A STUDY TO DETERMINE AN EFFICIENT AND EFFECTIVE SYSTEM OF PATIENT APPOINTMENTS FOR KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

A Problem Solving Thesis

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Hospital Administration

By

Lieutenant Colonel Byron B. Alexander, MC

Waco, Texas

August 1974

APPROVED BY THE ACADEMY OF HEALTH SCIENCES, U.S. ARMY:

Director of the Program

APPROVED BY THE THESIS COMMITTEE:

Chairman

APPROVED BY THE GRADUATE COUNCIL:

Dean of the Graduate School

DATE: August 17, 1974

ABSTRACT

A STUDY TO DETERMINE AN EFFICIENT AND EFFECTIVE SYSTEM OF PATIENT APPOINTMENTS FOR KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

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Lieutenant Colonel Byron B. Alexander, MC

August 1974 90 Pages

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This project was designed to determine an efficient and effective system for the Kelsey-Seybold Clinic, Houston, Texas.

The following methods of research were employed: (1) the present system was evaluated for efficiency; (2) interviews were conducted with patients, physicians, nurses, and administrative personnel in various clinics; (3) a detailed analysis of high density work load areas of the Internal Medicine was conducted; (4) pertinent data were studied and recorded; and (5) current literature was reviewed.

The conclusions demonstrated that the present decentralized appointment system be maintained at Kelsey-Seybold Clinic. The main recommendations were that three additional appointment clerks be hired to accommodate the present and future work load. The appointment system should be re-evaluated for computerization methods when the work load reaches a minimum of 150,000 clinic visits.

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ACKNOWLEDGMENTS

The writer wishes to express his sincere appreciation and gratitude to Jim Bakken and his staff as the Kelsey-Seybold Clinic at Houston, Texas, for the courtesies and cooperation extended during the period of this study.

Special acknowledgment is due to John McCormick, Associate Administrator for Clinic Services, for his suggestions, kindness, and willing assistance.

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CHAPTER I

INTRODUCTION

General

Traditionally, health care delivery in the past has focused on inpatient rather than outpatient care. In the past few years, however, this focus has begun to gravitate with increasing speed, toward ambulatory care. This change has been brought about by a shortage of skilled personnel and high cost of inpatient care.

The changing concept for the delivery of health care is slanted away from an overutilization of hospital beds, and shifted toward care and treatment of patients in outpatient facilities; or, in some cases, such as that of the elderly patient, in the home. These methods enable the patient to care for himself or to receive care in his own environment.

This changing and more prominent role for outpatient facilities throughout this country has carried with it a tide of complaints concerning outpatient service. Perhaps the most widely aired complaint is one of long waiting lines. In many institutions, patients wait as long as an entire

eight-hour work day to see a physician for five to ten minutes. Preceding this wait, the patient may have had a three to six months' wait in order to secure an appointment.

With this increasing demand for outpatient care, emphasis must be placed on developing a more efficient and effective system of outpatient service that responds to the needs of the patient. Perhaps a good starting place would be an investigation of the scheduling of resources and facilities. Methods must be devised whereby patients are scheduled in a way that is both beneficial to their care and allows the physician time to perform his services in an optimum manner.

Clinic History and Setting

In January, 1949, Dr. Marvis P. Kelsey began the practice of internal medicine in Houston. The bright future offered by Houston and the infant Texas Medical Center brought him to his native state from Rochester, Minnesota, where he had received his graduate training in internal medicine and endocrinology at the Mayo Clinic.

Upon his arrival in Houston and while awaiting completion of his offices in the new Hermann Professional Building, Dr. Kelsey was invited by Dr. E. W. Bertner, then

President of the Texas Medical Center and a practicing gynecologist to share his office. After three months in this temporary arrangement, he moved into his own suite, 1201 Hermann Professional Building.

In the spring of 1950, at the invitation of Dr. Kelsey, Drs. W. D. Seybold and W. V. Leary visited Houston and made their decision to leave their staff positions at the Mayo Clinic to join Dr. Kelsey.

The nucleus of the Texas Medical Center was in evidence in the fall of 1950. Baylor University College of Medicine was housed in the three-story Cullen Building. The "new" 600-bed Hermann Hospital had been completed but was only partly occupied, because the demand for beds had not yet caught up with the supply in the center. The first unit of the Methodist Hospital, on Bertner Avenue, was under construction and still a year short of completion. The University of Texas M. D. Anderson Hospital and Tumor Institute was still housed in the buildings of the Baker Estate on Baldwin Street, and the University of Texas Dental Branch was at the corner of Blodgett and Fannin Streets. St. Luke's Episcopal Hospital and Texas Children's Hospital, the Jesse H. Jones Library Building, and the many other institutions

which now comprise the Texas Medical Center, were taking shape in men's minds or on architects' drawing boards. This was the state of development when the original partnership began.

In 1953, Dr. John R. Kelsey, Jr., who had been practicing in Paris, Texas, following completion of his training at the Mayo Clinic, moved to Houston to join his brother and Dr. Leary. In the same year, Dr. Albert Owers resigned his position on the staff of the Menninger Clinic in Topeka, Kansas, and opened his office in Houston for the practice of psychiatry.

From the Hermann Professional Building, the group moved to a small building in the 6600 block of Travis Street in 1954 and, as the need for space grew, to a larger building at 6655 Travis Street in 1957. The locations changed as the practice grew, and more specialists joined to help it grow--Drs. Earl F. Beard, A. E. Leiser, and J. W. Kemper in Internal Medicine; and Dr. Chester G. Cochran in Psychiatry. In 1960, Drs. Robert A. Johnston and Melville L. Cody brought their practice of obstetrics and gynecology to the partnership. In early 1961, a section of general thoracic surgery was added. Within the next three years, sections in pediatrics,

ophthalmology, otolaryngology, dermatology, occupational medicine, urology, orthopedics, dentistry, neurology, and pathology were added.

In 1963, the clinic moved to its present location at 6624 Fannin Street. The clinic occupied a new two-story building which was designed for expansion. In 1968, four additional floors were added to the building. An additional satellite office was opened in 1971 in the Galleria Complex on Westheimer at the West Loop.

Members of the clinic staff are closely identified with the teaching institutions in the Texas Medical Center and all hold appointments on the clinical faculties of Baylor College of Medicine, the University of Texas Graduate School of Biomedical Sciences, Division of Continuing Education, or the University of Texas Dental Branch.

A clinical laboratory and facilities for diagnostic radiology studies have been maintained by the clinic from its inception. Additional facilities have been added: radioisotope laboratory, pulmonary function, vectocardiography, audiology, speech pathology psychological testing and evaluation, and electro-encephalography. The services of a registered physical therapist, an electrolycist, and a graduate

dietitian are also provided.

Presently, the clinic consists of 50 full-time physicians, with total appointed patient visits of 120,000 annually. The present clinic employs 208 full-time personnel, to include 55 clinical nurses to assist 50 physicians.

Conditions Prompting This Study

The primary condition which prompted this study was the fact that the current appointment system is too informal, cumbersome, and inflexible to accommodate increased work load. An increased work load, due to expansion, has resulted in undue stress on personnel and present equipment in the decentralized appointment section.

The present situation and future plans of the clinic relate directly to its outpatient appointment system. The increasing number of outpatients and future plans for the clinic have prompted some thought towards organizing the present appointment system into a more centralized activity. An overriding reason for this study is the clinic's constant desire to improve the clinic image and service to the public.

CHAPTER II

THE PROBLEM

Statement of the Problem

The problem is to determine an efficient and effective system of patient appointments for a fifty-man group practice at Kelsey-Seybold Clinic, Houston, Texas.

Objectives

The objectives of this study are seven fold. The first objective is to study and analyze the present system of patient appointments. The next objective is to confirm the problem. The ensuing step is to evaluate the efficiency of the present system in view of an anticipated work load increase. A review of the literature will be conducted to determine alternative systems to solve the existing problem(s). The follow-up objective is to hypothetically apply these alternative systems to the Kelsey-Seybold appointment service, and to evaluate the advantages and disadvantages that arise. The most adaptable system will be selected for application toward a solution of the problem. This selected system will be interfaced with all the clinic services

provided for further study and evaluation by the Associate Administrator Clinic Service.

Criteria

Any outpatient appointment system applied at the Kelsey-Seybold Clinic must be selected with several criteria:

1. The system must be capable of handling large numbers of patients.

2. The selected appointment system must be responsive to the varied requirements of each system and its physicians.

3. The system must provide quick access to the information necessary for scheduling appointments.

4. The system must be designed for easy comprehension by the clerical personnel who staff the various clinic appointment desks.

Limitations

Any appointment system applied at the Kelsey-Seybold Clinic is subjected to some basic limitations:

1. There exists facility space parameters for any proposed appointment system. The main coordinating appointment area and the various clinic appointment areas are too

small to allow over five personnel to administer the system in any given area. The scarcity of space also prohibits any consideration for relocation of these appointment areas.

2. There exists no capability of computerization of an appointment system.

3. Evaluation will be limited to the present main clinic and restricted only to physician scheduling for ambulatory patients.

4. Satellite clinics will not be investigated.

5. Occupational medicine support at National Aeronautical Space Administration, Houston, Texas, will not be evaluated.

6. The economic costs of operating the present system and additional resources available for change must be considered.

7. The economic cost of an alternate system must not exceed the present economic resources allocated in the present system.

8. The adoption of an alternate appointment system is directly influenced by professional acceptability.

Facts Bearing on the Problem

There are several facts that have direct relationship

to any suggested ambulatory appointment system:

1. Ambulatory patient visits have increased annually for the past ten years and now exceed 120,000 visits per year (Appendix A).

2. Formal instruction has been given to the various clinic appointment clerks referencing the uniform implementation of a definite method of issuing appointments.

3. There is much autonomy of operation between the physician directors of each clinic area.

Assumptions

The assumptions are:

1. The current outpatient work load will tend to increase.

2. The various ambulatory clinics, to include specialties and subspecialties, will continue to exist as presently constituted.

CHAPTER III

RESEARCH AND METHODOLOGY

Research Methodology

The collection of information for this study was accomplished by several methods:

1. A preliminary discussion was held with the associate administrator of the clinic to gather background information on the Kelsey-Seybold Clinic ambulatory services.

2. The present appointment system was closely observed for a general evaluation of its function.

3. Information on appointment systems was requested in writing from various group clinics with missions and functions similar to the Kelsey-Seybold Clinic.

4. A thorough review of the literature was accomplished to determine the current trends in outpatient appointment systems.

5. Unstructured interviews were conducted with Drs. Kelsey and Seybold (founders of the clinic); and the administrator and associate administrator of the clinic to ascertain their feelings toward improving the present system. These personnel were also questioned for ideas they might

possess for designing a totally different appointment system.

6. A complete review of the Kelsey-Seybold Clinic statistics was conducted to ascertain the trend in patient visits (Appendix B).

7. The forms utilized in all reporting and scheduling for outpatients were reviewed. The purpose of this review was to determine whether the various forms contributed to an increase or decrease in the efficiency of the current system.

8. Policy and procedural guides for the appointment system were reviewed to determine whether there was a need for correction or updating.

9. Structured and unstructured interviews were held with the chief of the appointment section, telephone operators, and appointment clerks to ascertain their feelings toward improving the current system.

10. To gain an appreciation of the individual patient's problem with the appointment system, the following categories of patients were followed through the appropriate clinics: return patient and new adult clinic patient.

Definitions

The following terms are used in the study as defined

below:

Adult patient--is over fourteen years of age.

Automatic call distribution system--means incoming telephone calls into a centralized appointment system which are automatically routed to the first available appointment clerk.

Block system--means groups of patients given appointments at the same time, usually at the beginning of a clinic session.

Centralized appointment system--means appointments for all clinics are made from one location.

Clinic visit--consists of a patient being seen in any clinic by a physician, nurse, dietitian, or any other clinic-related professional.

Decentralized appointment system--means each clinic makes its own appointments.

New adult clinic patient--is one who is new at the Kelsey-Seybold Clinic and has not been seen previously.

Return patient--is one who has previously been seen in one of the specialty clinics.

Totally automated central appointment system--is a completely computerized system of centralized appointments

which, through teletypes, can essentially make, cancel, and print-out appointment schedules very rapidly.

Review of the Literature

The contributors to the current literature are generally of the opinion that using appointment systems in outpatient departments is better than letting patients "walk-in" without an appointment. Various authors believe that appointment systems seek to minimize both patient waiting time and physician idle time.[1] As Rosenfeld states:

> A well regulated appointment system has several advantages. Average waiting time is substantially reduced. As a corollary, the need for waiting room space is also reduced. Even more important, it makes possible the institution of a system of personal physician or family health team service. Appropriate times are allotted for new patients and for return patients in accordance with the norms of practice and with the experience of the clinic. The appointment system brings order into the logistical task of bringing the record, the patient and the doctor together at the right time.[2]

Until the advent of completely automated appointment systems,[3] only the uniformed services appeared to be paying much attention to <u>centralized</u> outpatient appointment systems, in which appointments for many--or all outpatient clinics, both general and specialized--are made by a group of clerks in one location. Plunkett described such a system at William Beaumont General Hospital.[4] Holston described one at Bethesda

Naval Hospital,[5] and Paulson described a "mechanized" system at Fitzsimons General Hospital.[6] A problem-solving thesis for the Army-Baylor Program in Health Care Administration was done at Martin Army Hospital at Fort Benning by Elizondo in which a centralized system was in operation.[7] However, in the above articles, little effort is made to present a theoretical justification or rationale for centralizing the appointment system; attention is directed toward the mechanics of each system. Plunkett does state that going from a "walk-in" system to an appointment system resulted in improvement in continuity of care, patient satisfaction, and doctor satisfaction.[8]

Rosenfeld has described the role of the Kaiser-Permanente system in popularizing the central appointment system concept:

> In order to relieve some of the load on the telephone system, and to expedite making an appointment, the Kaiser-Permanente program some time ago devised a system which has since been adopted by other group practice prepayment plans. This involved the organization of a central appointment system which can be reached either from special phones strategically located in the clinic area which patients can use to arrange reappointments, or from the outside. The center consists of a large table around which are seated appointment clerks. Built into the table is a large lazy susan which holds the appointment books of the physicians in the clinic. An automatic call director distributes calls to the clerks. Experience where such systems have been instituted

indicates that one appointment clerk can handle appointments for five to seven physicians.[9]

The Kaiser-Permanente system was also briefly described in Modern Hospital, which featured a color photograph of one of its systems on its front cover.[10]

Two other issues relating to appointment systems are prominent in the literature, and are of importance to the design of a centralized system. One is the question concerning whether appointments should be in blocks (several patients given the same appointment time, without knowing which doctor they will see); or by individual (one patient for each appointment interval, with a specific doctor assigned to that interval). All of the studies reviewed by the writer show that patient waiting time is least with individual appointment systems. In a study of ten hospitals, Johnson and Rosenfeld found that the hospital with the best record on waiting time had an individual appointment system.[11] Rosenblut and fellow researchers found that patient waiting time decreased from a mean of 81.5 minutes with a block appointment system to 59.3 minutes with an individual appointment system at Morrisania City Hospital, Bronx, N.Y.[12] In a study at Johns Hopkins Hospital, Soriano found that changing from block to individual appointments changed patient waiting

time from a mean of 127 minutes to 82 minutes (the administrative waiting time segment went from 39 minutes to 10 minutes).[13] Refinement of the individual appointment system devised by Soriano--the "two-at-a-time" appointment system--schedules two patients at each appointment time, with the intervals between appointments twice the average consultation time.[14]

The literature reveals two types of computerized appointment systems presently in operation. The Peter Bent Brigham Hospital currently is utilizing a computerized, central appointment system (CAS). The automated CAS, which uses a commercial on-line, real time computer system (Key Data Corporation), became operational in 1968. The present operational cost of the system is 0.73 cents per scheduled appointment. The start-up cost of the system was $640,000 which was provided by a Public Health Service grant in 1964.[15]

In contrast to Peter Bent Brigham Hospital, the Children's Hospital Medical Center (CHMC), Boston, Massachusetts, is not centralized. This system is composed of fifteen Cathode Ray Tubes (CRTs) with keyboard inputs which are located throughout an eleven-story clinic building.[16] The CHMC staff has concluded that the system will not be cost-

effective until a work load of 150,000 to 300,000 patient visits has been reached.

In summary, the literature discloses three general categories of outpatient appointment systems: centralized, decentralized, and a combination of centralized and decentralized. There are many variations connected with each of these basic systems. Computers can assist each system and create more variations. The ultimate type of system utilized is basically a function of the types of services provided, professional acceptability, and economic cost.

Footnotes

[1]Paul B. Hoffman, et al., "Planning for an Automated Clinic Appointment System," Hospital Topics, XLVIII (October, 1970), 37+; Charles A. Holston, "Central Appointment System for Outpatient Clinics," Hospital Management, CIX (October, 1967), 65-70; Andrew G. Jessiman and Kathryn Erat, "Automated Appointment System to Facilitate Medical-Care Management," Medical Care, VIII (May-June, 1970), 234-46; Walker C. Johnson and Leonard S. Rosenfeld, "Factors Affecting Waiting Time in Ambulatory Care Services," Health Services Research, III (Winter, 1968), 286-95; Michael B. Mitchell and Faith Gantreau, "Appointment Scheduling," Hospitals, XLIV (June, 1970), 58-59; Daniel C. Plunkett, "Military Pediatric Outpatient Care: Report of Experiences in a Large Army Hospital," Military Medicine, CXXXII (August, 1966), 711-15; Leonard S. Rosenfeld, Ambulatory Care: Planning and Organization (New York: Health and Hospital Planning Council of Southern New York, Inc., 1971).

[2]Rosenfeld, p. 56.

[3]Hoffman, p. 42; Jessiman and Erat, p. 243; John H. Bergman and David L. Steffey, "Data Processing Improves Outpatient Management," Hospitals, XLIII (January, 1969), 49-51; Leonard W. Cronkite, "Computer Brings Order to Clinic Scheduling System," Hospitals, XLIII (April, 1969), 55-57.

[4]Plunkett, p. 51.

[5]Holston, p. 68.

[6]Isabel S. Paulson, "A Mechanized Appointment System for Outpatient Clinics," Hospitals, XL (September, 1966), 80-88.

[7]Raymundo Elizondo, "A Study of the Appointment System in the Outpatient Department of Martin Army Hospital, Fort Benning, Georgia" (unpublished Master's thesis, Baylor University, August, 1971).

[8]Plunkett, p. 714.

[9]Rosenfeld, pp. viii-74.

[10]Greer Williams, "Kaiser: What is It? How Does It Work? Why Does It Work?," Modern Hospital, CXVI (February, 1971), 85.

[11]Johnson and Rosenfeld, p. 289.

[12]Alan Rosenblut, et al., "OPD Waiting Time Reduced by Use of Individual Appointment System," Hospital Topics, L (March, 1972), 48-52.

[13]Abraham Soriano, "A Comparative Study of Block and Individual Appointment Systems in the Outpatient Department, Wilmer Ophthalmological Clinic," Abstracts of Hospital Management Studies, Microfilm Reel 1.16, 1964.

[14]Abraham Soriano, "Comparison of Two Scheduling Systems," Operations Research, XIV (May-June, 1966), 388-97.

[15]Jessiman and Erat, pp. 234-46.

[16]James Shruhan, "The Children's Hospital Computerized Appointment System, Hospitals, XLIII (April, 1969), 55-57.

CHAPTER IV

DISCUSSION

Background and Clinic Arrangement

The purpose of the clinic as expressed by Dr. Kelsey is to combine the knowledge of specialists into a single medical unit so that the best of modern medical care can be focused on the individual patient at a reasonable cost. Dr. Kelsey's philosophy is as follows:

> Each patient at the Kelsey-Seybold Clinic must find that his study, limited or complete, will be supervised by the physician of his choice. His physician will be able to draw on all the resources of the clinic, including the medical staff and assisting members to provide sound, scientific medical services in the patient's behalf.[1]

Appendix C indicates the organizational chart for the overall clinic services. As mentioned earlier, there are fifteen major clinics with ten subspecialty clinics housed in a seven-story clinic building (Appendix D). The Kelsey-Seybold Clinic's fifty physicians are located in clusters pertaining to their particular specialty. All physicians within this group are highly trained specialists. The fifty physicians are full-time practitioners, and 100 per cent of their office practice is maintained in this

facility. Twenty per cent of the physicians' time is devoted to teaching and to inpatients who are housed in the various hospitals which comprise the Texas Medical Center. All physicians maintain staff and clinical appointments at the Baylor College of Medicine. The physical layout of the clinic is found in Appendix D.

Ambulatory clinic visits have been increasing significantly at Kelsey-Seybold Clinic since its inception. In calendar year 1971, clinic visits were approximately 100,000. This volume of visits precipitated reconsideration by the administration as to new methods of improving the system. A centralized appointment system was implemented for a period of six months but was abandoned, according to the chief administrator, for the following reasons:

1. To accomplish the centralized system, two additional personnel were hired. The new system did not appreciably diminish the activity at the individual reception areas. The same number of clerical personnel under the previous system were found to be required under the new system.

2. The volume of interoffice calls has increased. The nurses are no longer able to be at the appointment desk and examine schedules. Patients on the floor making

appointments for another day must wait while the girls call the central appointment desk, and the desk must call the appropriate floor if they add anyone to their schedule. All of these steps were previously unnecessary.

3. Professional acceptability: Physicians and nurses no longer had the flexibility of adjusting schedules. Valuable professional time was lost as each scheduled change required telephone communication to the distant centralized appointment center. Frequently, nursing personnel had to leave their duty stations and walk to the central appointment area to effect scheduling changes.

4. Patient acceptability: Patients on the floor making appointment for another day had to wait while the receptionists called the central appointment desk. This patient delay not present in the old system was the subject of many patient complaints.

5. Other factors: More schedules had to be Xeroxed than before. If the nurses added anyone to the schedule at the request of a physician, it necessitated their calling the central appointment desk. This reduced the flexibility of appointments.

During the past 18 months, patient visits have

increased to a level of 110,000 (Appendix A). This continued trend of increased visits has prompted further evaluation by the administration as to the feasibility of instituting a more centralized system of appointment control.

Objectives

The primary objective of the existing Kelsey-Seybold system is to maximize the utilization of available medical and administrative manpower. Medically, the system is concerned with scheduling patients with predetermined physicians; administratively, the system is concerned with consolidating similar clerical functions into an appointment system in order to reduce the clerical support required in the various clinics. In addition to these primary objectives, the appointment system is also used to facilitate the collection, reduction, and presentation of required statistical data and to assist in the control and distribution of medical records.

Current Procedures

The operating procedures of the current system are simple, and they are efficiently organized. The present system is essentially decentralized. There are two deviations from a purely decentralized procedure. One is the incorporation

of a scheduling desk located on the first floor. The primary function of this area is to schedule all patients for laboratory, X-ray special procedures, and written requests and for appointments. The other major deviation is that each clinic floor maintains its own appointment section. However, all doctors who practice on that floor are serviced by the same appointment section. Each physician informs the appointment section as to his availability, and patient time required for visit. A master appointment sheet is compiled for each doctor and is maintained in the clinic area. Two days prior to the scheduled appointments, copies of consolidated appointment sheets are forwarded to the central outpatient record section. Based on this list, all patients' records are pulled and forwarded to the appropriate clinic for the next day's appointments. Virtually all appointments are made by telephone; return visits are scheduled by respective clinics prior to the patients' departure from the clinic area.

Flexibility is maintained in the appointment system in order that nonappointed patients, emergency, or walk-in patients can be seen. In each respective clinic area, open times are maintained in preselected physician schedules so that appointments can be added as the need arises.

The procedures and forms utilized in the appointment service are standardized throughout all clinics. The only deviations noted by this writer were the amounts of time allotted per scheduled clinic visit. This individual physician desires dictated the time allotted per visit.

Capabilities of the Present System

One of the most valid methods of determining the effectiveness of any system is to question the people who use it. With this purpose in mind, the writer interviewed a random sample of thirty patients throughout the different clinics. Interviews and discussions were also conducted with twelve physicians (four new physicians with less than one year of tenure, four with more than one year but less than six, and four with more than twelve). Also included were interviews with the founding partners, Drs. Marvin P. Kelsey and William P. Seybold, several nurses, administrative personnel, and the telephone appointment clerks and telephone operators.

All thirty patients were extremely pleased with the fact that they were able to see the physician of choice, on a continuing basis, and at a date and time most convenient to them. They expressed no difficulty in obtaining appointments

by telephone.[2]

The physicians interviewed were pleased with the present system which they felt, provided them with flexibility in scheduling follow-up care and capability of adjusting the appointment system when the need arose in the interest of patient care. The addition of patients to the scheduled list on a moment's notice was judged to be critical in accommodating patients who needed care.[3]

The nurses were extremely pleased with the system. Nurses were assigned to work with specific doctors on a continuous basis similar to that accomplished in a private office practice. The convenience of the appointment service on each floor enabled them to keep abreast of patient schedules and provided them flexibility in accommodating the schedule changes that are characteristic of private office practice without leaving the floor.[4]

According to the administrator, the telephone appointment clerks were well qualified and performed exceptionally well in their jobs. Their job responsibility included the dual function of patient scheduling and receptionists (Appendix E). [The writer interviewed nine of the appointment clerks and all indicated a high level of job satisfaction,

but admitted that the service to the patient, particularly on the third floor, had declined because of the increased work load.][5]

The four telephone operators, located in the basement, are highly skilled.[6] Since the clinic lists only one number in its directory, it is their responsibility to screen all calls and connect them to the proper area of activity. These operators are required to know every physician by name, his location of practice, and type of specialty care provided. The operators expressed no difficulty in handling the volume of calls, particularly since the fourth position had been added to the switchboard in February, 1973. The predominant number of calls for appointments were directed to the third and fourth floors.

The writer, in an effort to discover the weakness in the present system, evaluated the work load accomplished by the third floor clinic. This particular floor was chosen because it accomplished 36 per cent of the work load performed by the total clinic on a random sample of work load (Appendix F). The analysis included a three-day sample of all appointments scheduled by telephone or interoffice calls and total number of patients handled by the appointment desk.

Analysis of Third-floor Appointment Activity

Personnel Assigned to Total Kelsey-Seybold Clinic Appointment System

The appointment service as a total system is accomplished by the following personnel:

1--Appointment Supervisor.

9--Telephone Appointment Clerks

2--Scheduling Desk--Information and Special Procedures.

4--Telephone Switchboard Operators.

Distribution of personnel is depicted by Appendix G. The total administrative personnel to accomplish the work load of the third-floor appointment and receptionist function is three. Throughout the test period of three days, only two appointment clerks were available to perform the work load. The appointment supervisor stated that this was not an unusual circumstance because 60 to 70 per cent of the time only two appointment clerks were available for third-floor duty. Analysis of the work load accomplished by the third-floor activity is found in Appendix H.

According to the administrator, the third-floor appointment clerks are currently handling a maximum work load. During the twenty-four hours the writer spent in actually

working with the appointment clerks, he found their endurance, patience, and tact to be phenomenal. They were exceptionally courteous and helpful in their dealings with the patients, but the dual function of receptionist and scheduling functions were obviously too great for two clerks to handle. They voluntarily skipped all break periods and left their desks infrequently for no more than a minute or two at a time.

During the test period the two appointment clerks daily averaged 240 calls, for appointments received 266 scheduled patients and averaged 95 interoffice calls per test day. Even though no definite manpower yardsticks are available, the military yardstick allows one appointment clerk per fifty daily appointments. This allowance pertains only to telephone work load in a centralized configuration.[7] Manpower allowance would obviously be greater if the appointment clerk performs dual functions of the clinic receptionist. Military manpower staffing would authorize a minimum of five appointment clerks to accomplish this work load.

Alternatives

The application of alternative appointment systems will be discussed. The major advantages and disadvantages

of each will be analyzed as they pertain to the Kelsey-Seybold Clinic.

Centralized Appointment System

The main purpose of the centralized appointment system is to reduce the total number of appointment desks and interview areas required within a given medical facility.

Advantages

The following advantages are apparent in the centralized system:

1. A uniformity of outpatient scheduling would be created since all new, return, and referral appointments would be processed centrally. This centralized processing would standardize the appointment procedures.

2. As a general rule, this system requires fewer appointment clerical personnel to perform the appointment function.[8] The various clinic appointment areas would be closed, and the appointment clerks would be eliminated. If the appointment clerks in the various clinics were also the full-time clerical personnel, the elimination of the appointment function would relieve a large percentage of their work load.

Disadvantages

The disadvantages include the following:

1. A centralized system would significantly reduce the flexibility presently enjoyed by each clinical activity.

2. The high volume of patients referred to this clinic because of its level of medical specialization requires that appointment scheduling be closely monitored by the attending physician and his nursing staff. A centralized configuration would significantly reduce the capability of the professional staff to facilitate scheduling changes.

3. A centralized system would not reduce the number of personnel currently utilized in present system. The receptionist activity would continue to require the same level of personnel.

4. The appointments for clinics operating on a referral basis are very difficult to handle under a pure centralized system.[9] The number of referrals each day are only known by the particular clinic personnel, and a significant degree of clerical work would be required to inform the central appointment desk daily.

5. There is insufficient area presently available to accommodate a centralized activity. According to the

administrator, the previous attempt at a centralization effort was partially negated because of sufficient area, away from patient flow.

7. The implementation of a centralized activity, because of additional personnel and construction costs, would significantly increase the costs of the appointment system. This increased cost would be ultimately acquired by the patient through increased service charges.

Decentralized Appointment System

The main purpose of a decentralized appointment system is to facilitate the handling of varied requirements in a smooth and effective manner.[10] Some clinics operate only on a decentralized basis because they function entirely on referral. The present system at the Kelsey-Seybold is basically decentralized with minor modifications as discussed previously. The physical separation of the clinic has no effect on the decentralization system because each clinic conducts its own appointment function. The major problem area in this system is supervison of the many clinics. A clinical manager could assist in performing the supervisory functions.

Advantages

There are distinct advantages to a decentralized system:

1. The decentralized system is familiar to the clerical and professional personnel presently employed at the Kelsey-Seybold Clinic since this is basically the system currently utilized.

2. Physicians feel they can provide better patient care by maintaining a decentralized system. In a decentralized system the physician can make appointment changes quite easily, whereas the centralized system does not facilitate these changes. The decentralized system most resembles a private practice of appointment system.

3. The decentralized appointment system is easily adaptable to a group practice as depicted by the Kelsey-Seybold Clinic.[11]

Disadvantages

The following disadvantages should not be overlooked:

1. Supervision of a decentralized system by the administrative staff becomes very difficult. The problem arises since each particular clinic has a tendency to develop its own standards and methods for making appointments; as a

result, it is difficult to develop checks and balances by which effectiveness can be evaluated.

2. Although not existent in the Kelsey-Seybold system, a lack of uniformity in making appointments can quickly exist if proper instruction and supervision is deficient. The decentralized system readily lends itself to autonomy, by its very nature. If the clinic supervisors neglect to supervise closely, the total appointment system quickly becomes inefficient.

Computer Applications

Computers have the attributes of assisting any type of appointment system.[12] The computerized centralized appointment system is presently being utilized by Peter Bent Brigham Hospital. The start-up cost of this system was $604,000 which was provided in a Public Health Grant. The cost of scheduling per patient by this system is presently 0.73 cents.[13]

In contrast to Peter Bent Brigham Hospital, the Children's Hospital Medical Center has a computerized, decentralized system. The system is composed of fifteen CRT with keyboard inputs scattered through an eleven-story building. The

CHMC has concluded that the system would not be cost effective until a work load of 150 to 300,000 had been reached.[14]

The potential of computerization to improve any existent appointment prompted this writer to investigate with International Business Machine (IBM) Computer Division the cost of implementing a computerized appointment system for the Kelsey-Seybold Clinic. Computerization of the decentralized system at Kelsey-Seybold Clinic would cost $10,000/month to implement. This would substantially increase the cost per patient scheduled. According to the comptroller, the present cost figures, to include both direct and indirect cost per scheduled appointment, is $1.09.[15]

Operating cost[16] of appointment system: $\frac{\$118,754.61}{108,481 \text{ visits}} = \$1.09$

According to IBM, the implementation of a computerized program at Kelsey-Seybold Clinic would substantially increase the cost of the appointment system. This increase in cost would ultimately be placed on the health consumer (Appendix J).

Operating cost[17] of computerized appointment system: $\frac{\$250,338}{108,481 \text{ visits}} = \$2.30$

Summary

The arrangement of the clinic areas was discussed for an initial understanding of the general realm of study. The present system was evaluated for effectiveness and efficiency. The high density work load area was analyzed for efficiency.

The two alternatives were a centralized appointment system and a decentralized appointment system. The centralized system's major advantage was the uniformity of outpatient appointments that would be created. Its major disadvantages were the inability to adapt to the functional design and facility space limitation, increased costs of implementation of the system, and loss of the physician's flexibility to facilitate appointment changes. The decentralized system had the major advantage of being able to adapt very readily to the scheduling requirements required in group practice. Its major disadvantage was the difficulty encountered in the sphere of control and supervision.

Computer applications were discussed; the major advantage was improvement of efficiency. The major disadvantage was that the system is not cost effective with the present work load generated by this facility.

Footnotes

[1]Interview with Dr. Marvin P. Kelsey, Kelsey-Seybold Clinic, Houston, Texas, February 27, 1973.

[2]Interview with patients, Kelsey-Seybold Clinic, Houston, Texas, March 4, 1973.

[3]Interview with physicians, Kelsey-Seybold Clinic, Houston, Texas, February 28, 1973.

[4]Interview with nurses, Kelsey-Seybold Clinics, Houston, Texas, March 5, 1973.

[5]This skill level was determined by an interview with Mrs. Betty Wilcox, telephone supervisor, and telephone appraisal reports provided by the Bell Telephone Company, Houston, Texas, February 27, 1973.

[6]Paulson, p. 80.

[7]Constable, p. 92.

[8]Paulson, p. 88.

[9]Soriano, p. 391.

[10]Rosenblut, et al., p. 51.

[11]Hoffman, p. 42; Jessiman and Erat, p. 243; John H. Bergman and David L. Steffey, "Data Processing Improves Outpatient Management," Hospitals, XLIII (January, 1969), 49-51; Leonard W. Cronkite, "Computer Brings Order to Clinic Scheduling System," Hospitals, XLIII (April, 1969), 55-57.

[12]Shruhan, p. 56.

[13]Jessiman and Erat, p. 241.

[14]Cronkite, p. 56.

[15]Interview with Comptroller, Kelsey-Seybold Clinic, Houston, Texas, March 5, 1973.

[16]Ibid.

[17]Ibid.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

Conclusion

After critically reviewing the system in operation at the Kelsey-Seybold Clinic for scheduling outpatient appointments, the following conclusion is made:

The present system, with certain modifications, is the best method for ensuring the effectiveness and efficiency in scheduling outpatient appointments.

Recommendations

It is recommended that:

1. A decentralized appointment system be continued at the Kelsey-Seybold Clinic.

2. Three more appointment clerks be employed.

3. The appointment section needs to be bolstered so that it can adequately respond to present and future work load needs.

4. Formal training classes be given to all appointment clerks to insure flexibility in meeting work load fluctuations.

5. Further evaluation of the computer application be made when the work load reaches 150,000 clinic visits.

APPENDIX A

PATIENT STATISTICS

PATIENT STATISTICS

Fiscal Year	New Patients	Total Patients Seen
May, 1954, to May, 1965	8,462	47,952
May, 1965, to May, 1966	11,222	59,991
May, 1966, to May, 1967	13,287	71,052
May, 1967, to May, 1968	13,418	79,229
May, 1968, to May, 1969	15,800	98,751
May, 1969, to May, 1970	16,189	102,785
May, 1970, to May, 1971	16,742	103,785
May, 1971, to May, 1972	17,014	108,481
May, 1972, to Jan, 1973	9,553	80,497

Projected Work Load

May, 1972, to May, 1973	120,744

10,062 Monthly Average x 12 Months

APPENDIX B

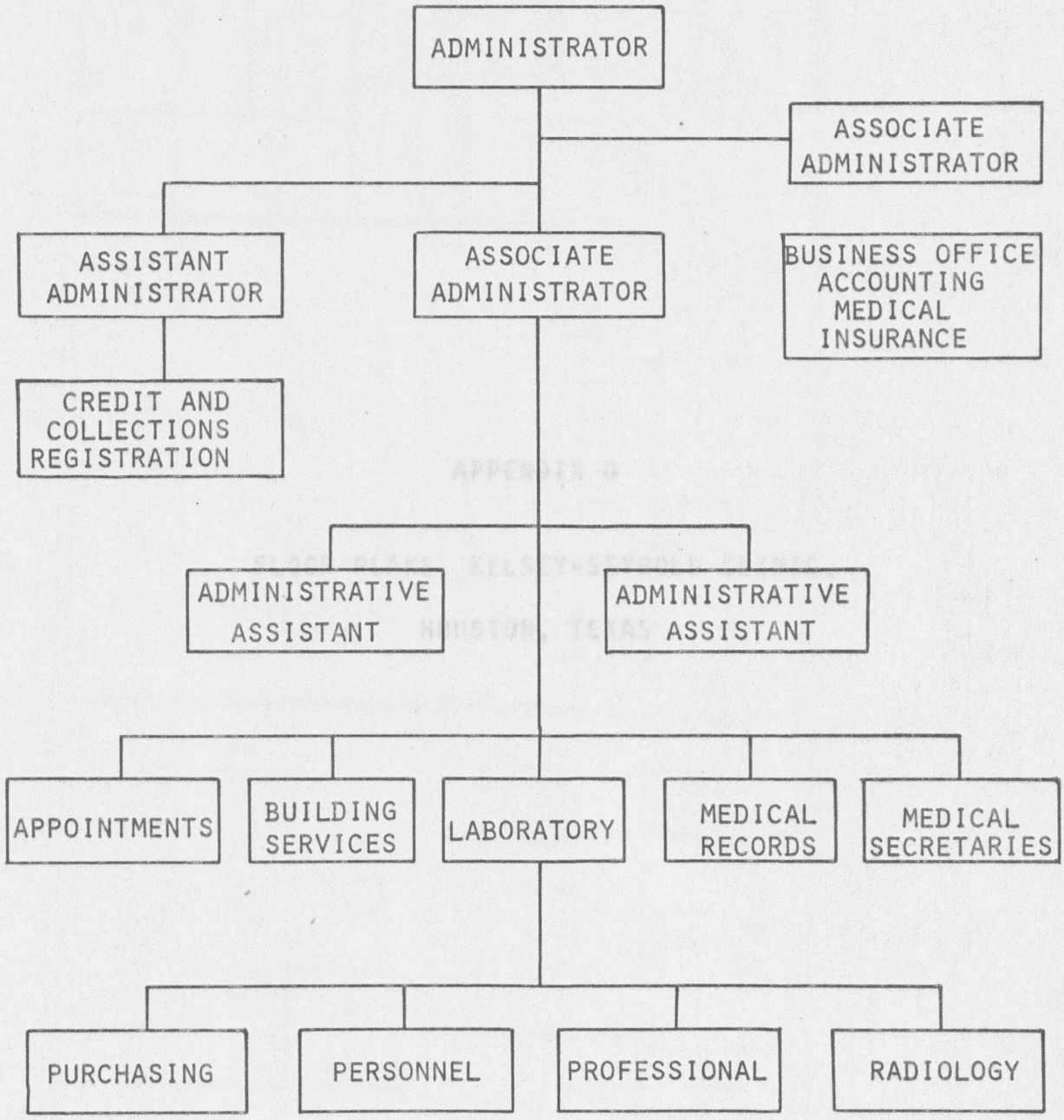
PATTERNS OF GROWTH, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

	# New Patients	% Increase	# Patient Visits	% Increase	# M.D.s	% Increase	# Employees	% Increase	Space - Sq. Feet	% Increase	Bookings	% Increase	Collections	% Increase	% Overhead	% Increase & Decrease	Net To Partners	% Increase
1961																		
1962					16								708,792	40.9	353,467	41.6	355,325	40.1
1962																		
1963					18	12.5	59		9,000				875,671	23.5	466,045	31.8	409,626	15.3
1963																		
1964					18	-	73	23.73	33,000	272%	1,192,400		1,148,334	31.1	623,112	33.7	525,222	28.2
1964																		
1965	8,291		51,549		23	27.8	78	6.85	33,000	-	1,482,611	24.3	1,419,723	23.6	786,850	26.3	632,873	20.5
1965																		
1966	11,134	34.29	59,999	16.38	28	21.7	90	15.38	33,000	-	1,932,900	20.4	1,823,138	28.4	1,063,246	35.1	759,892	20.1
1966																		
1967	13,287	19.34	71,052	18.44	33	17.9	115	27.78	33,000	-	2,351,299	21.6	2,324,343	27.5	1,523,267	43.3	801,076	5.4
1967																		
1968	13,418	.99	79,229	11.51	43	30.3	142	23.48	33,000	-	2,911,131	23.8	2,787,479	19.9	1,834,577	20.4	952,902	19.0
1968																		
1969	15,800	17.75	98,751	24.64	47	9.3	150	5.63	66,000	100%	3,769,597	29.5	3,569,980	28.1	2,286,543	24.6	1,283,437	34.7
1969																		
1970	16,189	2.46	102,785	4.09	47	-	158	5.33	66,000	-	4,206,469	11.6	4,032,597	13.0	2,493,072	9.0	1,539,525	20.0
1970																		
1971	16,884	4.29	104,684	1.85	46	2.1	168	6.33	68,684	4%	4,583,546	9.0	4,366,093	8.3	2,716,411	9.0	1,649,682	7.2
1971																		
1972	17,935	6.22	113,265	8.20	49	6.5	185	10.12	77,000	11%	5,339,137	16.5	5,107,635	17.0	3,175,220	16.9	1,932,415	17.1
1972																		
1973							208		77,000	0								

APPENDIX C

ORGANIZATION CHART, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

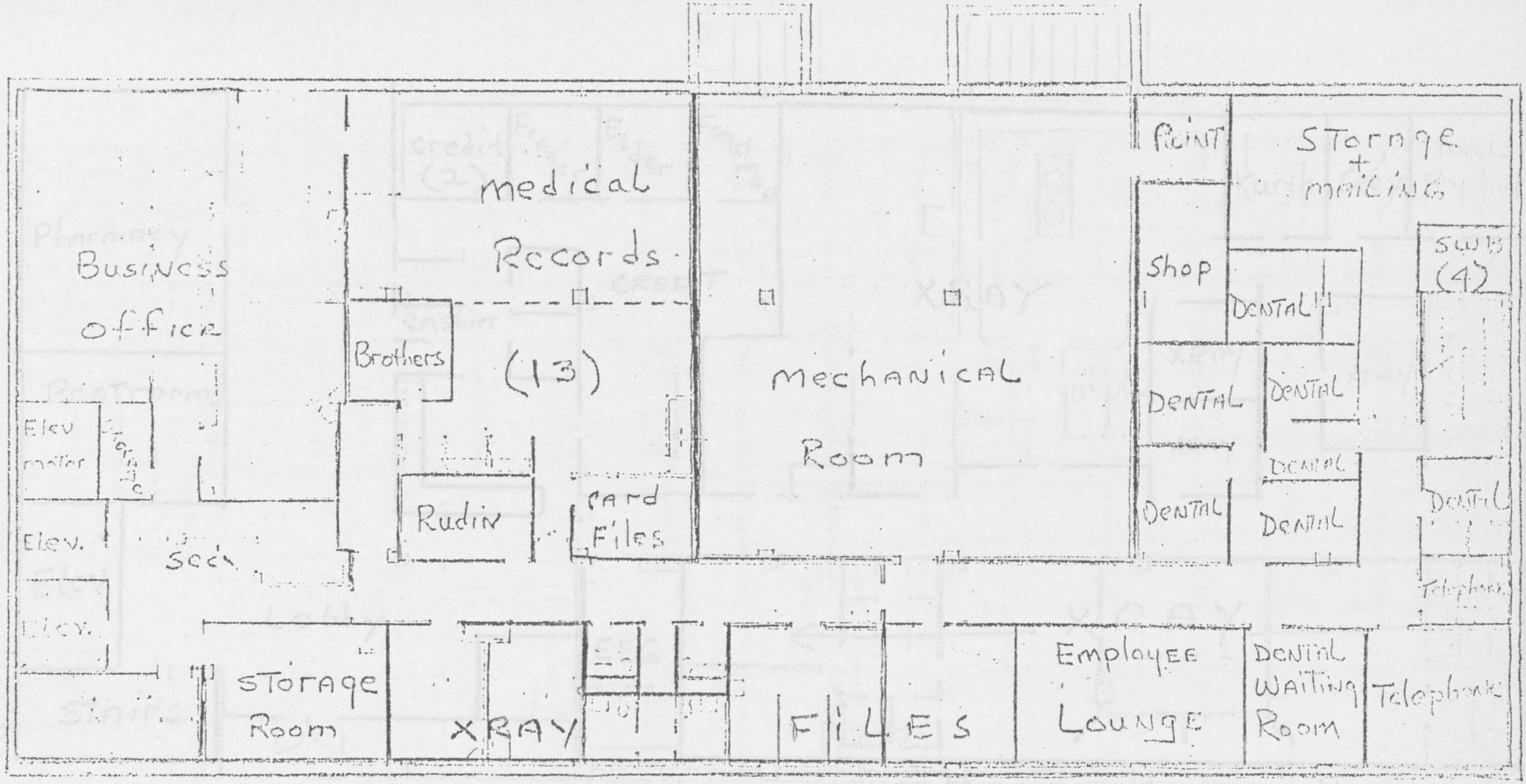
ORGANIZATION CHART
KELSEY-SEYBOLD CLINIC



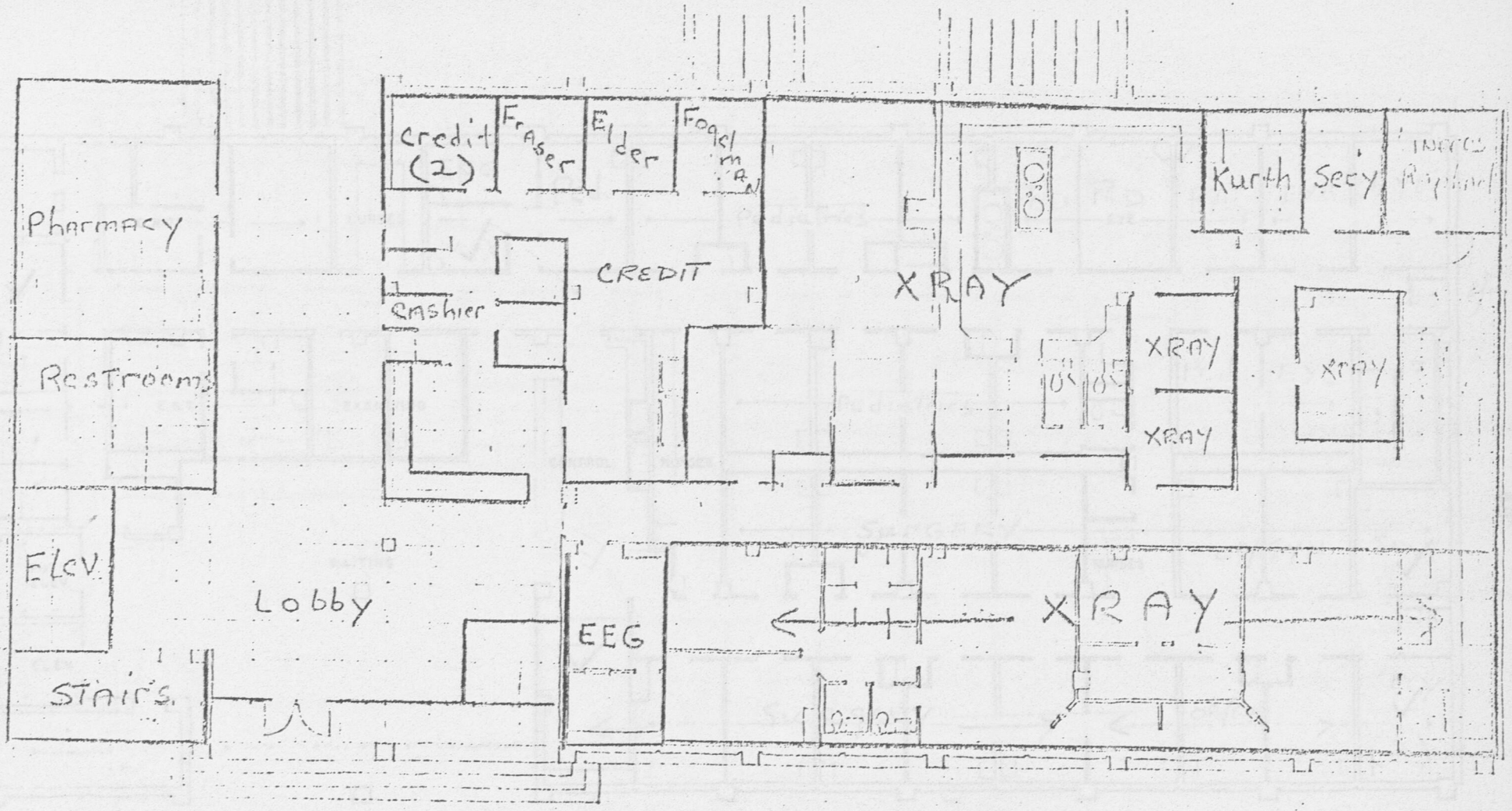
Source: Jim Bakken, Administrator, Kelsey-Seybold Clinic, Houston, Texas, March 5, 1973.

APPENDIX D

FLOOR PLANS, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS



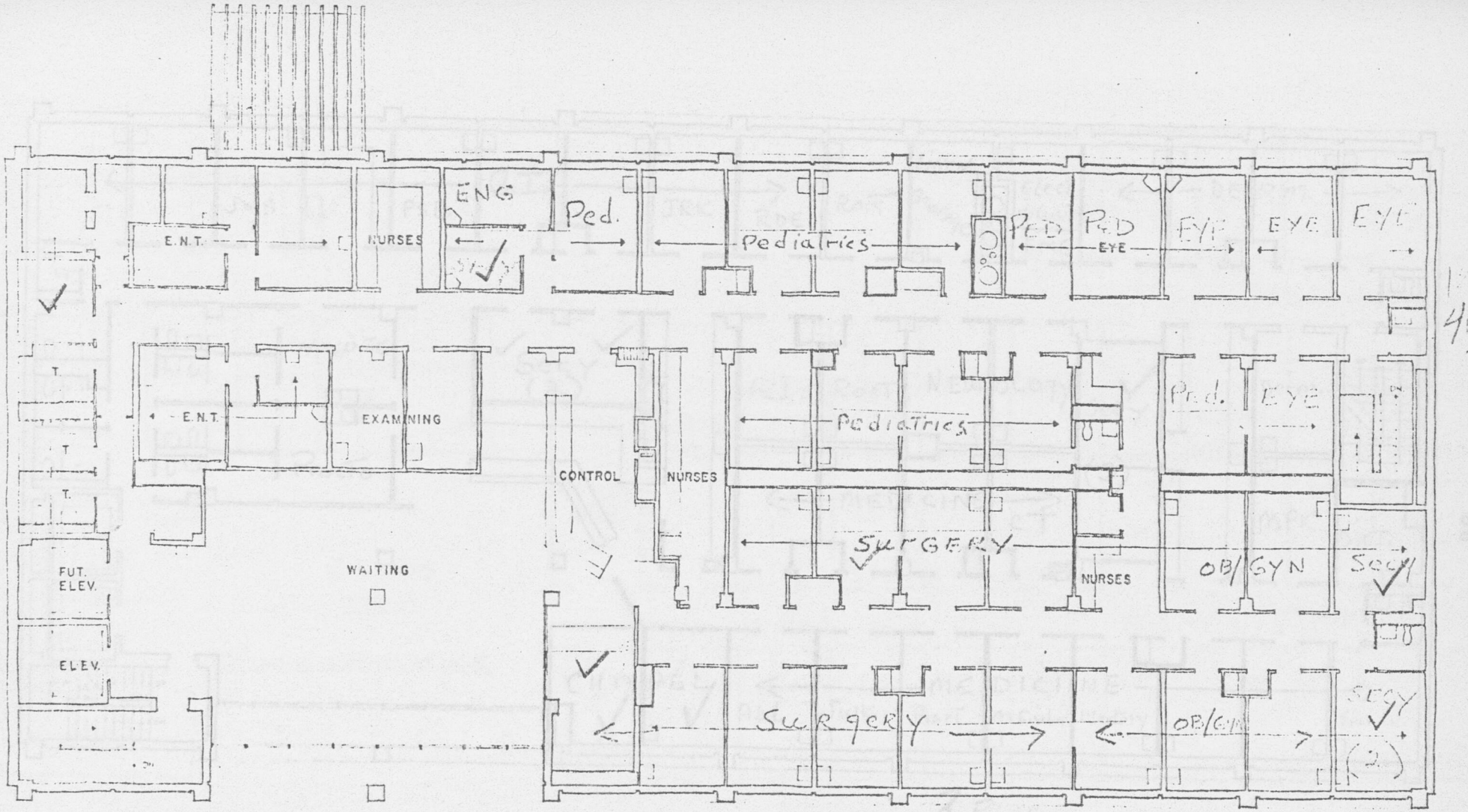
BASEMENT PLAN



EEG Convert to x-ray

FIRST FLOOR PLAN

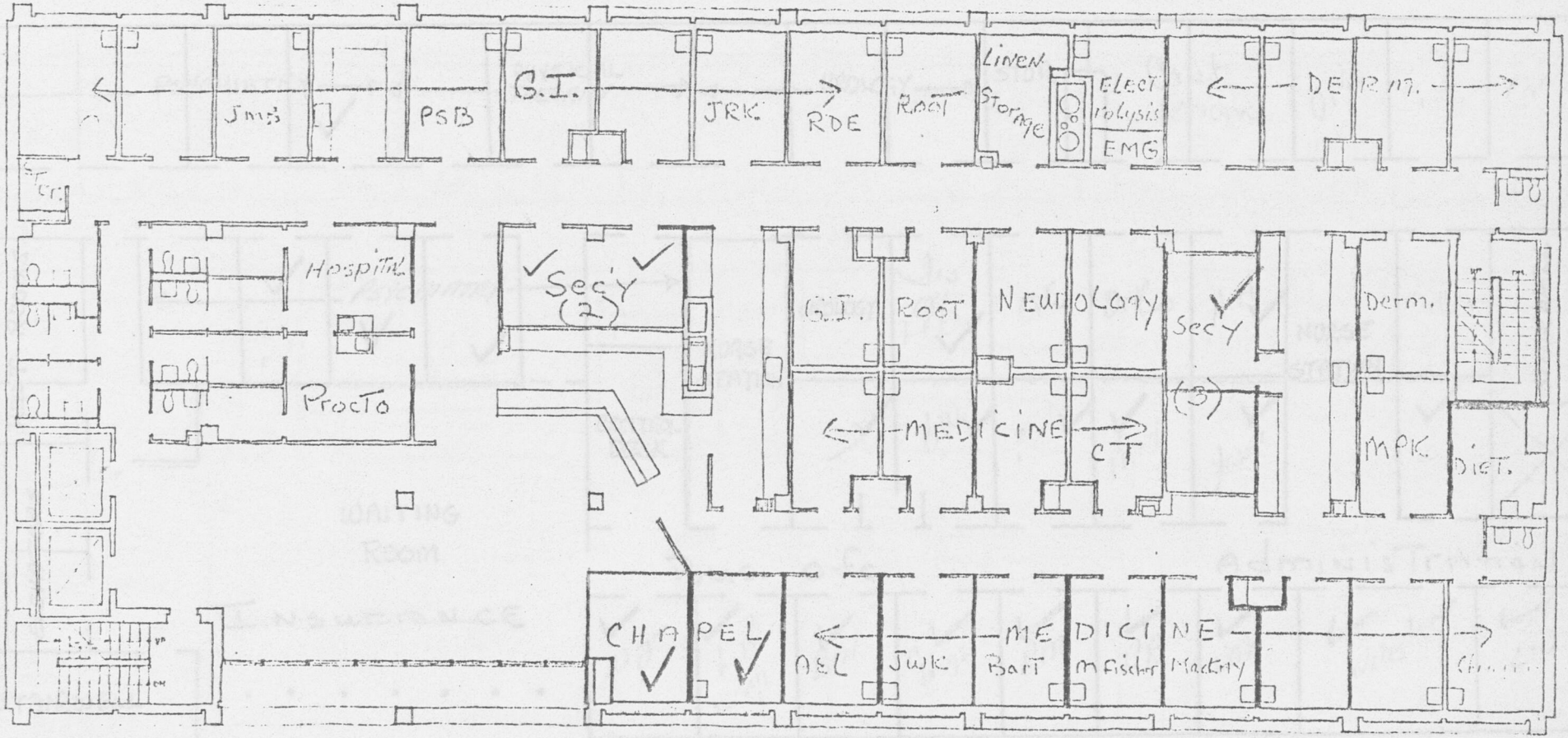
SECOND FLOOR PLAN



5 Possible
1 sure

SECOND FLOOR PLAN

0 20

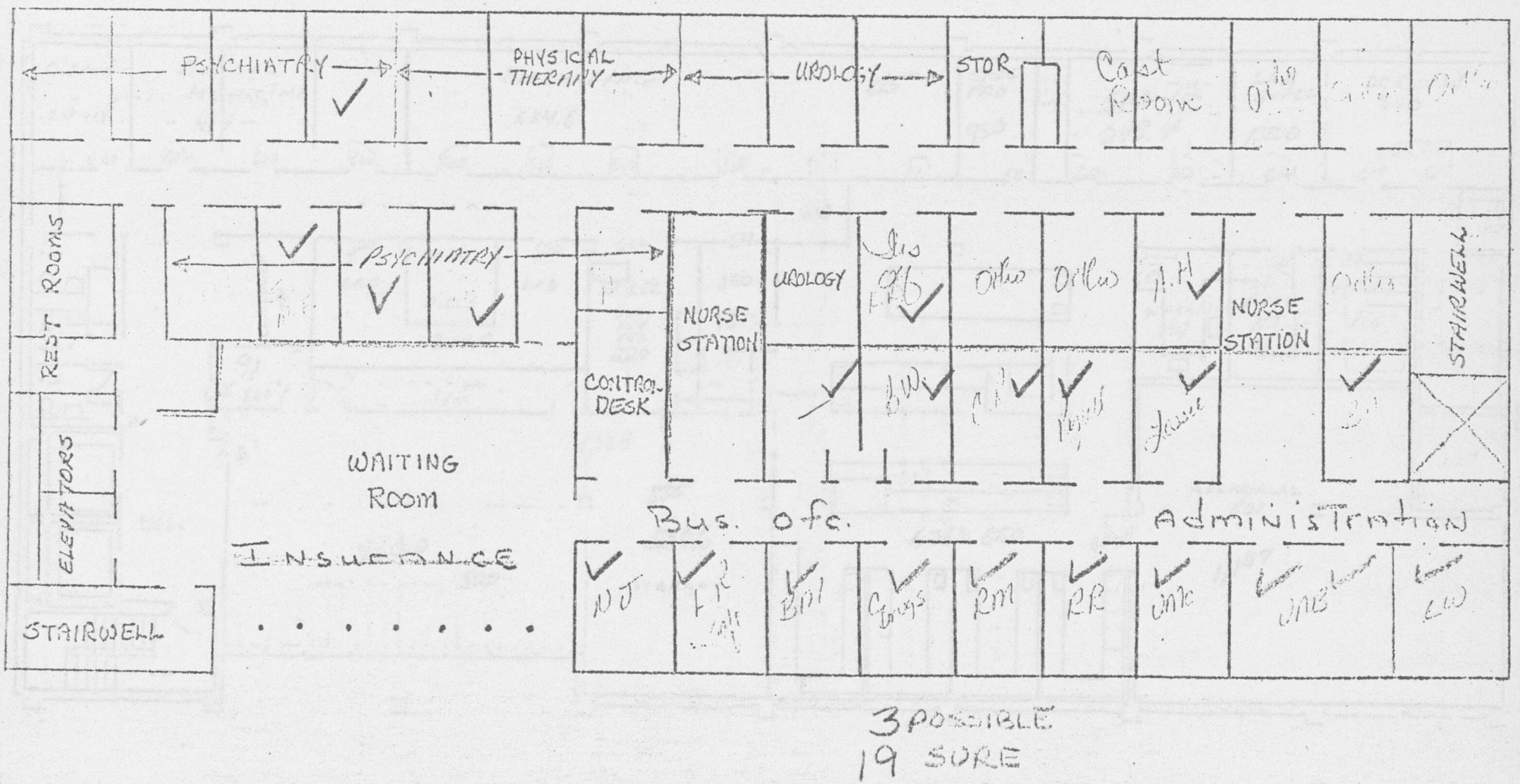


3 PSYCH
2 SURG

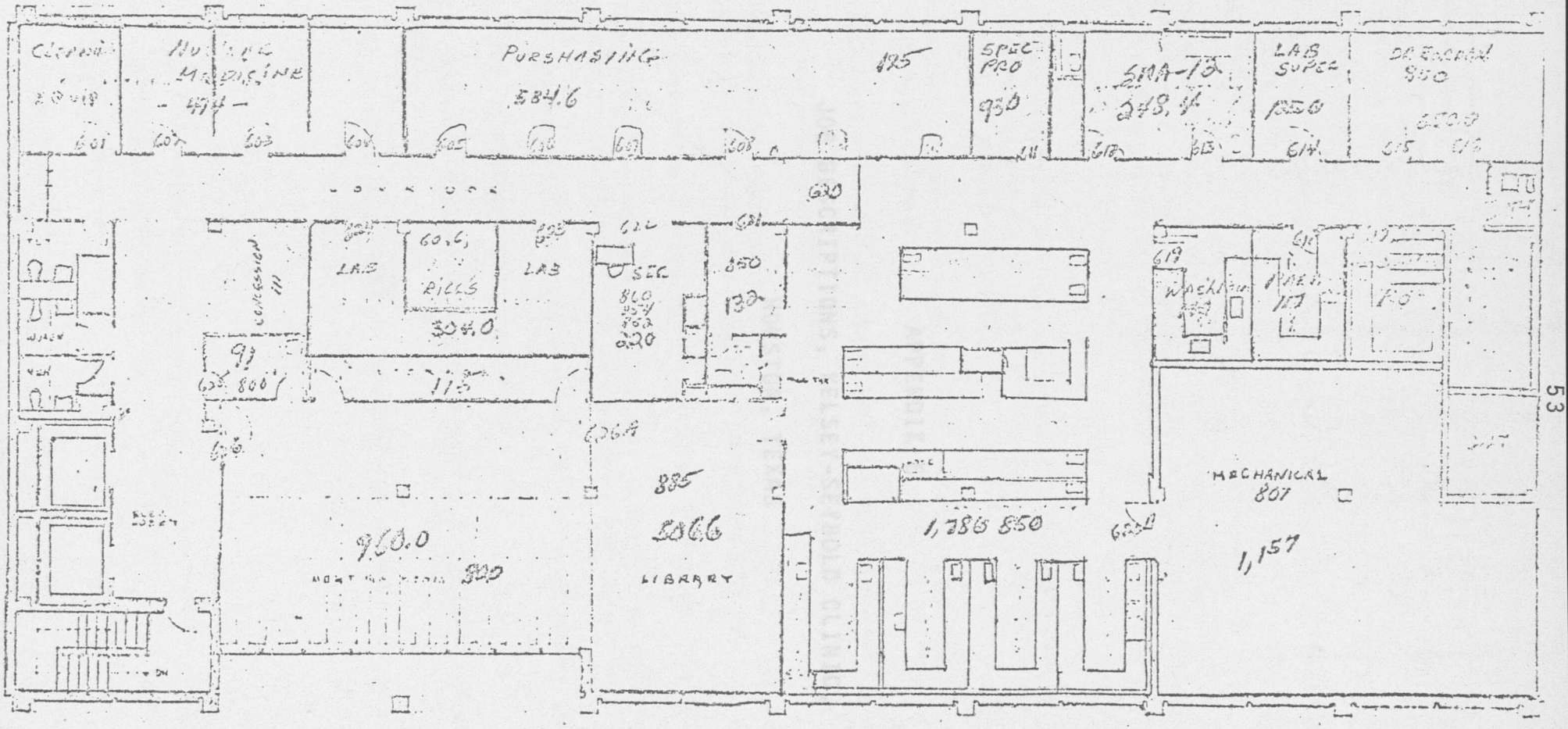
THIRD FLOOR PLAN

0 20

MISSING
PAGE(S)



FIFTH FLOOR PLAN



SIXTH FLOOR PLAN

0 20

APPENDIX E

JOB DESCRIPTIONS, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

JOB DESCRIPTION	KELSEY-SEYBOLD CLINIC HOUSTON, TEXAS	10
2. JOB REQUIREMENTS: A. PRIMARY: High school education. Good speller, legible penmanship, and good telephone voice and technique. Accurate typewriter operation. Pass physical exam and aptitude test. Bilingual necessary. B. SECONDARY: Knowledge of shorthand and medical terminology are desirable traits for this position. Promptness, courtesy, and consideration are necessary attributes.		3. TITLE RECEPTIONIST 4. PAY SCHEDULE $350 - $450
5. DEPARTMENT	6. EMPLOYEE'S NAME	7. DATE EMPLOYED

8. SUPERVISOR CONTROLS, DUTIES, WORKING CONDITIONS, ETC. (CONTINUE ON ADDITIONAL SHEETS, IF NECESSARY.)

SUPERVISORY CONTROLS

Works under the general supervision, performing duties in accordance with established policies and procedures, and refers matters not able to be properly handled to the department supervisor or designated Assistant Administrator.

MAJOR DUTIES

1. Prepares physicians' schedules and makes appointments for patients as necessary. Renders specific instructions to patients with regard to appointments and any necessary special requirements or considerations.

2. Prompt, courteous, and considerate greeting and processing of all patients upon arrival. Notifies nursing and/or professional personnel of patient arrivals.

3. Makes proper distribution of medical charts and prepares necessary requisitions.

4. Courteously and accurately directs patients to other clinic activities.

5. Files records and reports accurately and promptly as required. Accurately and promptly processes requests for services and necessary test requisitions.

6. Refers questions concerning charges to the Business Office or cashiers.

7. Checks completed work to ensure all required entries have been made upon necessary documents. Ensures proper distribution of completed work documents.

8. Courteously and diplomatically handles requests for information by unauthorized persons.

9. Assists in services to patients when required.

10. Maintains a neat personal appearance and work area. Promptly notifies the supervisor when problems arise.

11. Provides training to other personnel as required and performs other duties as assigned.

JOB CONTENT APPROVAL

9. THIS STATEMENT ACCURATELY DESCRIBES THE WORK REQUIRED FOR THE TITLED POSITION(S).	10. THE ABOVE DESCRIPTION, WITH SUPPLEMENTAL MATERIAL, IS ADEQUATE AND IS APPROVED.
A. SIGNATURE OF APPROVING SUPERVISOR	11. SIGNATURE OF ADMINISTRATOR
B. DATE	12. DATE

JOB DESCRIPTION	KELSEY-SEYBOLD CLINIC HOUSTON, TEXAS	1. JOB NUMBER 11

2. JOB REQUIREMENTS: A. PRIMARY:
High school education. PBX experience. Good telephone voice. Pass physical exam and aptitude test. Bilingual necessary.

SECONDARY:
Dependability and ability to speak concisely, courteously, and accurately to all telephone callers.

3. TITLE
RECEPTIONIST (SWITCHBOARD)

4. PAY SCHEDULE
$350 - $450

5. DEPARTMENT	6. EMPLOYEE'S NAME	7. DATE EMPLOYED
801		

SUPERVISOR CONTROLS, DUTIES, WORKING CONDITIONS, ETC. (CONTINUE ON ADDITIONAL SHEETS, IF NECESSARY.)

SUPERVISORY CONTROLS

Works under the general supervision, performing all duties in accordance with established policies and procedures, and refers matters not able to be properly handled to the supervisor or designated Assistant Administrator.

MAJOR DUTIES

1. Promptly and courteously answers all telephone calls to the clinic.
2. Promptly and accurately places long-distance telephone calls and maintains accurate records thereof.
3. Notifies physicians on call. Accurately maintains physicians' on-call list and provides it to the answering service.
4. Assigns paging numbers and pages requested personnel as necessary. Maintains operation of the taped clinic music system.
5. Maintains a neat personal appearance and work area. Promptly notifies the supervisor when problems arise.
6. Provides training to other personnel as required and performs other duties as assigned.

JOB CONTENT APPROVAL

THIS STATEMENT ACCURATELY DESCRIBES THE WORK REQUIRED FOR THE TITLED POSITION(S).	THE ABOVE DESCRIPTION, WITH SUPPLEMENTAL MATERIAL, IS ADEQUATE AND IS APPROVED.
9. SIGNATURE OF APPROVING SUPERVISOR	11. SIGNATURE OF ADMINISTRATOR Carl Scheuer
10. DATE	12. DATE

6-20-PP

INSTRUCTIONS FOR COMPLETION ON REVERSE SIDE

JOB DESCRIPTION	KELSEY-SEYBOLD CLINIC HOUSTON, TEXAS	1. JOB NUMBER 14
JOB REQUIREMENTS: A. PRIMARY: High school graduate. Bilingual, type 30-40 wpm. Pass physical examination and aptitude test. Dependable and able to communicate well. Good speller, penmanship, and telephone voice. SECONDARY: Shorthand and medical terminology.		3. TITLE CLERK (ADMINISTRATIVE) 4. PAY SCHEDULE $325 - $500
5. DEPARTMENT	6. EMPLOYEE'S NAME	7. DATE EMPLOYED

SUPERVISOR CONTROLS, DUTIES, WORKING CONDITIONS, ETC. (CONTINUE ON ADDITIONAL SHEETS, IF NECESSARY.)

SUPERVISORY CONTROLS

Works under the general supervision, performing duties in accordance with established policies and procedures, and refers matters not able to be properly handled to the department supervisor or designated Assistant Administrator.

MAJOR DUTIES

1. Greets all patients courteously.

2. Enters patient information requirements on necessary documents, schedules, and/or charts. Courteously deals with all personal contacts to insure a smooth flow through understanding of the system.

3. Communicates with other clinic departments to obtain and disseminate necessary information.

4. Establishes and maintains files as necessary.

5. Color codes charts as necessary and dispatches records and reports promptly and accurately to proper clinic areas.

6. Directs patients and other personnel to appropriate clinic areas and provides general information upon request. Courteously and diplomatically handles requests for information by unauthorized persons.

7. Handles incoming telephone calls courteously and promptly.

8. Maintains a record of new patients or schedules as necessary. Also, reviews those files periodically to determine completeness and accuracy.

9. Checks all records, reports, and documents for completeness and accuracy. Takes necessary action to correct any discrepancies noted.

10. Maintains a neat personal appearance and work area. Promptly notifies the supervisor when problems arise.

11. Provides training to other personnel as required and performs other duties as assigned.

JOB CONTENT APPROVAL

9. THIS STATEMENT ACCURATELY DESCRIBES THE WORK REQUIRED FOR THE TITLED POSITION(S).	THE ABOVE DESCRIPTION, WITH SUPPLEMENTAL MATERIAL, IS ADEQUATE AND IS APPROVED.
A. SIGNATURE OF APPROVING SUPERVISOR	11. SIGNATURE OF ADMINISTRATOR G A Bateman
10. DATE	12. DATE

APPENDIX F

TOTAL PATIENTS SEEN PER FLOOR, PER SPECIALTY, JANUARY, 1973, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

TOTAL PATIENTS SEEN PER FLOOR
PER SPECIALTY
JANUARY, 1973

2nd Floor			
OB/GYN	647		
Surgery	528		
Pediatrics	910		
Otolaryngology (ENT)	1,263		
Ophthalmology	329		
Total Patients Seen 2nd Floor		3,714	
3rd Floor			
Internal Medicine	3,024		
Neurology	176		
Dermatology	861		
Total Patients Seen 3rd Floor		4,061	
4th Floor			
Internal Medicine	1,399		
Occupational Health	280		
Total Patients Seen 4th Floor		1,679	
5th Floor			
Urology	347		
Psychology	1		
Orthopedics	769		
Psychiatry	322		
Physical Therapy	143		
Total Patients Seen 5th Floor		1,582	
Basement			
Denistry	181		
Total Seen in Basement		181	
Total Patients Seen			11,217

PATIENT FLOW FROM THE SCHEDULING DESK,
JANUARY, 1973

X-RAY	
Gall Bladder	122
Stomach	221
Colon	116
Small Bowel	30
IVP	48
Mammogram	59
H.S.G. (Ob/Gyn)	3
Tomogram	6
	605
EEG	88
Nuclear Medicine	176
GTT (Fasting Blood)	78
Procto	226
Dietitian	55
	623
Total Patients Scheduled at Scheduling Desk	1,228

APPENDIX G

RECEPTIONISTS PER FLOOR AND WORKING SCHEDULE, JANUARY, 1973, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

RECEPTIONISTS PER FLOOR
& WORKING SCHEDULE
January, 1973

2nd Floor

Flora Sanchez	8:00 - 5:00
Mary Carranco	8:30 - 5:30

3rd Floor

Ophelia Garza	8:00 - 5:00
Mary Sena	8:00 - 5:00
Kay Hibbard	8:30 - 5:30

4th Floor

Georgianna Dehn	8:00 - 5:00
Sonia de la Fe'	8:00 - 5:00
Maria Vaquero	8:30 - 5:30

5th Floor

Jean Robertson	8:30 - 5:30

Scheduling

Allison Dyslin	7:45 - 4:45
Norma Alejandro	9:00 - 6:00

PBX

Gloria Gloria	7:30 - 4:30
Anna Crowford	8:00 - 5:00
Frances Dickson	8:30 - 5:30
Mary Martinez	9:00 - 6:00

APPENDIX H

THIRD FLOOR APPOINTMENT ANALYSIS, KELSEY-SEYBOLD CLINIC, HOUSTON, TEXAS

3rd Floor Appointment Analysis	1 Mar	2 Mar	3 Mar
Scheduled patients Received at Desk	176	214	234
Return Visits Rescheduled at Desk	29	18	26
Appointments Scheduled by Telephone	146	115	308
Interoffice Communications	90	63	132
Walk In/Additions	61	20	42
Total Patients Received at Desk Telephone Communications	266 239	234 178	302 440
Average per Clerk Received at Desk Telephone Communications	133 120	117 89	151 220
Total Visits All Clinics	479	545	482
Percentage Workload Accomplished by 3rd Floor	55%	43%	63%
Composite Average of Total Workload	54%		

APPENDIX I

APPOINTMENT STANDARD OPERATING PROCEDURES,

THIRD FLOOR, KELSEY-SEYBOLD CLINIC,

HOUSTON, TEXAS

APPOINTMENT STANDARD OPERATING PROCEDURES
THIRD FLOOR, SELSEY-SEYBOLD CLINIC
HOUSTON, TEXAS

INTERNAL MEDICINE APPOINTMENT DESK

LOCATION--3d Floor--Scheduling Area

TYPE OF APPOINTMENTS

1. Future

   A. Return Patients, Office Visits, Year Checks and Consults--Made at Appointment Desk in the usual manner. Appointment schedules will be Xeroxed daily.

   B. New Patient Referred--Central Desk will make up green slip and give to registration desk personnel who will forward to record room.

   C. New Patient Unassigned--Central Desk will check doctors rotation list for availability, then make green slip and follow same procedure as 1B

   D. Follow-up Visits--Same as 1A--Lab and X-ray scheduling will have access to the schedules.

2. Today's

   A. Return Patients, Office Visits, Year Checks and Consults--Appointment Desk will notify receptionist by telephone intercom of any add ons. Receptionist will make green slip and send to nurse who forwards to record room for chart to be processed.

   B. New Patient Referred--Appointment Desk will notify receptionist of add ons by telephone intercom. Receptionist will make green slip and send to nurse who enters patient's name on schedule and then forwards green slip to personnel at Registration Desk who then forwards it to record room.

   C. New Patient Unassigned--Appointment desk will check

doctors rotation list and availability, then follow same procedure as 2B.

D. Follow-up--Desk will follow same procedure as 2A.

Calls relative to appointments taken by doctors or nurses should be transferred to Central Appointment Desk via the automatic flashback button on telephone.

Doctors and nurses returning calls to patients who will need appointments should notify said patients they are to call the Appointment Desk to schedule their appointments.

If patient wishes appointment for today and doctors schedule is full, Central Desk will transfer call to nurse for a workin. It will be the nurses responsibility to make up green slip and give it to receptionist who will then forward to record room.

If a patient is here and needs a future appointment, the receptionist on the floor will call the Central Desk to set up the appointment.

PEAK PERIODS FOR APPOINTMENT DESKS

8:00 to 10:30

2:00 to 4:00

PEAK PERIODS FOR SCHEDULING DESK

7:45 to 8:30

10:30 to 1:00

3:00 to 5:30

APPOINTMENT SCHEDULING

1. Doctor Patient wishes to see

2. How long it has been since(he or she)has seen any of our doctors.(This enables the receptionist to know if the patient is old or new,without offending old patients who think the new personnel should know them)

3. New patients who are not referred to a particular doctor, give the appointment to a doctor that specializes in the symptons of the patient, or if the patient wants a complete check-up, give to the Internal Medicine doctors, that is on the "New Patient Rotation List". This list is kept at the central appointment desk on the first floor.

4. Work-ins-Give these calls to the nurse. If one is not available, have the patient come in at a time, when the doctor will be here and let him decide what should be done. Any out of town patient, particulary those from Mexico, who come in or call and want to be seen the same day, should be transferred to the nurse, if the doctor has a full schedule.

5. Emergency Calls-Give to the nurse.If nurse not available, give to the doctor on call.

6. When answering more than one telephone call, please make sure the party you are asking to hold, acknowledges this before you put them on hold. The hold call could be of an emergency nature and need to be taken care of first.

DENTISTRY APPOINTMENTS

Appointments made by the Dental Department.

DERMATOLOGY APPOINTMENTS

1. New Patient Office Visit-15 min.(except Dr. Owens, 10 min.)Patient that has not seen any doctor in the clinic.

2. Old Patient Office Visit-15 min.(except Dr. Owens, 10 min.)Patient that has been to the clinic previously.

ENT APPOINTMENTS

1. New Patient Office Visit-15 min.-Patient that has not seen any doctor in the clinic.

2. Old Patient Office Visit-15 Min.-Patient that has previously been to the clinic.

3. Hearing Test-15 min.-Patient that has a hearing problem. Do not schedule more than one each 30 min.

INTERNAL MEDICINE APPOINTMENTS

NEW PATIENTS

1. New Patient Complete-60 min.(except Dr's M. Kelsey & Burke, 40 min.;Dr. Taboada 45 min.)This is a patient who would like a complete physical examination and has not seen any of our doctors before. If a company exam, get name of company.

   A. Married 1. Female-Get husbands first name, second initial, last name, her given name and telephone number.

   2. Male-Get first name, second initial, last name and wifes given name and telephone number.

   B. Widow-Get first name, second initial, last name and telephone number.

   C. Male or Female(Single)Get first name, second initial, last name and telephone number.

SEND GREEN SLIPS ON ALL NEW PATIENTS TO THE NEW PATIENT REGISTRATION DESK

2. New Patient Office Visit-15 min.(except Dr's M. Kelsey and Burke, 10 min;Dr. Riggs, 45 min; A patient that does not want a physical examination, that has a minor problem such as: cold, sore throat, ear ache, etc. Get same information as #1, A, B, C.

3. New Patient Pre-Employment-15 min. Occupational Medicine Exams done for companies before employing an employee. Forms on hand. See Industrial Book for instructions. Get same information as #1, A, B, C,.

4. New Patient Injury(Companies)-30 min.(except Dr. Johnston, 15 min.)On the job injuries. See Industrial Book for instructions. Get same information as # 1, A, B, C,.

5. New Patient Insurance Exams-15 min. Exams requested by insurance companies. Check to see if we have forms on hand. Get agents name, amount of the policy and telephone number. Get same information as # 1, A, B, C,.

6. New Patient Follow-up-30 min(except Dr's M. Kelsey & Burke, 20 min.; Dr's Taboada, O'Neil, J. Kelsey & Bentlif, 15 min.) A patient returning for the reports after havinga complete physical examination.

OLD PATIENTS

1. Old Patient Office Visit-15 min. (except Dr's M. Kelsey & Burke, 10 min.; Dr. Riggs, 30 min.)If the patient has been in the clinic within the last few months.

2. Old Patient Year Check-30 min.(except Dr's Fischer 45 min.; Dr. Riggs, 1 hour)If patient has not had a physical examination within the past year. If company exam get name of company.

3. Old Patient Follow-up-30 min. (except Dr's M. Kelsey & Burke, 20 min.; Dr's Taboada, O'Neil, J. Kelsey & Bentlif, 15 min.)Patient returning to get reports.

4. History & Physical-45 min(except Dr's M. Kelsey & Burke, 40 min.; Dr's J. Kelsey, Bentlif, O'Neil, Mc Bee, Eichhorn,Beard, Riggs, Garcia, Dear, Fischer & Schloeder, 1 hour). A patient that has been to the clinic for an office visit and is returning for a complete physical examination.

NEUROLOGY APPOINTMENTS

1. New Patient - Neuro Exam - 45 min. A patient that has not seen any doctor in the clinic.

2. Old Patient - 15 min. Patient that has seen the Neurologist previously.

3. Old Patient Neuro Exam - 45 min. A patient that has seen another doctor in the clinic and has not seen the neurologist.

OBSTETRICS & GYNECOLOGY

1. New Patient Gyn-15 min. Dr. Cody, Dr. Johnson 30 min.-A patient that has not seen any doctor in the clinic.

2. New Patient OB-15 min. Dr. Cody, Dr. Johnson 30 min.-A patient that has not seen any doctor in the clinic.

3. Old Patient-15 min. Dr. Cody, Dr. Johnson-A patient that has seen the OB-Gyn doctor previously.

OPHTHALMOLOGY APPOINTMENTS

1. New Patient refraction - Patient that has not been in the clinic - Can be scheduled each 30 min. Doctor puts in drops for dilation and then sees patient again in 40 min.

2. New Patient office visit - 15 min. Patient that has not been in the clinic. Other eye problems: conjunctivitis, foreign bodies, abrasions, fundus examination and etc.

3. Old Patient Refractions - Patient that has been in the clinic - Same as # 1.

4. Old Patient office visit - Patient that has been in the clinic - Same as # 2.

ORTHOPEDIC APPOINTMENTS

Made by the Orthopedic Department

PEDIATRICS APPOINTMENTS

1. New Patient Complete-30 min. Dr. Brewer, Dr. Ewing, 30 min. (Psychology Appts. 45 min.) Dr. Ferry-45 min.-Patient that has not seen any doctor in the clinic.

2. New Patient Complete(Mexico)-30 min. Dr. Brewer, Dr. Ewing, 45 min.Dr. Ferry, 45 min.-Patient that has not seen any doctor in the clinic and is from Mexico.

3. Old Patient-15 min. Dr. Brewer, Dr. Ewing, 15 min. Dr. Ferry, 30 min.-If patient has seen one of the pediatricians previously.

4. Follow up-15 min. Dr. Brewer, Dr. Ewing, and Dr. Ferry-A new patient coming back for reports.

5. New Born-15 min. Dr. Brewer, Dr. Ewing, 30 min.,Dr. Ferry 30 min.-Patient that the doctor has only seen in the hospital. Give "New Patient Questionaire".

MISSING
PAGE(S)

PSYCHOLOGY APPOINTMENTS

Appointments made by each doctor's secretary.

SURGERY APPOINTMENTS

1. New Patient Consult-30 Min.-Patient that has not seen any doctor in the clinic.

2. Old Patient Office Visit-15 min.-Patient that has seen the doctor in the last year.

3. Post Op-15 min.-Patient that has had surgery.

UROLOGY APPOINTMENTS

1. New Patients - 30 min. Patient that has not seen any doctor in the clinic.

2. Old Patient - 15 min. Patient that has seen the urologist previously.

3. Old Patient - 30 min Patient that has been in the clinic but has not seen the urologist.

APPENDIX J

COST CONSIDERATIONS

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III. Cost Considerations

Cost Summary

The initial start-up, single time costs for the Kelsey-Seybold Patient Scheduling System as proposed are listed below:

Cost Description	Cost
IBM Systems Engineering Support	$ 6,720
Education	1,115
Transportation of Equipment (Estimated)	1,200
Installation of Equipment	N/C
Total Single-Time Costs	$ 9,035

The recurring monthly charges for the system after the entire system is operational are listed below:

Cost Description	Cost/Month
IBM Equipment rentals	$ 10,227*
IBM Extra Shift Rentals (anticipated 1/2 extra shift)	250
IBM Equipment Maintenance (assuming equipment is rented)	N/C
IBM Program Products	480
Total Monthly Costs	$ 10,957

* This figure represents the monthly rental if a two-year contract is signed on the 1403 printer, the 2311 disk drives, and the 2415 tape drives. On a 30-day contract, this figure would be $10,834.

IBM

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BIOGRAPHICAL SKETCH

Byron B. Alexander [redacted] He received a Bachelor of Science degree from New Mexico State University in 1959, Doctorate of Medicine from the University of Kansas in 1963, and a Master of Public Health degree from Harvard University in 1967.

He entered active duty on June 3, 1963 at Ft. Leavenworth, Kansas. He successfully completed a rotating general internship at William Beaumont General Hospital, El Paso, Texas.

Subsequent military assignments have included duty as Battalion Flight Surgeon of the 24th Infantry Division, Augsburg, Germany. The period of 1966-1967 included a formal residency in Aviation Medicine. This was followed by duty as Chief, Department of Clinics, and Chief of Aviation Medicine Service, Lyster Army Hospital, Ft. Rucker, Alabama, from June 1969 to June 1971. He served as Group Surgeon, 17th Combat Aviation Group, Republic of Viet Nam during the period June 1971 to June 1972.

Upon returning to the U.S., he was assigned to Ft. Sam Houston to attend Army-Baylor Health Care Administration Course from August 1972 to June 1973. He is presently assigned to the Health Services Command, Ft. Sam Houston, Texas.