensive program of primary care to the target populations; (2) employing the ancillary staff and providing the necessary medical, technical and administrative equipment and supplies; (3) through its own structure providing the appropriate back-up medical and administrative services; (4) arranging with various other health and health related organizations and institutions for medical and related services that could not be provided at the primary care centers; (5) providing a qualified administrator to be responsible for over-all management of the program including organization of technical, clerical and maintenance services.

The Tompkins County Medical Society would: (1) aid in the recruitment of, and make recommendations for qualified physicians for appointment to the staff of the primary care centers; (2) provide, under conditions acceptable to itself and its members, specialty services not be provided at the centers (3) arrange with the centers' staff and the hospital for coordinated care of hospitalized patients; (4) recommend and participate in the development and maintenance of appropriate professional staff education; and (5) aid in the development of standards for center operation that will assure a high quality of medical care.

The Tompkins County Health Department will (1) undertake the recruitment, education and supervision of the nurse clinicians to be employed by the project as soon as it becomes operational and (2) coordinate the services of the project with the existing services now offered by the health department including immunizations, public education programs, and the visiting nurse services.

The Tompkins County Comprehensive Health Planning Council will:

1. Serve as a vehicle for input from the various consumer and and provider groups in the community and the region.

2. Provide information, education and consultation to both the community and to project personnel.

3. Explore and assist in the evaluation of the demonstration project.

4. Aid in the determination of future objectives and courses of action in the project's efforts at meeting primary health care needs.

Appropriate referral patterns and liaison are being developed with the Tompkins County Mental Health Department with an aim toward establishing mental health clinics coordinated by this department as part of the project's operation. This work will bring needed mental health services into the community as part of a comprehensive system of health care delivery. Mental Health Department personnel will provide diagnostic treatment and rehabilitative services to patients suffering from emotional disturbances and mental illness. In addition, the Mental Health Department and the project personnel will work together to indentify and implement preventive psychiatric services and educational programs in the community. The Mental Health Department is now located on the Tompkins County Hospital campus, and shares a building with the Tompkins County Health Department. Appropriate office and treatment space will be provided at the site of the outreach center.

COMMUNITY INPUT

In July of 1972, Tompkins County held seven community hearings throughout the county. The purpose of the hearings was "to provide persons concerned

about a modernized hospital facility in Tompkins County and services to be offered through this facility an opportunity to enter their views into the planning process." The hearings were publicized through letters of invitations; radio, television and newspaper announcements; and handbills and posters in Towns. A total of 235 people took part in the hearing process. The concern expressed most often was that of obtaining greater access to primary care. People felt that existing services were inadequate to meet the primary care needs of people of all ages in the county.

A secondary concern expressed at the hearings was continued involvement in the health planning process. It is recognized that health services cannot be effectively organized without a clear understanding of the needs of the persons to be served, nor will health services be properly utilized unless they are reasonably consistent with the expectations and demands of the recipients. Therefore, in addition to the role of the Comprehensive Health Planning Group, the project will receive continuing community input through a formal advisory council. The advisory council will be composed of consumers of project services and will be charged with the responsibility of making the needs of the community known to the project administration and staff. In addition it will serve as a forum for public discussion of the policy alternatives in the administration of the Center, and will be an integral part of the planning, program implementation, operation, and evaluation of the proposed project.

6. FACILITIES AVAILABLE

OUTREACH CENTER

An appropriate site will be located in the area specified for the outreach center and will include:

1. An adequate number of professional suites to enable the family physicians and back-up personnel to render services.

2. Sufficient space for the business operation, a telephone switchboard, a general reception and waiting area, space for administrative staff, records and other files.

3. Utility room for refrigeration supplies and general stores.

4. Room for a public health nursing office, mental health personnel and other specialists giving back-up consulting services to the center.

5. A room sufficiently large for staff conferences and for public health education sessions. This room will also contain a small library supplied with current journals and reference books.

6. A small laboratory where ordinary procedures such as routine urinalysis and hematology will be performed. For less common procedures specimens would be drawn in the center's laboratory and sent to the Tompkins County Hospital laboratory for processing; other special techniques would require sending the patient directly to the Tompkins County Hospital laboratory.

7. X-ray service which would be similarly divided between those relatively simple diagnostic x-rays provided at the center and those for which the patient would be referred back to the hospital's full scale x-ray department.

HOSPITAL SITE

The outpatient facility at the hospital will make use of existing laboratory, x-ray and business departments. Appropriate space on the Tompkins County Hospital campus will be utilized for the operation of all additional services including:

1. Professional suites to enable the family physicians and back-up personnel to provide adequate care.

2. Space for the clerical and record keeping operation, a telephone switchboard, a general reception and waiting area, space for support staff, records and other files.

3. Utility room for refrigeration supplies and general stores.

4. Room for a public health nursing office, mental health personnel and other specialists giving back-up consulting services.

7. EVALUATION

The general areas of performance upon which the services of the project will be evaluated are as follows:

1. Number, demographic characteristics, and geographic origin of the patients served.

2. The diagnostic characteristics of the patients served.

3. Patient flow, including the time it takes for the patient to be diagnosed, treated and/or referred for more specialized treatment.

4. Patient satisfaction with service as evidenced by interview and questionnaire techniques and continual input from the consumer advisory board.

5. Number and destination of referrals.

6. Cost of health services:

   a. relative to other available health services

   b. relative to the percentage of the patient's income

   c. distribution of sources of payment

      1. Medicare

      2. Medicaid

      3. Self-pay

      4. Third-party payment

In summary, these parameters of care will be investigated in an attempt to determine the extent to which a rural ambulatory care facility in a medical scarcity area can attract and sustain qualified staff, financial resources and community support necessary to provide quality health care.

8. PROJECT CONTINUATION

The Tompkins County unit (the Tompkins County Comprehensive Health Planning Council) of ALPHA, the 314 (b) agency for this region, will assess the utilization patterns of the proposed project. It will also explore the possibility of expansion of on-site services and/or the development of additional ambulatory care centers. Through the evaluation process described in the Evaluation Section, the success of the project will be measured.

Although the level of income to be earned by the two units cannot be known precisely at this time, the constant evaluation of the project will supply the information necessary to enable a more precise prediction of future levels of income and funding requirements. Because of the severe lack of primary care in the county, it is felt that there will be sufficiently high patient utilization, bringing in Medicaid, Medicare, and other third party payments, to allow the two units to eventually become self-supporting.

Furthermore, the Tompkins County Comprehensive Health Planning Council in coordination with the hospital, the Health Department and other interested organizations, will explore alternative sources of funding for the future operation of the project, construction of permanent facilities, and acquisition of additional equipment and personnel.

B MENTAL HEALTH SERVICES

The Planning Committee recognizes that a comprehensive health care system as outlined must include Mental Health Care Services. The outpatient care program proposed to be developed in concert with Tompkins County Mental Health Department has been described in the previous section.

The committee feels that to fully develop this program to its broadest scope that a comprehensive Community Mental Health Center be established which can provide both outpatient and inpatient care services. Such a program was described in the 1969 "Rourke Report". The committee proposes implementing the federal program (Public Law 88-164: The Community Mental Health Centers Act of 1963) for developing this comprehensive mental health center to serve all ages and social strata of the community. The act lists the following specifications for a center:

a. To qualify for federal funds, a center must at least provide the following five essential services:

   1. Inpatient Care - This unit offers treatment to patients needing 24 hour care.

   2. Outpatient Care - This unit offers various kinds of individual and group treatment programs for adults, children and families.

   3. Partial Hospitalization - This unit offers at least, day care and treatment for patients able to return home evenings and weekends. Night care may also be provided for patients able

to work but in need of further care or without suitable home arrangement.

4. Emergency — Twenty-four emergency service is available in one of the three units named above.

5. Consultation and Education - The Center Staff offers consultation and education to community agencies and professional personnel.

b. Five more services complete the comprehensive community mental health program. If these additional services are also included, special consideration will be given to the application for federal support.

1. Diagnostic Service - This service provides diagonistic evaluation, and may include recommendations for appropriate care.

2. Rehabilitative Service - This service includes both social and vocational rehabilitation. It offers for those who need them services such as prevocational testing, guidance counseling and sometimes job placement.

3. Precare and Aftercare - This service provides screening of patients prior to hospital admission, and home visiting before and after hospitalization. Follow-up services for patients are available in outpatient clinics or in foster homes or halfway houses.

4. Training - This program provides training for all types of mental health personnel.

5. Research and Evaluation - This Center may establish methods for evaluating the effectiveness of its program. It may also carry out research into mental illness, or cooperate with other agencies in research.

c. In addition, there are population guidelines which set 75,000 as the minimum service or "catchment" area for each center. The Tompkins County Hospital service area population currently is above this minimum level.

These trends in the treatment and care of the mentally ill indicate the need for a comprehensive approach. Emphasis must be on early diagnosis and treatment, outpatient care, part-time or short-term hospital care, long-term care, and aftercare in the community. Just as there have been changes in focus in the past, however, it is predictable that change will again occur in the future - and flexibility becomes essential.

In relation to the five essential services for a center, the following situation exists:

a. Inpatient Care - The prime source of long-term psychiatric care for patients in the hospital service area in Willard State Hospital. No short-term inpatient psychiatric facilities are available in the county, although on rare occasions a manageable psychiatric patient is admitted to Tompkins County Hospital and provided with a typical private patient room for a short stay - usually overnight, or until he can be transferred to Willard or institutions outside the county having inpatient psychiatric facilities.

b. Outpatient Care - The Tompkins County Mental Health Clinic currently provides outpatient services for adults and children.

c. Partial Hospitalization - The county currently lacks programs and facilities related to this service.

d. Emergency Care - A 24-hour walk-in service, a comprehensive suicide prevention service and an emergency home visiting service comprised of professionals are lacking.

e. Consultation and Education - The staffs of the Mental Health Clinic and the Tompkins County Mental Health Association are the primary providers of this service.

One or more of the additional five services listed above while not essential to qualify for funds but which nevertheless complete the comprehensive community health program, are provided by one or more of the agencies already mentioned in addition to the following: the Special Childrens Center, the Association for Mentally Retarded Children, Challenge Industries, or the Family and Children's Service of Ithaca. Of these not-essential programs, those related to training appear to be the least developed.

The center of activity of this program is proposed to be located at the hospital site with the inpatient care facilities developed at the hospital. The department of Mental Health is also located on this site which will maximize ease of inpatient coverage for the attending staff. Outpatient services will be provided at the facilities of the Department of Mental Health with additional services projected through the comprehensive health care system outlined before. The facilities shall include:

a. Inpatient care beds which can be flexible to accommodate both inpatient and partial hospitilization services.

b. Supporting facilities for treatment, therapy, recreation, dining, etc. for both individual and group programs.

c. Rooms designed for potential use as patient / noise controls spaces.

d. Non-clinical character of design and furnishings in so far as possible conducive to psychiatric patient treatment and rehabilition.

e. Access to all supporting services of the hospital.

This program will require the development of a formal psychiatric service, which in order to be reliable in the long run, would require a significant increase in the number of psychiatrists on the active staff of the hospital.

C CENTRAL PATIENT CONTROL

The development of the comprehensive health care system will create significant administrative problems to effect continuity of patient care. This will be further complicated by the involvement of several independently administered agencies in the system. The problem will manifest itself in the following areas:

1. Maintenance of continuous patient records through all phases of care with pertinence, condifentiality and appropriate accessibility.

2. Efficient scheduling of admissions to and discharges from all levels of inpatient care units and between units in applications of progress care.

3. Effective scheduling of diagnostic, therapeutic and procedural services for inpatients and outpatients as prescribed.

4. Maintenance of continuing patient care through use of appropriate services of all other agencies involved.

The Planning Committee proposes the development of a patient control center which can assume the responsibility for the control of the movement of patients through the health care system. It is intended that the present admissions/discharge service be expanded and implemented to fulfill this role. In order to accomplish this the following services should be collected into a single coordinated function: (Figure 2)

TCH DEVELOPMENT PLAN

PATIENT CONTROL CENTER RELATIONSHIPS

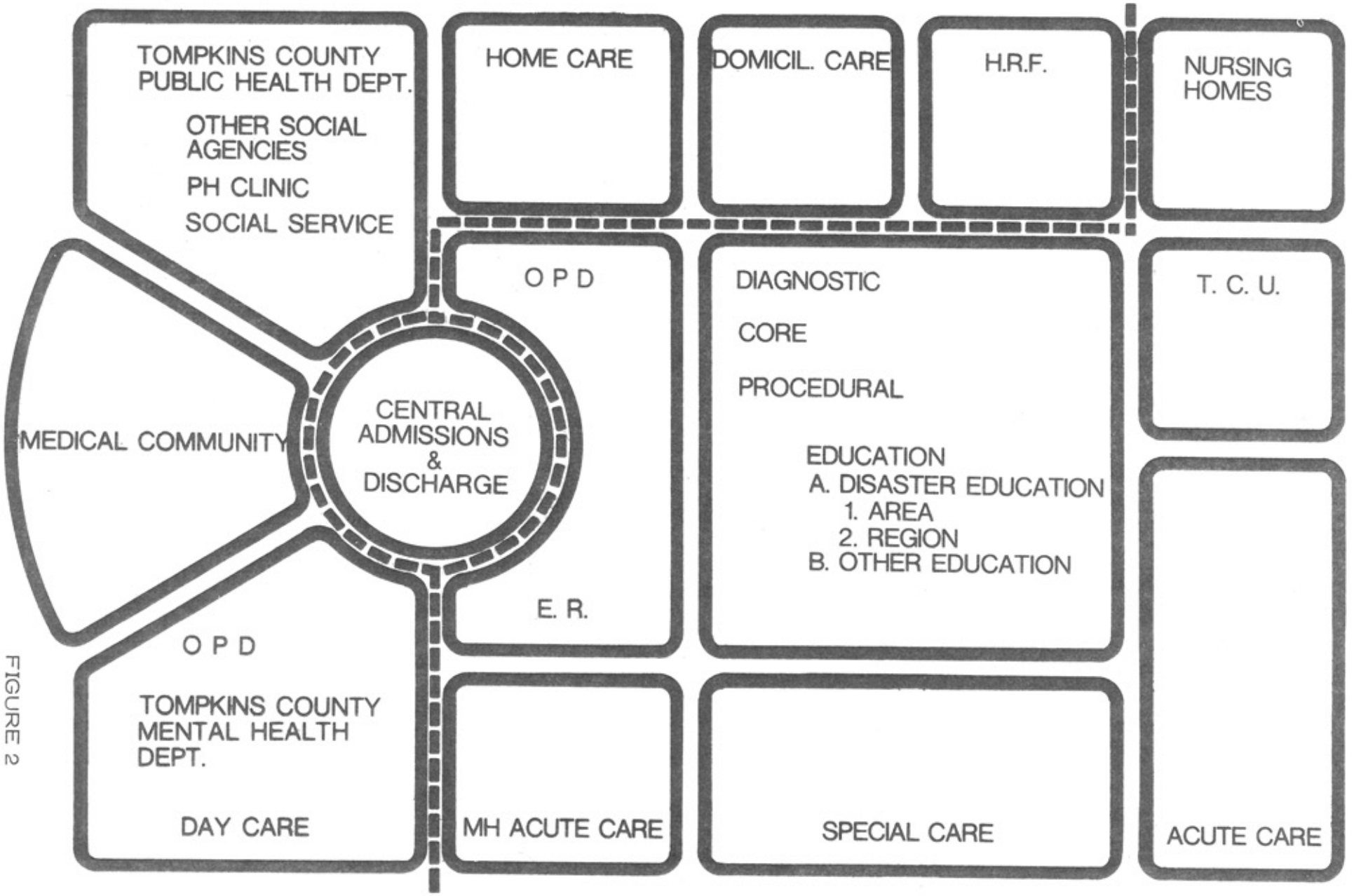


FIGURE 2

1. Admissions/Discharge to and from all inpatient care units.

2. Coordination with outpatient services both at the hospital site and at the out-reach center.

3. Coordination of all scheduling of hospital based services exclusive of those patient visits to the primary care center at the hospital.

4. Coordination with Public Health, Mental Health and for all other independent agencies for their planning for and scheduling of the assumption of responsibility of patient care under their respective programs.

5. Control of the inter-agency movement of data pertaining to patients necessary to effect continuity of care.

6. Coordination of patient counseling services.

7. Coordination of cashiering functions for inpatient care services.

8. Coordination and liaison with attending staff to assist them in implementation of patient care services at the hospital.

It is proposed that a program of organization be developed in detail expanding the present Admissions/Discharge service. This should include a definition of tasks, personnel designation, and job descriptions, administrative organization and operational

methodology.

Sufficient space will be provided at the hospital with a close physical relationship to the Records Department, Accounts Receivable, and Social Services. This space should be readily accessible to the patient and particularly to the attending staff.

D EDUCATION PROGRAM

The Planning Committee feels that a vigorous education program is essential to the development of a comprehensive health system. The objectives of the education program should be·

1. To provide a continuing cource of qualified personnel, particularly in highly specialized technical fields.
2. To maintain the quality of existing personnel; to keep them abreast of new techniques, procedures, equipment and programs.
3. To promote communication between individuals and groups within the system.
4. To train consumers of the health system to utilize methods and programs to prevent or minimize disease, promote health and maintenance and rehabilitation.

The Tompkins County Hospital presently provides or participates with others in educational programs for Registered Nurses and LPN's and a Technician Training Program in Radiology. It also participates with other institutions in administrative resident programs and specialized extern programs and presently implements an in-service training program for the staff.

The Planning Committee proposes that the further participation of Tompkins County Hospital in education programs be within the following policy guidelines:

1. That all specialized medical or technical education programs be limited to the provision of clinical or practical training and primary education be provided by other institutions as appropriate to their curricula.

2. That special consumer education programs be limited to that which can be implemented within the scope of the comprehensive health services system at the hospital center and the out-patient care units.

3. That Tompkins County Hospital provide support and expertise to broad consumer education programs conducted by the Department of Public Health, Department of Mental Health and other public agencies.

Within these guidelines it is proposed that Tompkins County Hospital immediately pursue the establishment of the following programs attendant with the development of new facilities:

1. Technician training programs in Physical Therapy, Speech and Audio Therapy and Laboratories.

2. An areawide regional training program for emergency and diaster services.

3. Re-evaluation and expansion of the in-service education program.

It is further proposed that planning be commenced for future implementation as soon as feasible for the following programs:

1. Technician training programs in Inhalation Therapy and Technicians Service.

2. Exploration of the possibility of an affiliation with a primary teaching institution for Intern training programs and the expansion of Intern-Extern programs in allied and supporting health specialities.

The Planning Committee recommends that the recent committee that was established with representation from the area educational and health-related institutions to review problems related to health education be formalized. It further recommends that this committee become an advisory group to the special legislative committee on Comprehensive Health Services previously recommended.

TCH DEVELOPMENT PLAN

SITE PLAN

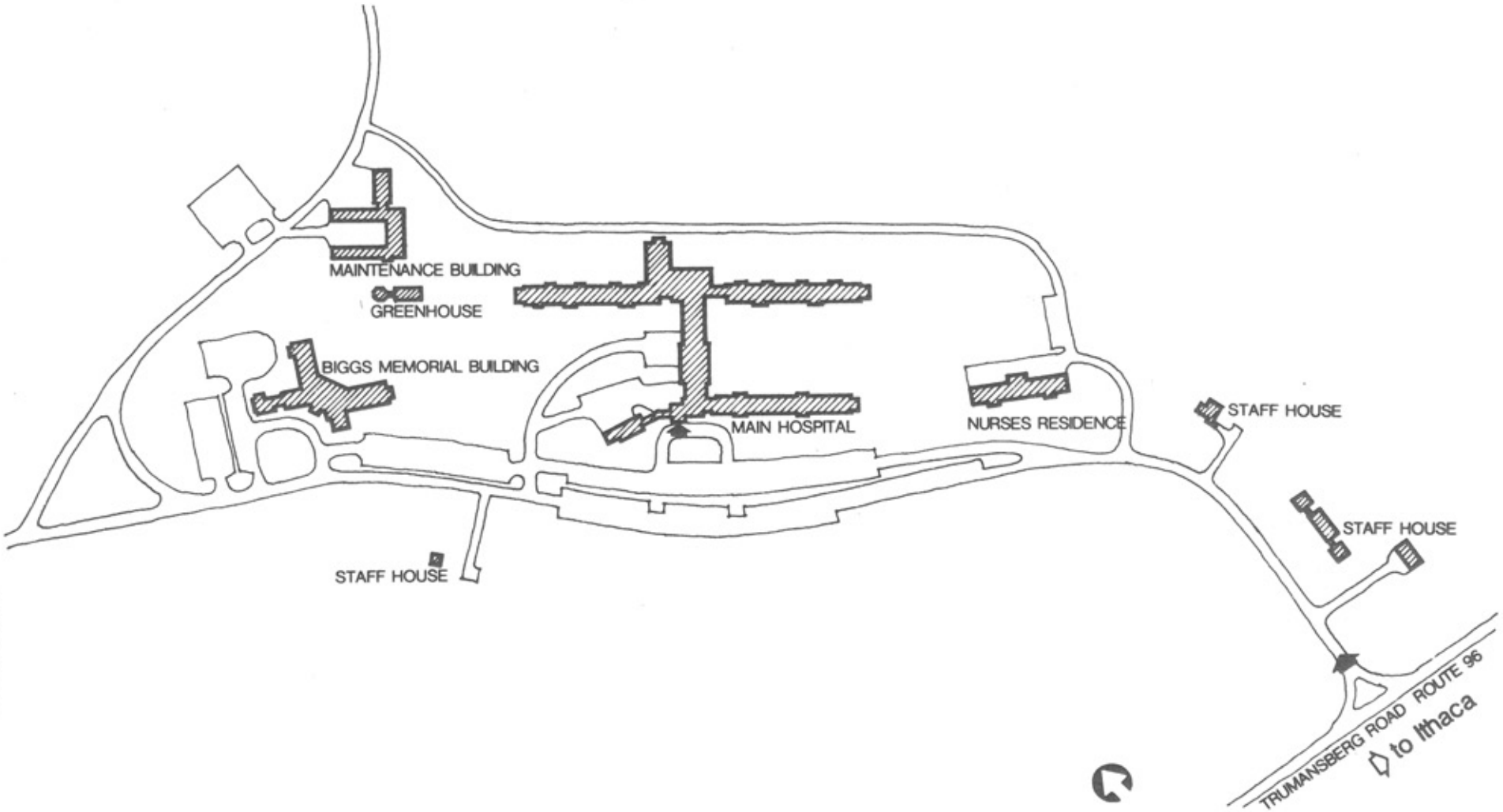


FIGURE 3

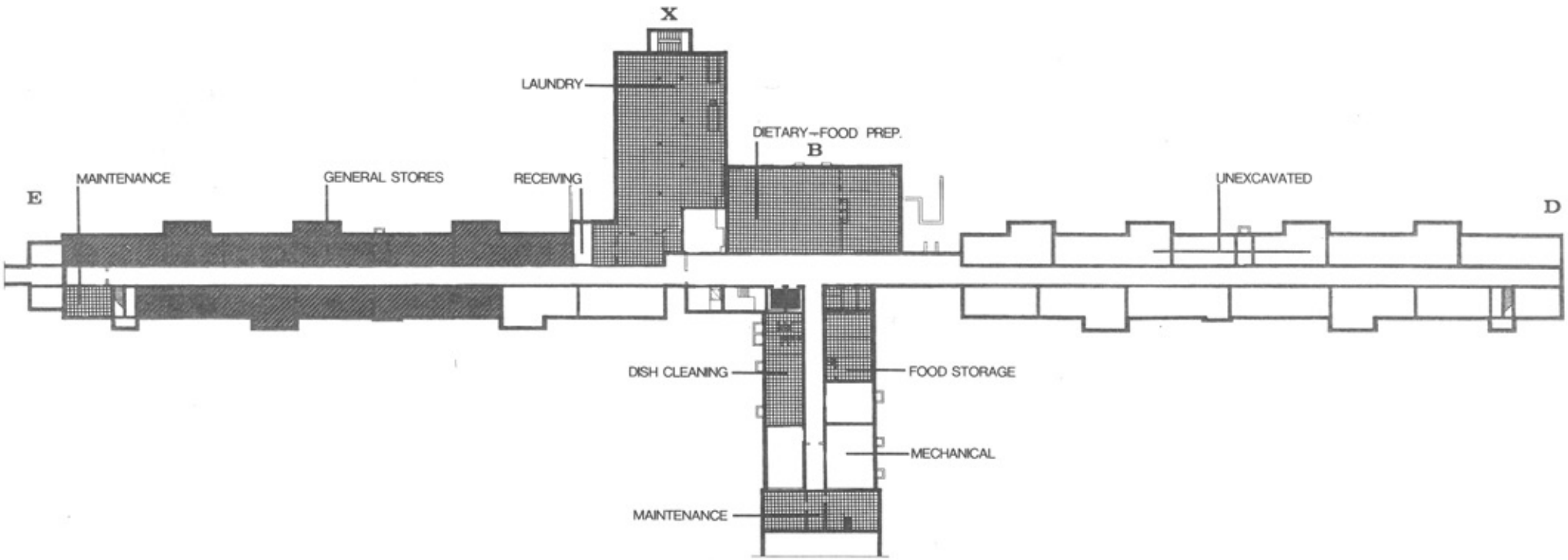


FIGURE 4

BASEMENT FLOOR PLAN

TCH DEVELOPMENT PLAN

MAIN HOSPITAL

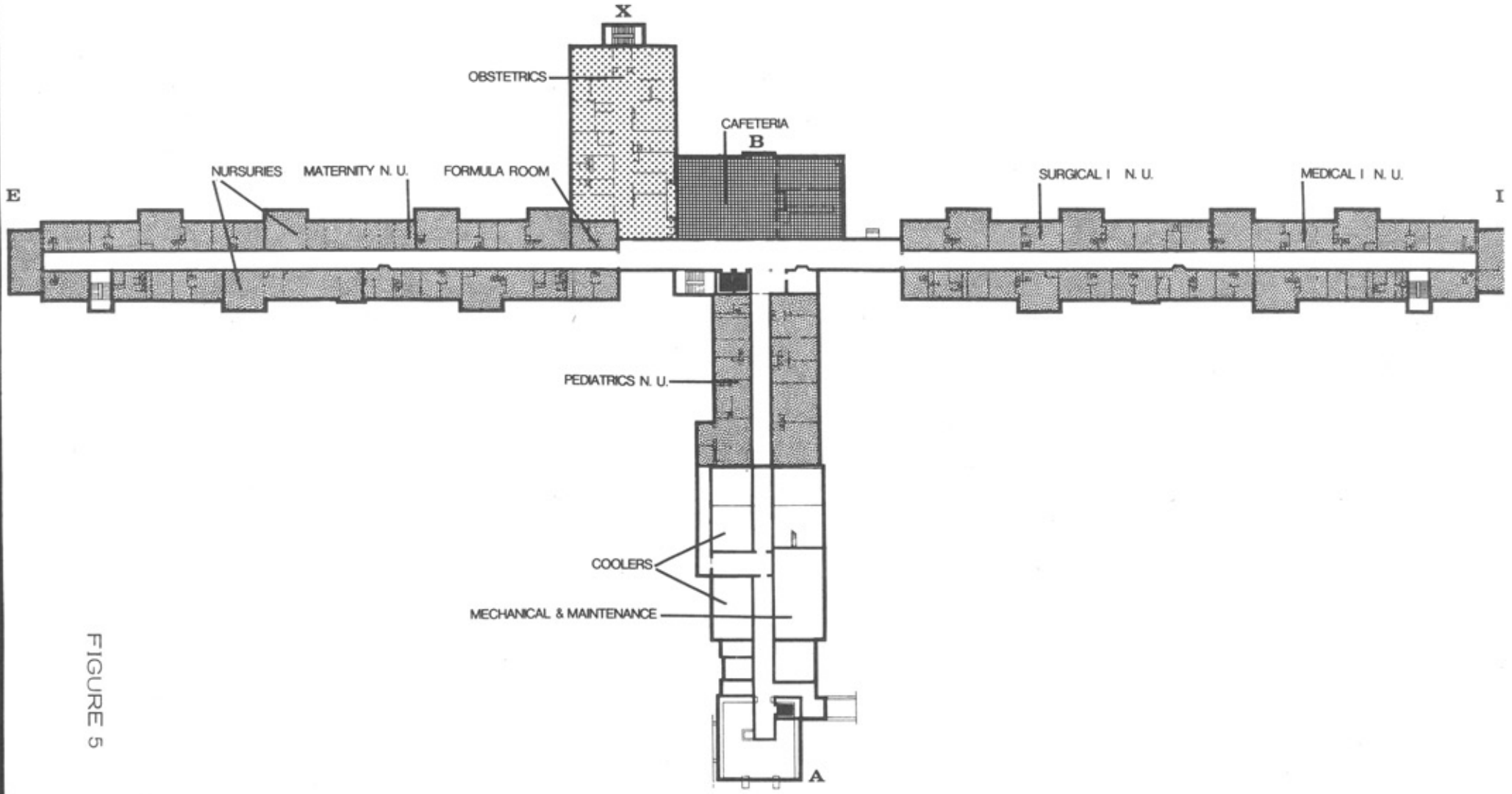


FIGURE 5

FIRST FLOOR PLAN

MAIN HOSPITAL

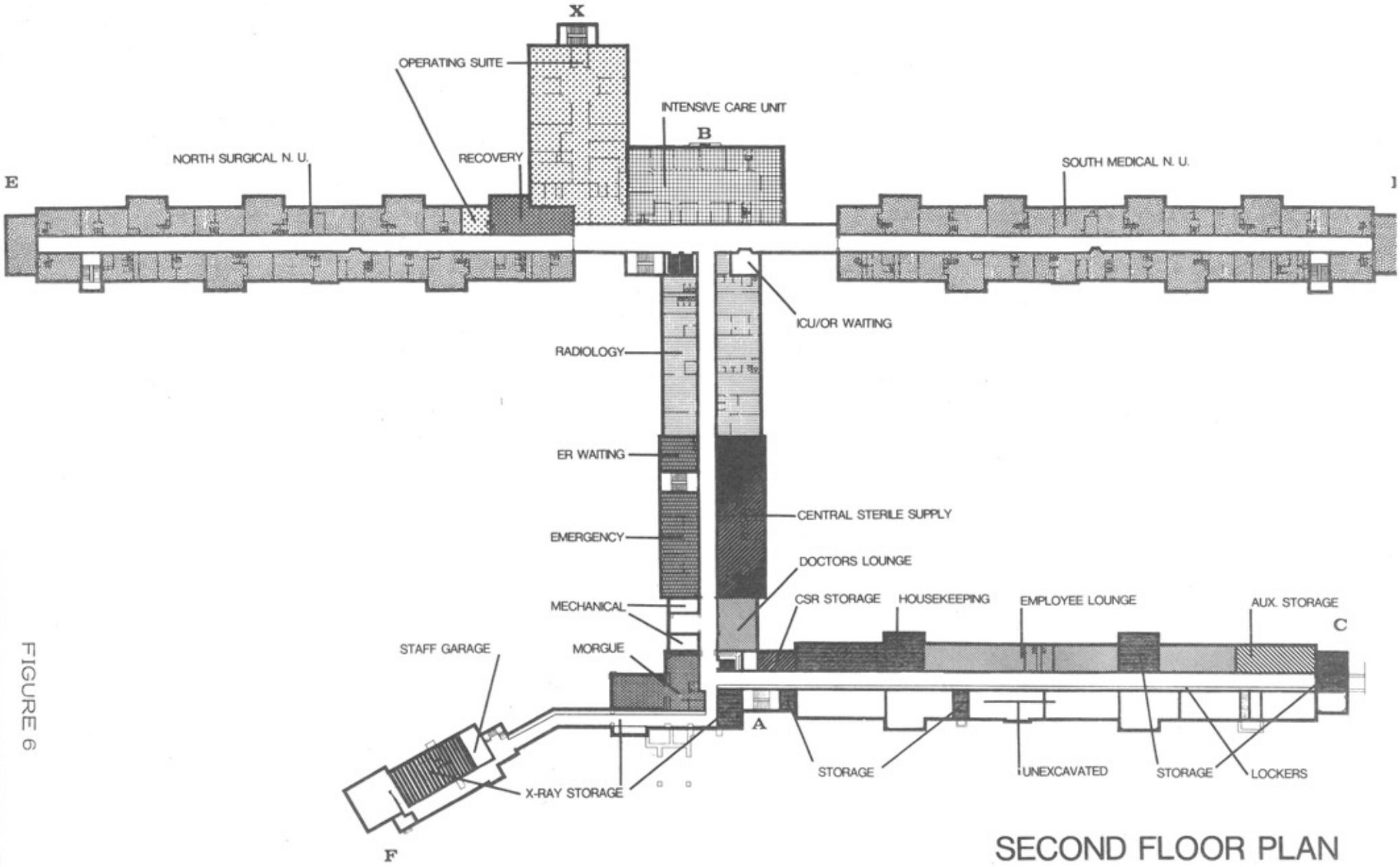


FIGURE 6

SECOND FLOOR PLAN

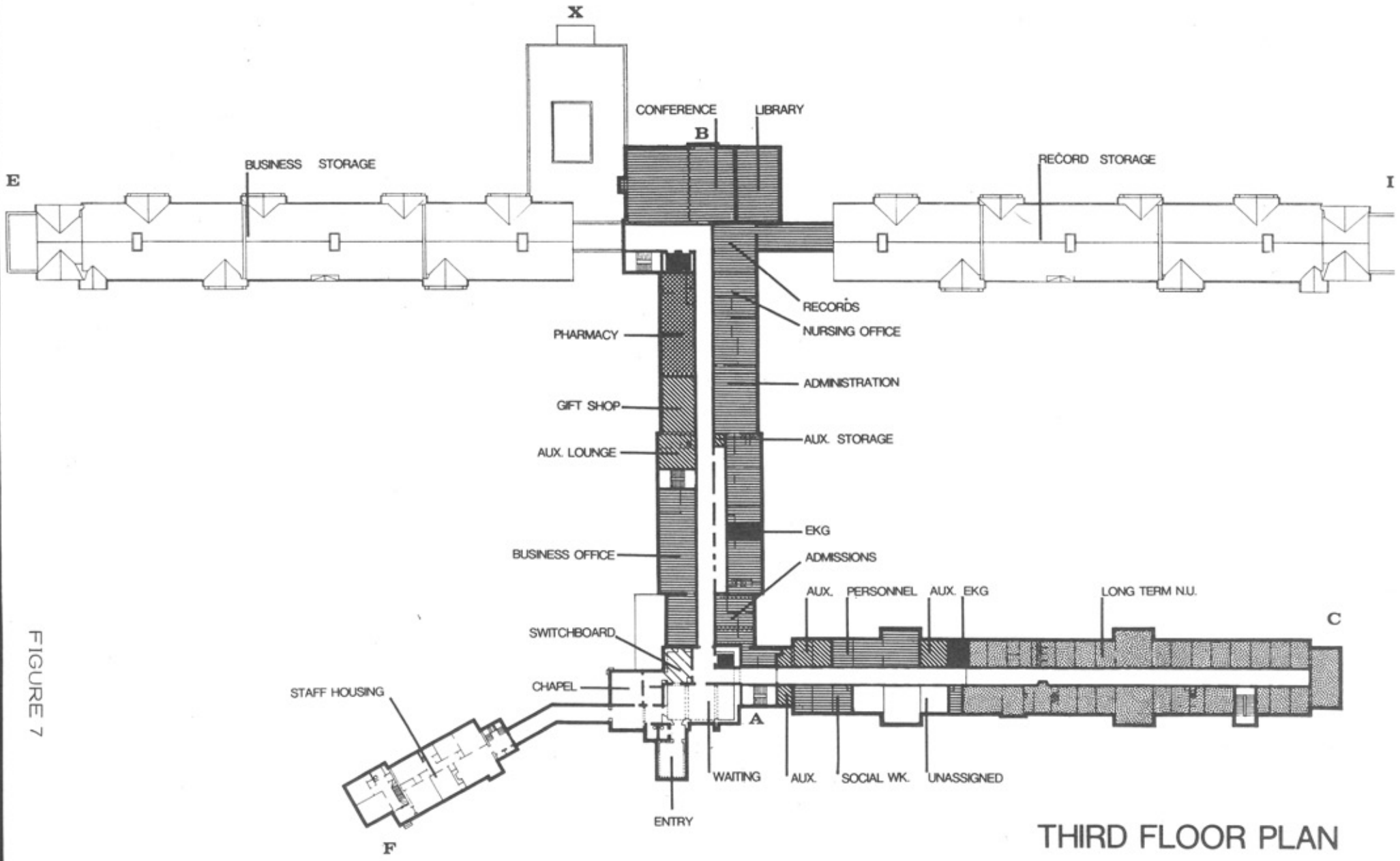


FIGURE 7

THIRD FLOOR PLAN

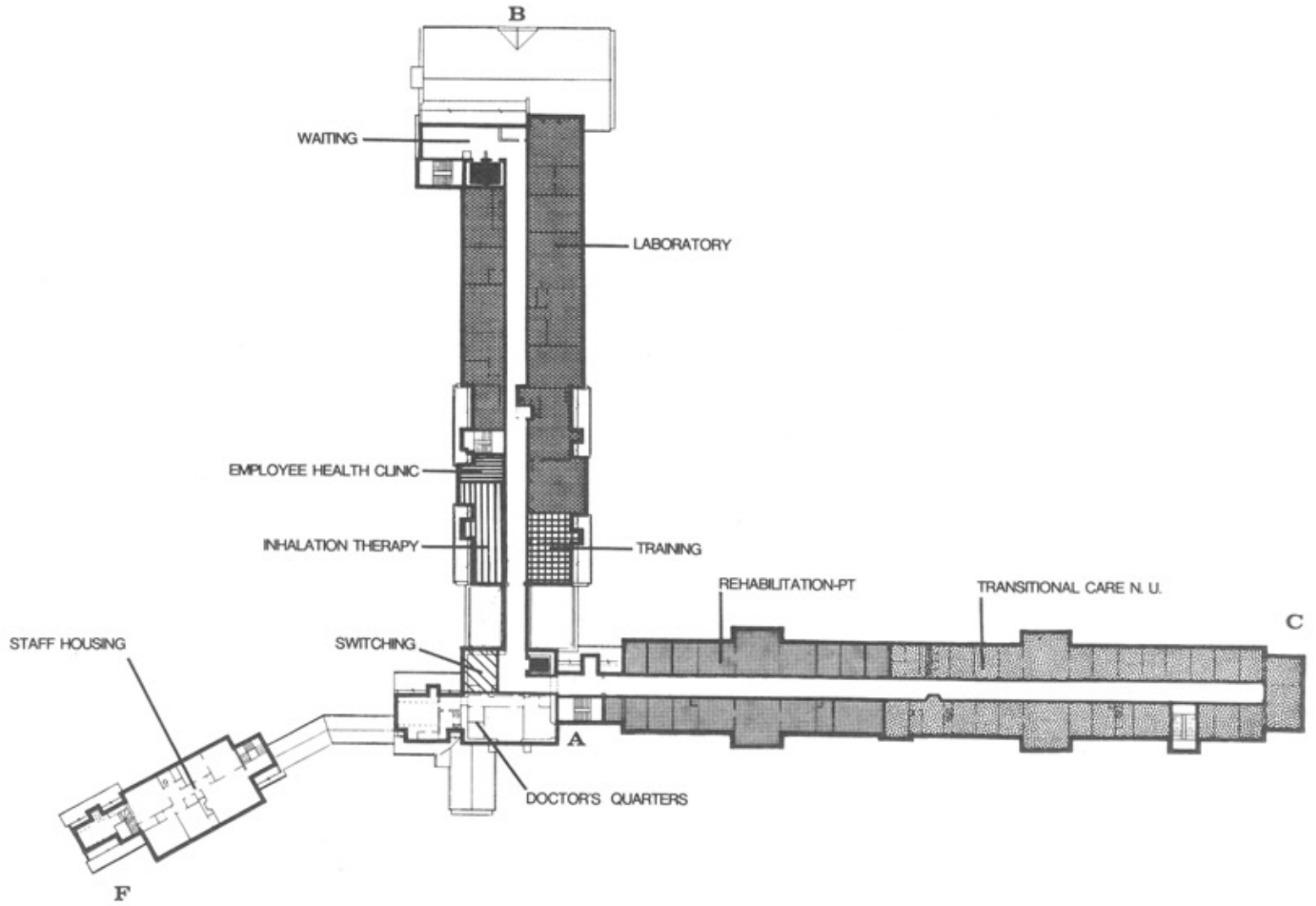


FIGURE 8

FOURTH FLOOR PLAN

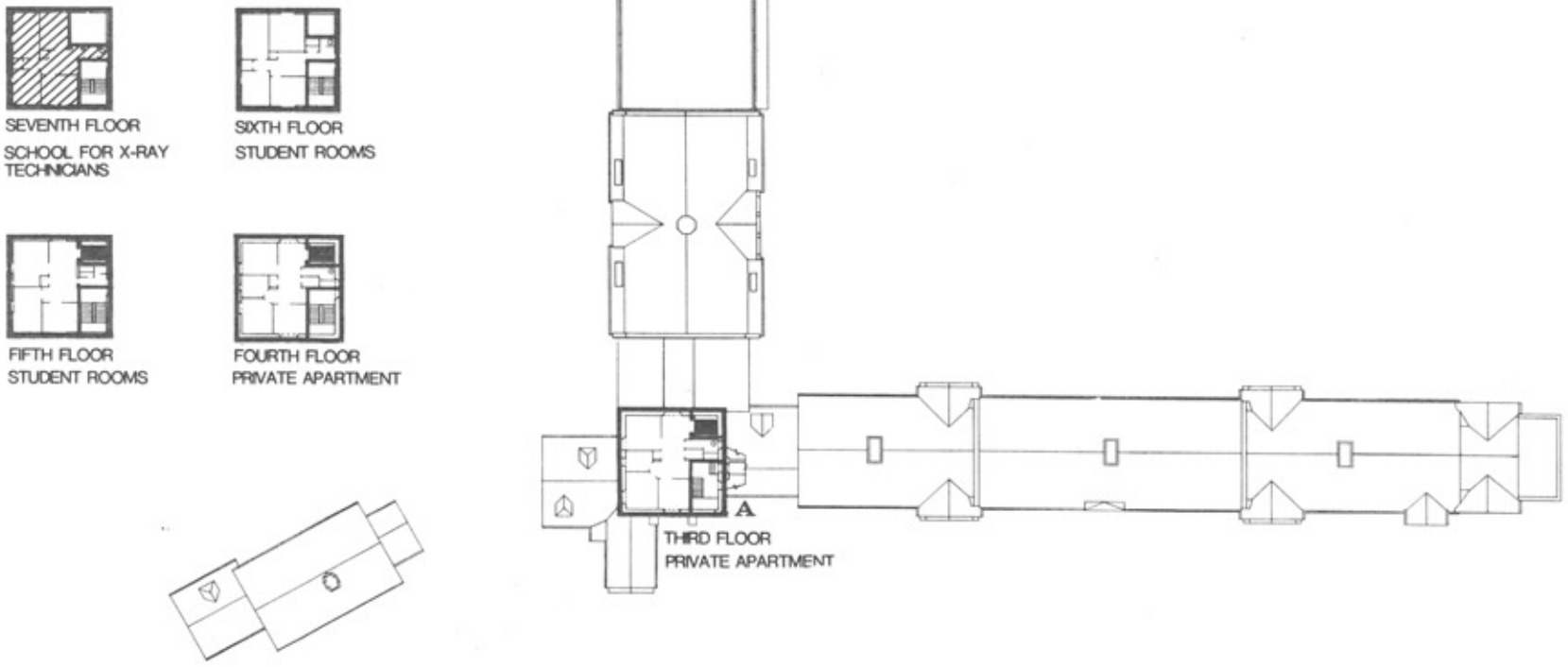
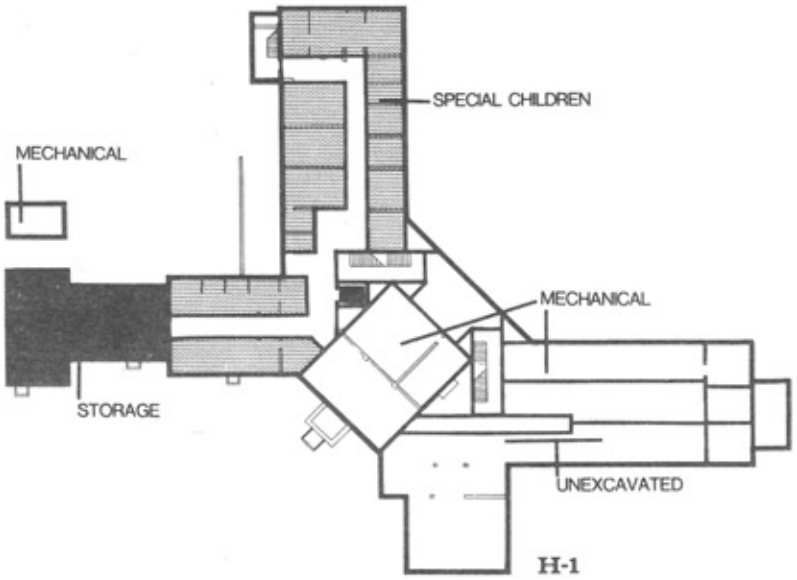


FIGURE 9

TOWER FLOOR PLANS

BIGGS MEMORIAL BUILDING



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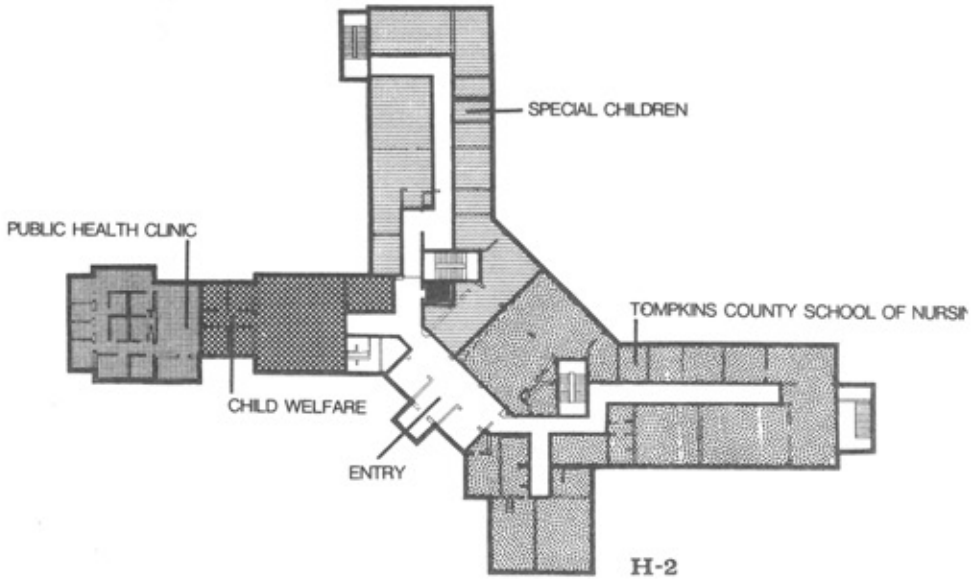
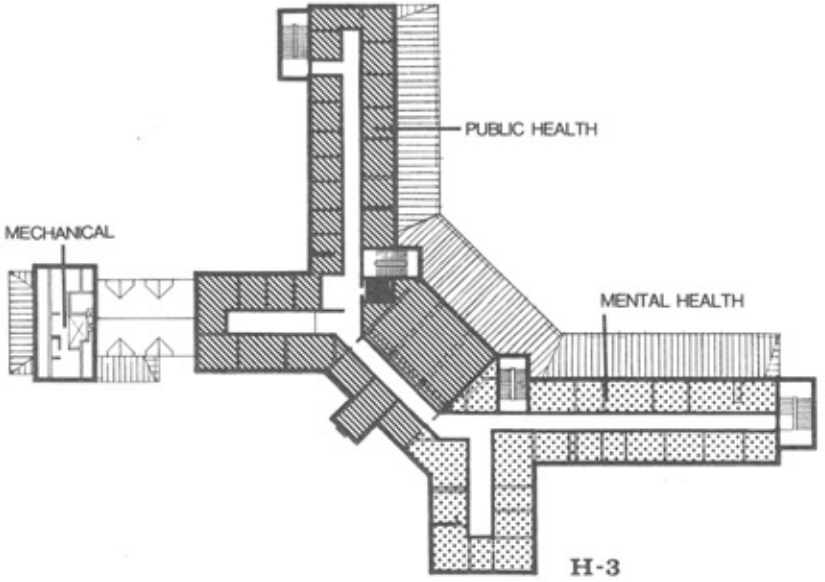


H-2



H-3

FIGURE 10

SECTION VI EVALUATION OF EXISTING FACILITIES

It is pointless to repeat in detail the inadequacies which have already been outlined in previous reports, specifically: the 1963 Report of Anthony J.J. Rourke, the 1968 Report of the Joint Commission for Accreditation of Hospitals and the New York State Department of Health Site Survey done in 1971. These inadequacies still exist. Due to increases in patient loads and activity, added restrictions in building codes and the general improvement of standards for health facilities, the existing facilities are more inadequate than ever. It is appropriate however, to outline the major problem areas and their impact on the hospital.

A. ADEQUACY OF SPACE

The majority of departments of the hospital does not have adequate area in which to provide the required services. These have been evaluated against our own standards as well as those of public agencies, such as U. S. Department of Health, Education and Welfare and the N.Y.S. Department of Health. Particularly inadequate are the diagnostic departments of Pathology and Radiology, procedural departments such as the Operating Room Suite and such service departments as Central Sterile Supply and General Stores. Although singled out, these are by no means all of the departments which have insufficient space.

Individual room sizes in many areas of the hospital are less than standard (i.e. X-Ray rooms, Operating rooms, etc.) Room sizes in many other cases meet minimum code requirements yet are far below optimum standards. This lack of appropriate space imposes a severe hardship on staff to perform specific, highly critical procedures and causes excessive movement and added expenditure of time.

COMPARISON: EXISTING SPACE TO REQUIRED

DEPARTMENT	REQUIRED NEW GROSS SQ. FT.	EXISTING AS % REQUIRED
Administration	26,920	85.3
Nursing	151,240	42.5
Surgery	22,210	28.9
OB (Lab-Del)	6,650	63.2
Radiology	23,990	25.4
Phys. Med-P.T. (spec. serv)	12,480	26.3
Pathology	18,720	56.1
OPD/ER	16,140	32.6
CSS	7,500	72.5
Pharmacy	4,040	70.3
Dietary	14,880	78.4
Housekeeping/Laundry	12,800	86.6
Locker/Lounge/Call Rooms	4,680	47.9
Maintenance	3,680	-
Stores	11,990	82.7
Materials Handling	7,000	-
TOTAL GROSS	344,920 Sq. Ft.	57.9%

FIGURE 11

B ORGANIZATION OF SPACE

In addition to being inadequate in size, the relationship of spaces within the majority of the departments is improper and not related to function. The physical dimensions of the existing buildings has created this problem and to some degree will always preclude a solution.

Certain departments have access to public corridors through space assigned to other departments, a hardship for both. Other departments have their spaces divided and located in dispersed areas in the hospital. Hospital functions when properly executed should follow a work pattern designed to fulfill specific tasks. When these patterns cannot be established premiums are paid by the institutions in terms of additional staff and effort.

C. RELATIONSHIPS OF SPACE

The most acute problem of the hospital is that of the physical relationship of the functions to each other. The "wing" construction on the sharply sloping site creates the following problems

1. Prevents locations of functions in centralized positions either vertically or horizontally.
2. Requires maximum travel distances for patients, staff and visitors.
3. Requires multiple two-directional movements for all personnel and material.

It is impossible without major reconstruction to develop facilities utilizing the existing buildings that can permit the use of operational and procedural techniques that will result in savings of labor and cost. In most areas of the hospital, function is subordinated to the limitations of the physical plant. Event the introduction

of automated systems cannot effect real economy because the configuration of the existing buildings precludes their economical installation.

Certain departments should be located in close proximity to other departments and functions and to main routes of movement which is not presently the case. There is no area within the existing building of sufficient size to permit such an aggregation of functions. Therefore, a further penalty is paid in terms of time and effort.

D CODE VIOLATIONS

Three categories of code violations are present in the existing facilities: 1) Violation of the Life Safety Code, 2) Failure to meet minimum standards of construction, and 3) Failure to meet the requirements for mechanical services and environment. The Tompkins County Hospital has already been cited for violation of these codes by the New York State Department of Health and they have gone on record that failure to take the necessary steps to gain compliance can result in either the closing of non-complying units or disapproval of reimbursement for costs of patient care in those units. The latter is the more probable action.

1. Life Safety Code Compliance Including Exits Code 101

All of the existing nursing units are in excess of the allowable distance between exits. The nursing unit corridors are more than 200 ft. long with one conforming stair and exit 27 feet from the end of the corridor. Although this exit is within the maximum 30 ft. dead-end corridor distance, it still creates corridors in all of the units longer than the maximum allowed by code. In order to make the nursing units conform, it is necessary to add another means of egress to the outside and section off the nursing floor (with conforming smoke stop partitions and fire rated walls) into two fire zones approximately 125 ft. in length. All partition construction and exit doors must be revised to conform to code for fire rating, direction of swing, and amount of glass. The new means of egress to the outside must be a vertical fire-rated exit

tower which will service all of the floors of each nursing unit.

There are miscellaneous other minor violations such as glass in corridor walls that require replacement.

2. Minimum Standards of Construction

The roofs are of wood construction which is not permissable in institutional buildings of two stories in height or greater. It is necessary to replace this construction with non-combustible construction or to provide fire protection which will meet the purpose and intent of the code.

Another violation is that some 4% of the existing patient rooms are less in area than that allowed by the construction code for existing hospital facilities. More significant is that 37% of the rooms are too small to meet minimum state requirements for the construction of a new facility. It should be pointed out that code minimums are designed to be just that and to protect against gross violations in the construction of facilities. It should be realized by all concerned that meeting only minimum requirements does not produce optimum facilities. On the basis of optimum standards, 74% of the rooms are less than adequate and do not meet the standards of new facilities being construction today.

None of the rooms in the long term care unit meet the requirements for a long-term care facility which qualifies for Medicare reimbursement nor the New York State minimum standards for new long-term care nursing homes. Obviously, they do not meet optimum requirements for this function.

3. Mechanical Services

The most acute problem relative to mechanical services is the non-conforming, inadequate heating and ventilating system. The

heating systems consist generally of piped steam and hot water with raditors or convectors with hand-control valves. Some rooms are short of radiators and do not heat properly in extreme cold weather. The code requires that positive, mechanically operated air-supply and air-exhaust systems be installed, particularly in certain patient areas. All of the areas of the hospital must meet certain standards of pressure relationships and rates of ventilation.

None of the patient areas are air conditioned. Although this is not a requirement of the code, all major new hospital facilities constructed in the United States today are being provided with a fully air conditioned environment in the broadest sense of the term. Wherever possible, institutions are attempting to introduce air conditioning into the existing facilities. Air conditioning must be considered optimum for a modern acute-care facility.

Certain areas of the hospital do not have sprinklers installed as required by code.

In addition there is a list of numerous minor mechanical problems which require alteration to meet minimum code requirements.

The existing fire alarm system installed in 1958, although fairly extensive is lacking in general coverage by bells as required by code. Manual stations are lacking in certain areas and thermal detectors are required in certain storage areas. It is also a code requirement that it be a coded system.

Although the present emergency generator is in good condition and of sufficient capacity, it does not meet requirements for separation and grouping of the emergency loads at the subsystems as required by code. Unfortunately, this is impossible unless a major revision of the distribution system is effected.

E MECHANICAL CONVEYANCE

The only means of mechanical conveyance in the existing building are three elevators; a pair located at the corridor intersection at the east end of the hospital and a single elevator located near the corridor intersection at the west end. There is a separate dumbwaiter provided for food service which is restricted to the dietary use.

These elevators are less than half the number required if collected in a single vertical location capable of serving the entire hospital. Since there are multiple locations necessitated by the stepped configuration of the hospital, the number of elevators is only a third of that required. In addition the existing elevators are of slower speed and operation than should be provided and lack appropriate interaction and control to be effective. There are no other automated mechanical systems presently installed in the hospital.

Forced use of stairways can be observed frequently following an excessive waiting period for elevator service. This impedence of movement through the hospital results in unnecessary expenditure of time and effort which represents added cost of operation. Critical rapid movement of supplies and personnel is very difficult to achieve.

F QUALITY AND CHARACTER OF EXISTING BUILDINGS

Existing buildings on the Tompkins County Hospital site have a distinctive architectural character. Long a familiar sight to residents of the county, theyhave a charm and warmth lacking in many new health facilities. Unfortunately, the myriad of tile roofs and dormers, intricate flashings, gutters and downspouts require constant maintenance. The antiquated window-sash create infiltration problems and excessive heat loss. Masonry bearing construction inhibits minor alterations and precludes inexpensive major alterations.

The cost of maintenance is included in total costs ultimately borne by the hospital consumer as are the majority of operating costs. In a period of spiraling health costs, the extra expense of maintaining such an antiquated structure and the cost of extra energy consumption should be eliminated or that equal amount utilized for expanded services.

G ATTAINMENT OF FLEXIBILITY

It is highly desirable that health facilities be flexible and capable of meeting the demands of change in patterns of delivering health care. It is desirable and many feel essential, that they be economically adaptable to new equipment, systems and environments.

The construction and configuration of the existing facilities of the Tompkins County Hospital render the attainment of such flexibility impossible. The narrow building configuration, the materials of construction, and the lack of space for access to mechanical services prevents the development of space which can offer flexibility available in new buildings constructed with new building systems. If these existing spaces were altered to meet new demands the result would be deliberate planned obsolescence. The cost of altering existing space for health related functions approaches that of the cost per square foot of developing new space for the same functions. Therefore, if sizable amounts of funds are expended to alter the existing building, it must be with full knowledge that this cost or more will be incurred again in the relatively near future to repeat the process.

H SITE

The primary site problem is the inadequacy of parking space. Without the addition of any further facilities, at least 50% more parking space is required. If the hospital is expanded to meet the needs of increased in-patient care, this will increase the need for parking space proportionately.

The Planning Committee has proposed the development of a broad scope out-patient service. In any hospital complex, this service is the major traffic generator. When expanded service is provided at the hospital, it is not unrealistic to foresee the need of 2-1/2 to 3 times the present number of parking spaces. It is also important that these parking spaces be located to provide ease of access to controllable points of entry into the institution.

In summary, existing facilities are inadequate to meet the demands of a modern health center. Spaces are not of sufficient size and improperly related to each other and to their functions.

Numerous code violations immediately require alterations and/or additions. The form of construction of the existing buildings precludes effective alteration or the development of blocks of usable space of sufficient dimensions. These structures eliminate any possibility of achieving flexibility for the future. The demand causes excessive movement of staff and patients and added cost to the hospital consumer.

If the existing structure is altered to meet just minimum code and standard requirements, the resultant facility will not meet the functional space needs for present services and be far less than that required for expanded services.

If additions to the existing buildings are constructed along with general alterations to meet minimum space needs as well, the resultant total facility will still lack the organization and interrelationship of space necessary for optimum operations.

Finally, if the scope of additions and alterations are increased even further to effect total reorganization and expansion and provide optimum facilities, the cost will be as much as total new construction. However, there will be an appreciable loss of revenue due to interrupted services

of the hospital and the length of construction time at least 40% longer than the time to construct an equivalent totally new facility. Upon completion, this facility will not and cannot achieve the flexibility for the future that can be achieved in a new facility of system construction. The community will face a similar problem of inadequate facilities in the future of greater magnitude and requiring greater cost to solve.

The Planning Committee therefore does not recommend reuse or revitalization of the existing facilities beyond that small portion that further detailed study may prove feasible.

TCH DEVELOPMENT PLAN

ADMISSIONS / 1000 POPULATION 1970

TOMPKINS COUNTY

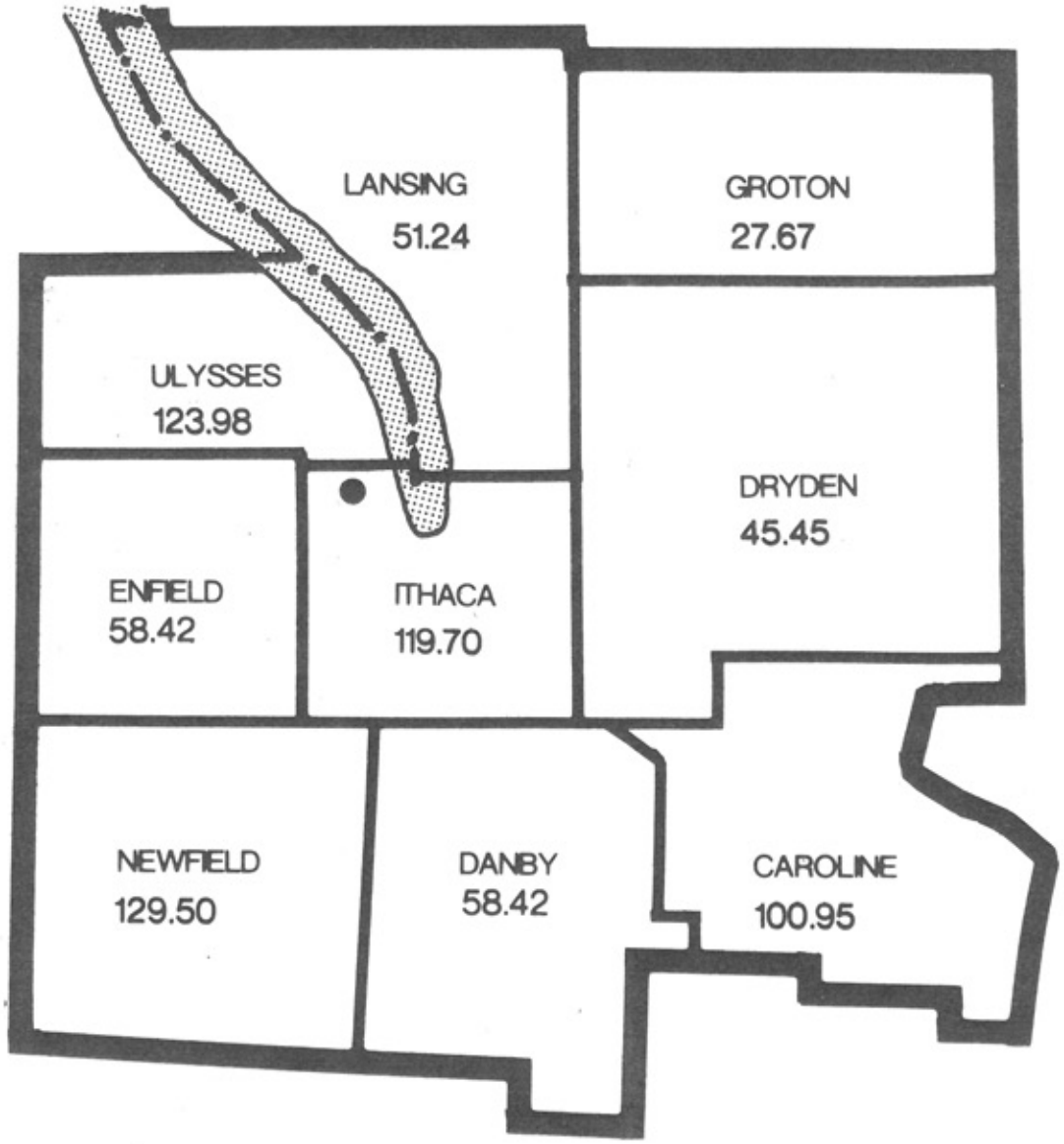


FIGURE 12

ADMISSIONS / 1000 POPULATION 1971

TOMPKINS COUNTY

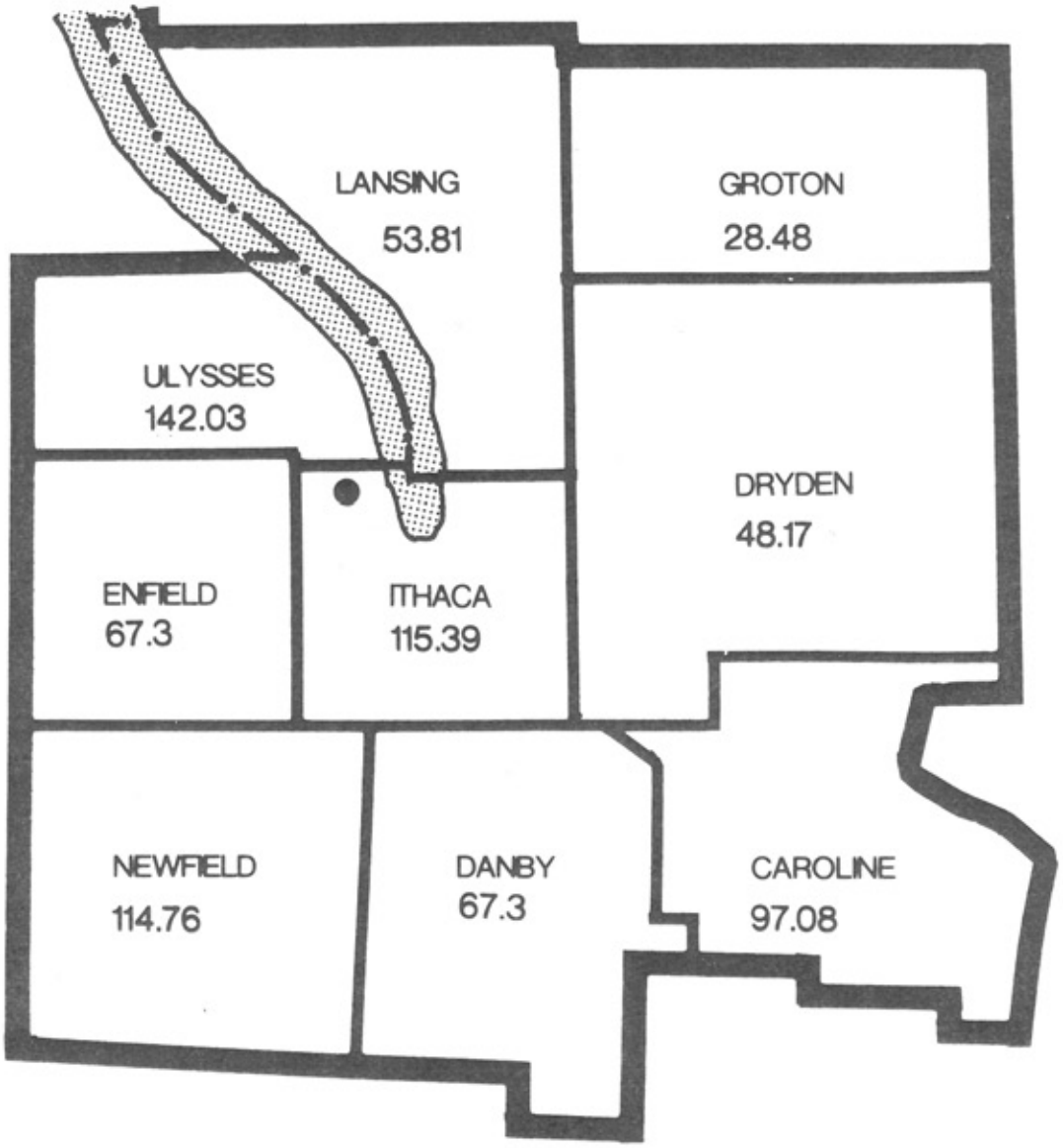


FIGURE 13

1971 ADMISSIONS & % OF TOTAL ADMISSIONS TOMPKINS COUNTY

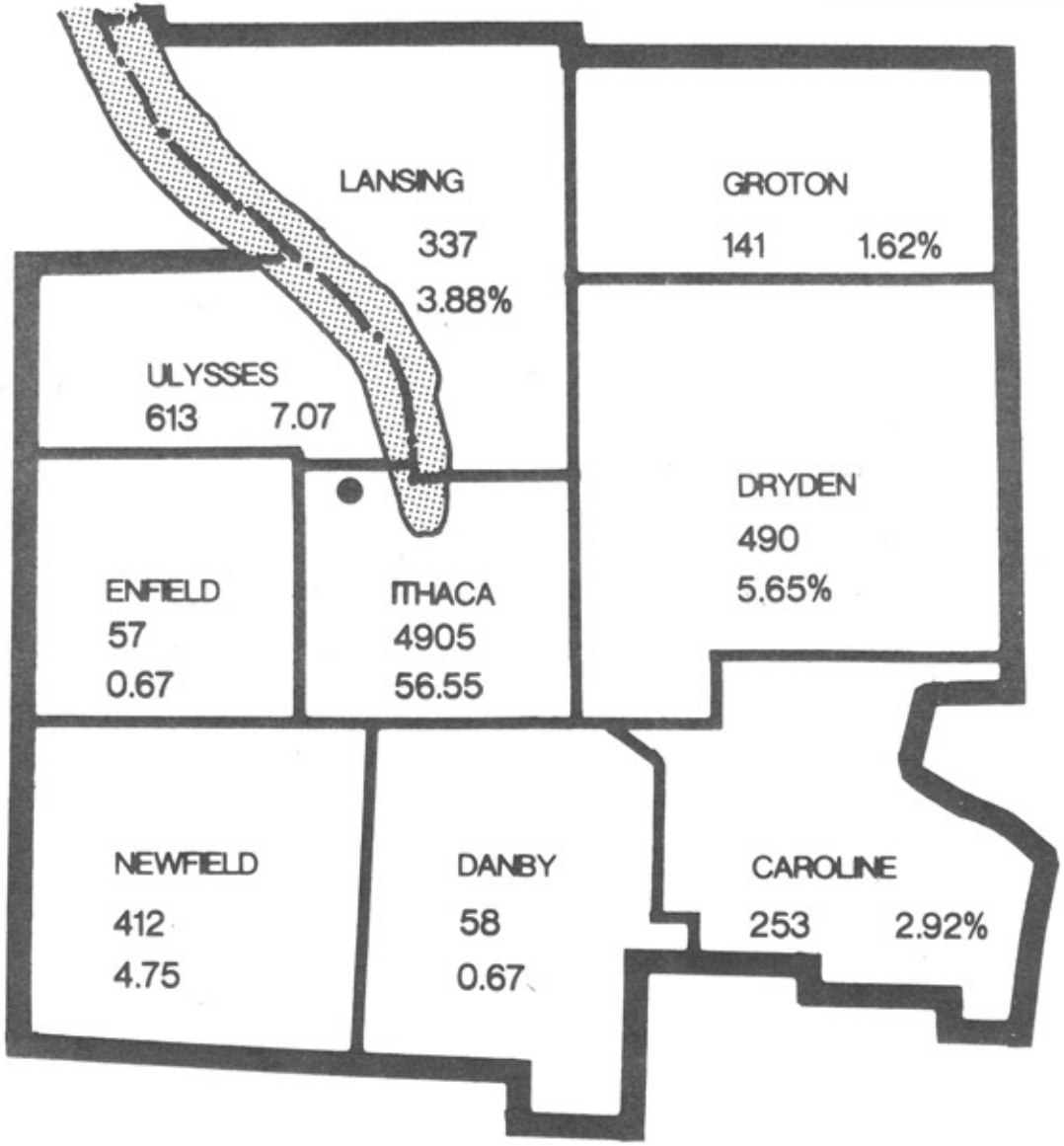


FIGURE 14

1971 ADMISSIONS & % OF TOTAL ADMISSIONS
TOMPKINS & ADJACENT COUNTIES

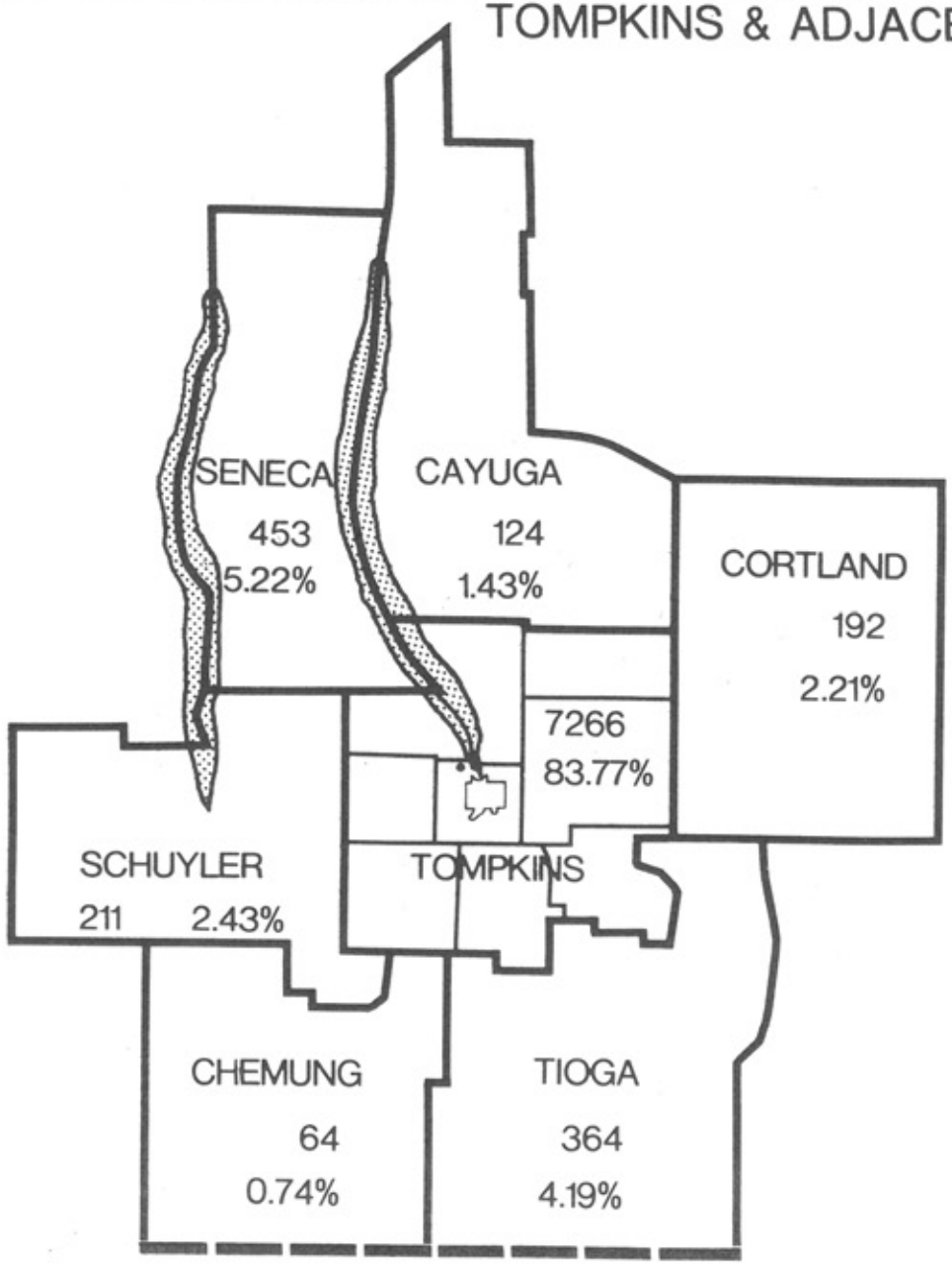
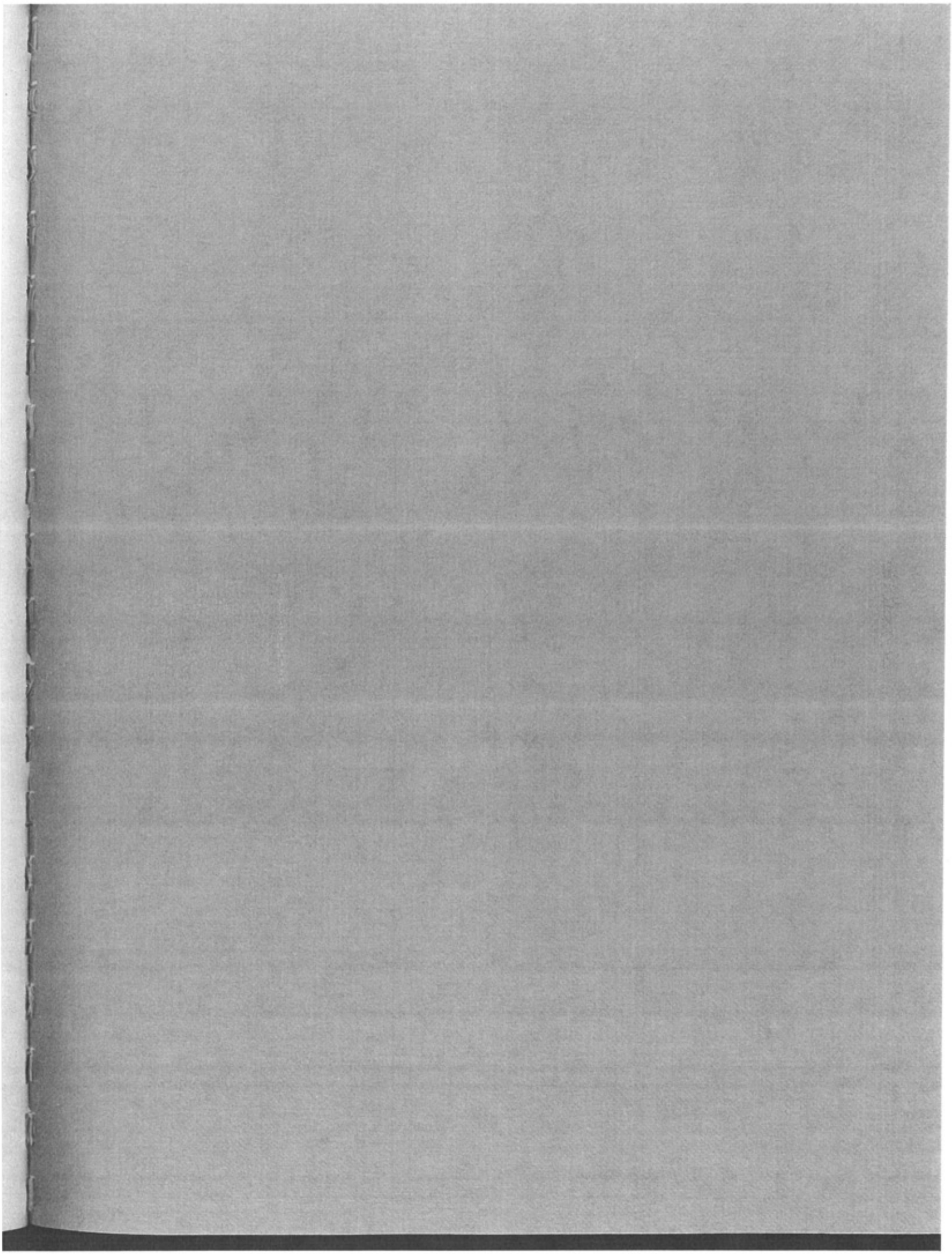


FIGURE 15



SECTION VII ANALYSIS AND PROJECTION

A UTILIZATION

Projecting future activity of an institution as complex as a health center can be misleading and such projections are always subject to local factors which affect utilization. However, trends of utilization to date can be determined. The use of reasonable assumptions and the development of ranges of activity can establish the parameters of potential programs which can be accommodated in a flexible plan.

An analysis of admissions was done in order to determine the service area of the Tompkins County Hospital. (Figure 16) For 1970, a year for which accurate population statistics are available. This study indicated the following:

1. The town of Ithaca, as would be expected, is the greatest single source of admissions. The town, however, does not have the highest rate of utilization.

2. The residents of the towns in the South and West sector of the county utilize the hospital at almost twice the rate of that of the towns in the East sector of Tompkins County.

3. The residents of Schuyler and Seneca Counties significantly utilize Tompkins County Hospital.

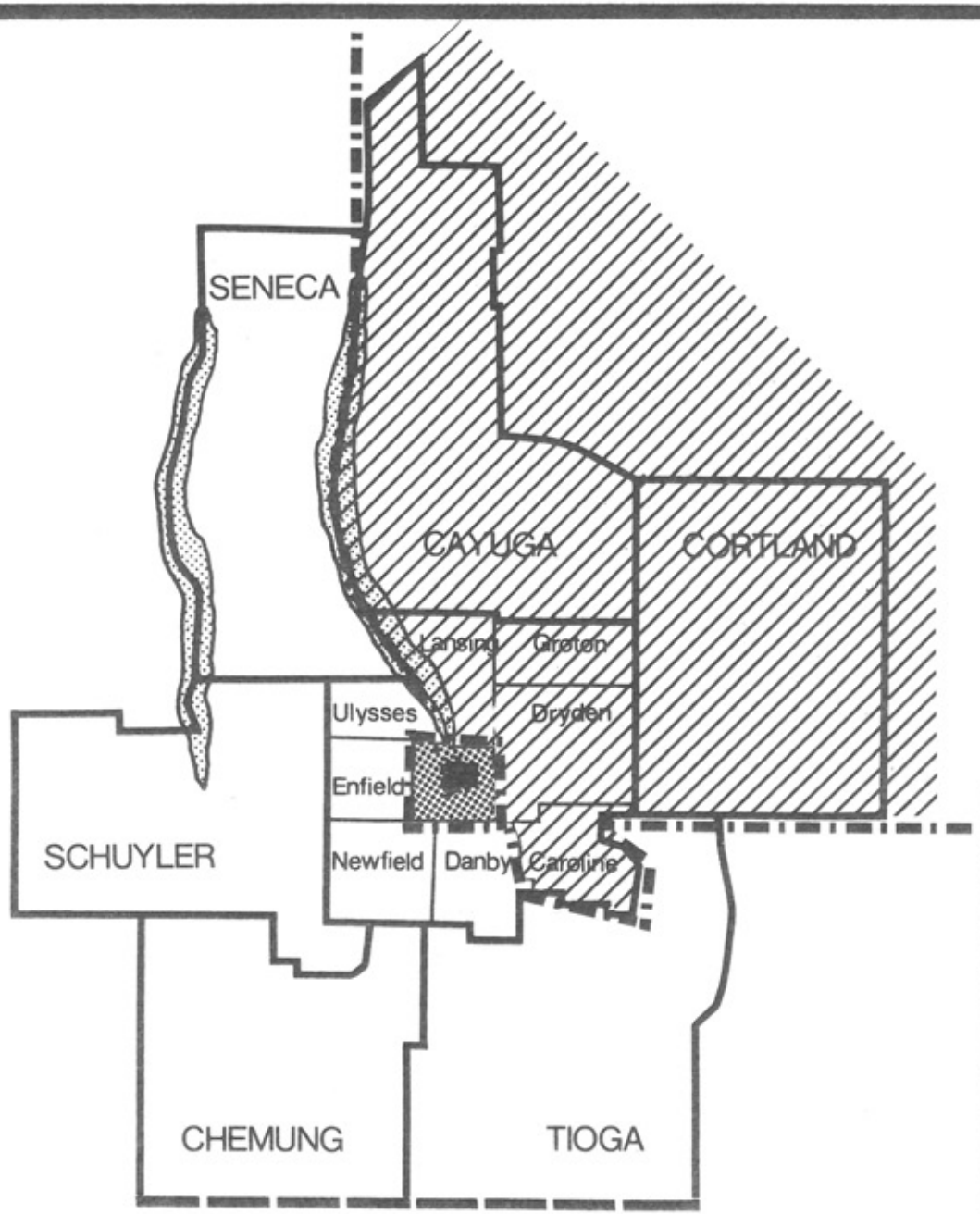
A further analysis of utilization rates (Figure 17) shows the comparison of utilization in 1971 of the hospital by the population to the East and North of the line of division created by Lake Cayuga with that of the population West and South of that line. A significantly greater utilization is evidenced to the West and South. It is the conclusion of the Planning Committee that the true service area of the hospital includes the majority of Tompkins County, the Eastern half of Schuyler County, the Southern half of Seneca County, and the Northwestern sector of Tioga County. The reasons for such a configuration would appear

ANALYSIS OF RESIDENCE OF PATIENTS ADMITTED 1970

	1970 Population	1970 Admissions	Admission Per 1000 Population	% Distribution of Admission
Tompkins County				
Lansing	5,972	306	51.24	3.40
Groton	4,881	135	27.67	1.50
Dryden	9,770	444	45.45	4.94
Caroline	2,536	256	100.95	2.84
Ithaca	41,846	5,009	119.70	55.71
Ulysses	4,315	535	123.98	5.95
Enfield Danby	4,169	121	116.83	1.34
Newfield	3,390	439	129.50	4.88
SUB-TOTAL	76,879	7,245	94.24	80.58
Cayuga County	77,439	124	1.60	1.38
Cortland County	45,894	234	.005	2.60
Tioga County	46,513	358	7.70	3.98
Chemung County	101,537	56	.0005	.62
Schuyler County	16,737	213	12.72	2.37
Seneca County	35,083	398	11.34	4.43
Other	-	363	-	4.04
SUB-TOTAL		1,746		19.42
		8,991		100

FIGURE 16

ANALYSIS OF PATIENT SOURCE 1971



WEST PORTION OF SERVICE AREA	25.74%
CITY OF ITHACA	56.55%
EAST PORTION OF SERVICE AREA	17.71%

FIGURE 17

to be as follows:

1. The physical barrier created by Lake Cayuga. The lake cleanly bisects the Northern section of Tompkins County requiring patients from the Northeast who utilize the hospital to travel South, through the city of Ithaca and then North to the hospital. This circuitous route inhibits the use of the hospital, particularly when other institutions may be more accessible.

2. The road patterns and ease of access. Roads through the County are of such location and grades to render other institutions more easily reached. Those residents to the East and North sectors of the County have far better roads with easier grades leading further Northeast than to the South and West. As noted before, to reach the hospital, the steep grade of Route 96 must be traversed, frequently in inclement weather. The route to the hospital alsor requires passing through the traffic in the city of Ithaca, a further derrent.

3. The effect of the location of other health facilities in the region. The location of other area institutions and the definition of their service areas clearly supports the inaccuracy of delineating service areas as coincidental with political sub-divisions. (Figure 19).

   The acute care facilities located in the Syracuse, Triple Cities, Elmira-Corning areas and Sayre, Pennsylvania are utilized by the population in Tompkins and adjacent counties primarily as referral centers for types of care and services not available at Tompkins County Hospital. They are all within 45-75 minutes of the center of Tompkins County by automobile.

   The development of facilities at some of the institutions has had an impact on the utilization of Tompkins County Hospital by its service area population.

   There has been a noticable reduction in utilization by Tioga County residents. A study of patient source at the Robert Packer Hospital shows that they have drawn an increasing volume of residents from Tioga County during the last eight years probably due to their

LOCATION MAP TOWN OF ITHACA

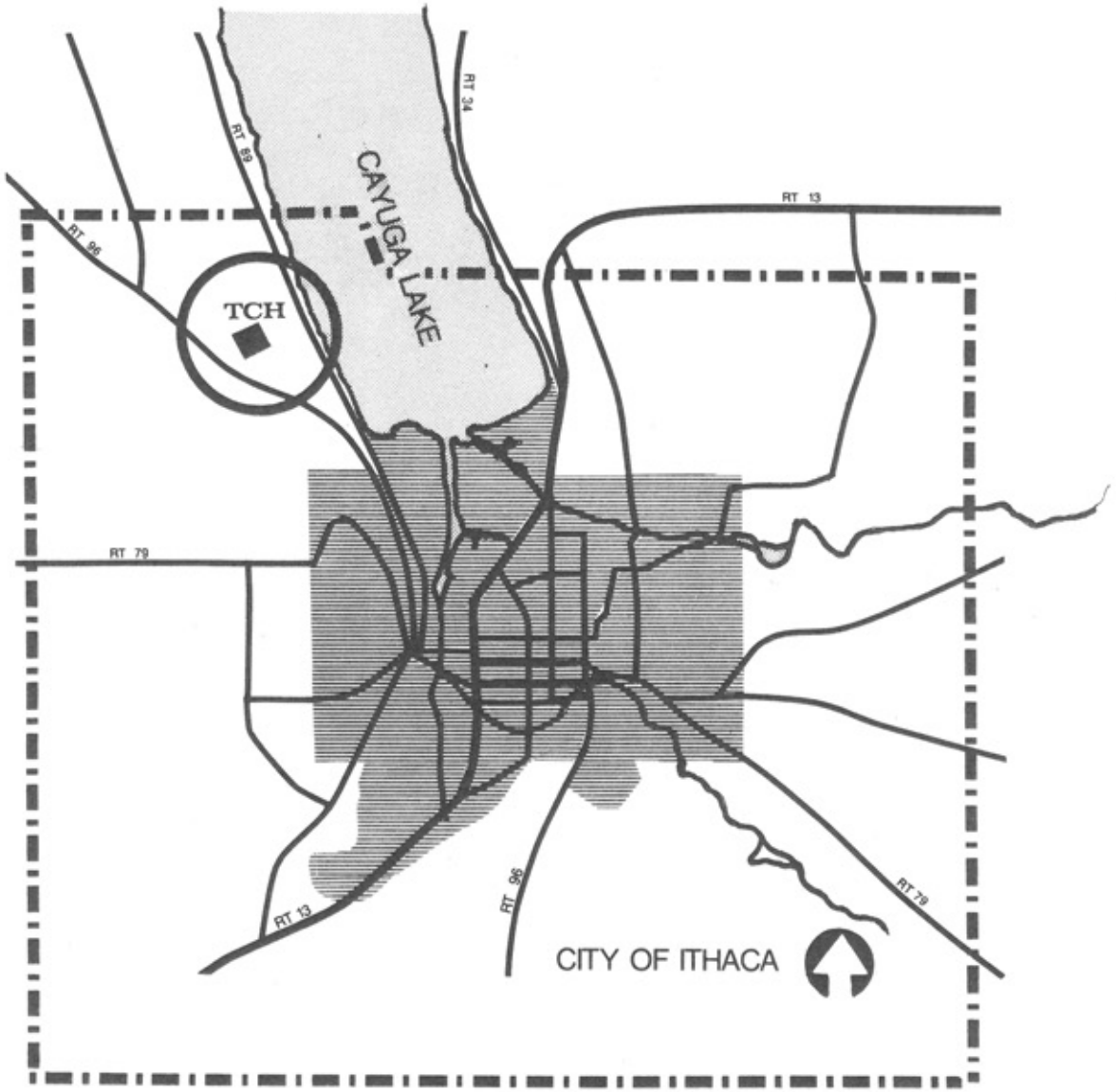


FIGURE 18

LOCATION MAP OF REGION

LEGEND

1 — Cortland Memorial Hospital
2 — Tioga General Hospital
3 — Schuyler Hospital
4 — Memorial Hospital of YatesCounty
5 — Geneva General Hospital
6 — Seneca Falls Hospital

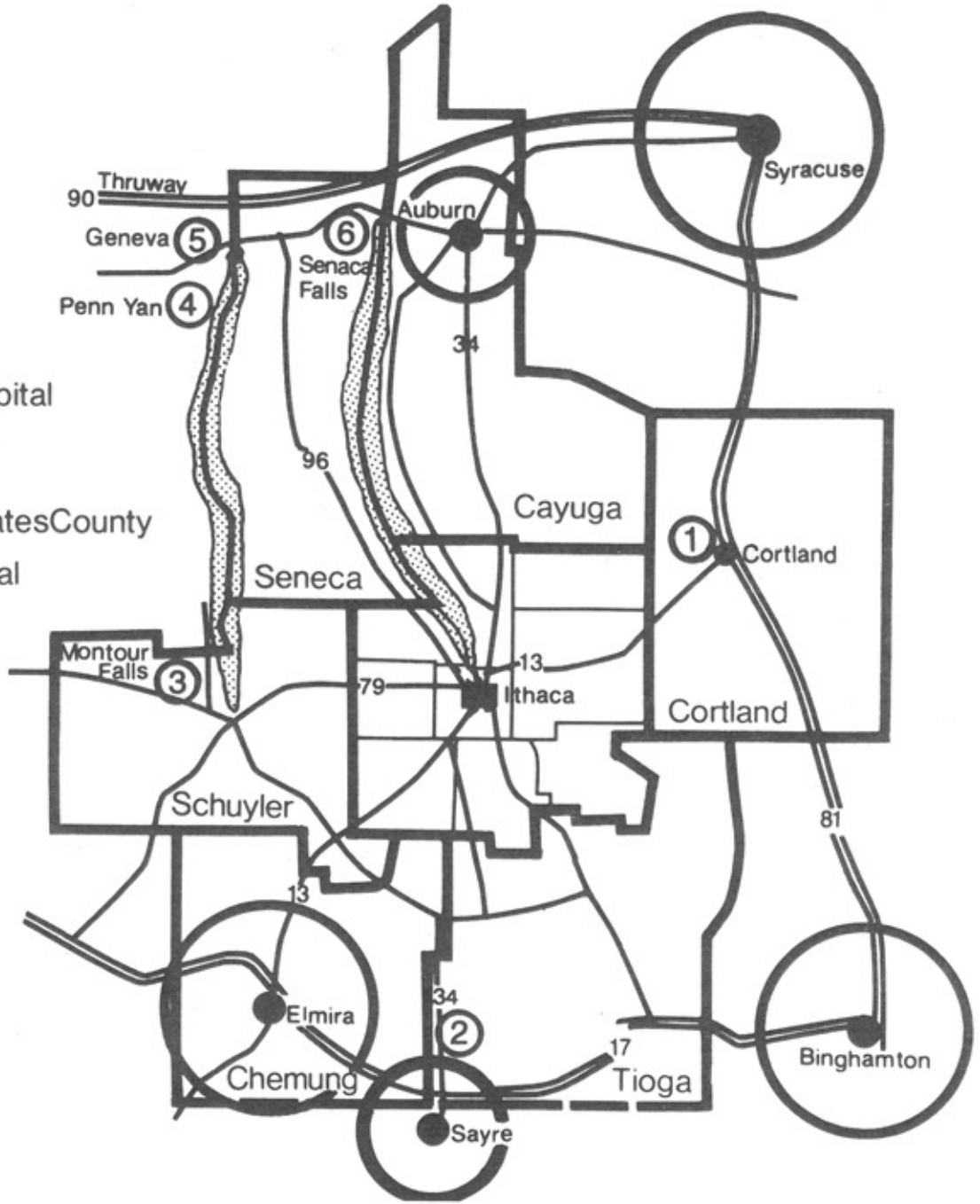


FIGURE 19

expanded medical staff and facilities. The completion of Route 17 as a major arterial has enabled easier access to the Binghamton area institutions for residents of the Southern half of Tioga County with a subsequent increase in utilization in this direction.

There has been a reduction in utilization of Tompkins County Hospital by residents of Seneca County due to expansion of facilities and programs at the three hospitals located near or in the Northern half of that County: Geneva General Hospital, Taylor-Brown Memorial Hospital and Seneca Falls Hospital.

Tompkins County Hospital, however, provides an important share of the inpatient care for residents of Schuyler County. Facilities at Schuyler Hospital are minimal. The physical boundaries created by Seneca Lake and the ridges of hills to the South of that county make Tompkins County Hospital the preferred source of care.

It seems clear that the location of Cortland Memorial Hospital has the greatest impact on the delineation of the Tompkins County Hospital service area of all of the surrounding area institutions. Analysis of their residence of patients admitted shows a high rate of utilization by residents in the towns of Groton and Dryden in Tompkins County. For the residents of these towns Cortland Hospital is more easily and quickly reached.

The Planning Committee feels therefore, that presently and contrary to previous studies, the service area of the Tompkins County Hospital does not coincide with the geographical boundaries of Tompkins County but includes significant areas of adjacent counties.

B REGIONAL CHARACTERISTICS

The characteristics of the geography and population of the region in which Tompkins County Hospital is located, relates to and affects the future of its development. The location of urban centers, the development of arterials and secondary roads and the limitations of geography are those factors which appear to have the greatest effect on the past history of the hospital and will continue to do so in the future.

Primary population growth in the Central New York area has been along the paths of the major arterials; the New York Thruway running East and West in the North, Route 17 running East and West to the South and Route 81 running North and South through Cortland. This has had only a peripheral effect on the Tompkins County Hospital resulting from de-urbanization of major centers to locations along these arterial routes.

Of greater importance are the secondary population shifts and movements relating to geographical factors and road development within the county and adjacent counties.

A review of the population statistics for the last decade and the projections for the next two decades show that in Tompkins County the development of Route 13 has been of primary importance.

The second major factor is the de-urbanization of the City of Ithaca with the major increase in population occurring within the Town of Ithaca.

An analysis of population figures (Figure 20) shows that the growth during the decade from 1960 - 1970 was less than originally projected by area and state planners. Total County population during this period increased by 16%. The towns of Lansing, Groton, and Dryden increased population by 28.5%. The towns of Danby, Caroline, Enfield, Newfield and Ulysses increased by 17.6%. The town of Ithaca experienced a 72% increase in population while the city of Ithaca decreased 8.8%.

Projects for population growth of Tompkins County display the following picture:

1. The growth of total population in the County over the next two decades is projected to be 16% of the 1970 population.

2. The distribution of this growth indicates that the trends of development should be similar to that experienced in the 1960's but at a much slower rate.

POPULATION AND POPULATION PROJECTION

Town/County	Population 1960	Population 1970	% Increase 1960-1970	Projected Population 1980	Projected Population 1990	% Increase 1970-1990
City of Ithaca	28,799	26,226	-9	24,227	21,901	-16
Ithaca	9,072	15,620	72	21,721	25,271	61
	37,871	41,846	9	45,948	47,172	12
Lansing	4,221	5,972	29	7,518	8,423	41
Groton	4,469	4,881	8	4,761	4,548	-6
Dryden	7,353	9,770	24	11,445	12,382	26
	16,043	20,623	28	23,724	25,353	22
Danby	2,059	2,141	3	2,339	2,358	10
Caroline	2,118	2,536	19	2,840	2,948	16
Enfield	1,573	2,028	28	2,339	2,527	24
Ulysses	4,307	4,315	0.18	4,177	3,874	-10
Newfield	2,193	3,390	54	4,511	5,306	56
	12,250	14,410	17	16,206	17,013	18
Tompkins Co.	66,164	76,879	16	85,878	89,538	16
Schuyler Co.	15,044	16,737	11	18,635	21,809	30
Seneca Co.	31,984	35,083	9	37,513	40,937	16

FIGURE 20

3. Generally speaking, the rate of growth projected for the period 1970 - 1990 is approximately half of that experienced during the period 1960 - 1970.

4. The projections indicate that the shift of population to the East half of the County will continue but at a much slower pace than experienced during the 1970's.

5. The pattern of de-urbanization will continue.

Also of importance to the future of Tompkins County Hospital is the projections of population growth for two of the adjacent counties, particularly Schuyler and Seneca County. During the period of 1950 - 1970, minimal growth was experienced in both of these counties, much less than in Tompkins County. The projections of growth, however, indicate that Schuyler is expected to grow significantly with an increase over the period of 1970-1990 projected at 30.3%. The projection of Seneca County approximately 16.7% over the next two decades.

The effect of these growths and shifts in population within the County and adjacent counties were analysed to determine how they will contribute to demands which will be placed upon the hospital. The projection of utilization rates for these areas in the 1980's indicate the following:

1. Utilization rates can be expected to increase proportionately in each of the sectors of the present service area of the hospital.

2. The shifts and increases in population should not affect the delineation of the hospital service area as long as other area hospitals continue to develop facilities at a commensurate pace.

3. The shift of population from the Western sector of the service area to the Eastern sector will not be sufficient to radically effect the delineation of the hospital service area because it will be balanced by population increases in adjacent counties. It is possible that there may be a more even division of utilization but it does not seem possible that there will be greater utilization to the East than to the West.

4. The development of two out-patient centers with accompanying out-reach programs, one in the East and one in the West should result in utilization of the hospital facilities similar to the patterns established and projected for in-patient care.

C PROJECTIONS

The projections for future demands on the Tompkins County Hospital were developed based on the following:

1. The Tompkins County Hospital service area will be that described in the previous section and full services will be provided to the residents population of that area(including hos pital services for the student population).

2. Optimum utilization of facilities will be achieved in the year 1982. This is defined as a facility whose capacity would be exceeded by peak demands twenty five (25%) percent of the time and meet demands seventy five (75%) percent of the time. This assumed to be a reasonable and efficient level of operation.

3. That maximum utilization of the facilities would be achieved by 1990-91, at which time their capacities will be matched or exceeded one hundred (100%) percent of the time.

The projections were made utilizing a propriety computer program called MEDIFACET (Medical Facilities Evaluation Technique). MEDIFACET is a model of the health care system. It has two basic functions. It explains how the system works and it predicts the behavior of the system. MEDIFACET was designed to estimate spatial needs optimize spatial

configurations, predict growth and change, test planning operational strategies and finally to optimize those strategies.

The population characteristics of the service area were analysed and projected. MEDIFACET utilizes base data generated in a second program, CENSAC (Census Access) which directly accesses the 1970 Census of Population and Housing and generates a binary file of census data for any selection of census geography and census tabulation. In this case, the area was the selected service area of the hospital.

Projections of population, characteristics and capacities of the service programs to be expanded and developed were analysed to generate the expected volumns of activity for the selected years; 1982, 1987, and 1992. The variables evaluated and utilizied in the program are shown (Figure 21), each with sub-variables not noted in this report. A total of over 1,500 variables are included in the program.

The output of the program is shown (Figures 23 thru 29) for each catagory of activity indicated:

1. Admissions, percentage of occupancy, length of stay, and utilization.
2. Inpatient and outpatient activity by sub-speciality and department.

MEDIFACET, from this data describing activity, generated a space program for the projected hospital facility. These programs are described (Figures 30 thru 57) for each department of the hospital, including each projected space, its net area and total net and gross areas for the department.

A summary of total space requirements were projected (Figure 58) which describe a total replacement facility for Tompkins County Hospital which will accommodate optimum utilization in 1982.

58 VARIABLES IN DATABASE

Variable	No.	PTS.	Last Write	Type
OCCR*		11	1/22/73	2
PT/AD*		11	1/16/73	2
DET/AD*		11	1/16/73	2
RAD/AD*		11	1/16/73	2
OP/AD*		11	1/16/73	2
TOT-AD*		11	1/16/73	2
PEDA*		11	1/16/73	2
OBSA*		11	1/16/73	2
SURA*		11	1/16/73	2
POP		5	1/15/73	1
OCCR		6	1/22/73	1
OT-INP		4	1/15/73	1
ADMISS*		11	1/16/73	2
MEDA*		11	1/16/73	2
ADMISS		5	1/15/73	1
STAY*		11	1/16/73	2
LSTAY		5	1/15/73	1
SP-TOT		4	1/22/73	1
PEDA		4	1/15/73	1
OBSA		4	1/15/73	1
SURA		4	1/15/73	1
MEDA		4	1/15/73	1
LTCA		4	1/15/73	1
A/1000**		11	1/23/73	2
DET-TOT		4	1/15/73	1
DET-INP		4	1/15/73	1
DET-OPD		4	1/15/73	1
PT-INP		4	1/15/73	1
PT-OPD		4	1/15/73	1

Variable	No.	PTS.	Last Write	Type
PT-TOT		4	1/15/73	1
RAD-TOT		5	1/15/73	1
RAD-INP		5	1/15/73	1
RAD-OPD		5	1/15/73	1
BIRTHS		5	1/15/73	1
OPER		5	1/15/73	1
YEAR		11	1/15/73	1
EMERV		6	1/15/73	1
OT-OPD		4	1/15/73	1
OT-TOT		4	1/15/73	1
LLTCA		4	1/15/73	2
INP		4	1/22/73	1
EMERV*		11	1/15/73	2
OPER*		11	1/15/73	2
BIRTHS*		11	1/15/73	2
RAD-TOT*		11	1/15/73	2
PT-TOT*		11	1/15/73	2
DET-TOT*		11	1/15/73	2
POP*		11	1/15/73	2
STAY		4	1/16/73	1
SP-OPD		4	1/22/73	1
LSTAY*		11	1/15/73	2
SP-INP		4	1/22/73	1
YR		7	1/23/73	1
OT-TOT*		11	1/22/73	2
SP-TOT*		11	1/22/73	2
POP**		7	1/23/73	2
AD/1000*		11	1/23/73	2
ADMISS**		7	1/23/73	2

FIGURE 21

```
    dump

*** DUMP PHASE ***

-var=yr pop** a/1000** admiss**

-go
```

YEAR	POP	A/1000	ADMISS
62.000000	67.531937	100.600082	6773.402344
67.000000	73.581924	107.962585	7958.152344
72.000000	79.631927	115.325089	9142.902344
77.000000	85.681915	122.687576	10327.652344
82.000000	91.731918	130.050079	11512.402344
87.000000	97.781906	137.412582	12697.152344
92.000000	103.831909	144.775085	13881.902344

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 22

```
    dump

*** DUMP PHASE ***

-var= year admiss* ad/1000* occr* stay*

-go
```

YEAR	ADMISS	AD/1000	OCCR	STAY
62.000000	6773.402344	100.600082	72.045822	7.920000
64.000000	7247.300781	103.545090	73.047470	7.840000
66.000000	7721.203125	106.490082	74.049103	7.760000
68.000000	8195.101563	109.435089	75.050751	7.680000
70.000000	8669.000000	112.380081	76.052383	7.600000
72.000000	9142.902344	115.325089	77.054031	7.520000
74.000000	9616.800781	118.270081	78.055664	7.440001
76.000000	10090.703125	121.215088	79.057312	7.360001
78.000000	10564.601563	124.160080	80.058945	7.280000
80.000000	11038.500000	127.105087	81.060593	7.200000
82.000000	11512.402344	130.050079	82.062225	7.120000

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 23

```
 var= year stay* lstay* occr*

-go
```

YEAR	STAY	LSTAY	OCCR
62.000000	7.920000	82.509766	72.045822
64.000000	7.840000	122.219971	73.047470
66.000000	7.760000	161.929932	74.049103
68.000000	7.680000	201.639893	75.050751
70.000000	7.600000	241.349854	76.052383
72.000000	7.520000	281.059814	77.054031
74.000000	7.440001	320.769775	78.055664
76.000000	7.360001	360.479736	79.057312
78.000000	7.280000	400.189697	80.058945
80.000000	7.200000	439.899902	81.060593
82.000000	7.120000	479.609863	82.062225

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 24

```
var= year pop* tot-ad* births*

-go
```

YEAR	POP	TOT AD	BIRTHS
62.000000	67.531830	6957.691406	1454.000244
64.000000	69.951828	7236.894531	1416.100098
66.000000	72.371826	7516.093750	1378.200195
68.000000	74.791824	7795.292969	1340.300293
70.000000	77.211823	8074.492188	1302.400146
72.000000	79.631821	8353.691406	1264.500244
74.000000	82.051819	8632.894531	1226.600342
76.000000	84.471817	8912.093750	1188.700195
78.000000	86.891815	9191.292969	1150.800293
80.000000	89.311813	9470.492188	1112.900146
82.000000	91.731812	9749.691406	1075.000244

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 25

```
 var= year pt-tot* ot-tot* sp-tot*

-go
```

YEAR	PT TOT	OT TOT	SP TOT
62.000000	10719.394531	2554.402344	533.000244
64.000000	12547.796875	2203.800781	476.100098
66.000000	14376.195313	1853.203125	419.200195
68.000000	16204.593750	1502.601563	362.300293
70.000000	18032.996094	1152.003906	305.400146
72.000000	19861.375000	801.402344	248.500244
74.000000	21689.750000	450.804688	191.600342
76.000000	23518.187500	100.203125	134.700195
78.000000	25346.562500	-250.398438	77.800293
80.000000	27174.937500	-600.996094	20.900146
82.000000	29003.375000	-951.597656	-35.999756

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 26

```
*INVALID SPX COMMAND WORD -

SPX:dump

*** DUMP PHASE ***

-var year meda* sura* peda* obsa*

-go
```

YEAR	MEDA	SURA	PEDA	OBSA
62.000000	1776.299805	2704.000000	910.000000	1567.396973
64.000000	1898.099854	2976.500000	893.500000	1468.796875
66.000000	2019.899658	3249.000000	877.000000	1370.197021
68.000000	2141.699463	3521.500000	860.500000	1271.596924
70.000000	2263.496338	3794.000000	844.000000	1172.997070
72.000000	2385.297119	4066.500000	827.500000	1074.396973
74.000000	2507.097900	4339.000000	811.000000	975.797119
76.000000	2628.898682	4611.500000	794.500000	877.197021
78.000000	2750.699463	4884.000000	778.000000	778.597168
80.000000	2872.496338	5156.500000	761.500000	679.997070
82.000000	2994.297119	5429.000000	745.000000	581.397217

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 27

```
*INVALID SPX COMMAND WORD

SPX:dump

*** DUMP PHASE ***

var* year  pt/ad* det/ad* rad/ad* op/ad*

-go
```

YEAR	PT/AD	DET/AD	RAD/AD	OP/AD
62.000000	1.582571	13.734604	1.859091	0.522691
64.000000	1.731375	17.373352	2.202579	0.520662
66.000000	1.861911	20.565445	2.503908	0.518882
68.000000	1.977350	23.388351	2.770382	0.517308
70.000000	2.080170	25.902634	3.007721	0.515907
72.000000	2.172327	28.156265	3.220462	0.514650
74.000000	2.255402	30.187790	3.412230	0.513517
76.000000	2.330678	32.028488	3.585992	0.512491
78.000000	2.399197	33.704056	3.744160	0.511557
80.000000	2.461832	35.235764	3.888747	0.510703
82.000000	2.519315	36.641342	4.021434	0.509919

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 28

```
INPUT LINE INVALID.  RE-ENTER.

-var= year emerv* oper* rad-tot* det-tot*

-go
```

YEAR	EMERV	OPER	RAD TOT	DET TOT
62.000000	3099.375000	3540.396240	12592.375000	93030.000000
64.000000	5309.750000	3773.396240	15962.750000	125910.000000
66.000000	7520.187500	4006.396240	19333.187500	158790.000000
68.000000	9730.562500	4239.394531	22703.562500	191670.000000
70.000000	11940.937500	4472.394531	26073.937500	224550.000000
72.000000	14151.375000	4705.394531	29444.375000	257430.000000
74.000000	16361.750000	4938.394531	32814.750000	290310.000000
76.000000	18572.187500	5171.394531	36185.187500	323190.000000
78.000000	20782.562500	5404.394531	39555.562500	356070.000000
80.000000	22992.937500	5637.394531	42925.937500	388950.000000
82.000000	25203.375000	5870.394531	46296.375000	421830.000000

```
*** DUMP PHASE COMPLETED ***

SPX:
```

FIGURE 29

p 50
MEDIPACET
ALLOCATOR SUBROUTINE

TOMPKINS COUNTY HOSPITAL
1285 TRUMANSBURG ROAD
ITHICA, NEW YORK

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: MEDICAL UNIT
SURGICAL UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	210.00
POPULATION=	91732.00
ADMISSIONS RATE=	98.00
AVERAGE LENGTH OF STAY=	7.96
OCCUPANCY RATE=	92.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	35.00
PERCENTAGE OF DOUBLE BEDROOMS=	50.00
TOTAL NUMBER OF UNITS=	6.00
TOTAL DOUBLE BEDROOMS=	72.00
TOTAL PRIVATE BEDROOMS=	66.00
PRIVATE BEDROOMS PER UNIT=	11.00
DOUBLE BEDROOMS PER UNIT=	12.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	11.	170.	1870.
002	BEDROOM	DOUBLE	12.	270.	3240.
003	OFFICE	HEAD NURSE	1.	100.	100.
004	CONFERENCE	UNIT	1.	150.	150.
005	LOCKERS	NURSES	1.	150.	150.
006	WORK-STATION	NURSES	1.	175.	175.
007	WORK-STATION	CHARTING	1.	100.	100.
008	WORKROOM	MEDICATION	1.	100.	100.
009	WORK-STATION	COMMUNICATION	1.	75.	75.
010	WORK-STATION	DICTATION	1.	75.	75.
011	WORKROOM	CLEAN UTILITY	1.	150.	150.
012	WORKROOM	CLEAN UTILITY	1.	150.	150.
013	WORKROOM	PANTRY	1.	120.	120.
014	STORAGE	EQUIPMENT	1.	120.	120.

FIGURE 30

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: MEDICAL UNIT
SURGICAL UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
015	STORAGE	STRETCHER	1.	75.	75.
016	BATHROOM	PATIENT	2.	50.	100.
017	STORAGE	LINEN	2.	20.	40.
018	EXAM ROOM	UNIT	1.	150.	150.
019	DAYROOM	UNIT	1.	350.	350.
020	OFFICE	CONSULATION	1.	100.	100.
021	TOILET	PUBLIC	2.	50.	100.
022	WORKROOM	MAT. HANDLING	1.	150.	150.
023	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	5110.
TOTAL NET AREA, SUPPORT=	2700.
TOTAL NET AREA PER UNIT=	7810.
TOTAL GROSS AREA, PER UNIT=	14449.
TOTAL NET AREA, ALL UNITS=	46860.
TOTAL GROSS AREA, ALL UNITS=	86694.
TOTAL ESTIMATED COST=	5895192.

FIGURE 31

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: OBSTETRICAL UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	30.00
POPULATION=	91732.00
ADMISSIONS RATE=	16.30
AVERAGE LENGTH OF STAY=	4.75
OCCUPANCY RATE=	65.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	30.00
PERCENTAGE OF DOUBLE BEDROOMS=	50.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	10.00
TOTAL PRIVATE BEDROOMS=	10.00
PRIVATE BEDROOMS PER UNIT=	10.00
DOUBLE BEDROOMS PER UNIT=	10.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	10.	170.	1700.
002	BEDROOM	DOUBLE	10.	270.	2700.
003	OFFICE	HEAD NURSE	1.	100.	100.
004	CONFERENCE	UNIT	1.	120.	120.
005	LOCKERS	NURSES	1.	120.	120.
006	WORK-STATION	NURSES	1.	150.	150.
007	WORK-STATION	CHARTING	1.	75.	75.
008	WORKROOM	MEDICATION	1.	75.	75.
009	WORK-STATION	COMMUNICATION	1.	60.	60.
010	WORK-STATION	DICTATION	1.	60.	60.
011	WORKROOM	CLEAN UTILITY	1.	120.	120.
012	WORKROOM	CLEAN UTILITY	1.	120.	120.
013	WORKROOM	PANTRY	1.	100.	100.
014	STORAGE	EQUIPMENT	1.	100.	100.
015	STORAGE	STRETCHER	1.	50.	50.
016	BATHROOM	PATIENT	2.	50.	100.
017	STORAGE	LINEN	2.	20.	40.
018	EXAM ROOM	UNIT	1.	120.	120.
019	DAYROOM	UNIT	1.	300.	300.
020	OFFICE	CONSULATION	1.	100.	100.

FIGURE 32

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: OBSTETRICAL UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
021	TOILET	PUBLIC	2.	50.	100.
022	WORKROOM	MAT. HANDLING	1.	150.	150.
023	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	4400.
TOTAL NET AREA, SUPPORT=	2210.
TOTAL NET AREA PER UNIT=	6610.
TOTAL GROSS AREA, PER UNIT=	12229.
TOTAL NET AREA, ALL UNITS=	6610.
TOTAL GROSS AREA, ALL UNITS=	12229.
TOTAL ESTIMATED COST=	831538.

FIGURE 33

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: PEDIATRICAL UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	20.00
POPULATION=	91732.00
ADMISSIONS RATE=	11.70
AVERAGE LENGTH OF STAY=	5.00
OCCUPANCY RATE=	75.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	20.00
PERCENTAGE OF DOUBLE BEDROOMS=	50.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	5.00
TOTAL PRIVATE BEDROOMS=	6.00
TOTAL CRIBS=	4.00
PRIVATE BEDROOMS PER UNIT=	6.00
DOUBLE BEDROOMS PER UNIT=	5.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	6.	170.	1020.
002	BEDROOM	DOUBLE	5.	270.	1350.
003	NURSERY	CRIB	4.	40.	160.
004	OFFICE	HEAD NURSE	1.	100.	100.
005	CONFERENCE	UNIT	1.	120.	120.
006	LOCKERS	NURSES	1.	100.	100.
007	WORK-STATION	NURSES	1.	120.	120.
008	WORK-STATION	CHARTING	1.	60.	60.
009	WORKROOM	MEDICATION	1.	75.	75.
010	WORK-STATION	COMMUNICATION	1.	60.	60.
011	WORK-STATION	DICTATION	1.	60.	60.
012	WORKROOM	CLEAN UTILITY	1.	120.	120.
013	WORKROOM	CLEAN UTILITY	1.	120.	120.
014	WORKROOM	PANTRY	1.	75.	75.
015	STORAGE	EQUIPMENT	1.	100.	100.
016	STORAGE	STRETCHER	1.	50.	50.
017	BATHROOM	PATIENT	2.	50.	100.
018	STORAGE	LINEN	2.	20.	40.

FIGURE 34

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: PEDIATRICAL UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
019	EXAM ROOM	UNIT	1.	120.	120.
020	DAYROOM	UNIT	1.	300.	300.
021	PLAYROOM	UNIT	1.	300.	300.
022	OFFICE	CONSULATION	1.	100.	100.
023	TOILET	PUBLIC	2.	50.	100.
024	WORKROOM	MAT. HANDLING	1.	150.	150.
025	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	2530.
TOTAL NET AREA, SUPPORT=	2420.
TOTAL NET AREA PER UNIT=	4950.
TOTAL GROSS AREA, PER UNIT=	9158.
TOTAL NET AREA, ALL UNITS=	4950.
TOTAL GROSS AREA, ALL UNITS=	9158.
TOTAL ESTIMATED COST=	622710.

FIGURE 35

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: INTENSIVE CARE UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	10.00
POPULATION=	91732.00
ADMISSIONS RATE=	7.00
AVERAGE LENGTH OF STAY=	5.00
OCCUPANCY RATE=	85.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	10.00
PERCENTAGE OF DOUBLE BEDROOMS=	0.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	0.00
TOTAL PRIVATE BEDROOMS=	10.00
PRIVATE BEDROOMS PER UNIT=	10.00
DOUBLE BEDROOMS PER UNIT=	0.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	8.	170.	1360.
002	BEDROOM	ISOLATION	2.	270.	540.
003	OFFICE	HEAD NURSE	1.	100.	100.
004	CONFERENCE	UNIT	1.	100.	100.
005	LOCKERS	NURSES	1.	100.	100.
006	WORK-STATION	NURSES	1.	120.	120.
007	WORK-STATION	CHARTING	1.	60.	60.
008	WORKROOM	MEDICATION	1.	75.	75.
009	WORK-STATION	COMMUNICATION	1.	60.	60.
010	WORK-STATION	DICTATION	1.	60.	60.
011	WORKROOM	CLEAN UTILITY	1.	100.	100.
012	WORKROOM	CLEAN UTILITY	1.	100.	100.
013	WORKROOM	PANTRY	1.	75.	75.
014	STORAGE	EQUIPMENT	1.	100.	100.
015	STORAGE	STRETCHER	1.	50.	50.
016	STORAGE	LINEN	1.	20.	20.

FIGURE 36

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: INTENSIVE CARE UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
017	EXAM ROOM	UNIT	1.	120.	120.
018	WAITING	UNIT	1.	200.	200.
019	OFFICE	CONSULATION	1.	100.	100.
020	TOILET	PUBLIC	2.	50.	100.
021	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	1900.
TOTAL NET AREA, SUPPORT=	1865.
TOTAL NET AREA PER UNIT=	3765.
TOTAL GROSS AREA, PER UNIT=	6960.
TOTAL NET AREA, ALL UNITS=	3765.
TOTAL GROSS AREA, ALL UNITS=	6960.
TOTAL ESTIMATED COST=	514344.

FIGURE 37

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: CORONARY CARE UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	8.00
POPULATION=	91732.00
ADMISSIONS RATE=	4.00
AVERAGE LENGTH OF STAY=	7.00
OCCUPANCY RATE=	85.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	8.00
PERCENTAGE OF DOUBLE BEDROOMS=	0.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	0.00
TOTAL PRIVATE BEDROOMS=	8.00
PRIVATE BEDROOMS PER UNIT=	8.00
DOUBLE BEDROOMS PER UNIT=	0.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	8.	170.	1360.
002	OFFICE	HEAD NURSE	1.	100.	100.
003	CONFERENCE	UNIT	1.	100.	100.
004	LOCKERS	NURSES	1.	100.	100.
005	WORK-STATION	NURSES	1.	120.	120.
006	WORK-STATION	CHARTING	1.	60.	60.
007	WORKROOM	MEDICATION	1.	75.	75.
008	WORK-STATION	COMMUNICATION	1.	60.	60.
009	WORK-STATION	DICTATION	1.	60.	60.
010	WORKROOM	CLEAN UTILITY	1.	100.	100.
011	WORKROOM	CLEAN UTILITY	1.	100.	100.
012	WORKROOM	PANTRY	1.	75.	75.
013	STORAGE	EQUIPMENT	1.	100.	100.
014	STORAGE	STRETCHER	1.	50.	50.
015	STORAGE	LINEN	1.	20.	20.

FIGURE 38

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: INTENSIVE CARE UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
016	EXAM ROOM	UNIT	1.	120.	120.
017	WAITING	UNIT	1.	200.	200.
018	OFFICE	CONSULATION	1.	100.	100.
019	TOILET	PUBLIC	2.	50.	100.
020	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	1360.
TOTAL NET AREA, SUPPORT=	1865.
TOTAL NET AREA PER UNIT=	3225.
TOTAL GROSS AREA, PER UNIT=	5970.
TOTAL NET AREA, ALL UNITS=	3225.
TOTAL GROSS AREA, ALL UNITS=	5970.
TOTAL ESTIMATED COST=	441183.

FIGURE 39

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: EXTENDED CARE UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	30.00
POPULATION=	91732.00
ADMISSIONS RATE=	0.52
AVERAGE LENGTH OF STAY=	250.00
OCCUPANCY RATE=	95.00
GROSS TO NET FACTOR=	1.85
NURSING UNIT SIZE=	30.00
PERCENTAGE OF DOUBLE BEDROOMS=	50.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	10.00
TOTAL PRIVATE BEDROOMS=	10.00
PRIVATE BEDROOMS PER UNIT=	10.00
DOUBLE BEDROOMS PER UNIT=	10.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	10.	170.	1700.
002	BEDROOM	DOUBLE	10.	270.	2700.
003	OFFICE	HEAD NURSE	1.	100.	100.
004	CONFERENCE	UNIT	1.	250.	250.
005	LOCKERS	NURSES	1.	120.	120.
006	WORK-STATION	NURSES	1.	150.	150.
007	WORK-STATION	CHARTING	1.	75.	75.
008	WORKROOM	MEDICATION	1.	75.	75.
009	WORK-STATION	COMMUNICATION	1.	60.	60.
010	WORK-STATION	DICTATION	1.	60.	60.
011	WORKROOM	CLEAN UTILITY	1.	120.	120.
012	WORKROOM	CLEAN UTILITY	1.	120.	120.
013	WORKROOM	PANTRY	1.	100.	100.
014	STORAGE	EQUIPMENT	1.	100.	100.
015	STORAGE	STRETCHER	1.	50.	50.
016	BATHROOM	PATIENT	2.	50.	100.
017	STORAGE	LINEN	2.	20.	40.
018	EXAM ROOM	UNIT	1.	120.	120.
019	DAYROOM	UNIT	1.	300.	300.
020	SOLARIUM	MULTIPURPOSE	1.	1000.	1000.
021	OFFICE	CONSULATION	1.	100.	100.

FIGURE 40

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: EXTENDED CARE UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
022	TOILET	PUBLIC	2.	50.	100.
023	WORKROOM	MAT. HANDLING	1.	150.	150.
024	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	4400.
TOTAL NET AREA, SUPPORT=	3340.
TOTAL NET AREA PER UNIT=	7740.
TOTAL GROSS AREA, PER UNIT=	14320.
TOTAL NET AREA, ALL UNITS=	7740.
TOTAL GROSS AREA, ALL UNITS=	14320.
TOTAL ESTIMATED COST=	973760.

FIGURE 41

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: PSYCHIATRIC CARE UNIT

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	15.00
POPULATION=	91732.00
ADMISSIONS RATE=	2.50
AVERAGE LENGTH OF STAY=	20.00
OCCUPANCY RATE=	95.00
GROSS TO NET FACTOR=	2.00
NURSING UNIT SIZE=	15.00
PERCENTAGE OF DOUBLE BEDROOMS=	50.00
TOTAL NUMBER OF UNITS=	1.00
TOTAL DOUBLE BEDROOMS=	5.00
TOTAL PRIVATE BEDROOMS=	5.00
PRIVATE BEDROOMS PER UNIT=	5.00
DOUBLE BEDROOMS PER UNIT=	5.00
PERCENT NEED FILLED=	100.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	BEDROOM	PRIVATE	4.	170.	680.
002	BEDROOM	DOUBLE	5.	270.	1350.
003	BEDROOM	DETENTION	1.	170.	170.
004	OFFICE	HEAD NURSE	1.	100.	100.
005	CONFERENCE	UNIT	1.	250.	250.
006	LOCKERS	NURSES	1.	100.	100.
007	WORK-STATION	NURSES	1.	100.	100.
008	WORK-STATION	CHARTING	1.	60.	60.
009	WORKROOM	MEDICATION	1.	60.	60.
010	WORK-STATION	COMMUNICATION	1.	60.	60.
011	WORK-STATION	DICTATION	1.	60.	60.
012	WORKROOM	CLEAN UTILITY	1.	100.	100.
013	WORKROOM	CLEAN UTILITY	1.	100.	100.
014	WORKROOM	PANTRY	1.	100.	100.
015	STORAGE	EQUIPMENT	1.	100.	100.
016	STORAGE	STRETCHER	1.	50.	50.
017	BATHROOM	PATIENT	1.	50.	50.
018	STORAGE	LINEN	1.	20.	20.
019	EXAM ROOM	UNIT	1.	120.	120.

FIGURE 42

****

FUNCTIONAL GROUP: INPATIENT SERVICES
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: PSYCHIATRIC CARE UNIT

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
020	DAYROOM	UNIT	1.	500.	500.
021	THERAPY	MULTIPURPOSE	1.	500.	500.
022	DINING	UNIT	1.	250.	250.
023	LAUNDRY	PATIENT	1.	120.	120.
024	OFFICE	CONSULATION	2.	100.	200.
025	TOILET	PUBLIC	2.	50.	100.
025	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA, UNIT BEDS=	2030.
TOTAL NET AREA, SUPPORT=	3320.
TOTAL NET AREA PER UNIT=	5350.
TOTAL GROSS AREA, PER UNIT=	11100.
TOTAL NET AREA, ALL UNITS=	5350.
TOTAL GROSS AREA, ALL UNITS=	11100.
TOTAL ESTIMATED COST=	754800.

FIGURE 43

****

FUNCTIONAL GROUP: INPATIENT SERVICE
DEPARTMENT: NURSING
DEPARTMENTAL UNIT: NURSERY

****

STATISTICAL SUMMARY:	NO.
TOTAL BASSINETS=	30.00
TOTAL PREMATURE BASSINETS=	3.00
TOTAL ISOLATION BASSINETS=	3.00
TOTAL ESTIMATED BIRTHS=	1450.00
ESTIMATED PREMATURE BIRTHS=	101.00
ESTIMATED ISOLATION BIRTHS=	95.00

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	NURSERY	TERM	3.	300.	900.
I 002	WORK ROOM	TERM	3.	120.	360.
003	NURSERY	PREMATURE	1.	120.	120.
004	WORK ROOM	PREMATURE	1.	100.	100.
005	NURSERY	ISOLATION	1.	120.	120.
006	WORK ROOM	ISOLATION	1.	100.	100.
007	WORK ROOM	FORMULA	1.	100.	100.
008	EXAM ROOM	TERM	3.	60.	180.
009	EXAM ROOM	PREMATURE	1.	60.	60.
010	EXAM ROOM	ISOLATION	1.	60.	60.
011	CONFERENCE	UNIT	1.	120.	120.
012	GOWNING	UNIT	1.	100.	100.
013	STORAGE	EQUIPMENT	1.	100.	100.
014	CLOSET	JANITORS	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA=	2110.
TOTAL GROSS AREA=	4010.
TOTAL ESTIMATED COST=	272680.

FIGURE 44

****

FUNCTIONAL GROUP: OUTPATIENT SERVICES
DEPARTMENT: OUTPATIENT
DEPARTMENTAL UNIT: FAMILY CARE

****

STATISTICAL SUMMARY: NO.

TOTAL BEDS= 323.00
ESTIMATED VISITS PER YEAR= 16279.00
ESTIMATED VISITS PER DAY= 65.00
GROSS TO NET FACTOR= 1.85

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	EXAM ROOM	CLINIC	8.	120.	960.
002	OFFICE	CONSULTATION	4.	120.	480.
003	TREATMENT	CLINIC	1.	200.	200.
004	WORK ROOM	CLEAN UTILITY	1.	100.	100.
005	WORK ROOM	SOILED UTILITY	1.	100.	100.
006	STORAGE	EQUIPMENT	1.	100.	100.
007	WORK-STATION	RECEPTION	1.	100.	100.
008	WAITING	PATIENT	1.	250.	250.
009	OFFICE	BUSINESS	1.	250.	250.
010	OFFICE	INTERVIEW	1.	120.	120.
021	OFFICE	SCREENING	1.	120.	240.
012	OFFICE	NURSE	1.	100.	100.
013	OFFICE	SOCIAL WORKER	1.	100.	100.
014	LABORATORY	CLINIC	1.	150.	150.
015	WAITING	CHILDREN	1.	150.	150.
016	TOILET	PUBLIC	2.	50.	100.
017	CLOSET	JANITOR	1.	50.	50.
018	CONFERENCE	CLINIC	1.	150.	150.

PROGRAM SUMMARY:

TOTAL NET AREA= 3700.
TOTAL GROSS AREA= 6850.
TOTAL ESTIMATED COST= 502105.

FIGURE 45

****

FUNCTIONAL GROUP: OUTPATIENT SERVICES
DEPARTMENT: EMERGENCY

****

STATISTICAL SUMMARY:	NO.
ESTIMATED VISITS PER YEAR=	25203.00
ESTIMATED VISITS PER DAY=	69.00
DESIGN VISITS PER DAY=	75.00
ESTIMATED TRAUMA VISITS=	2520.00
ESTIMATED EMERGENT =	7561.00
ESTIMATED NON-EMERGENT=	15122.00
GROSS TO NET FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	TREATMENT	MAJOR TRAUMA	1.	400.	400.
002	TREATMENT	EMERGENT	2.	200.	400.
003	EXAM ROOM	NON-EMERGENT	6.	120.	720.
004	TREATMENT	FRACTURE	1.	200.	200.
005	WORK ROOM	PLASTER	1.	75.	75.
006	STORAGE	ORTHOPEDIC	1.	75.	75.
007	WORK ROOM	CLEAN UTILITY	1.	100.	100.
008	WORK ROOM	SOILED UTILITY	1.	100.	100.
009	PATIENT	OBSERVATION	2.	350.	700.
010	WORK-STATION	NURSES	1.	100.	100.
011	WORK ROOM	MEDICATION	1.	60.	60.
012	WORK ROOM	PANTRY	1.	60.	60.
013	WORK-STATION	RECEPTION	1.	100.	100.
014	WORK-STATION	SCREENING	2.	20.	40.
015	WAITING	TRAUMA	1.	120.	120.
016	WAITING	GENERAL	1.	350.	350.
017	TOILET	PUBLIC	2.	75.	150.
018	OFFICE	PRESS & POLICE	1.	100.	100.
019	OFFICE	DOCTOR	1.	120.	120.
020	OFFICE	NURSE	1.	100.	100.
021	OFFICE	SECRETARY	1.	100.	100.
022	OFFICE	CONSULTATION	1.	120.	120.
023	STORAGE	EQUIPMENT	1.	120.	120.
024	CLOSET	JANITOR	1.	50.	50.
025	X-RAY	EMERGENCY	1.	250.	250.
026	STORAGE	STRETCHER	1.	75.	75.
027	WORK ROOM	MAT. HANDLING	1.	100.	100.

PROGRAM SUMMARY:	
TOTAL NET AREA=	4890.
TOTAL GROSS AREA=	9290.
TOTAL ESTIMATED COST=	708827.

FIGURE 46

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: RADIOLOGY
DEPARTMENTAL UNIT: CHEST AND EXTREMITIES
GASTRO-INTESTINAL
GENITO-UROLOGICAL
SPECIAL PROCEDURES

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	323.00
TOTAL OUTPATIENTS=	16270.00
TOTAL INPATIENTS=	11928.00
TOTAL PROCEDURES PER YEAR=	46296.00
TOTAL INPAT. PTOCEDURES=	17049.00
TOTAL OPD PROCEDURES=	29247.00
PROCEDURES PER ADMISSION=	1.42
PROCEDURES PER OPD VISIT=	1.79
TOTAL DIAGNOSTIC ROOMS=	14.00
PROCEDURES PER ROOM (8HRS)=	12.71
HOURS OPREATION PER WEEK=	40.00
GROSS TO NET FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	DIAGNOSTIC	RADIOGRAPHIC	5.	375.	1375.
002	DIAGNOSTIC	FLUROSCOPIC	4.	300.	1200.
003	DIAGNOSTIC	TOMOGRAPHIC	2.	325.	650.
004	DIAGNOSTIC	POLY-TOMO	1.	325.	325.
005	DIAGNOSTIC	RAPID CHEST	1.	275.	275.
006	WORK-STATION	CONTROL	13.	25.	325.
007	TOILET	PATIENT	6.	25.	150.
008	CUBICLE	DRESSING	12.	15.	180.
009	SHOWER	PATIENT	3.	25.	75.
010	DIAGNOSTIC	SPECIAL PROC	1.	500.	500.
011	WORK-STATION	CONTROL	1.	100.	100.
012	DARK ROOM	AUTOMATIC	3.	50.	150.
013	DARK ROOM	CINE	1.	100.	100.
014	WORK-STATION	MEDIA PREP	3.	50.	50.
015	LABORATORY	ELECTRONIC	1.	400.	400.
016	LOCKERS	MALE PATIENTS	1.	100.	100.
017	TOILET	MALE PATIENTS	1.	50.	50.
018	WAITING	MALE PATIENTS	1.	150.	150.
019	LOCKERS	FEM. PATIENTS	1.	100.	100.

FIGURE 47

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: RADIOLOGY
DEPARTMENTAL UNIT: CHEST AND EXTREMITIES
GASTRO-INTESTINAL
GENITO-UROLOGICAL
SPECIAL PROCEDURES

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
020	TOILET	FEM. PATIENTS	1.	50.	5 .
021	WAITING	FEM. PATIENTS	1.	150.	150.
022	RECEPTION	MAIN	1.	100.	100.
023	WAITING	GENERAL	1.	350.	350.
024	WAITING	STRETCHER	1.	150.	150.
025	TOILET	PUBLIC	2.	75.	75.
026	OFFICE	CHIEF RADIOL.	1.	200.	200.
027	OFFICE	ASST. RADIOL.	1.	150.	150.
028	OFFICE	SECRETARY	1.	120.	120.
029	OFFICE	STAFF	4.	120.	480.
030	OFFICE	CHIEF TECH.	1.	120.	120.
031	CONFERENCE	DEPARTMENTAL	1.	200.	200.
032	FILM FILE	ACTIVE	1.	750.	750.
033	FILM FILE	INACTIVE	1.	1000.	1000.
034	WORK-STATION	RECORD RETR.	1.	150.	150.
035	LIBRARY	DEPARTMENTAL	1.	300.	300.
036	READING	X-RAY	1.	200.	200.
037	STORAGE	FILM	2.	50.	100.
038	STORAGE	MOBILE EQUIP.	1.	75.	75.
039	STORAGE	EQUIPMENT	1.	150.	150.
040	LOCKERS	MALE STAFF	1.	100.	100.
041	TOILET	MALE STAFF	1.	50.	50.
042	SHOWER	MALE STAFF	1.	50.	50.
043	LOUNGE	MALE STAFF	1.	120.	120.
044	LOCKERS	FEMALE STAFF	1.	75.	75.
045	TOILET	FEMALE STAFF	1.	50.	50.
046	SHOWER	FEMALE STAFF	1.	50.	50.
047	LOUNGE	FEMALE STAFF	1.	100.	100.
048	WORK ROOM	CLEAN UTILITY	1.	100.	100.
049	WORK ROOM	SOILED UTILITY	1.	100.	100.
050	WORK ROOM	MAT. HANDLING	1.	150.	150.
051	CLOSET	JANITORS	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA=	12665.
TOTAL GROSS AREA=	23990.
TOTAL ESTIMATED COST=	2473369.

FIGURE 48

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: SURGERY

****

STATISTICAL SUMMARY:	NO.
TOTAL PROCEDURES PER YEAR=	5870.00
PROCEDURES PER DAY=	24.00
DESIGN PROCEDURES=	27.00
PROCEDURES PER ADMISSION	0.50
TOTAL ROOMS=	9.00
PROCEDURES PER ROOM (8HRS)=	3.00
HOURS OF OPERATION PER WEEK=	40.00
GROSS TO NET FACTOR=	1.95

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	OPERATING	MAJOR	7.	400.	2800.
002	OPERATING	SPECIAL PROC.	1.	550.	550.
003	OPERATING	CYSTOSCOPY	1.	350.	350.
004	WORK-STATION	CONTROL	1.	50.	50.
005	TOILET	CYSTOSCOPY	1.	20.	20.
006	WORK-STATION	SCRUB	9.	20.	180.
007	WORK ROOM	SUB-STERILE	5.	100.	500.
008	WORK ROOM	MONITORING	1.	150.	150.
009	DARK ROOM	AUTOMATIC	1.	50.	50.
010	WORK ROOM	STER. SUPPLIES	1.	550.	550.
011	WORK ROOM	SOILED HOLDING	1.	200.	200.
012	STORAGE	EQUIPMENT	2.	150.	300.
013	STORAGE	STRETCHER	1.	150.	150.
014	WORK ROOM	ANESTHESIA	1.	400.	400.
015	HOLDING	PATIENT	1.	500.	500.
016	RECOVERY	PATIENT	12.	120.	1440.
017	RECOVERY	ISOLATION	1.	200.	200.
018	WORK-STATION	NURSE	1.	100.	100.
019	WORK ROOM	CLEAN UTILITY	1.	100.	100.
020	WORK ROOM	SOILED UTILITY	1.	100.	100.
021	OFFICE	SURGICAL SUPV.	1.	20.	120.
022	OFFICE	HEAD NURSE	1.	100.	100.
023	OFFICE	CHARTING	1.	100.	100.
024	LOCKERS	DOCTORS	1.	120.	120.
025	TOILET	DOCTORS	1.	50.	50.
026	TOILET	DOCTORS	1.	50.	50.
027	LOUNGE	DOCTORS	1.	200.	200.

FIGURE 49

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: SURGERY

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
028	LOCKERS	NURSES	1.	120.	120.
029	TOILET	NURSES	1.	50.	50.
030	SHOWER	NURSES	1.	50.	50.
031	LOUNGE	NURSES	1.	150.	150.
032	LOCKERS	MALE STAFF	1.	100.	100.
033	TOILET	MALE STAFF	1.	50.	50.
034	SHOWER	MALE STAFF	1.	50.	50.
035	LOUNGE	MALE STAFF	1.	120.	120.
036	LOCKERS	ANESTH.	1.	100.	100.
037	TOILET	ANESTH.	1.	50.	50.
038	SHOWER	ANESTH.	1.	50.	50.
039	LOUNGE	ANESTH.	1.	120.	120.
040	WORK-STATION	RECEPTION	1.	100.	100.
041	CONFERENCE	DEPARTMENTAL	1.	250.	250.
042	STAFF ROOM	ON CALL	2.	150.	150.
043	WORK ROOM	MAT. HANDLING	1.	150.	150.
044	CLOSET	JANITORS	2.	50.	100.
045	STORAGE	MOBILE X-RAY	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA= 11390.
TOTAL GROSS AREA= 22210.
TOTAL ESTIMATED COST= 2103287.

FIGURE 50

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: LABORATORIES

****

STATISTICAL SUMMARY:

	NO.
TOTAL BEDS=	323.00
DETERMINATIONS PER YEAR=	421830.00
TERMINAL CASES PER YEAR=	430.00
AUTOPSIES PER YEAR=	200.00
GROSS TO NET FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	LABORATORY	BACTERIOLOGY	1.	1000.	1000.
002	LABORATORY	CHEMISTRY	1.	1500.	1500.
003	LABORATORY	CHEMISTRY SPEC	1.	250.	250.
004	LABORATORY	CYTOLOGY	1.	500.	500.
005	LABORATORY	HEMATOLOGY	1.	600.	600.
006	LABORATORY	HISTOLOGY	1.	600.	600.
007	LABORATORY	SEROLOGY	1.	500.	500.
008	LABORATORY	BLOOD BANK	1.	450.	450.
009	WORK ROOM	MEDIA PREP	1.	200.	200.
010	EXAM	EEG	1	100.	100.
011	EXAM	EKG	1.	100.	100.
012	EXAM	BMR	1.	100.	100.
013	WORK ROOM	BLOOD DONOR	1.	250.	250.
014	TOILET	SPECIMEN	2.	20.	40.
015	CUBICLE	BLOOD SPECIMEN	3.	50.	150.
016	WORK-STATION	RECEPTION	1.	100.	100.
017	WAITING	GENERAL	1.	200.	200.
018	OFFICE	DIRECTOR	1.	200.	200.
019	OFFICE	ASSOC. DIR.	1.	150.	150.
020	OFFICE	CLERICAL	1.	200.	200.
021	OFFICE	DATA PROCES.	1.	200.	200.
022	CONFERENCE	DEPARTMENT	1.	150.	150.
023	LIBRARY	DEPARTMENT	1.	200.	200.
024	STORAGE	EQUIPMENT	1.	150.	150.
025	WORK ROOM	STERILIZATION	1.	200.	200.
026	WORK ROOM	GLASS WASHING	1.	150.	150.
027	LABORATORY	AUTOPSY	1.	300.	300.
028	HOLDING	BODY	6.	25.	150.
029	TOILET	AUTOPSY	1.	50.	50.
030	LOCKERS	MALE STAFF	1.	100.	100.
031	TOILET	MALE STAFF	1.	50.	50.

FIGURE 51

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: LABORITORIES

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
032	SHOWER	MALE STAFF	1.	50.	50.
032	LOUNGE	MALE STAFF	1.	120.	120.
033	LOCKERS	FEM. STAFF	1.	75.	75.
034	TOILET	FEM. STAFF	1.	50.	50.
035	SHOWER	FEM. STAFF	1.	50.	50.
036	LOUNGE	FEM. STAFF	1.	100.	100.
037	CLOSET	JANITORS	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA=	9595.
TOTAL GROSS AREA=	18720.
TOTAL ESTIMATED COST=	2330640.

EOF:

FIGURE 52

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: LABOR AND DELIVERY

****

STATISTICAL SUMMARY:	NO.
TOTAL BEDS=	323.00
DELIVERIES PER YEAR=	1495.00
DELIVERIES PER DAY=	4.09
DESIGN DELIVERIES=	5.00
GROSS TO NET FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	OPERATING	DELIVERY	2.	350.	700.
002	WORK-STATION	SCRUB	1.	75.	75.
003	WORK ROOM	SUB-STERILE	1.	100.	100.
004	WORK ROOM	CLEAN SUPPLIES	1.	200.	200.
005	WORK ROOM	SOILED PROCESS	1.	150.	150.
006	BEDROOM	LABOR	5.	170.	850.
007	WORK-STATION	NURSES	1.	100.	100.
008	WORK ROOM	MEDICATION	1.	75.	75.
009	WORK ROOM	ANESTHESIA	1.	75.	75.
010	RECOVERY	DELIVERY	1.	220.	220.
011	STORAGE	EQUIPMENT	1.	100.	100.
012	STAFF	ON CALL	1.	150.	150.
013	OFFICE	SUPERVISOR	1.	100.	100.
014	LOCKERS	DOCTORS	1.	75.	75.
015	TOILET	DOCTORS	1.	20.	20.
016	SHOWER	DOCTORS	1.	20.	20.
017	LOUNGE	DOCTORS	1.	100.	100.
018	LOCKERS	NURSES	1.	75.	75.
019	TOILET	NURSES	1.	20.	20.
020	SHOWER	NURSES	1.	20.	20.
021	LOUNGE	NURSES	1.	100.	100.
022	GOWNING	UNIT	1.	75.	75.
023	WAITING	FATHERS	1.	120.	120.
024	TOILET	FATHERS	1.	20.	20.
025	STORAGE	STRETCHER	1.	50.	50.
026	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA=	3500.
TOTAL GROSS AREA=	6650.
TOTAL ESTIMATED COST=	505400.

FIGURE 53

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: INHALATION THERAPY

****

STATISTICAL SUMMARY:

	NO.
TREATMENTS PER YEAR=	24363.00
INPATIENT TREATMENTS=	18015.00
OUTPATIENT TREATMENTS=	6347.00
NET TO GROSS FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	CUBICLE	THERAPY	6.	50.	300.
002	EXAM	THERAPY	1.	120.	120.
003	WORK ROOM	EQUIPMENT	1.	175.	175.
004	STORAGE	EQUIPMENT	1.	120.	120.
005	WORK-STATION	RECEPTION	1.	75.	75.
006	OFFICE	CHIEF OF SERV.	1.	100.	100.
007	WAITING	GENERAL	1.	100.	100.

PROGRAM SUMMARY:

TOTAL NET AREA=	1000.
TOTAL GROSS AREA=	1900.
TOTAL ESTIMATED COST=	143070.

FIGURE 54

****

FUNCTIONAL GROUP: DIAGNOSTIC AND THERAPEUTIC
DEPARTMENT: PHYSICAL MEDICINE
DEPARTMENTAL UNIT: PHYSICAL THERAPY
OCCUPATIONAL THERAPY
SPEECH THERAPY

****

STATISTICAL SUMMARY:	NO.
PT VISITS PER YEAR=	29003.00
OT VISITS PER YEAR=	1500.00
SP VISITS PER YEAR=	500.00
GROSS TO NET FACTOR=	1.90

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	THERAPY	EXERCISE	1.	1000.	1000.
002	THERAY	MASS. PLINTHS	8.	100.	800.
003	EXAM	THERAPY	1.	120.	120.
004	HYDRO	WHIRLPOOL	6.	75.	450.
005	HYDRO	HUBBARD	1.	250.	250.
006	STORAGE	EQUIPMENT	1.	100.	100.
007	WORK ROOM	CLEAN UTILITY	1.	75	75.
008	WORK ROOM	SOILED UTILITY	1.	75.	75.
009	LOCKERS	MALE PATIENTS	1.	75.	75.
010	TOILET	MALE PATIENTS	1.	20.	20.
011	SHOWER	MALE PATIENTS	1.	20.	20.
012	LOCKERS	FEM. PATIENTS	1.	75.	75.
013	TOILET	FEM. PATIENTS	1.	20.	20.
014	SHOWER	FEM. PATIENTS	1.	20.	20.
015	TREATMENT	DAILY LIVING	1.	300.	300.
016	TREATMENT	OCCUPATIONAL	1.	600.	600.
017	STORAGE	SUPPLIES	1.	100.	100.
018	TREATMENT	CAP. EVAL.	1.	100.	100.
019	EXAM	AUDIOMETRIC	1.	100.	100.
020	TREATMENT	GROUP THERAPY	1.	200.	200.
021	WAITING	GENERAL	1.	150.	150.
022	WORK-STATION	RECEPTION	1.	100.	100.
023	TOILET	PUBLIC	2.	50.	100.
024	OFFICE	CHIEF OF SERV.	1.	120.	120.
025	OFFICE	OCCUP. THERA	1.	100.	100.
026	OFFICE	SPEECH THERA	1.	100.	100.
027	WAITING	SPEECH THERA	1.	75.	75.
028	CONFERENCE	UNIT	1.	200.	200.
029	CLOSET	JANITOR	1.	50.	50.

PROGRAM SUMMARY:

TOTAL NET AREA=	5500.
TOTAL GROSS AREA=	10500.
TOTAL ESTIMATED COST=	778500.

EOF:

FIGURE 55

****

FUNCTIONAL GROUP: MEDICAL SUPPORT
DEPARTMENT: PHARMACY

****

STATISTICAL SUMMARY:

	NO.
TOTAL BEDS=	323.00
TOTAL LINE ITEM PER YEAR=	170544.00
LINE ITEM INPATIENTS=	153490.00
LINE ITEM OUTPATIENTS=	17054.00
GROSS TO NET FACTOR=	1.75

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	WORK ROOM	DISPENSING	1.	200.	200.
002	WORK ROOM	COMPOUNDING	1.	370.	370.
003	WORK ROOM	CLEAN	1.	150.	150.
004	WORK ROOM	MANUFACTURING	1.	300.	300.
005	STORAGE	ACTIVE	1.	200.	200.
006	STORAGE	BULK	1.	475.	475.
007	STORAGE	VOLATILE	1.	100.	100.
008	STORAGE	NARCOTICS	1.	100.	100.
009	OFFICE	CHIEF PHARM	1.	120.	120.
010	OFFICE	SECRETARY	1.	100.	100.
011	LIBRARY	DEPARTMENT	1.	200.	200.

PROGRAM SUMMARY:

TOTAL NET AREA=	2315.
TOTAL GROSS AREA=	4040.
TOTAL ESTIMATED COST=	267852.

FIGURE 56

****

FUNCTIONAL GROUP: SUPPORT SERVICES
DEPARTMENT: DIETARY

****

STATISTICAL SUMMARY: NO.

TOTAL MEALS PER DAY=	1651.00
TOTAL MEALS PER DAY INP.=	969.00
TOTAL MEALS PER DAY EMP.=	547.00
TOTAL MEALS PER DAY VIS.=	70.00
PEAK KITCHEN LOAD=	815.00
PEAK CAFETERIA LOAD=	492.00
CAFETERIA SEATINGS NOON MEAL=	2.50
CAFETERIA SEATS REQUIRED=	196.00
GROSS TO NET FACTOR=	1.55

****

SEQ	ROOM NAME	MODIFIER	NO.	AREA	TOTAL AREA
001	WORK ROOM	CENTRAL COOK	1.	400.	400.
002	WORK ROOM	BAKERY	1.	200.	200.
003	WORK ROOM	MEAT PREP.	1.	200.	200.
004	WORK ROOM	VEGATABLE PREP	1.	325.	325.
005	WORK ROOM	SCULLERY	1.	200.	200.
006	WORK ROOM	RECIEVING	1.	100.	100.
007	STORAGE	BULK	1	1890.	1890.
008	STORAGE	COLD	1.	525.	525.
009	STORAGE	ZERO DEGREE	1.	250.	250.
010	STORAGE	DAY	1.	230.	230.
011	WORK-STATION	TRAY SET-UP	1.	500.	500.
012	WORK ROOM	CART CLEAN	1.	350.	350.
013	WORK ROOM	DISH WASH	1.	350.	350.
014	CLOSET	JANITOR	1.	50.	50.
015	HOLDING	REFUSE	1.	225.	225.
016	WORK ROOM	CAN WASH	1.	100.	100.
017	WORK-STATION	SERVING LINE	1.	550.	550.
018	DINING	CAFETERIA	1.	2950.	2950.
019	OFFICE	DIETITIAN	1.	100.	100.
020	LOCKERS	MALE STAFF	1.	75.	75.
021	TOILET	MALE STAFF	1.	20.	20.
022	SHOWER	MALE STAFF	1.	20.	20.
023	LOCKERS	FEM. STAFF	1.	100.	100.
024	TOILET	FEM. STAFF	1.	20.	20.
025	SHOWER	FEM. STAFF	1.	20.	20.

PROGRAM SUMMARY:

TOTAL NET AREA=	9600.
TOTAL GROSS AREA=	14880.
TOTAL ESTIMATED COST=	2115936.

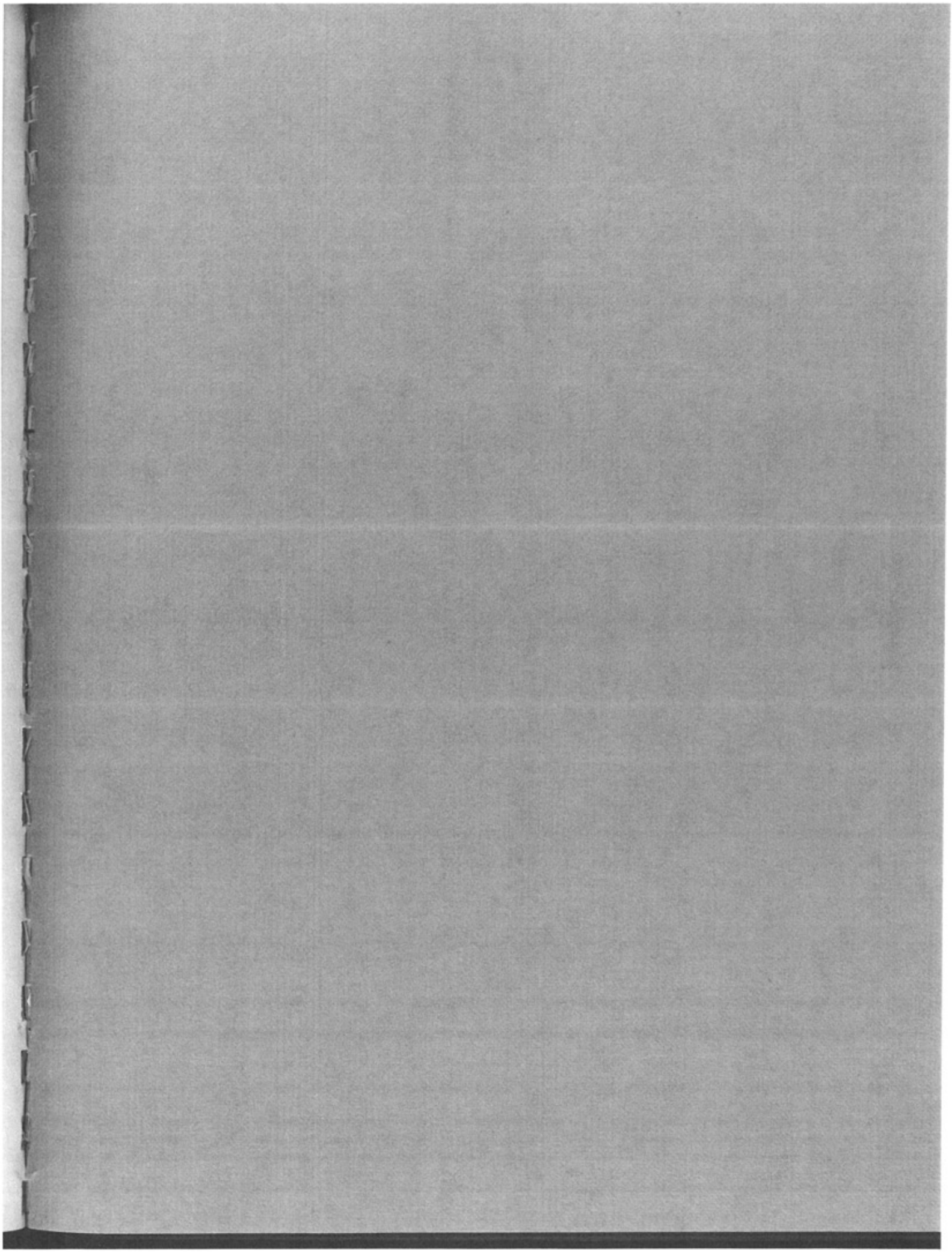
FIGURE 57

DEPARTMENT AREA SUMMARY:

TOMPKINS COUNTY HOSPITAL
1285 TRUMANSBURG ROAD
ITHICA, NEW YORK

DEPARTMENT	GNR	NET AREA	GROSS AREA
NURSING	1.87	80610.	151240.
OUTPATIENT	1.85	3700.	6850.
EMERGENCY	1.90	4890.	9290.
RADIOLOGY	1.95	12665.	23990.
SURGERY	1.90	11390.	22210.
LABORATORIES	1.90	9595.	18720.
LABOR DELIVERY	1.90	3500.	6650.
INHALATION THERAPY	1.90	1000.	1900.
PHYSICAL MEDICINE	1.90	5500.	10580.
PHARMACY	1.75	2315	4040.
CENTRAL STERILE	1.75	3950.	7500.
DIETARY	1.55	9600.	14880.
LAUNDRY	1.60	5600.	8960.
HOUSEKEEPING	1.60	2400.	3840.
EMPLOYEE FACIL.	1.60	2925.	4680.
STORES AND RECEIV	1.80	6700.	11990.
MATERIAL HANDLING	2.00	3500.	7000.
MAINTENANCE	1.75	2100.	3680.
ADMINISTRATION	1.50	5850.	8780.
ADMISSIONS	1.50	1000.	1500.
DISCHARGE	1.50	1500.	2230.
BUSINESS	1.50	2000.	3000.
DATA PROCESSING	1.50	400.	400.
PERSONNEL	1.50	500.	750.
MEDICAL RECORDS	1.75	2400.	4200.
PUBLIC FACILITIES	1.60	2000.	3200.
VOLUNTEERS	1.60	500.	800.
DOCTORS FACILITIES	1.85	500.	920.
LIBRARY	1.90	600.	1140.
TOTALS	1.82	188690.	344920.

FIGURE 58



SECTION VIII LOCATION

In evaluating the location of the hospital consideration was given to the following factors; types of care to be provided; character of population to whom care is to be given; and location of population groups. The three groups of population (urban, suburban and rural) each present different types of needs and problems relative to the delivery of health care. One factor common to all of these groups is ease of access to locations at which care is to be provided.

The hospital proposes to develop a comprehensive, coordinated health care system providing both out-patient and in-patient services. It would be expected that the majority of out-patient services would be provided to a largely ambulatory group with a small sector of that group bein incapacitated to some degree. In-patient services at the hospital, since they encompass emergency room service and diagnostic services, would be provided to both ambulatory and non-ambulatory patients.

As noted previously in the outline of the proposed Rural Health Care Program, attention has been focused on the problem of access to health care services, particularly for the rural areas where neither personal nor public transportation may be available. This obviously is a very difficult problem and relates to the very large, predominantly rural section of the service area. The location of a hospital accomplishes little to solve this problem since the range of potential patient locations is so great that any existing or new location will involve the same degree of difficulty of access. Further planning is vital and must continue and this has been outlined previously. It would seem obvious however that the location most central to all of the rural sections of the hospital service area is desirable.

The "suburban" population is largely dependent upon the automobile for access to the hospital. Within this group there are those who will require assistance in gaining access to any part of the care system. Providing for this presents

the same problem noted for the rural population.

The location of two primary care centers will relieve this situation to some degree in eliminating the necessity of East to West movement and vice versa. The problem, however, will still exist for patients seeking emergency in-patient and out-patient services of the main hospital if it were located at the same site. The present location of the hospital is poorly related to the greatest suburban concentration because of the difficulty of access to the West side of the lake from the city of Ithaca.

The urban population relies on public transportation of some type for access to care. This area is the greatest source of patient volume and will continue to be both for in-patient and out-patient services. Bus transportation had been provided from the city of Ithaca to the hospital site but was discontinued due to an apparent low utilization.

An analysis of use (Figure 59) of this bus service indicates that although it operated at a financial loss and required subsidization, it did transport almost 23,000 persons per month to and from the city to the hospital. The development of a primary care center at the hospital will create a sharp increase in patient movement to and from the site to the city. The need for a transportation system from the city inter-connected to other in-city transportation will be critical wherever it should be located other than in the city itself.

Three potential general locations of the hospital were considered: (Figure 60)

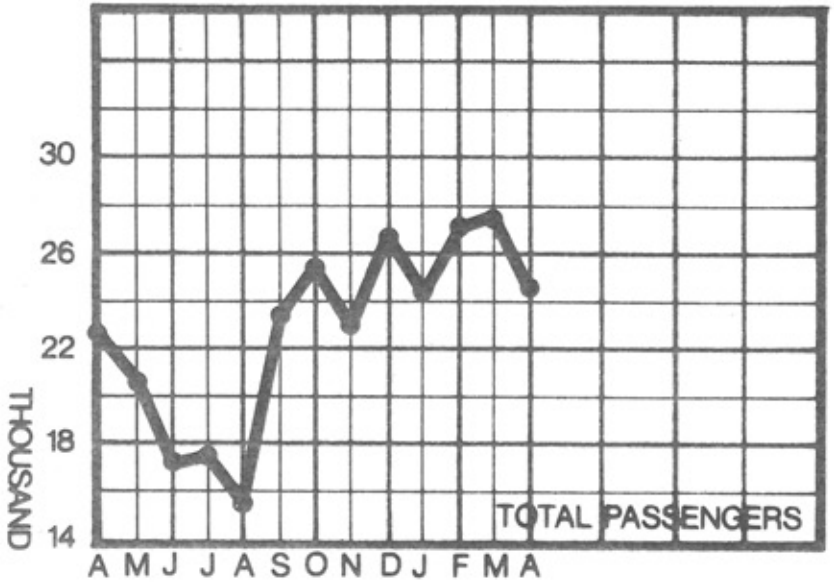
1. Present location (Existing)
2. A new location to the East of Lake Cayuga near Route 13 (East)
3. A new location in the city of Ithaca (City)

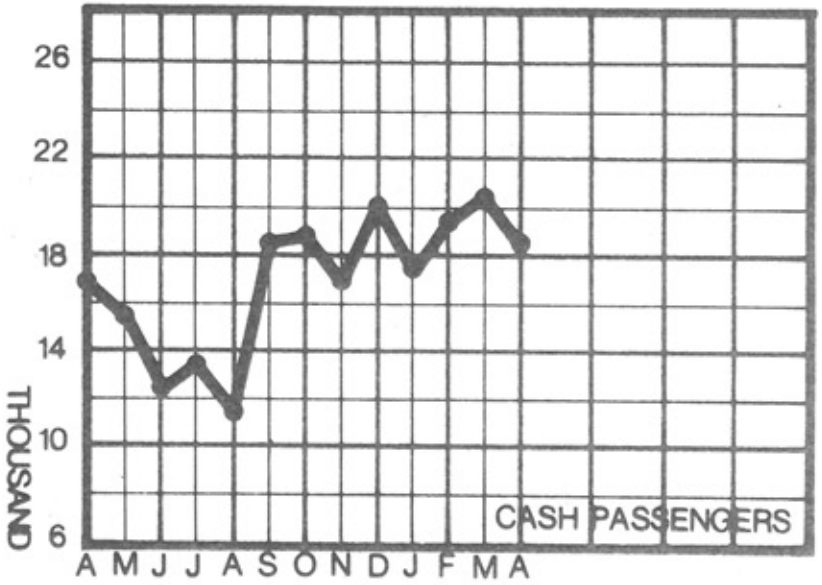
The following is an evaluation of each of these three sites relative to those planning factors which are pertinent:

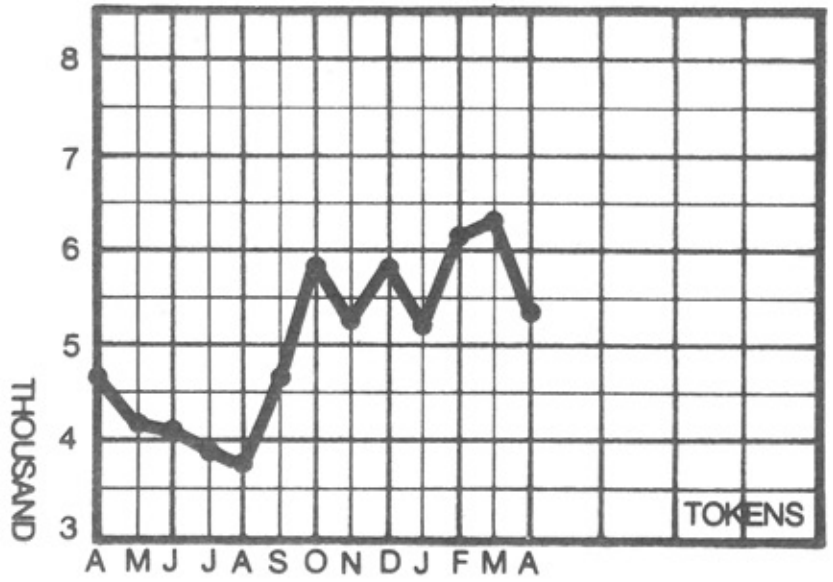
A. RELATIONSHIP TO SERVICE AREA

The delineation of the present service area and the projected service area

CITY TO HOSPITAL BUS UTILIZATION







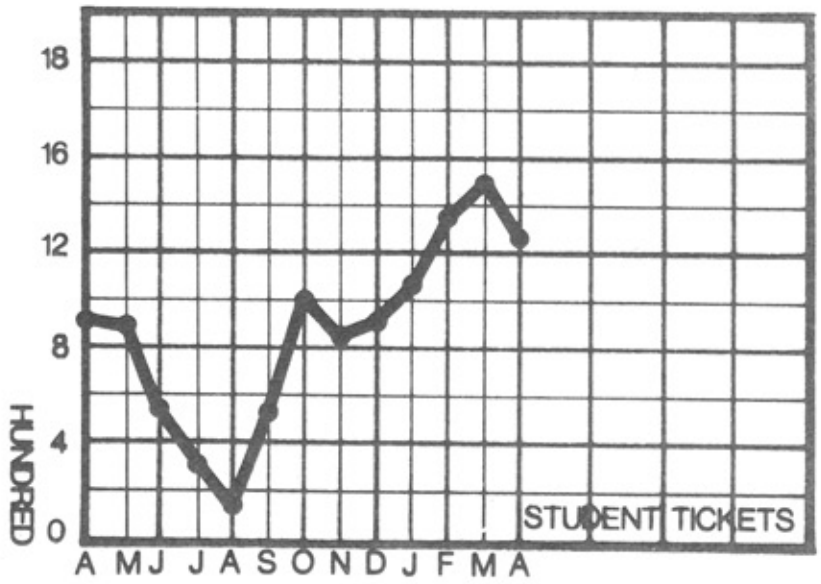


FIGURE 59

TCH DEVELOPMENT PLAN

POTENTIAL SITE LOCATIONS

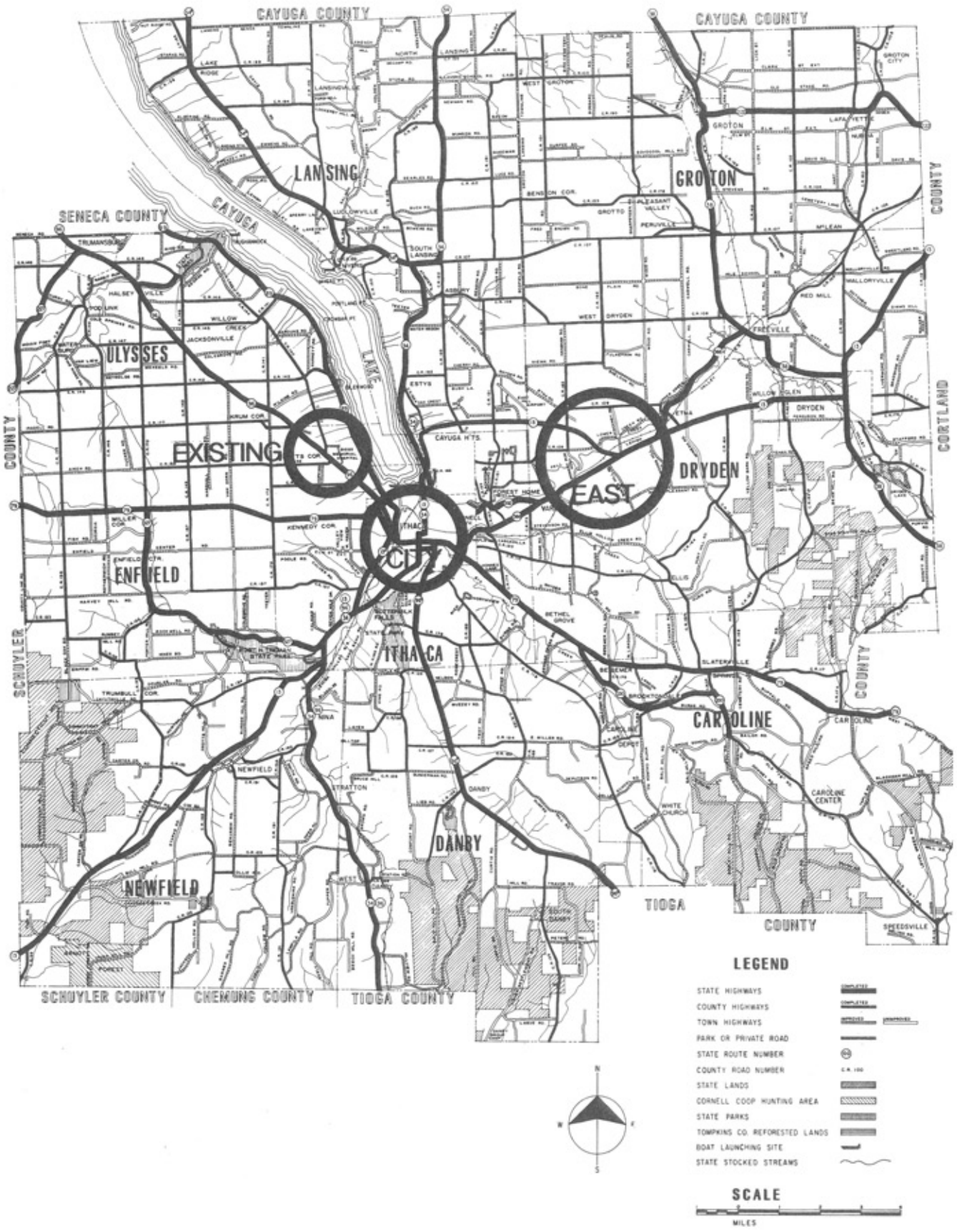


FIGURE 60

indicates that the center of this area lies somewhere in or west of the city of Ithaca. Despite the views of many in the community, because of the relationship to other existing health facilities, the service area for the Tompkins County Hospital is and will remain related to the majority of Tompkins County and those counties immediately adjacent to the West and Northwest. Projections of population trends, although indicative of a shift of population to the East part of the county, still do not validate a major re-identification of the hospital service area further to the East.

The existing location of the hospital is centrally located in the service area. The East location would not be and would transpose the current access problem of patients from the Eastern half of Tompkins County to the hospital to the patients located in the Western half of the County. This group would now, in reverse, have to transit the city of Ithaca and circumnavigate the Southern end of Cayuga Lake to gain access. The long-range planning committee feels that despite the fact that a good share of the service area is outside Tompkins County, it is still the responsibility of the hospital to provide care services, particularly for the rural residents in Seneca and Schuyler County who rely on the hospital at the present time.

An in-city location could conceivably provide as easy access for these patients and on this basis must be ruled as acceptable insofar as its relationship to the service area is considered.

In summary, particularly in relationship to the hospital service area, the existing site and the city site are central to the area, the East site is not central and would impose a hardship on what will be a good share of the population served.

B ACCESS

Each of the sites presents specific problems of access. The existing hospital location has been and will remain a difficult site for access from the Northeast and Southeast sectors of the service area. A long, steep grade on Route 96, particularly during periods of poor weather, represents a real obstacle. The position of Cayuga Lake and the Inlet requires movement down and through the city of Ithaca for residents of the Northeast section. For those to the West of Cayuga Lake and the counties located West and Northwest of Tompkins, access is relatively good.

The East location would improve access for all of those to the Southeast and Northeast sections of the service area. A location near the Route 13 bypass would certainly be the best position for road access anywhere in the county. It should be pointed out however, where this would improve access for half of the service population, it would present a problem of access for those located to the West and Northwest. As pointed out before, it is still expected that this group will represent a slightly higher utilization population than that in the East.

The in-city location for all intents and purposes should be the most easily attained by all of the population groups and certainly represent the easiest location for access for the residents of the city and town of Ithaca which are the highest consumers of hospital services. There are other obvious problems of access for an in-city location related to traffic congestion, travel routes and the multiplication of traffic problems created by a hospital which is a major traffic generator.

A solution has been offered for access to the existing hospital site. The recent publication of the statewide Master Plan for Transportation in New York (pre-hearing draft) issued by the New York State Department

LOCATION MAP TOWN OF ITHACA

PROPOSED LOCATION OF ROUTE 96

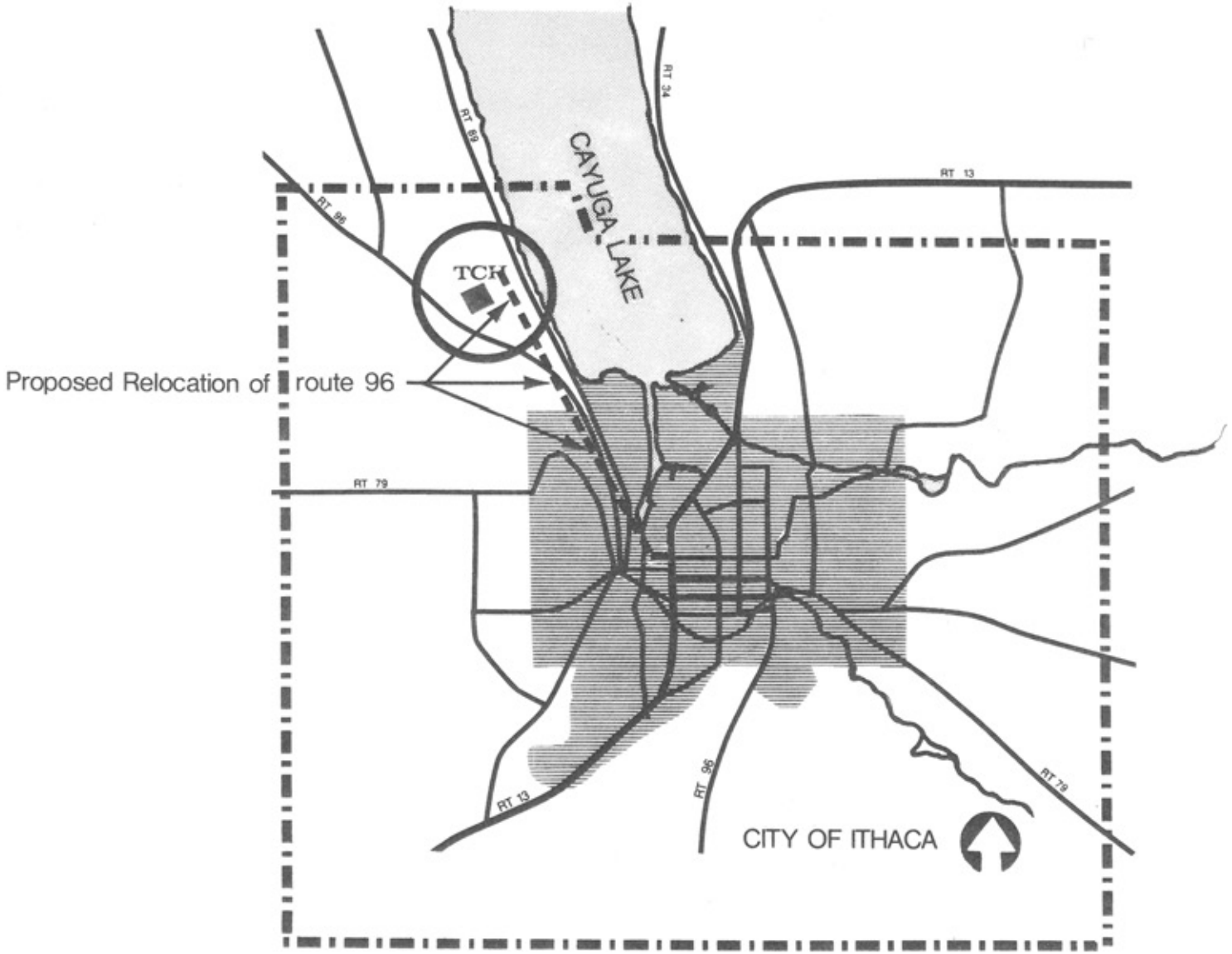


FIGURE 61

of Transportation includes the development of the Route 96 connector to the Route 13 bypass. This road would extend from the present Route 13, in the city of Ithaca, cross over the inlet and proceed on the West side of Cayuga Lake to a location just past the existing hospital site. It is intended to be a four-lane, divided road with a much gentler rate of ascent than the present Route 96. Its access to the hospital would be on the East side of the existing site rather than the West side as is the case with the present Route 96.

Discussions with officials of the Regional Office of the Department of Transportation indicate that in order to insure the quickest possible construction of this spur, local authorities must put pressure upon the Regional Office to make application to the Federal Government prior to July of 1973 for Federal funds for its construction. If this application can be made to meet such a schedule, it is conceivable that the spur could be under construction as early as 1977 but not later than 1981. It is the feeling of the Planning Committee that every effort must be made on the part of local community to promote, aid and abet the construction of this road if the existing hospital site is to be retained.

C AVAILABILITY TO LAND

The existing hospital site encompasses about 184 acres which is more than adequate for any possible use that can be foreseen for a future major health care center.

If a parcel of land is sought for an East location, a minimum of 25 acres would be necessary to allow sufficient expansion room in the future for the development of a health center offering a broad spectrum of care facilities. One must assume at this point that this amount of acreage would be available with accessibility to Route 13 as required. If this were pursued it will be the responsibility of a committee to seek such a site.

A city location would present obvious problems. Most institutions located in urban areas have suffered the agonies of insufficient land. If the community decided to seek a parcel of sufficient acreage within the city limits to provide for expansion in the future and sufficient parking at the present, it is obvious that a fairly large piece of property would be eliminated from the tax rolls of the community. Considering the loss of revenues that the city has experienced because of the trend toward de-urbanization this would represent a severe added blow to the city's economy. If a smaller parcel of land than ideally required was obtained it would be necessary for the hospital to consider the construction of multi-level parking facilities to meet the parking needs. It has been shown in cities of much larger size with more acute traffice and parking problems that parking facilities are very difficult to develop on a self-financing basis. It is a reasonable assumption that such a facility in Ithaca would not be self-financing and would require subsidized operation. Further penalty can be paid in the cost of construction of such a facility and the lack of freedom and planning that a limited urban site would mandate.

D UTILITIES

The existing site offers some real advantages in terms of mechanical services and utilities. On the present site is an existing central heating plant consisting of two high pressure steam boilers. The boilers and their associated equipment are all new and are in excellent condition. Provisions were made in the design of the existing plant to add a future boiler if required. These boilers are large enough to handle a 40% increase in load and still have the 75% standby capacity required by code. With this spare capacity there are no problems in terms of heat generation.

An existing water chilling unit is located on the site which serves sections of the existing hospital. This equipment is new and provisions have been made for future chill units. A duplicate chiller is located in another building on the site which is interconnected so that standby capacity is available. This present capacity can accommodate approximately one

hundred thousand square feet of area. If added facilities were developed, more chill capacity would have to be provided. The basics for a system however, are installed and in excellent condition.

Existing hospital site is presently supplied by two feeders tied to the New York State Electric and Gas Corporation, 4800 volt overhead power line. Primary master metering and transformation take place at the power company pole. Two alternate sources of power for a hospital site are highly desirable and represent an advantage for this particular site. The on-site distribution equipment needs replacement but would be accomplished as part of any building program.

The size and available pressure of the present water main and gas service located on the existing site are adequate for the foreseeable demands of the hospital.

At the present time, the existing site is served by an existing 10" sanitary sewer. From the campus the sewer flows through part of the Town of Ithaca to the City of Ithaca. We have not investigated the sewer loading for the in-city part of the system but for that part investigated, the line's capacity is adequate for present and future development.

A new site located in the East, may or may not be provided with utilities as required for the development of a main hospital campus. Until such a site is elected, it cannot be determined if two alternate sources of electric power or if gas service or water is available. There are some areas where utilities of capacity required are not presently available and would have to be made available and potentially represent an additional cost to the development of that site. It is more than probable that sewer capacity to accommodate the loads generated by a major health campus is not available and would have to be installed to intersect some existing system located to the East of the town of Ithaca. It is obvious, however, that complete new heat and chill water generating plants would

have to be built as part of a new health campus development.

In evaluating a site located in the city of Ithaca, one must assume that the basic utilities required are available in surficient capacity since these services are generally located throughout the city at the present time. The location of a particular site would require further analysis to validate this statement. However, for the present, it appears to be a reasonable assumption. As in the case of the East site, a total new heat and chill power generating plant would have to be built as part of the development of a new facility.

E RELATION TO OTHER AGENCIES

The existing site has the marked advantage of also being the location of the Tompkins Community Departments of Health and Mental Health, both of which have a close working relationship with the Hospital. Within the context of the proposed Tompkins County Rural Health Proposal, coordinated activity of these agencies is vital. Physical proximity will promote a vigorous and active interaction. Potential exists in the re-use of any space in existing buildings which may now or in the future be vacated by the hospital for occupancy by other inter-related health or psycho/social service agencies.

A site located in the East would generally be removed from all other agencies which would have a direct working relationship with the Tompkins County Hospital particularly within terms of a comprehensive health system.

A site located in the city would be closer and certainly more accessible to the other governmental offices and private agencies but would not offer advantages of the existing site in this respect.

F SITE GEOLOGY

Without the benefit of having specific sites to evaluate, one must make the assumption that in an area such as Central New York and particularly

Tompkins County that a wide range of sub-surface conditions can be encountered in almost any location. It cannot even be assumed on the existing hospital site that the construction of a new facility immediately adjacent would encounter the same sub-surface conditions as the original building. Therefore, the only assumption that can be made at this point is that some degree of difficulty with sub-surface conditions will be encountered in almost any site but that it would be a relatively minor factor in an overall construction program.

G COST

If the existing site is utilized for the development of new and expanded hospital facilties, no further expenditure beyond that of the normal construction program of the facilities will be required with the possible exception of either alteration of or adaptation to the existing facilities themselves. Major savings can be effected since heat and chill water generating facilities will not require complete new construction.

If a facility is developed on the site to the East, there is a reasonable assumption that new sanitary sewer systems will have to be installed. New heat and chill water plants will have to be constructed and land will have to be purchased.

If a new facility is developed within the city of Ithaca, slighly less construction costs would be encountered because of existing sanitary sewers would be available. However, it is reasonable to assume that the cost of construction itself will be slighly higher. Of the three sites, the cost of land acquisition would be the greatest and conceivably prohibitive.

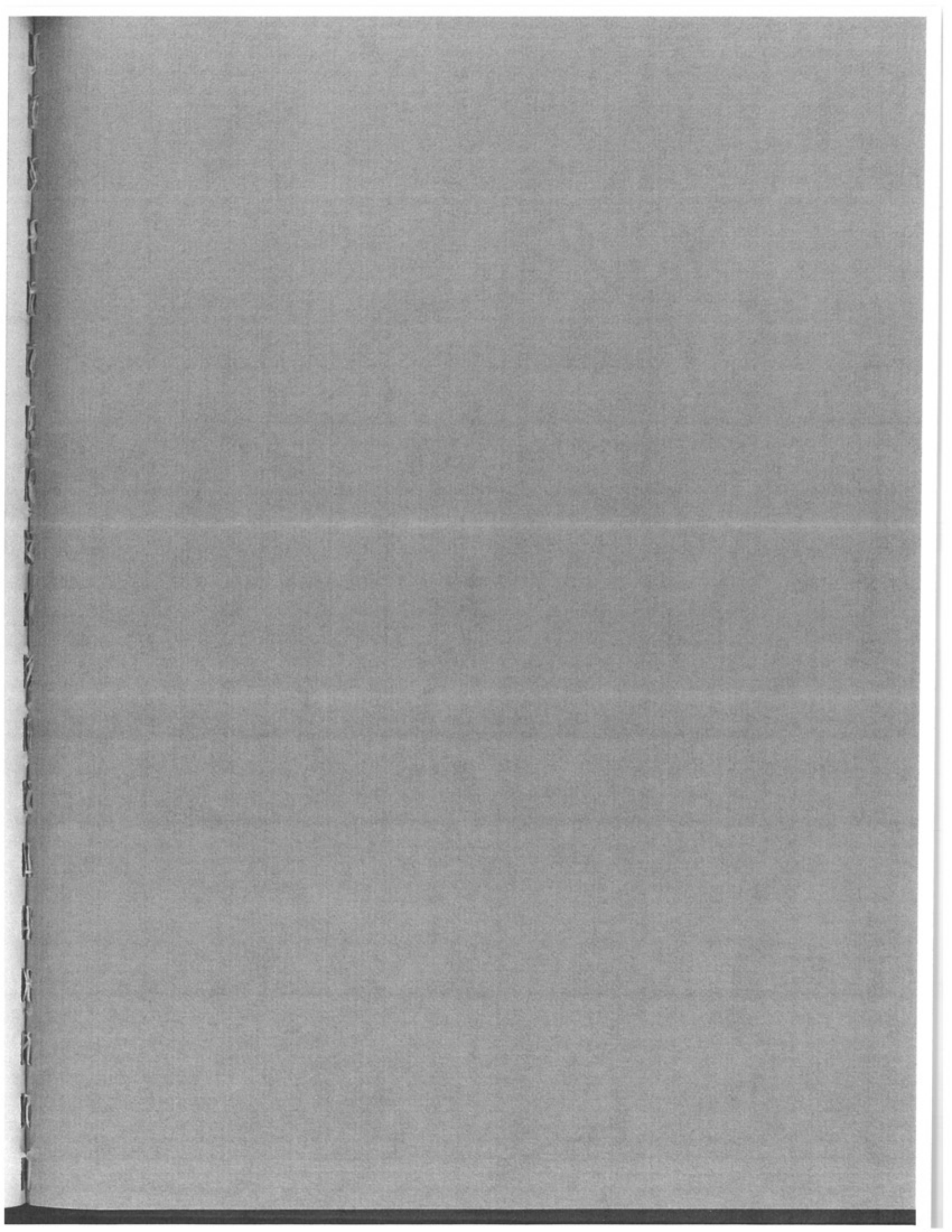
It is our estimate that by contructing new and/or expanded facilities on the existing site rather than to the East or in the city that of savings estimated at between $500,000 and $750,000 can be achieved.

The Committee recommends the following:

1. That the existing site be utilized for the development of new facilities for Tompkins County Hospital and for the development of the West Out-patient Primary Care Center.

2. That the community and the area planners take every possible step and exert every measure of pressure to effect funding and construction of the proposed Route 96 spur connection to Route 13.

3. That the urban surface transportation system be extended to provide regular service from the city to the hospital site; from such location in the city as will permit interconnecting and transfer to and from all existing route lines.



SECTION IX FACILITIES

A REUSE OF EXISTING FACILITIES

The Planning Committee does not recommend the reuse of the existing hospital facilities for hospital functions. An analysis was done of these facilities to evaluate their use for functions other than those of an acute care hospital which still could be construed as "health related." It is the assumption of the committee that this is a current, valid, legal limitation of reuse. The following potential uses were studied:

1. Long Term Care Facility
2. Health Related Facility
3. Domiciliary Care Unit
4. Staff Housing
5. Professional Offices

A typical wing of the existing hospital was selected for study, the Southwest wing. The different uses analyzed are housed in the same wing to permit a comparison of capacities and costs. More or less alteration can be evaluated on a proportionate basis even though there may be minor variations due to the volume of contruction. Two floors of this wing are to be developed of a total gross area of 22,000 square feet. The analysis of reuses is as follows:

1. Long Term Facility
   a. The applicable code: Chapter V, State Hospital Code, Part 713.
   b. The scope of alteration work: Complete new heating, ventilating and air conditioning system, replacement of plumbing, updating of electric service, replacement of roof, new exits, smoke and fire protection, general alterations.
   c. Capacity: 50 Beds
   d. Problems: General configuration of unit is poor, traffic control problems, excessive length, difficult to service from central services.
   e. Cost of alteration for One wing: $800,000 plus non-construction costs ($16,000 per bed) equal to the cost of new construction.

2. Health Related Facility

a. Applicable Code: Chapter V, State Hospital Code, Part 714

b. Scope of Alteration Work: Same as for Long Term Care Facilities above plus more general alterations for community use central space.

c. Capacity: 40 - 45 Beds

d. Problems: Similar of that of Long Term Care Facility but minimized slightly due to lesser service requirements.

e. Cost of Alteration for One Wing: $850,000 plus non-construction costs. ($19,000 per bed). More than the cost of new construction.

3. Domiciliary Care Unit

a. Applicable Code: Regulations of the New York State Department of Social Welfare.

b. Scope of Alteration Work: An exit, smoke and fire protection, general alterations.

c. Capacity: 50 rooms

d. Problems: No major problems, can be developed for a servicable unit.

e. Cost of Alterations for One Wing: $400,000 plus non-construction cost. ($8,000 per room). Less than the cost of new construction.

4. Staff Housing

a. Applicable Code: New York State Multiple Dwelling Code.

b. Scope of Alteration Work: Major alteration for division of wing into separate units with access and exits as required, plumbing for kitchen and bathroom facilities, general alterations.

c. Capacity: 22-25 apartment units (average 2 bedrooms)

d. Problems: No general problems, access to units can be achieved.

e. Cost of Alteration for One Wing: $550,000 plus non-construction costs ($22,000 per unit) more than the cost of new construction.

ANALYSIS OF REUSES*

REUSE	APPLICABLE CODE	SCOPE OF ALTERATION WORK	CAPACITY	PROBLEMS	COST**
Long Term care	NYS Hospital Code, Part 713	New HVAC, new plumbing update electric, fire-safety alterations roof replacement	50 Beds	Poor Configuration Poor Control Difficult to service Excessive length	$800,000
Health-Related Facility	NYS Hospital Code, Part 714	Similar to above	40-45 Beds	Similar to above	$850,000
Domiciliary Care Unit	NYS Department of Social Welfare Regulations	Fire-Safety Alterations General Alterations Update plumbing & electric	50 Rooms	No major problems	$400,000
Staff Housing	NYS Multiple Dwelling Code	Division to Units Access and exits General alteration new plumbing	22-25 Units (Aug. 2 B.R.)	No major problems	$550,000
Professional Offices	NYS Building Code	New HVAC, Division to units, access and exits, general alterations	36-40 Physicians	No major problems	$550,000

* Based on Alteration of One Wing, Two Floors
** Construction Cost Only

FIGURE 62

5. Professional Offices

a. Applicable Code: New York State Construction Code

b. Scope of Alteration Work: Complete new heating, ventilating and air conditioning system, division of space for offices and exam rooms, fire exits, smoke and fire protection, general alterations.

c. Capacity: 36-40 physicians

d. Problems: No major problems, access and control can be achieved.

e. Cost of Alteration for One Wing: ($550,000) Slightly less than the cost of new construction.

The analysis indicates that in many cases it is not practical to reuse the existing facilities for the functions listed primarily because the cost may be equal to or more than the cost of new construction. In some cases, less than desirable function and potential utilization is achieved.

It should be kept in mind that the analysis is for one of several wings and if the total facility was reused the cost of alteration must necessarily be multiplied or combined to represent a total cost of alteration.

The planning committee feels very strongly that if it is necessary to use part of the financial resources necessary for the construction of new hospital facilities for reuse of the existing facilities, that resources would be far better spent towards the development of new hospital facilities than any of the above potential uses. An alternative scheme is to let the existing facilities remain unoccupied with only minimum maintenance to prevent delay until such time as funds are available for alteration.

B NEW FACILITIES

The program of facilities outlined to meet projected needs displays marked differences from the existing hospital facility and from recommendations of previous studies.

1. The total space required for nursing units is much less in proportion to the total space and less than indicated in previous studies.

CAPACITIES OF NURSING UNITS

DEPARTMENT	EXISTING	PROGRAM PROJECT	RECOMMENDED FACILITY	NYS APPROVED
Med-Surg	154	210	210 (6-35 Bed N.U.)	236
Pediatrics	20	20	20	18
Obstetrics	37	30	30	30
ICU	10	10	10	10
CCU	-	8	8	8
Psychiatric	-	15	15	10**
SUB-TOTAL	221	293	293	312
ECF/TCU	23	30	30	23
Long Term Care	25	60***	60***	25*
TOTAL	269	383	383	360

* Decision Deferred

** Reduced from 50 to 10 by request of TCH

*** Developed as separate program

FIGURE 63

2. Certain new departments are developed and space allocated for their functions other than those programmed as part of expanded services.
3. Total gross square feet per bed is increased due to the change in space ratio and due to a factor added to accommodate systems construction.
4. Less total number of acute care medical-surgical beds and total beds are provided than recommended in previous studies.

The program outline clearly demonstrates and follows the changes in patterns of health care delivery which are occurring nationally.

This change will also occur at Tompkins County Hospital as the comprehensive health care system evolves with the opening of primary health care centers. A large percentage of care will be given to vertical patients through health prevention and maintenance programs rather than acute care of horizontal patients. More use will and can be made of progressive care through utilization of expanded facilities for other than acute in-patient care. The largest increase of space is in diagnostic and therapeutic departments which become the center of the health system.

The nursing units capacities recommended are less than in previous reports. (Figure 63.) They vary somewhat from the totals approved by the New York State Department of Health previously. This fact not withstanding, the committee recommends construction only of those beds dictated by program providing the capability exists of adding nursing units in the future without major alterations to the new construction.

Planning Committee strongly recommends that based on the data developed in this report that the following facility be construction:

1. A totally new replacement facility for Tompkins County Hospital.
2. That this structure house the total space program outlined to offer an optimum facility in 1982.
3. That the facility be constructed adjacent to and East of the existing hospital.

4. That the facility be constructed with building systems techniques including interstitial space concepts to permit maximum adaptability and flexibility for the future.

5. That this program be implemented as soon as feasible to relieve immediate needs and to permit the development of new programs at the soonest possible time.

SECTION X ESTIMATES OF COST

A TOTAL REPLACEMENT

Estimates of cost are shown for the construction of a proposed new replacement facility as outlined in the space program. The categories of cost (Figure 64) include the following:

1. Cost of Construction - includes General Construction, heating ventilating and air conditioning, plumbing and electric work and site utilities exclusive of storm drainage for new construction. It also includes the cost of any added central utility services.
2. Site Development - includes all general site work, roads, landscaping and site drainage.
3. Demolition - includes the total cost of demolition and removal from the site of demolished materials and rough backfill as required.
4. Alterations - includes all General Construction, heating, ventilating and air conditioning, plumbing and electric work within the total gross volume of altered buildings.
5. Non-Construction Costs - includes the cost of site survey, test borings or other subsurface investigation work, site supervision, consultant fees, equipment and furnishings and construction contingency.

Not included in any category of cost are legal and accounting fees, cost of moving or relocation or finance costs, all of which are indeterminate until the financing vehicle has been selected.

The cost shown are based on having documents prepared for contractors' quotations prior to the end of 1973 or having an accelerated construction program underway sooner than the year end.

The Committee's first recommendation is that the total replacement facility be constructed and that all existing hospital structures be demolished or closed until funds are available for developing them for

ESTIMATE OF COSTS

	Total New Facility	Partial New Facility	Reduced Partial New Facility
Construction Cost including added central services	$25,450,000	$20,120,000	$18,108,000
Site Development	300,000	300,000	300,000
Demolition	250,000	170,000	170.000
Alterations	-	2,700,000	2,700,000
SUB-TOTAL	$26,000,000	$23,290,000	$21,278,000
Non Construction Costs (Site Survey, Borings, Supervision, Fees, Equipment and Furnishings, Contingency, etc.)	5,000,000	4,400,000	4,000,000
TOTAL	$31,000,000	$27,690,000	$25,278,000

FIGURE 64

reuse if such is deemed advisable. This recommendation is based on the view that this will achieve the optimum facility at the least cost in the long run for both the community and the consumer of health services. It further recommends that the new facility be designed and constructed to make use of systems and techniques that will permit maximum flexibility in the structure.

It further recommends that every legal means be pursued to accelerate the design and construction process so as to permit earliest possible occupancy and least escalation of cost. It is possible from a technical point of view to be under construction by the end of 1973, although this statement is made with the full realization that the traditional process of government may render this unrealistic. If the savings of time and money are desirable they can be achieved.

In order to achieve optimum results the resources of the community may well be exceeded. It is essential that new facilities be developed. The committee offers the following alternatives to total replacement, each requiring less capital expenditure and each with penalties in terms of utilization and operation. The assumption is made that the new construction will be flexible, adaptable and expandable in both cases.

B ALTERNATE SCHEME I

Certain functions of the hospital can be re-housed in the existing building with less loss of function than others.

These are administrative or supporting functions. It is proposed that as an alternative solution, the Northeast wing of the existing hospital be retained and redeveloped for reuse for the following departments:

1. Administration
2. Dietary Department
3. Laundry
4. Central Locker Facilities

5. Maintenance

6. Primary Care Center

7. Extended/Transitional Care Unit

8. Long Term Care Unit

Some of the above, particularly Dietary and Laundry will necessarily require expansion but can remain in their present location. These departments can be coordinated with new construction to develop proper functional flow. The amount of new construction will be reduced to approximately 270,000 square feet but will fully meet the needs of all of those functions relocated in it. The remainder of the existing buildings are to be demolished but at a cost less than that of total demolition.

If this scheme is used less than optimum results will be achieved yet the facility will be servicable and the majority of problems will have been satisfied. A fairly large expenditure will have been made for alterations in a structure that inevitably will require replacement or re-alteration.

C ALTERNATE SCHEME II

The program for the total replacement facility is based on optimum utilization in 1982. This facility will meet these needs with reducing capability for approximately another decade after that. It is estimated that the earliest date of occupancy of a new structure is 1976 which assumes that the process of planning, design, construction, financing, review and approval can be expeditiously implemented, a somewhat optimistic view. The new facility therefore will be fully utilized in only five years afer occupancy.

A second alternative, <u>not</u> recommended by the Committee, but described in order to fairly present all possibilities, is to construct the new facility

and meet the needs of optimum operation at the time of completion (late 1970's) and reuse part of the existing building.

In this scheme reuse and alteration of the existing buildings and scope of demolition will be the same as in Scheme I. New construction will be reduced by approximately ten (10%) percent of that recommended. The facility will permit the hospital to meet their needs upon occupancy with diminishing utility and increasing inadequacy from that point of time on.

TCH DEVELOPMENT PLAN

TOTAL NEW FACILITY

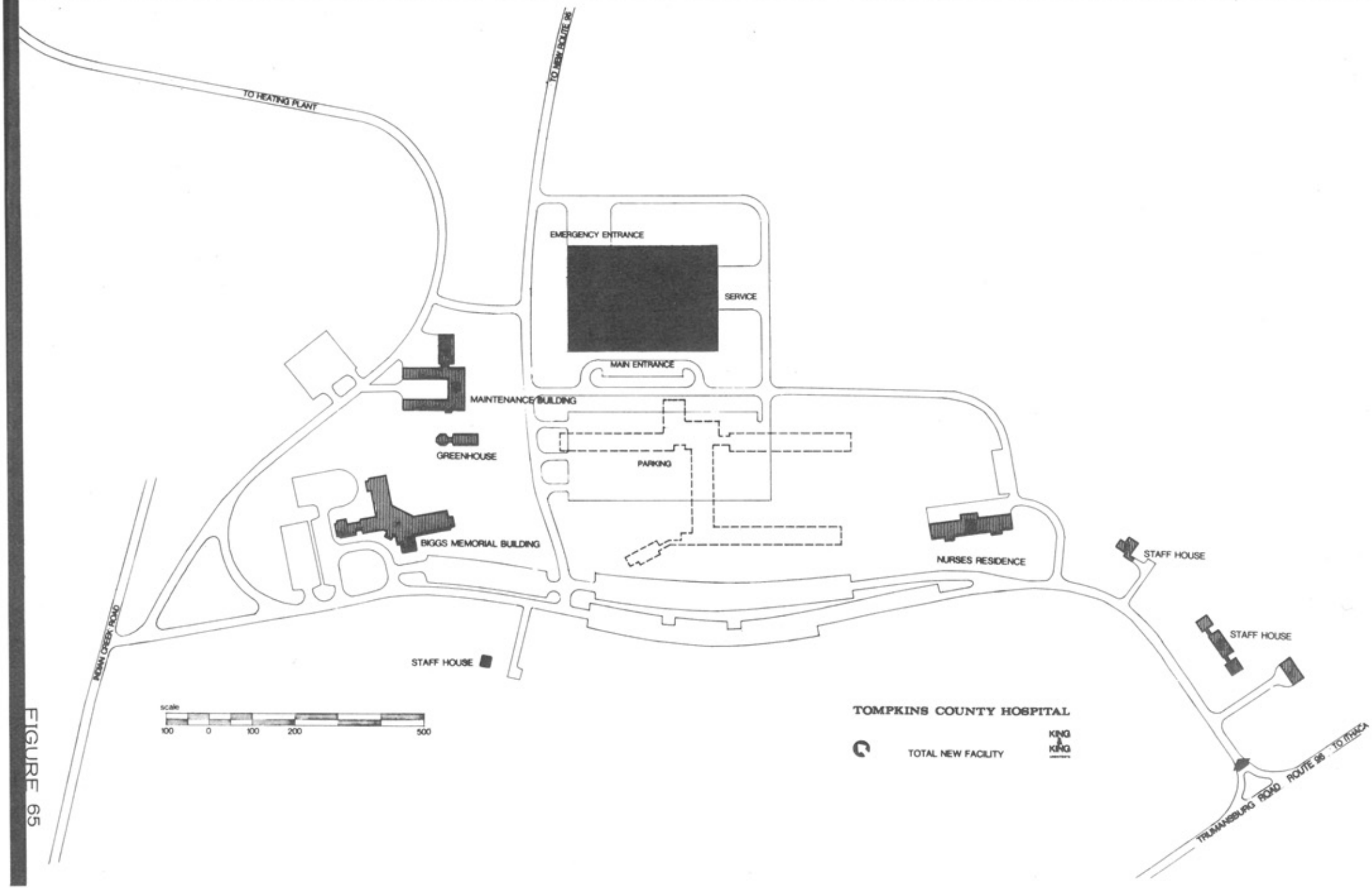


FIGURE 65

TCH DEVELOPMENT PLAN

TRANSVERSE SECTION

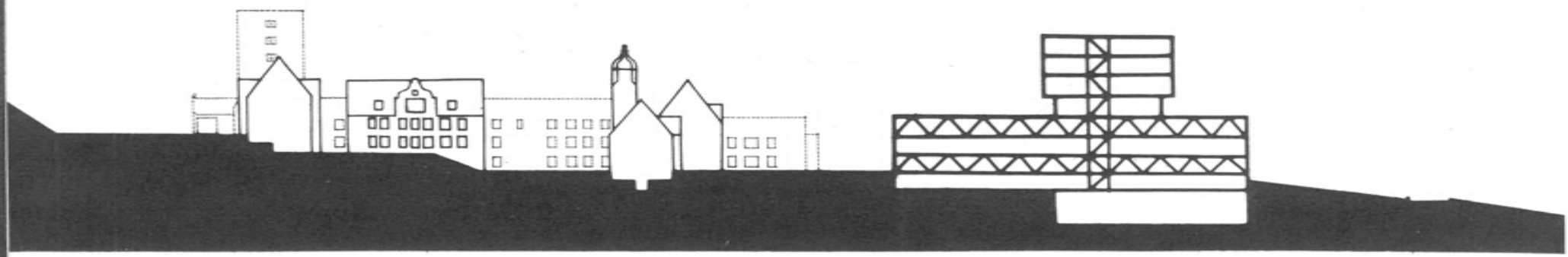


FIGURE 66

TCH DEVELOPMENT PLAN

PARTIAL NEW FACILITY

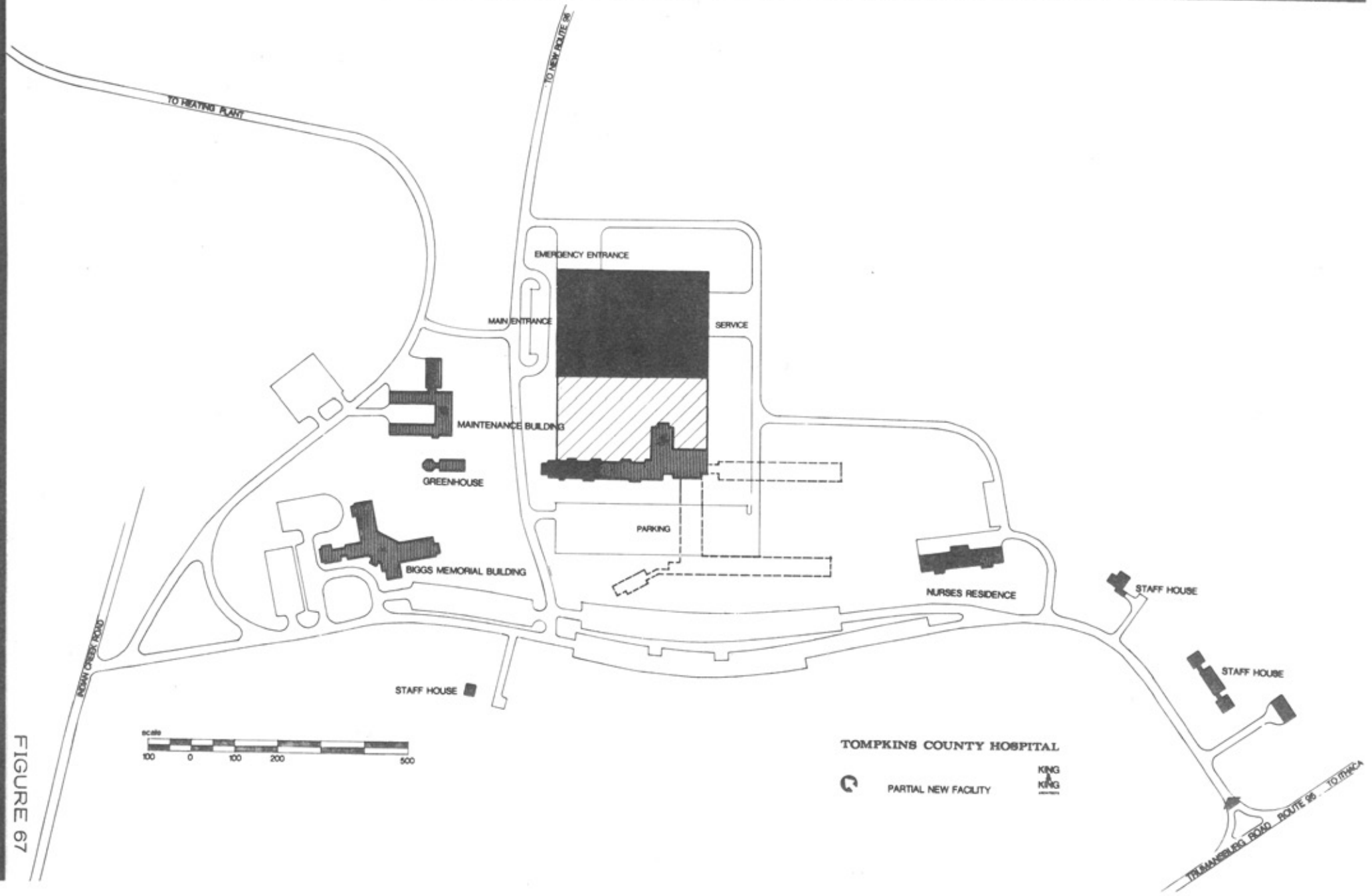


FIGURE 67

TCH DEVELOPMENT PLAN

REDUCED PARTIAL NEW FACILITY

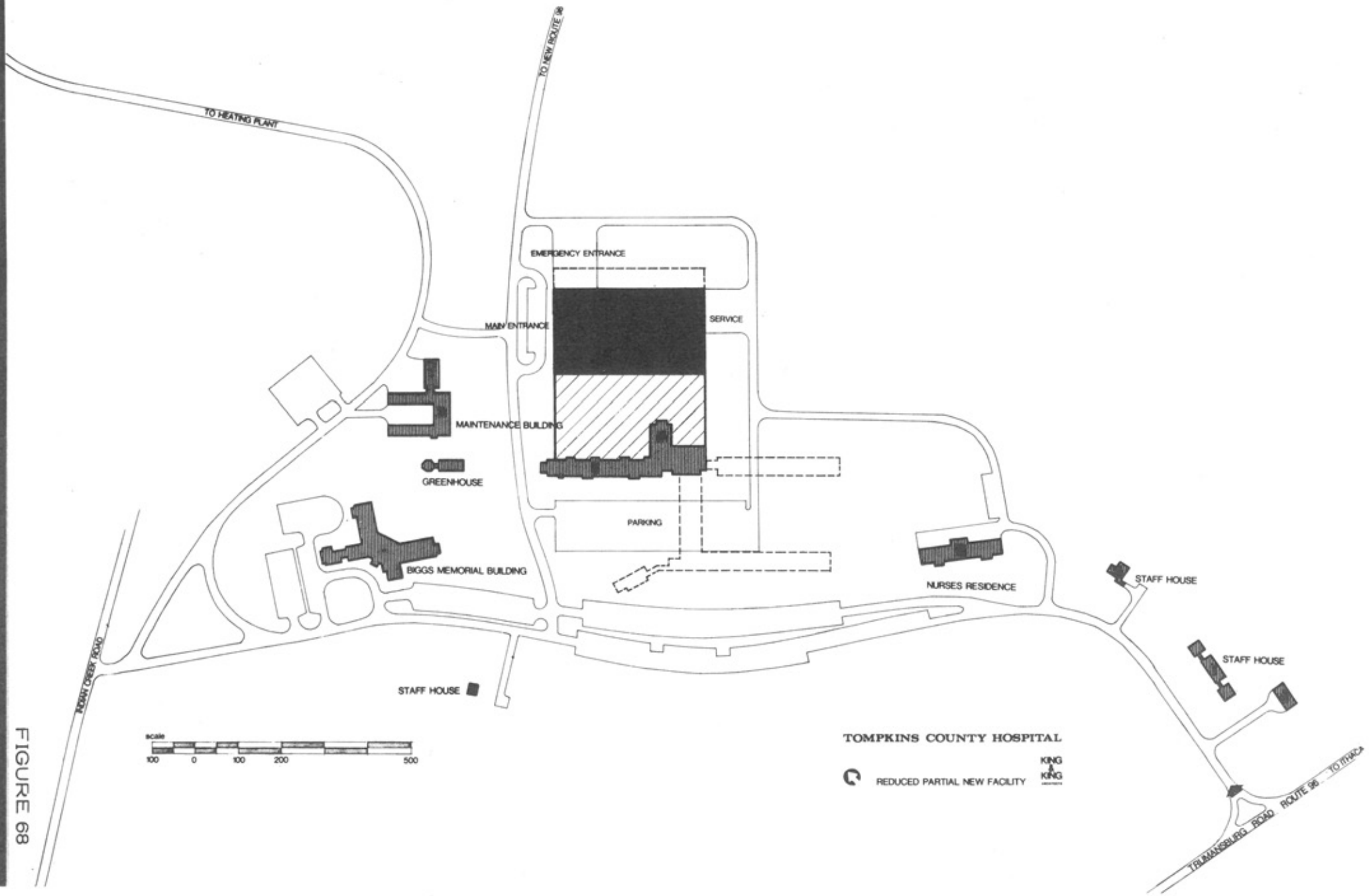


FIGURE 68

XI FINANCE

The Committee felt it essential to review the potential financing vehicles that are available to the County for the implementation of this project. Some of these programs are within the legal limits of current legislation and some require new or amended legislation in order for Tompkins County to utilize them. Although advice of counsel was used in this evaluation, it is the ultimate responsibility of the County Attorney to advise as to legal parameters. The Committee does not in this report, presume to subvert or assume that responsibility and it requested that the County Attorney pursue this matter and render a decision at the appropriate time.

The following are tax-exempt financing alternatives reviewed:

A UNDER EXISTING LEGISLATION

1. Direct Financing by the County:

   a. The County is currently empowered to issue General Obligation bonds for this purpose, within the limits prescribed by law. This method no doubt would yield the lowest interest cost to the County. Assuming that the revenues of the Hospital are sufficient, the County county could finance 100% of the cost of the project with its long-term bonds (up to 30 years). Also, under these circumstances, the County could exclude the bonded indebtedness from its debt limit, proportionately to the extent that the project is self-liquidating.

      It should be pointed out that there is a two-thirds vote requirement of the County Board of Representatives to authorize the issuance of the General Obligation Bonds. It should also be noted that competitive bidding requirements for construction would have to be met.

b. Under the New York State Constitution, the County as such does not have the authority to issue revenue bonds.

2. Indirect Financing on Behalf of the County:

a. The New York State Urban Development Corporation, under the Act creating it, has the authority to finance numerous types of projects. While municipal hospitals are not specifically excluded, we are not aware that the Corporation may wish to get into Hospital financing.

b. The New York State Housing Finance Agency, as the financing arm of the Health and Mental Hygiene Improvement Corporation, is quite active in hospital financing. Upon approval of the hospital's application to the Agency, after the necessary approvals of the expansion and plans, the Agency usually will issue bond anticipation notes for the financing of a number of projects have been aggregated, the Agency would then issue its long-term bonds to provide the permanent financing.

This review does not detail all of the requirements of the Housing Agency and the U.D.C. in financing the Hospital nor to list their charges for the services rendered in connection with their review and financing, all of which will ultimately require analysis.

c. Should the County find it impractical to emply the alternative financing methods described above and below, there is another tax-exempt revenue bond financing vehicle.

A 1963 ruling of the Internal Revenue Service (no. 63-20) provides that a non-profit hospital (which holds an exemption under Section 501 (c) 3 of the IRS Code of 1954) may issue its own revenue bonds, provided, among other things, that a beneficial interest in the proposed project be established in favor of a political subdivision (such as a County). Provisions must also be made that title to the project be transferred to the beneficiary upon retirement of the bonds. This particular vehicle is fairly complicated and, in our view, would be used by the County only as a last resort. Thus, an outline thereof would be prepared only after some extensive research by counsel.

B UNDER NEW OR AMENDED LEGISLATION

1. Dormitory Authority of the State of New York:

The Authority has been involved with a substantial amount of financing for private non-profit hospitals and the Dormitory Authority Act specifically lists by name the hospitals that it may finance. In order to include Tompkins County Hospital, the Dormitory Authority Act would have to be amended. We do not know if the Authority has any interest in financing municipal hospitals.

2. Tompkins County Hospital Authority:

a. The establishment of a Tompkins County Hospital Authority would require a special act of the Legislature which would outline in detail the purpose, function, powers and authority to issue revenue bonds. Under such an Act, the County Hospital Authority would issue revenue bonds to finance expansion or new construction, and lease the facility to the Hospital. The lease payments by the County to the Authority

would be sufficient to pay debt service on the bonds and other minor costs of the Authority. Such lease payments could be secured by a pledge of the gross revenues of the hospital only, or from a pledge of the gross revenues plus a make-up provision by the County from its general funds. This latter pledge would substantially improve the security for the revenue bonds and thus the ratings by Moody's and Standard & Poor's, resulting in lower interest costs.

b. We have been informed that the Legislature may have a short session, terminating possibly as early as April 1. If Tompkins County considers the Hospital Authority method of financing as the most attractive, it should consider immediate action to proceed with the preparation of the Act so that it can be introduced and hopefully passed in the current session.

C COMPARISON OF FINANCING ALTERNATIVES

It is extremely difficult, at this point in time, to determine the amount of time required to set up financings under each of the alternatives discussed. However, we suggest that the General Obligation Bond method would probably take the least amount of time. Financing through existing State authorities is difficult to estimate. For example, the New York State Housing Finance Agency would not tell how long it might take.

If a County Hospital Authority is established, it is our opinion that the amount of time required after the required legislation has been enacted, could be kept at a minimum. We would recommend that the County appoint an investment banker in the very early stages prior to drafting of the legislation and the investment banker would work

very closely with the County all the way through the planning stages.

So, in effect, the time required to set up such financing would be superimposed on the time required for planning the project itself.

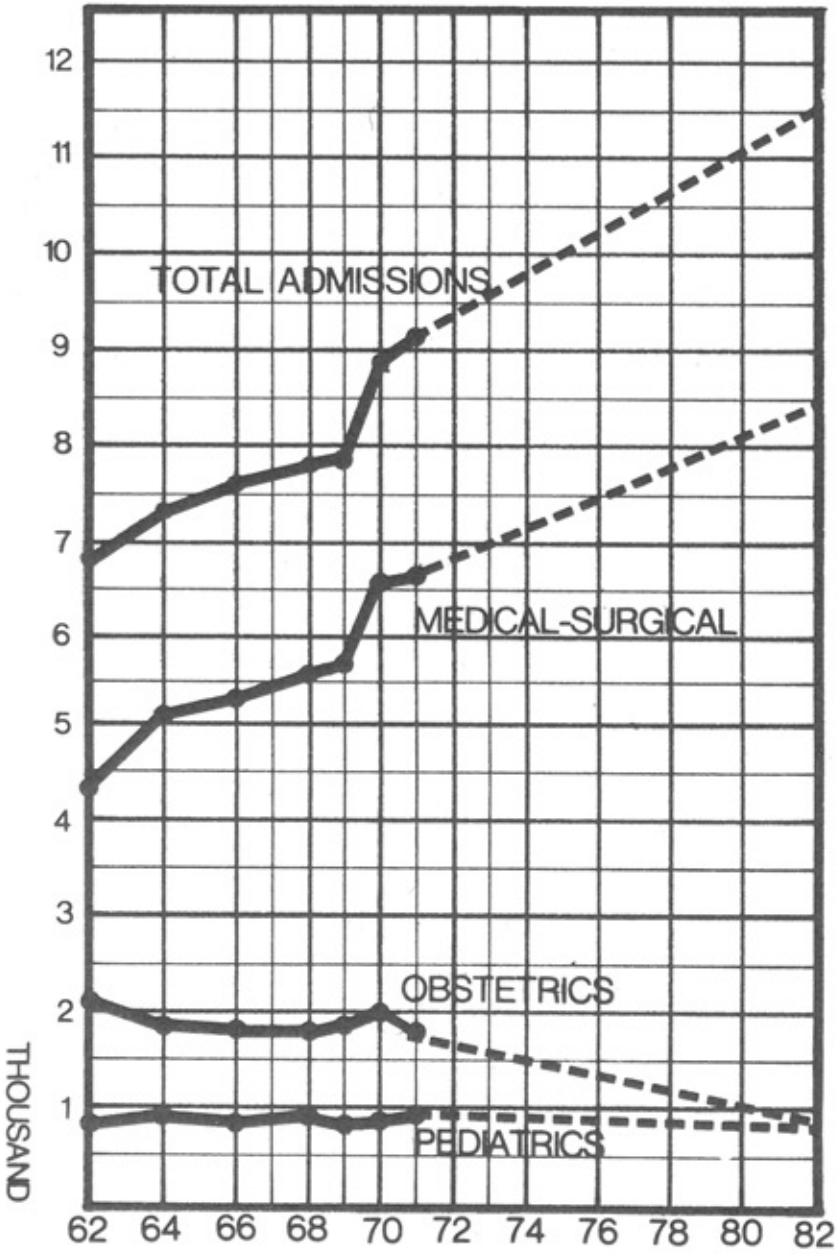
Assuming a 30 year bond issue, estimates of relative interest cost to the County under several of the alternatives can be determined. These interest cost estimates are based on today's markets. It should be noted that under differing market conditions the differential between interest costs for different types of tax-exempt bonds might well increase or decrease.

Alternatives	Estimated Interest Cost
Tompkins County General Obligation Bonds	5.00%
Tompkins County Hospital Authority Revenue Bonds	5.25%
New York State Housing Finance Agency Bonds	5.50%*

*Does not include annual charges of the Agency

Other sources of finance are available for this project which at the present time cannot be evaluated. Included are funds through the Appalachia Program and for the County Mental Health Center through the National Institute of Mental Health. At the present time it must be assumed that there will not be any funds available through the Hill-Burton Program. Every possible source of funds must be investigated particularly minor programs which might contribute to specialty programs in the Hospital.

Only after the facility program and the cost of construction and non-construction costs are determined, the financing vehicle is selected and other sources of funds determined can the exact ultimate cost to the community or to the consumer of the health services system be projected.


12
11
10
9
8
7
6
5
4
3
2
1
THOUSAND
TOTAL ADMISSIONS
MEDICAL-SURGICAL
OBSTETRICS
PEDIATRICS
62 64 66 68 70 72 74 76 78 80 82

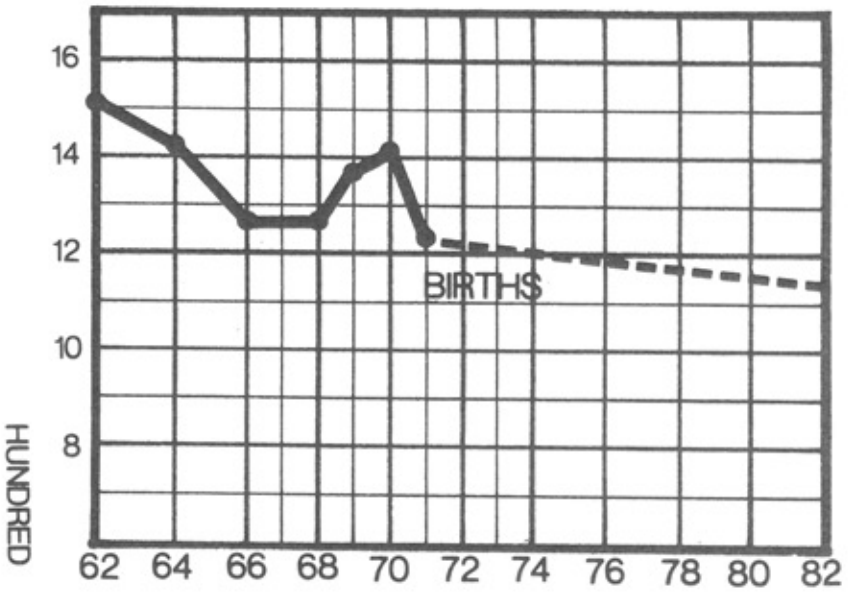
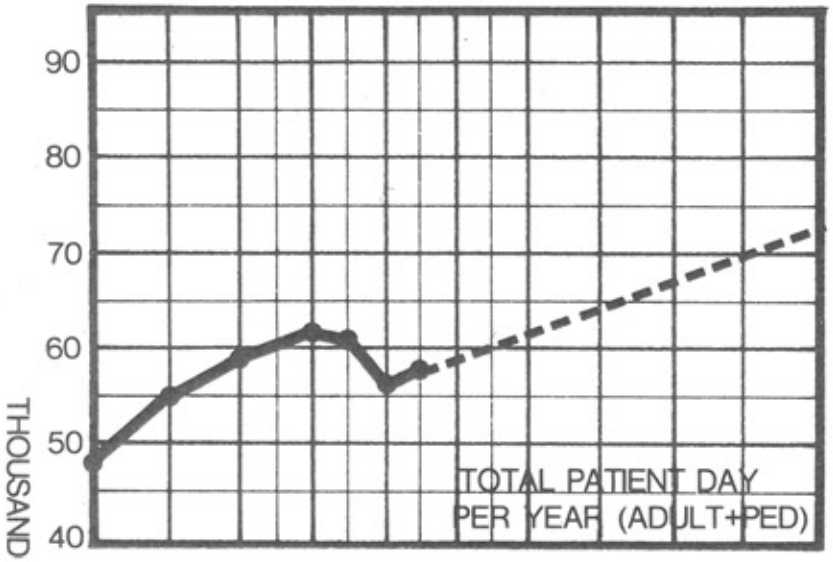
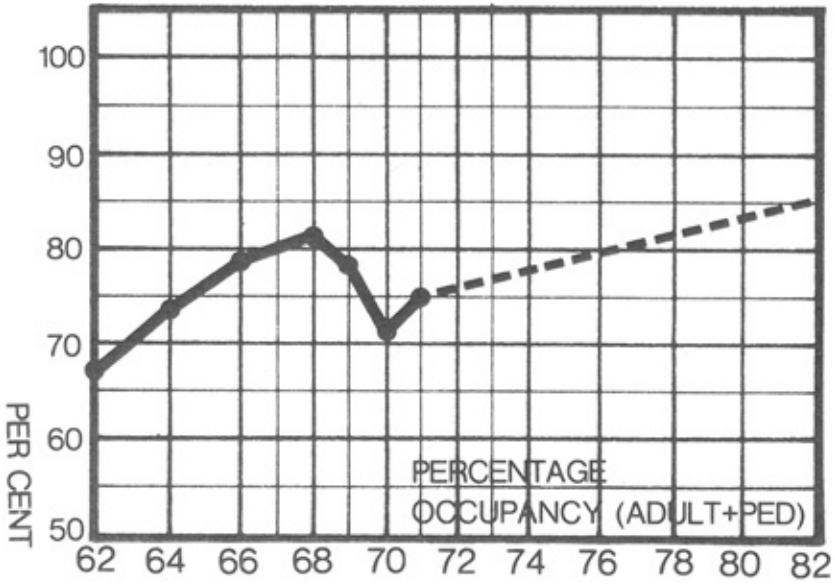

16
14
12
10
8
HUNDRED
BIRTHS
62 64 66 68 70 72 74 76 78 80 82

FIGURE 69


THOUSAND
90
80
70
60
50
40
TOTAL PATIENT DAY
PER YEAR (ADULT+PED)


DAYS
10
9
8
7
6
5
LENGTH OF STAY
ACUTE CARE (ADULT+PED)


PER CENT
100
90
80
70
60
50
62 64 66 68 70 72 74 76 78 80 82
PERCENTAGE
OCCUPANCY (ADULT+PED)

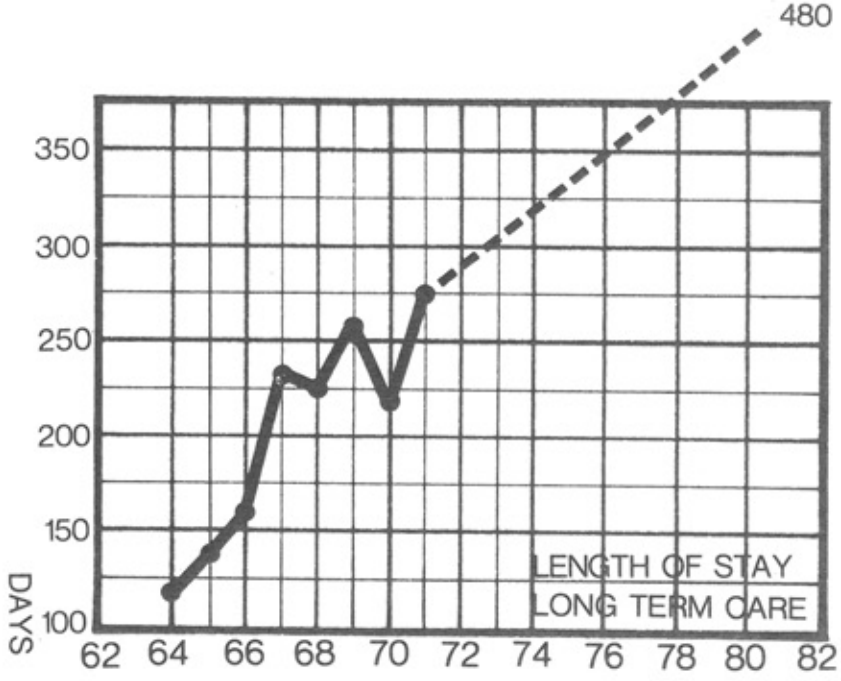
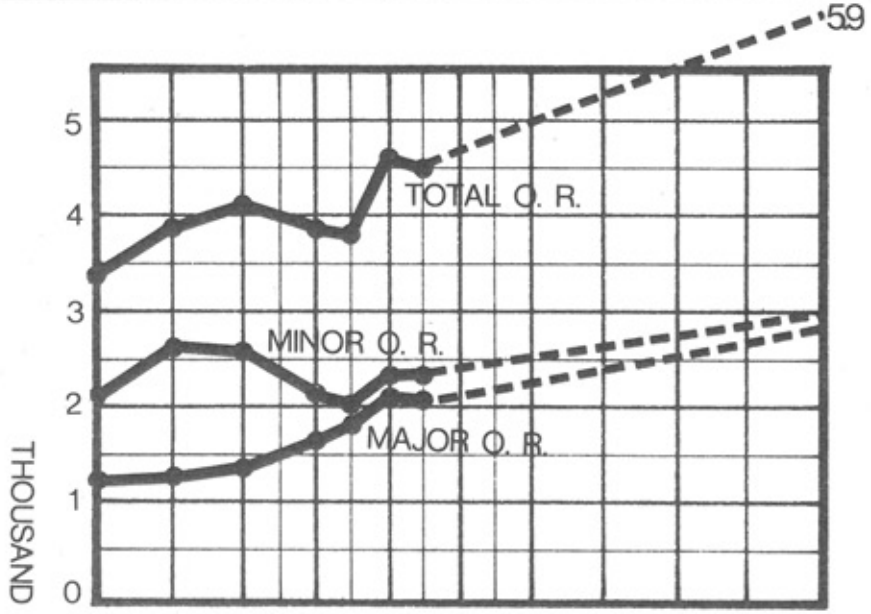
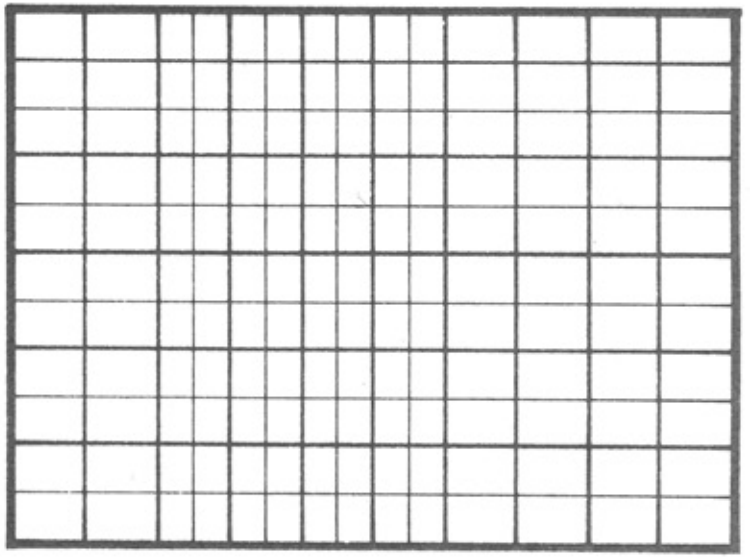
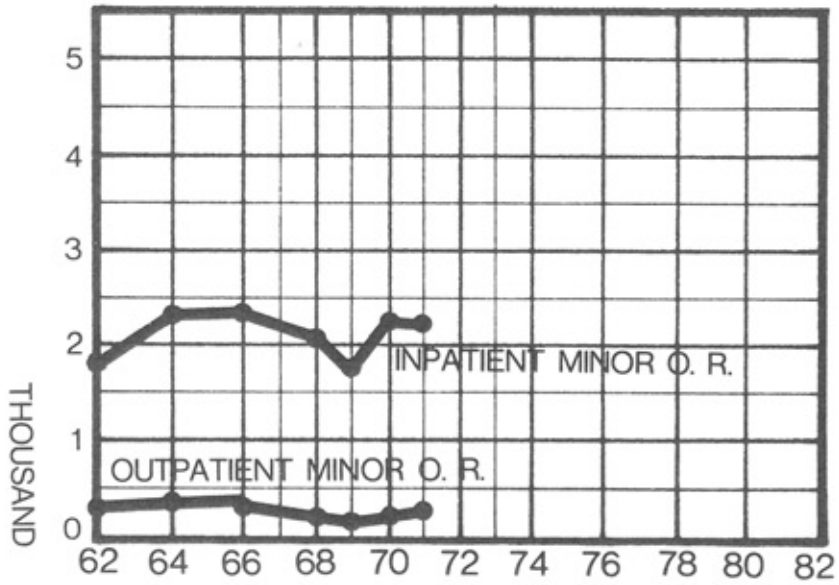

480
DAYS
350
300
250
200
150
100
62 64 66 68 70 72 74 76 78 80 82
LENGTH OF STAY
LONG TERM CARE

FIGURE 70


'59
TOTAL O. R.
MINOR O. R.
MAJOR O. R.
THOUSAND
0
1
2
3
4
5




INPATIENT MINOR O. R.
OUTPATIENT MINOR O. R.
THOUSAND
0
1
2
3
4
5
62 64 66 68 70 72 74 76 78 80 82

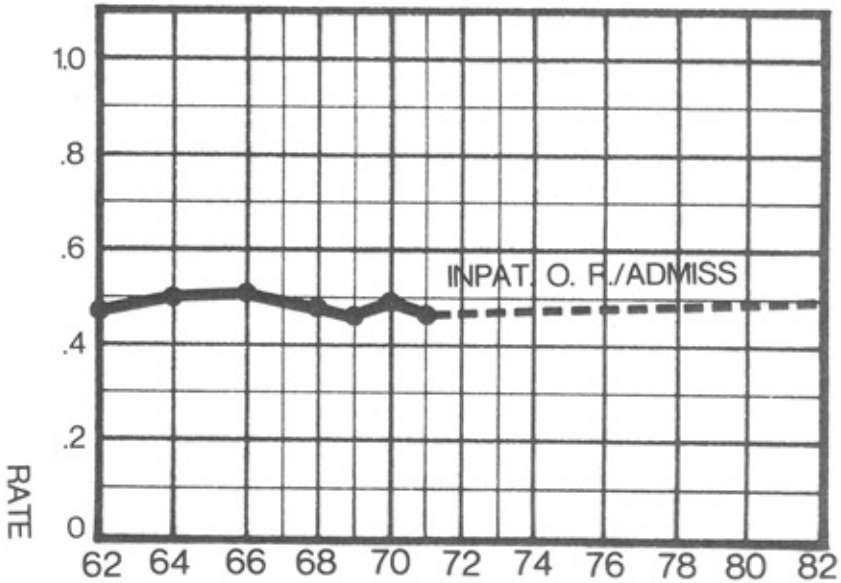
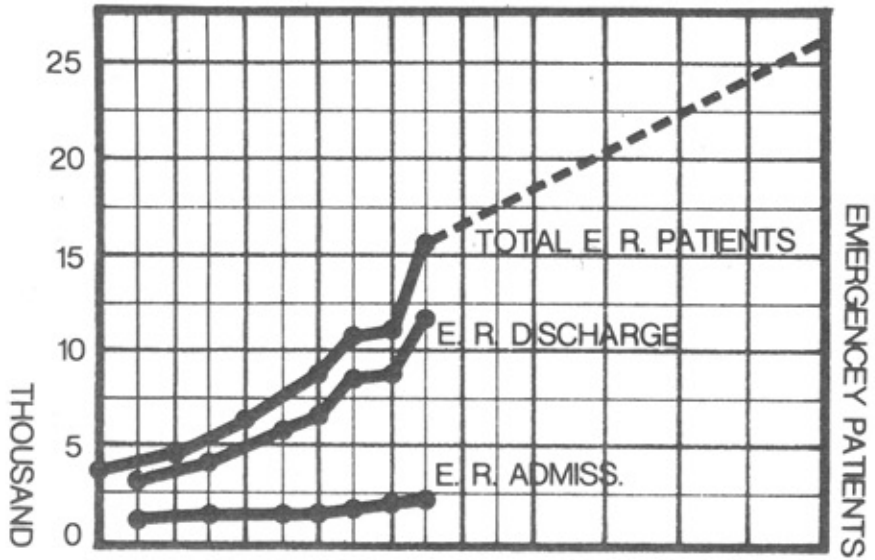
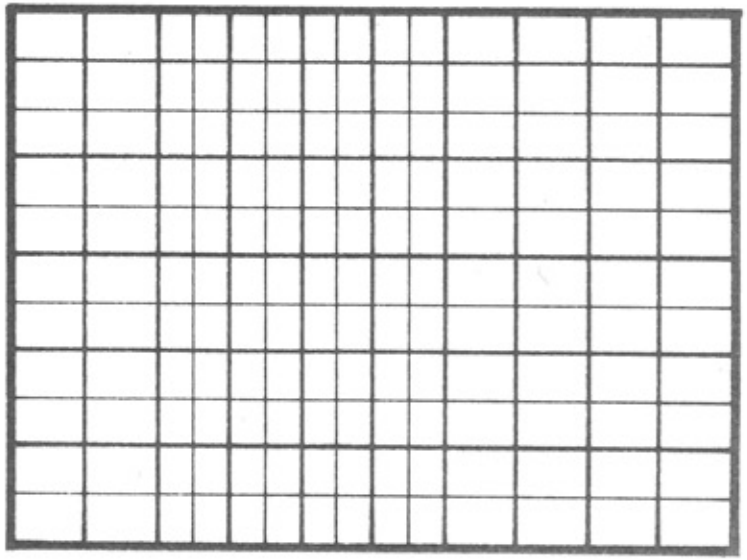
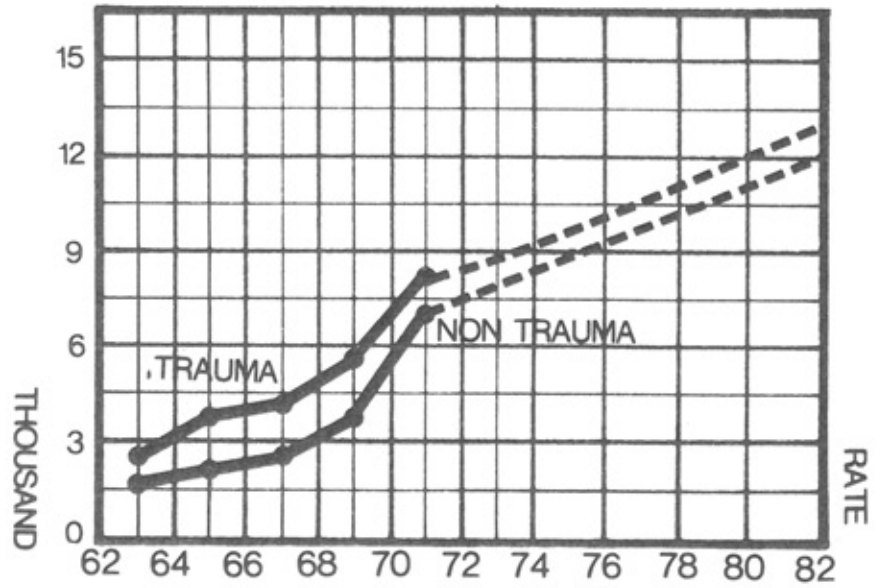

INPAT. O. R./ADMISS
RATE
0
.2
.4
.6
.8
1.0
62 64 66 68 70 72 74 76 78 80 82

FIGURE 71


25
20
15
10
5
0
THOUSAND
TOTAL E. R. PATIENTS
E. R. DISCHARGE
E. R. ADMISS.
EMERGENCEY PATIENTS




15
12
9
6
3
0
THOUSAND
TRAUMA
NON TRAUMA
RATE
62 64 66 68 70 72 74 76 78 80 82

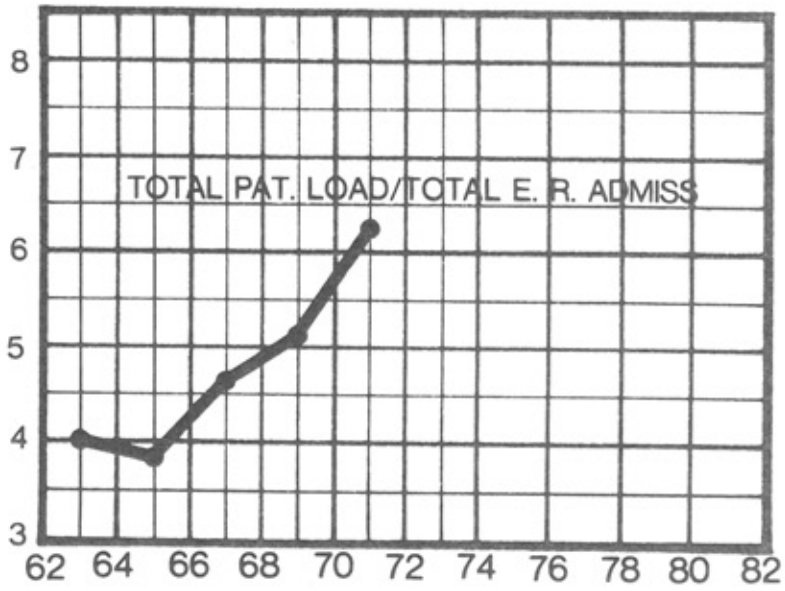
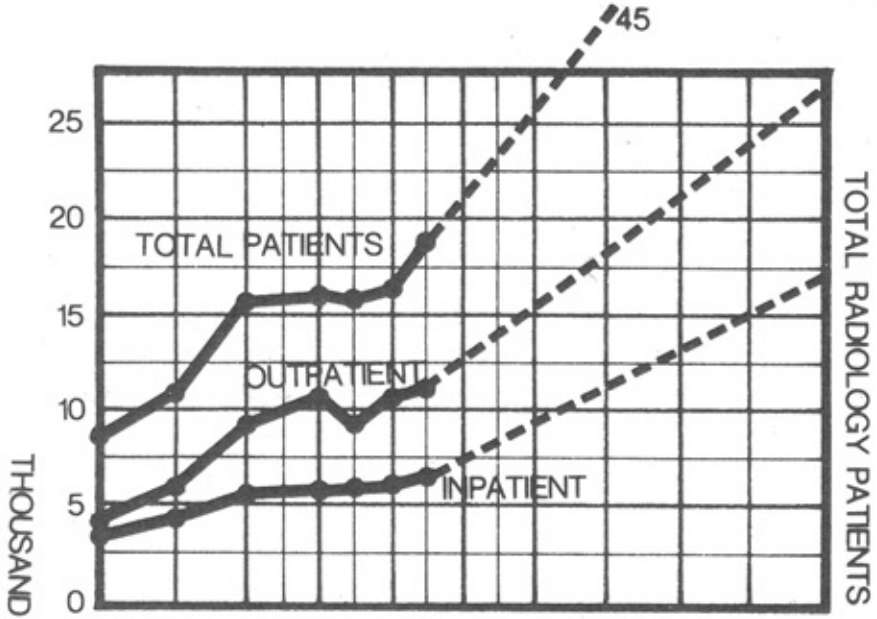
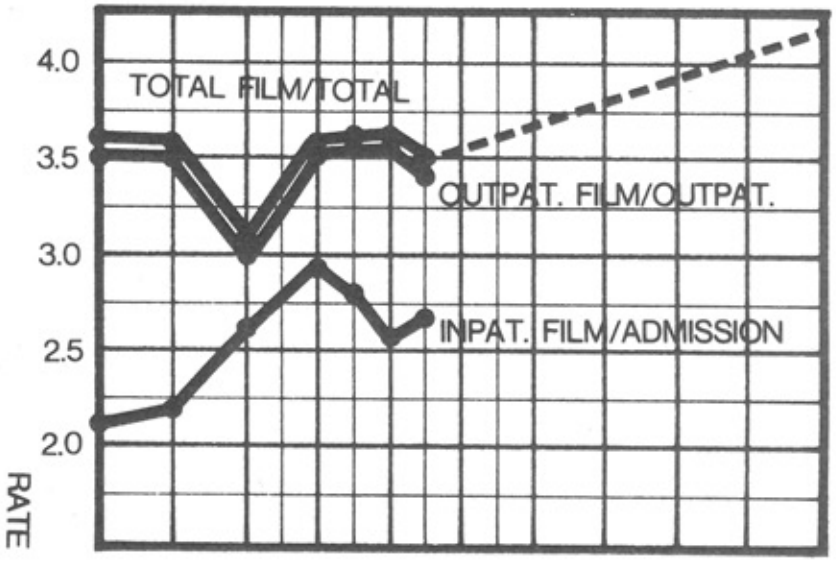
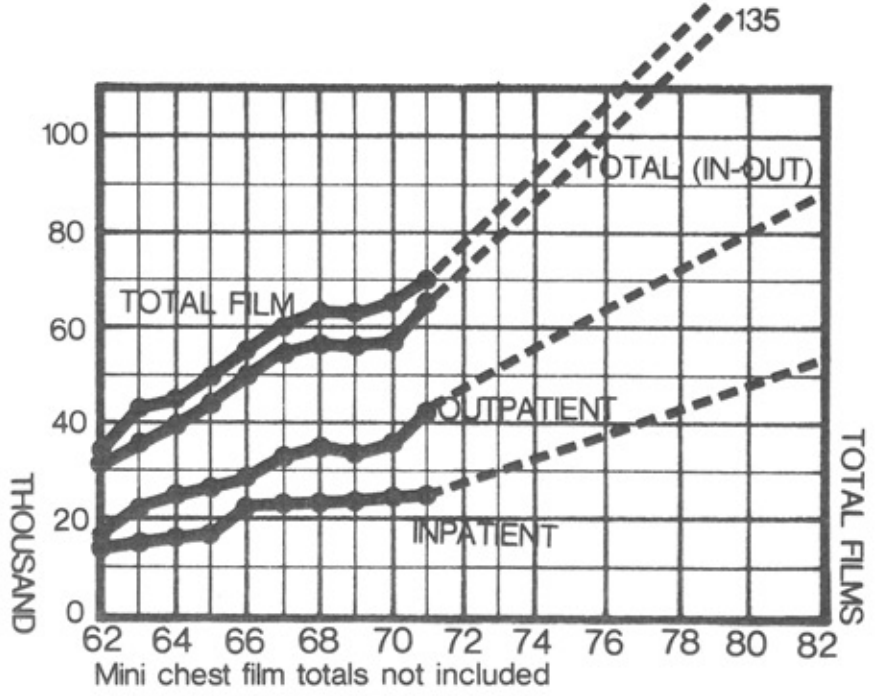

8
7
6
5
4
3
TOTAL PAT. LOAD/TOTAL E. R. ADMISS
62 64 66 68 70 72 74 76 78 80 82

FIGURE 72


45
25
20
15
10
5
0
THOUSAND
TOTAL PATIENTS
OUTPATIENT
INPATIENT
TOTAL RADIOLOGY PATIENTS


4.0
3.5
3.0
2.5
2.0
RATE
TOTAL FILM/TOTAL
OUTPAT. FILM/OUTPAT.
INPAT. FILM/ADMISSION


135
100
80
60
40
20
0
THOUSAND
TOTAL (IN-OUT)
TOTAL FILM
OUTPATIENT
INPATIENT
TOTAL FILMS
62 64 66 68 70 72 74 76 78 80 82
Mini chest film totals not included

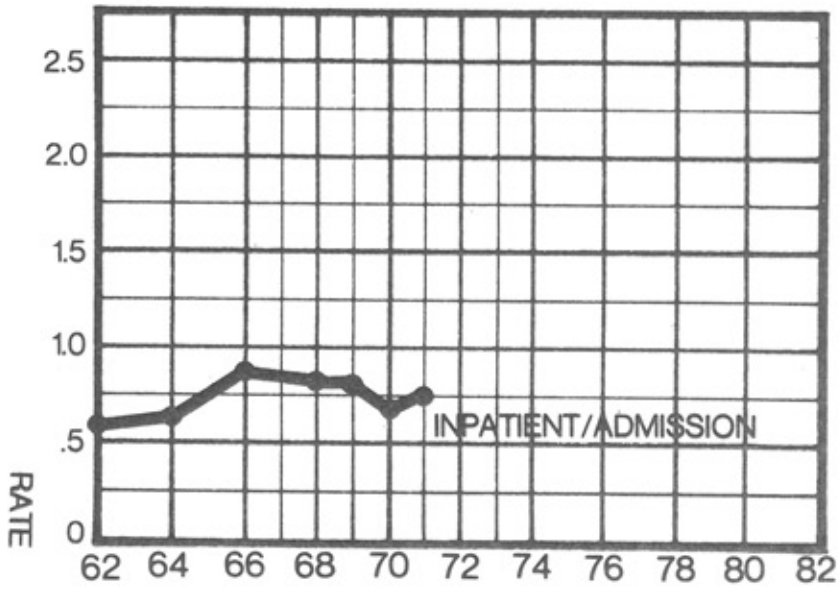
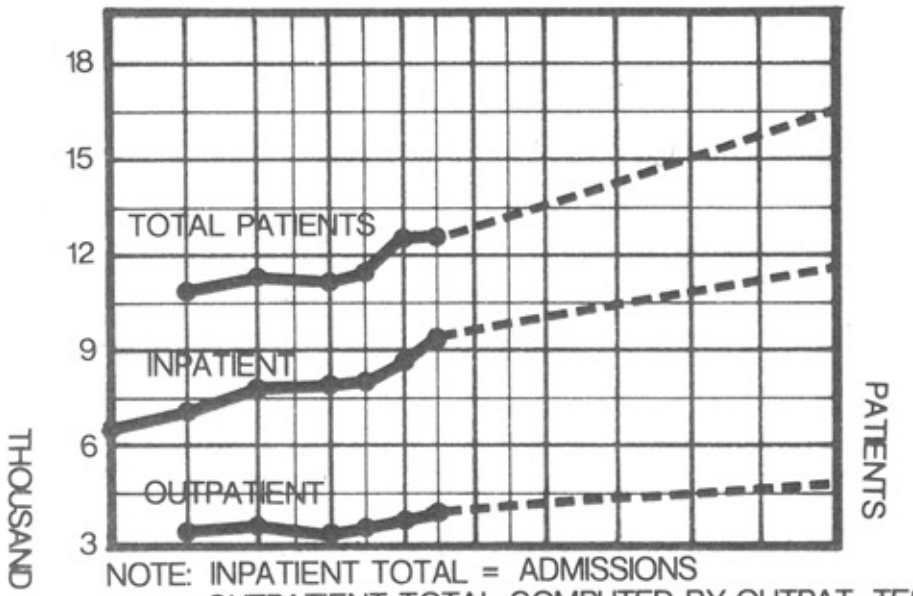
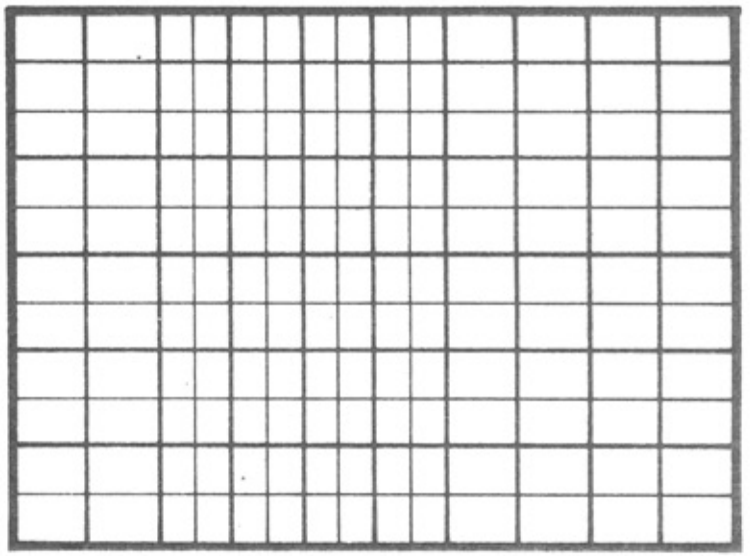
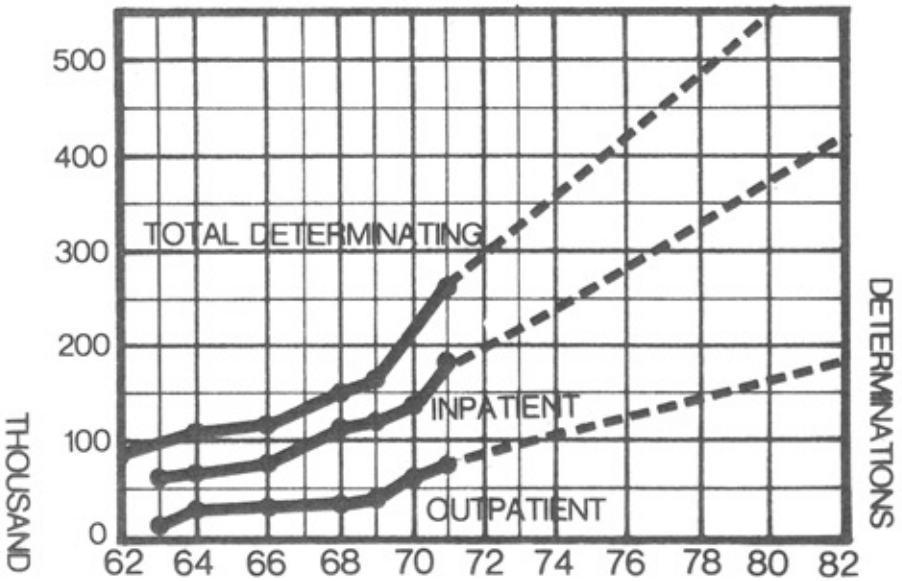

2.5
2.0
1.5
1.0
.5
0
RATE
INPATIENT/ADMISSION
62 64 66 68 70 72 74 76 78 80 82

FIGURE 73



NOTE: INPATIENT TOTAL = ADMISSIONS
OUTPATIENT TOTAL COMPUTED BY OUTPAT. TESTS
+ DETERM/INPATIENT (VERIFY)





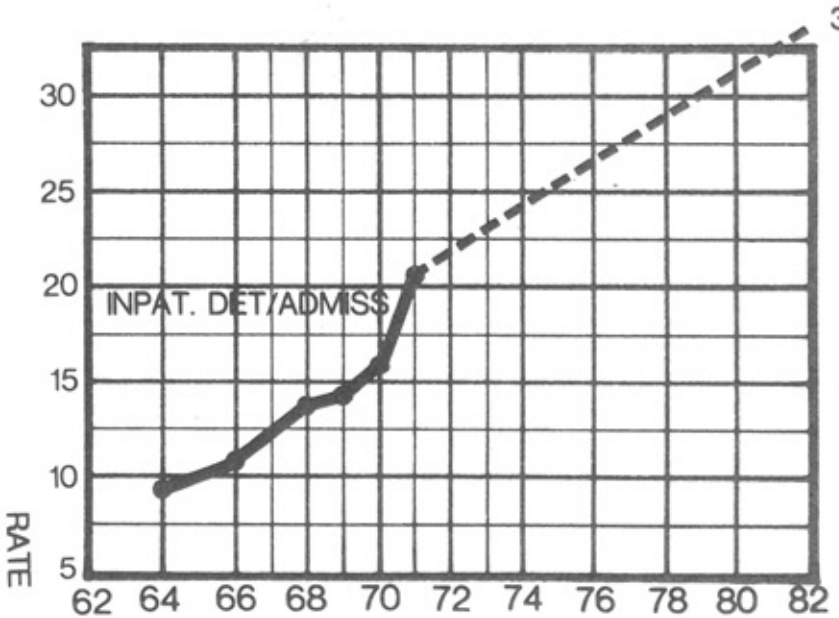
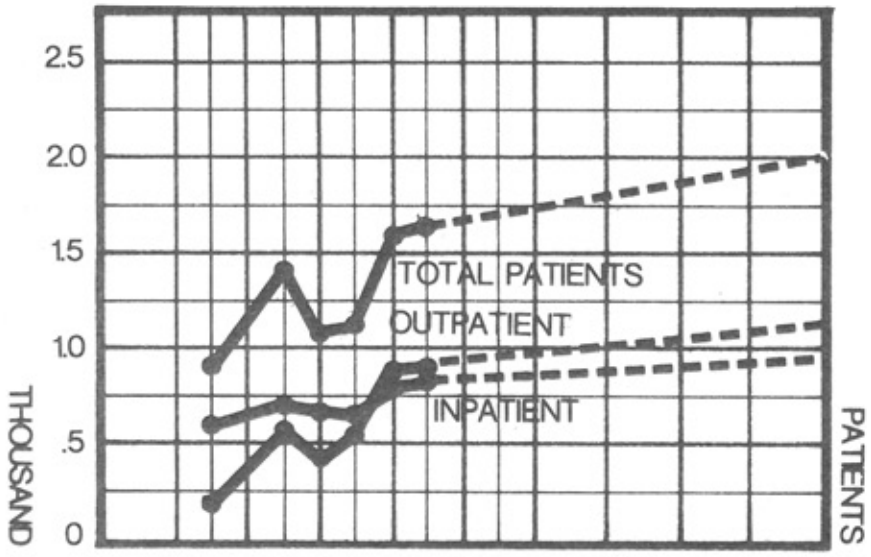
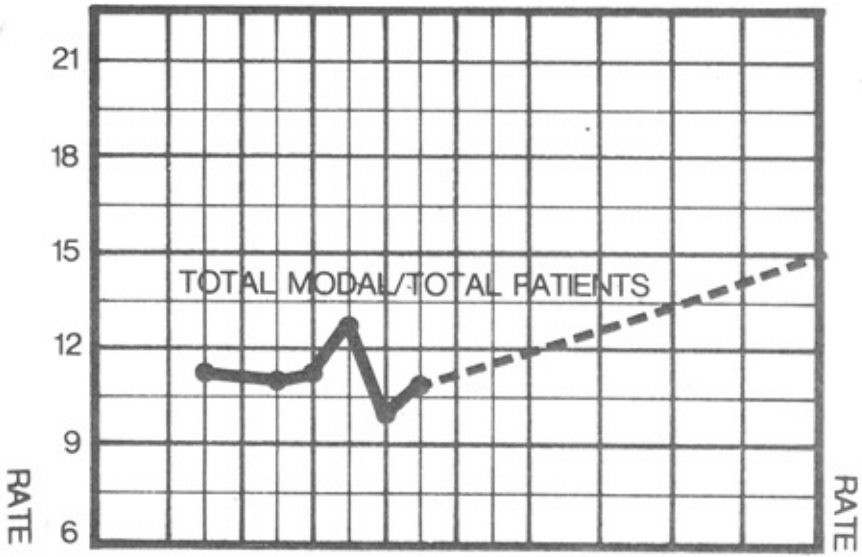
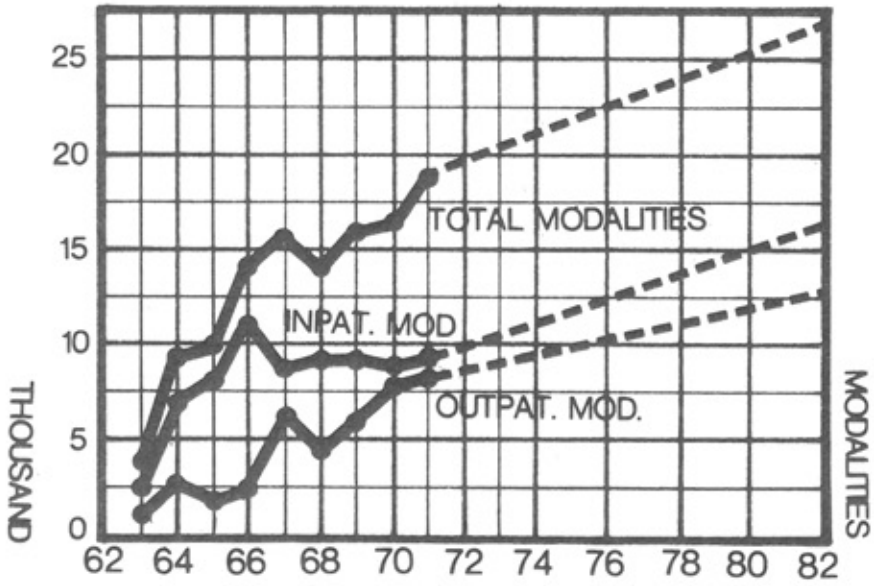


FIGURE 74


2.5
2.0
1.5
1.0
.5
0
THOUSAND
PATIENTS
TOTAL PATIENTS
OUTPATIENT
INPATIENT


21
18
15
12
9
6
RATE
RATE
TOTAL MODAL/TOTAL PATIENTS


25
20
15
10
5
0
THOUSAND
MODALITIES
TOTAL MODALITIES
INPAT. MOD
OUTPAT. MOD.
62 64 66 68 70 72 74 76 78 80 82

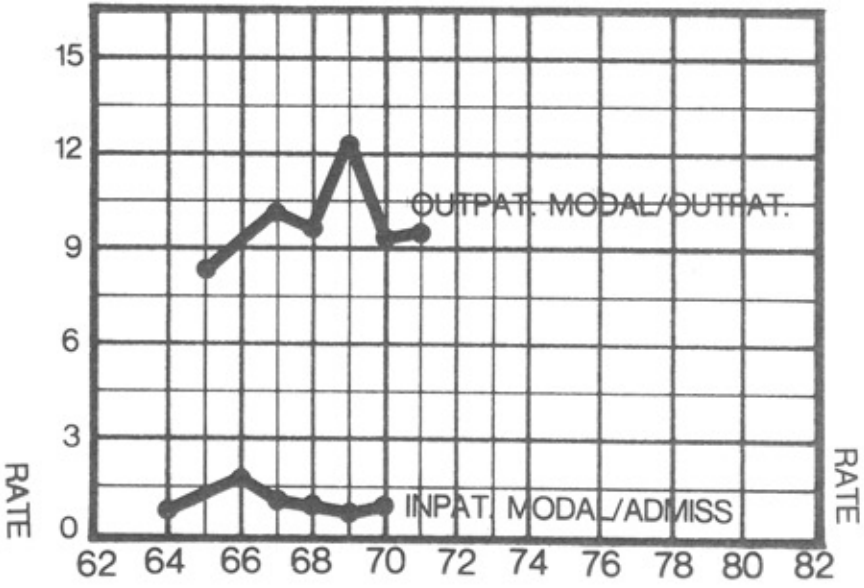
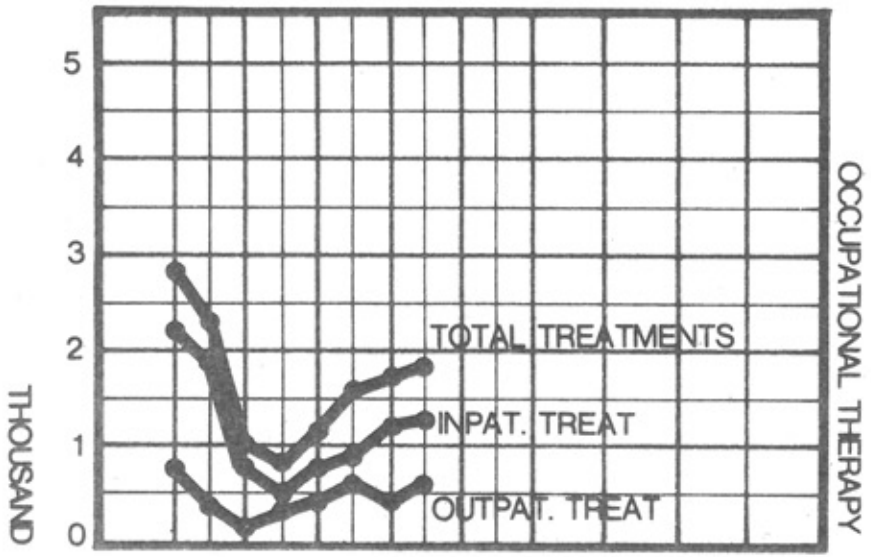
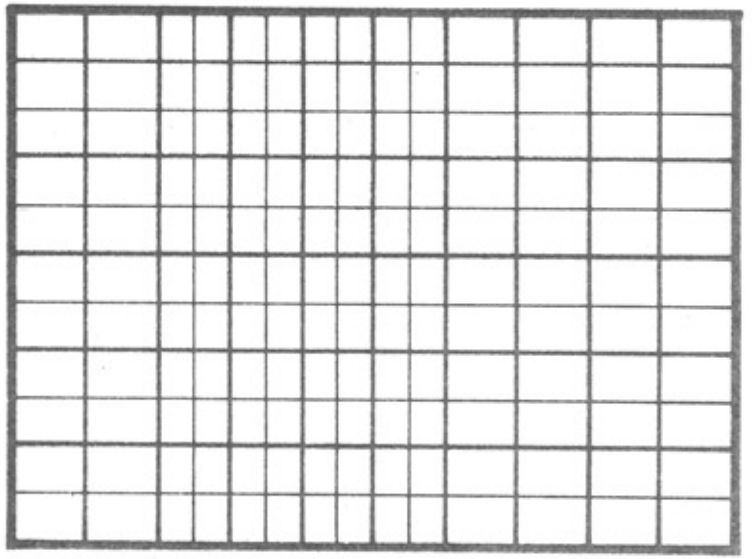
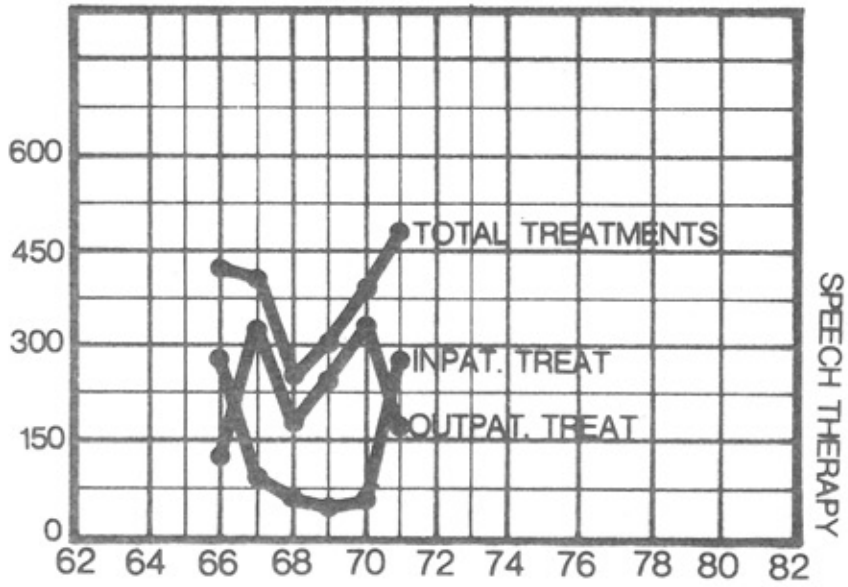

15
12
9
6
3
0
RATE
RATE
OUTPAT. MODAL/OUTPAT.
INPAT. MODAL/ADMISS
62 64 66 68 70 72 74 76 78 80 82

FIGURE 75


5
4
3
2
1
0
THOUSAND
TOTAL TREATMENTS
INPAT. TREAT
OUTPAT. TREAT
OCCUPATIONAL THERAPY




600
450
300
150
0
TOTAL TREATMENTS
INPAT. TREAT
OUTPAT. TREAT
SPEECH THERAPY
62 64 66 68 70 72 74 76 78 80 82

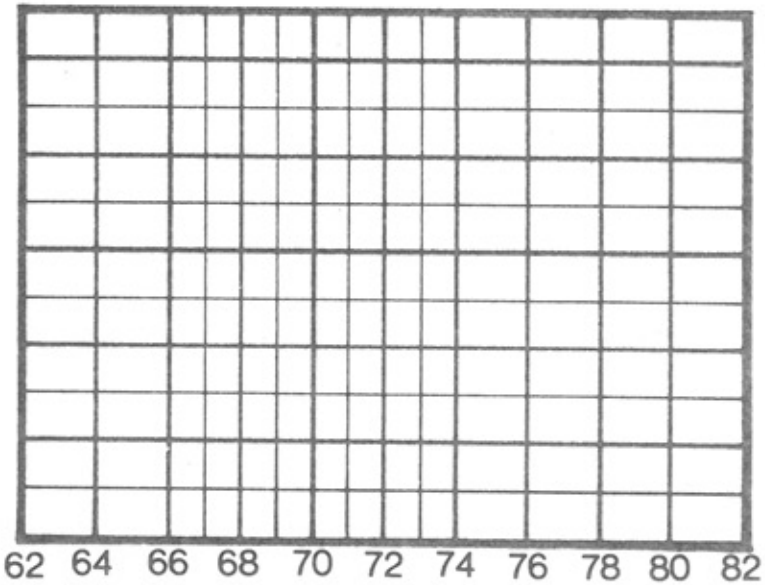
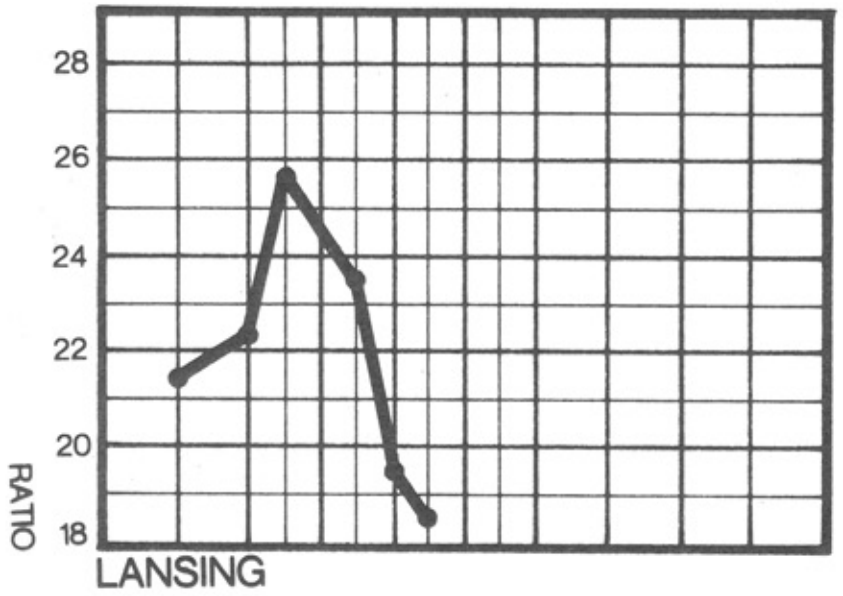
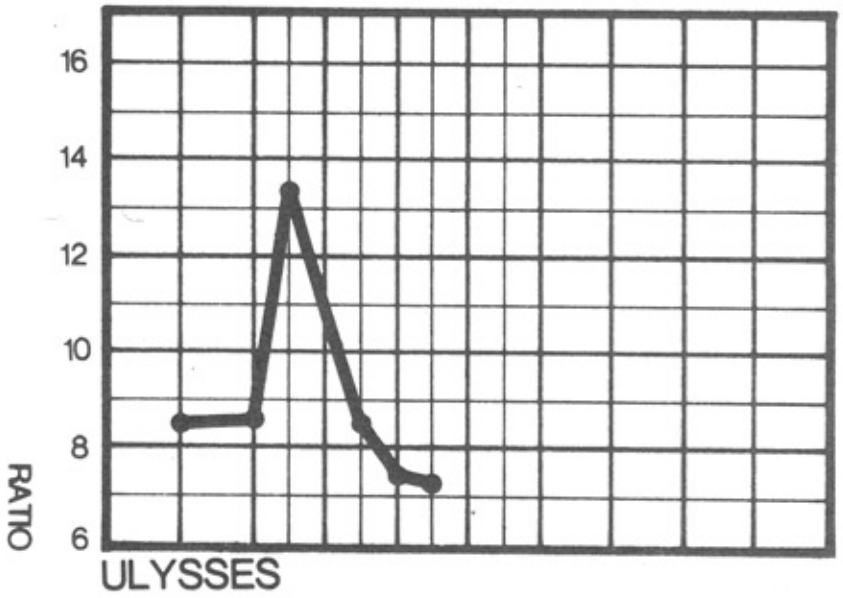
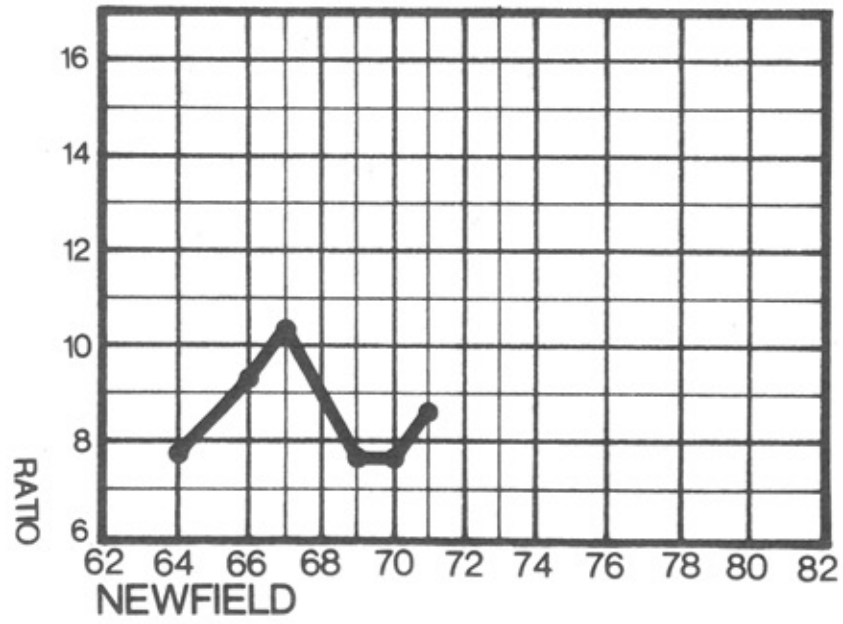

62 64 66 68 70 72 74 76 78 80 82

FIGURE 76

POPULATION / AREA PATIENT TOTALS







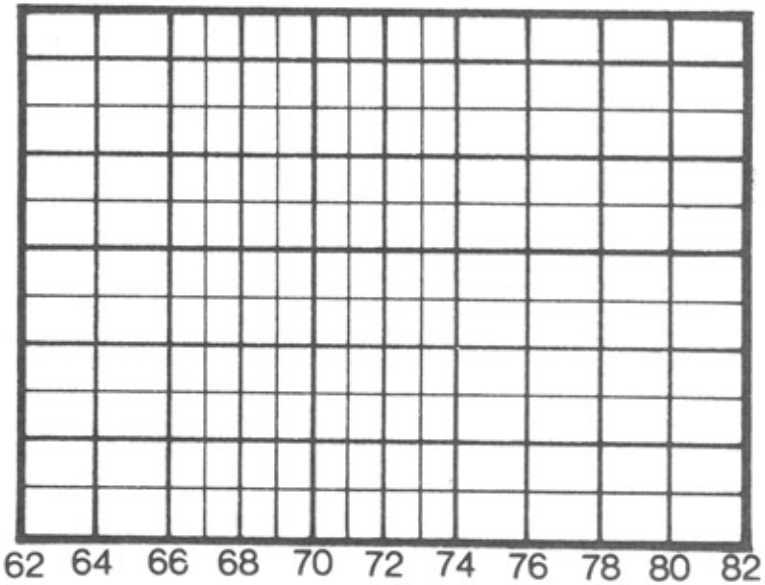
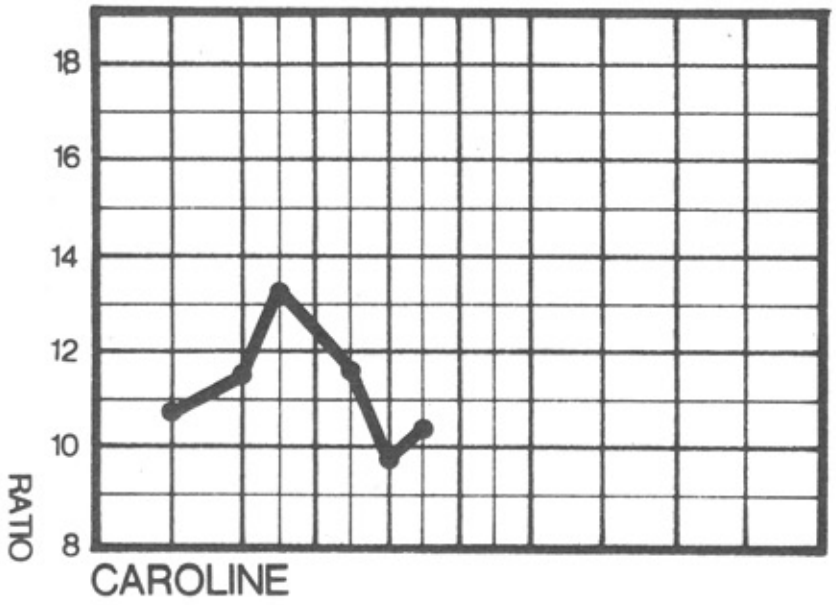
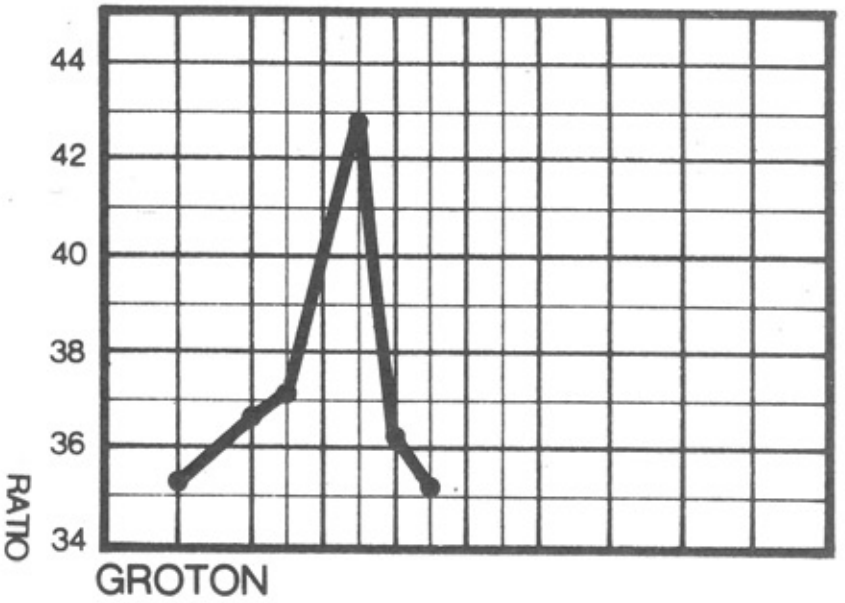
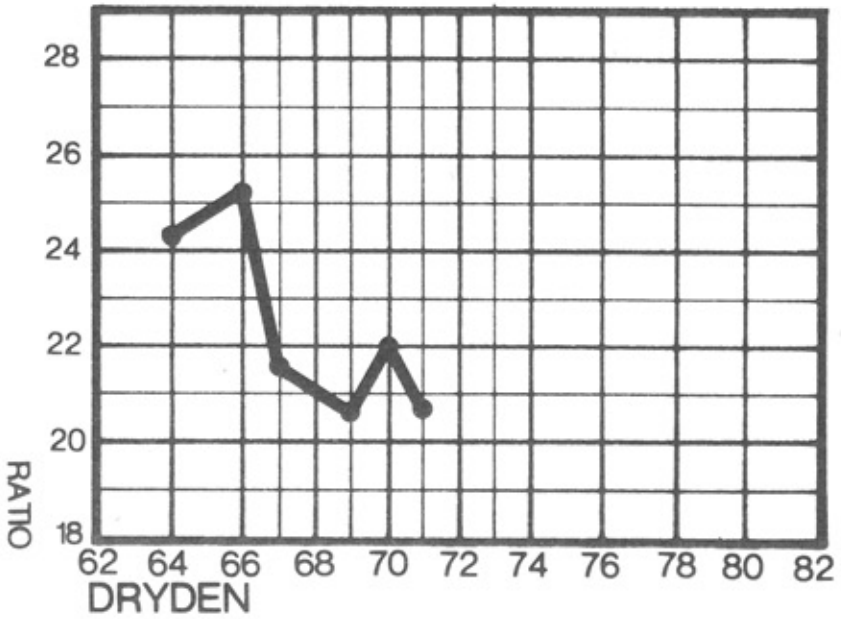


FIGURE 77

POPULATION / AREA PATIENT TOTALS







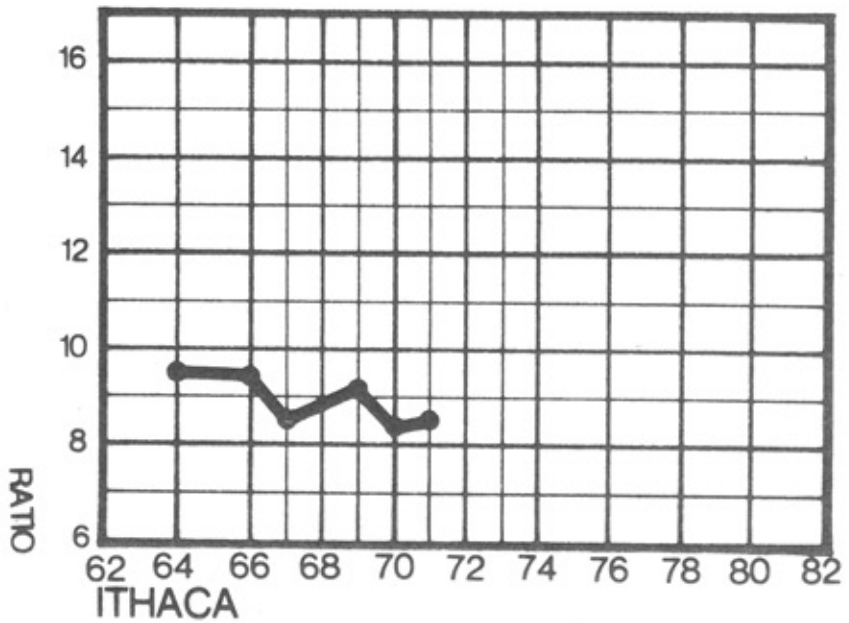


FIGURE 78