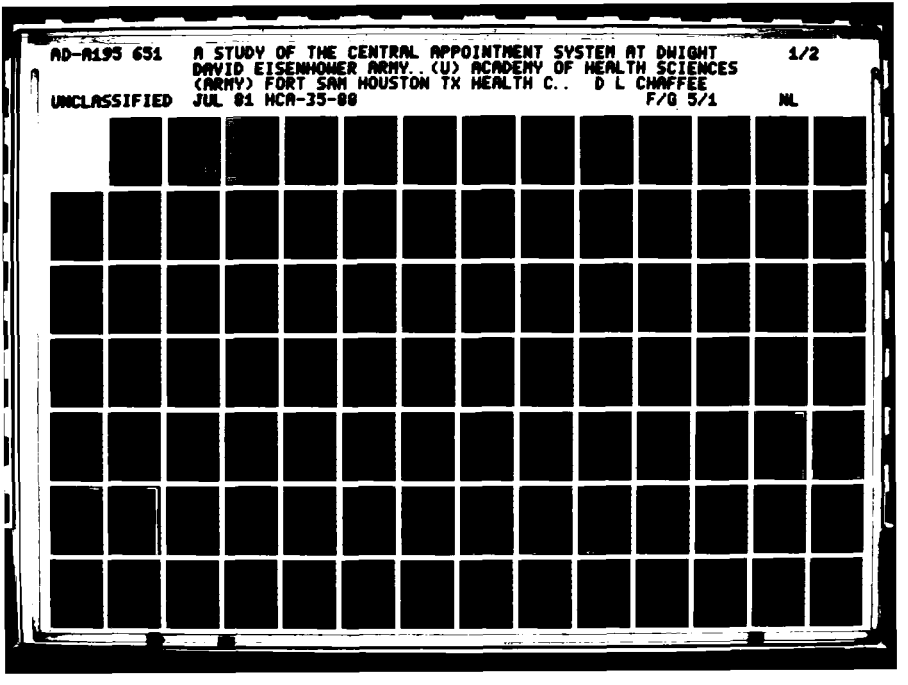
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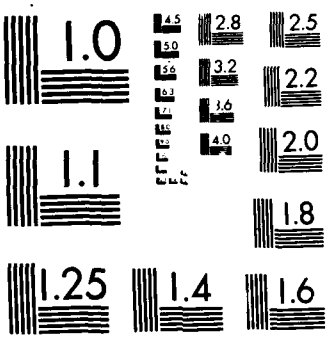

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A STUDY OF THE
CENTRAL APPOINTMENT SYSTEM
AT DWIGHT DAVID EISENHOWER ARMY MEDICAL CENTER

by

Dennis L. Chaffee

Captain, MSC

A Problem Solving Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree
of
Masters of Hospital Administration

July, 1981

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This study evaluated the effectiveness and efficiency of the central appointment system at Dwight David Eisenhower Army Medical Center and recommended improvements for the system.

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TABLE OF CONTENTS

APPENDIX

LIST OF TABLES

I. INTRODUCTION

Background

In an era of increasing emphasis on the utilization of ambulatory health care services, the search for the most efficient and effective appointment system becomes even more important. Although Army Regulation 40-4 contained references to the use of a Central Appointment System (CAS) as early as 1967, Department of the Army's search for the best appointment system actually began in 1972 when the Office of The Surgeon General (OTSG) directed the Health Care Studies Division to prepare a protocol for studying the advantages and disadvantages of CAS versus decentralized appointment systems. This project, entitled "A Study of Appointment Scheduling Control for Outpatients" was completed in April, 1972.

The OTSG multi-directorate Health Care Research Advisory Board approved the protocol in July, 1972; however, the Board also directed that it be modified to restrict the effort to determine the most efficient and effective method of operating a CAS. It could not be determined why this limitation was imposed. It almost certainly was not based on any other study which conclusively proved the superiority of the CAS. It can only be speculated that OTSG experienced pressure from DA to enforce the CAS requirement which had been placed in the regulation five years earlier.

During this same time period, the Comptroller of the Army was conducting a study to analyze the workload at outpatient clinics to determine management

practices which might be useful in improving overall efficiency.[1] As a result of a recommendation from this study, the Chief of Staff of the Army directed OTSG in July, 1972, to notify all hospitals that appointment systems were to be standardized and centralized under the Department of Clinics.

The Health Care Studies Division completed its CAS study in January, 1973. The study did not have to defend the superiority of the CAS, because a bureaucratic decree had designated the CAS as the system of choice. The study simply outlined the methods to be followed in implementing or upgrading a CAS.

Regardless of the emphasis being placed on CAS, local commanders were apparently quite resistant to implementing a complete CAS. Headquarters, DA, published letters in May, 1973, and August, 1974, admonishing hospitals to comply with the published directives concerning the operation of a CAS. In 1975, the Army Audit Agency (AAA) found that hospitals continued to rely on a decentralized appointment system that either duplicated or assumed CAS workload. In 1976, the Health Services Command (HSC) Inspector General, based on a review of inspection reports, reported that numerous clinics on CAS were utilizing a dual appointment system. They further reported an unwillingness of the local command and health care providers to accept the concept of CAS.

Based upon the continuing evaluation of appointment systems at various installations through both formal and informal mechanisms, OTSG imposed a moratorium on the requirement for implementation of the CAS in May, 1977. Subsequent reviews of the CAS requirement by OTSG resulted in a message to all HSC facilities which allowed the local commander to determine the most appropriate method of patient scheduling while "providing maximum patient accessibility to appropriate levels of care in an expeditious manner".[2] This guidance remains in effect today.

Development of the Problem

Dwight David Eisenhower Army Medical Center (DDEAMC), located at Fort Gordon, nine miles south of Augusta, Georgia, is a US Army Health Services Command Medical Center. DDEAMC provides comprehensive inpatient and outpatient care, veterinary care, and environmental health services for eligible beneficiaries. It also serves as a tertiary care center for HSC and Department of Defense Region VII, which is comprised of seven southeastern states, Puerto Rico, and the Panama Canal Zone. This modern, 13 story, 755 bed medical treatment facility additionally conducts research and teaching missions to accompany the traditional roles of patient care. At the present time, clinical residency programs are available in General Surgery, Internal Medicine, Family Practice, Psychiatry and Pathology.

During Fiscal Year 1980, DDEAMC operated an average of 480 beds, with an average daily bed occupancy of 324. Inpatient admissions averaged 34 per day and the average length of stay was 11.5 days. The facility experienced an average of 1825 outpatient visits per day to 49 specialty clinics. Over the past five years, workload had increased an average of six percent per year. This equates to the average increase in the catchment population, which is currently approximately 63,000. The Medical Center employs 1,623 personnel, of which 339 are direct health care providers (physicians, nurses, physician assistants and other extender personnel).

In 1973, DDEAMC became one of the first military health care facilities to implement a central appointment system. Since that time, a number of changes have been made in the method of operation, equipment utilized, and clinics served. DDEAMC has also experienced many of the problems identified by the AAA

and HSC IG. To a large extent, a dual appointment system exists and there are a number of key health care providers who have been quite vocal concerning their objections to CAS.

Based on the increasing dissatisfaction with CAS and an increase in the number of requests from clinic chiefs to withdraw from CAS, the Ambulatory Patient Care Committee recommended that a study of the current status of CAS in DDEAMC's concept of operations be conducted (see Appendix A).

Problem Statement

The problem was to evaluate the effectiveness and efficiency of the Central Appointment System at DDEAMC and to recommend improvements for this system.

Objectives

The specific objectives of this study were:

(1) To identify problems within the current centralized outpatient scheduling system through an analysis of selected data that has been generated by the methods outlined in the Problem-Solving Methodology section;

(2) To determine the perceptions of the professional staff and randomly selected patients concerning the Central Appointment System through administration of questionnaires; and,

(3) To recommend both long-range and short-range improvements to the present system through appropriate analysis of the information and data that is obtained.

Assumptions

During the course of this study, it was assumed that the workload would continue to follow the historical trend of gradually increasing approximately six percent each year.

Limitations and Obstacles to Optimum Research

This study did not include an analysis of the appointment system currently being utilized within the Dental Activity and the Department of Family Practice. Neither of these activities are presently under the scope of CAS. The organizational situation within the Dental Activity requires a separate scheduling system. The uniqueness and special requirements of Family Practice pose significant obstacles to scheduling appointments through CAS. Patients in this program must contact their physician to discuss the problem and determine the urgency for examination and treatment.

The data collection efforts of the investigator should not be considered optimal. It is not possible to verify the information obtained on the Incoming Call Worksheet since the investigator was not present within CAS 100 percent of the time. Therefore, any conclusions that are reached based upon this information will be limited in nature.

Literature Review

A review of the available literature within the past ten years has shown that a substantial amount of information exists on all types of appointment systems,[3,4,5,6,7,8,9] each proclaiming how "their" system works best. Generally, the abundance of literature supports some form of a centralized

system. This is based on a centralized system's reported ability to reduce the average waiting time and no-show rate and to more efficiently control the use of the providers' time.

Based upon the dual responsibility for both inpatient and outpatient care, the military took the initial lead in the development of a standardized appointment scheduling system. A 1973 report by R. B. Stuart entitled "A Study of Appointment Scheduling Control for Outpatients"[10] led to the development of APC Model #1, "A Central Appointment System" which became a requirement within HSC's Ambulatory Patient Care Program in 1974. Since that time the requirements have been modified and relaxed to allow the local commander the flexibility to adapt the system to fit the needs of the institution.[11]

Reisman, Mello da Silva and Mantell conducted an extensive investigation into the systems and procedures for outpatient flow.[12] They address the distinct advantages for both a centralized and decentralized system. In the centralized system, (1) calls for appointments are always correctly directed; (2) appointment clerks know the available times for each provider, allowing for easy coordination of multiple appointments; (3) paperwork is kept to a minimum; and, (4) economy of scale may result. In the decentralized system, (1) appointments are made for only a few providers, usually in a single specialty; (2) the orientation period can be shorter; (3) follow-up appointments can be made immediately; and, (4) providers can easily check and adjust their schedules. Although specific recommendations were made, an important conclusion was the realization that in order for any system to function properly, it is imperative that everyone understand how their work affects not only their own process but also all the others with which it interacts.

Kaiser-Permanente has been a leader in providing health care in ambulatory care settings. Rosenfeld has described their role in popularizing the central appointment concept. Their system, which has been implemented by other group practice prepayment plans, was begun to relieve some of the load on the telephone system, and to expedite making an appointment. Their concept employs a large table with a Lazy Susan to hold the physicians' appointment books. Their experience indicates that one appointment clerk can handle appointments for five to seven physicians.[13]

A potentially serious problem is that of the failed appointment. Broken appointments can often disrupt clinic operations. In a review of failed appointment studies, Oppenheim, Bergman, and English have found that the primary reasons for this problem are lack of communication, the length of appointment interval, the absence of a sense of urgency for keeping the appointment, and the lack of a personal physician. They found that no-show rates ranged from five to eleven percent in family practice centers and 19 to 25 percent in general outpatient clinics.[14] A mailed appointment reminder was shown in two separate studies to significantly reduce the no-show rate.[15,16]

Automated scheduling systems are a logical component of any hospital information system. However, reports of computer-based appointment systems in the recent literature are scarce.[17,18] Duke University Medical Center utilizes the Total Medical Record appointment module for all patient visits. This totally on-line, flexible system allows providers to control their own schedules, expedites patients' appointments, and improves the administration's planning effort by providing summary reports on staff activity and other information that can be used to ensure appropriate allocation of resources.[19]

Robinson, Wing, and Davis have reported that computer simulation can be useful in analyzing specific scheduling systems.[20]

Problem-Solving Methodology

The information and data necessary to conduct an evaluation of the present system has been obtained through three primary methods. These are: (1) measurement of selected system workload data; (2) opinion questionnaires; and (3) key personnel interviews.

The purpose of obtaining and analyzing certain workload information from the present central appointment system will be to determine: (1) the productivity of the appointment staff as measured by the ratio of total clinic visits to appointed visits; (2) any significant trends in the types of incoming and outgoing calls by day of the week and hour of the day; and (3) the primary utilization category of CAS by prospective patients.

Within the CAS, an Incoming Call Worksheet (Appendix B) was utilized to obtain the data pertaining to the specific reason for each call and the time period during which it was received. The specific categories in which an incoming call could have been classified were: (1) an appointment was made; (2) an appointment was requested but not made; (3) an appointment was verified; (4) an appointment was cancelled; (5) a request for information; and, (6) miscellaneous (e.g., no answer, wrong number, etc.). The worksheet also contained a record of outgoing calls by category and time of day. These worksheets were completed by each appointment clerk for each working day for the period 19 January to 13 February 1981. An examination of the collated results of the Incoming Call Worksheet will indicate how the CAS is being utilized by callers and any trends in the receipt of calls by time and day of the week.

Further system workload data was obtained from each department's completed DDEAMC Form 1869 for the period July through December 1980. This form, which is part of the department's Medical Care Evaluation Committee, contains statistics for the number of clinic visits, the number appointed by CAS, the number appointed by the clinic, the number of walk-in patients, the number of CAS appointed no-shows, the number of clinic appointed no-shows, and an overall no-show rate. A comparison of CAS appointed visits versus clinic appointed visits will produce a general productivity index for the current CAS. No show rates can also be examined for trends by department and time period. This could indicate the need for an appointment reminder process.

The sum total of quantitative data that was used to analyze the current CAS then came from these two forms; the Incoming Call Worksheet and DDEAMC Form 1869. As discussed earlier, much of the data obtained cannot easily be verified, for a number of reasons. The principle investigator could not be present 100 percent of the time to verify entries on the Incoming Call Worksheet. Additionally, each department follows slightly different procedures when completing the DDEAMC Form 1869, therefore, reporting is not consistent.

Subjective input was obtained through the use of two separate and distinct opinion surveys. One was administered to members of the professional staff and the other was distributed to a random group of outpatients.

One hundred ninety-three surveys were distributed, on a by-name basis, to those individuals responsible for providing direct health care to outpatients (Appendix C). The population sampled included all physicians, nurse practitioners, optometrists, podiatrists, audiologists, psychologists, physical and occupational therapists, dietitians, and physician assistants. Each survey was accompanied by an addressed envelope for ease of return to the investigator.

The survey mechanism that was employed with the patient survey (Appendix D) was predictably more difficult and uncontrollable. Based on the assumption that the majority of outpatients are prescribed some form of medication, the surveys were distributed at the Outpatient Pharmacy prescription turn-in window. Patients were asked to complete the survey while they were waiting and to deposit it in a container that was located next to the pick-up window. The surveys were made available for a period of two weeks. At the end of that time, 173 usable surveys had been completed.

The professional staff survey was designed to gain an insight into several areas. First, it determined how the individual learned of CAS, if he/she did. Second, it provided individual perceptions of the present system in either a positive or negative framework. Finally, it allowed the individual to provide their thoughts as to the best appointment method. A consensus of opinion in any of these areas will either support or contradict the functioning of the current system.

The patient surveys also served a multi-purpose. First, it revealed how the patient determined whether or not it was necessary to make an appointment through CAS. Secondly, it indicated the patient's perception of the accessibility of the CAS and the specific difficulties he/she experienced in obtaining the telephone number. Thirdly, it provided a subjective evaluation of the individual's credence in CAS personnel. Finally, the survey may indicate a relationship between an individual's perception of the system and his/her category of beneficiary.

A number of key personnel were interviewed during the course of the data collection effort to determine; (1) their subjective perceptions of the

current system; (2) their individual criteria/standards for an effective appointment system; and, (3) any future considerations that may effect the CAS.

Required Standards and Criteria

An optimal central appointment system should adhere to the criteria which are listed below. These have been adapted from the management indicators established by Health Services Command in the Ambulatory Patient Care Program Model #1, a review of the current literature, and interviews with key personnel.

(1) A minimum of 70 percent of all outpatient visits should be appointed at least some time in advance of arrival at the clinic.

(2) Each clinic should be able to book appointments at least six weeks in advance.

(3) All appointments should be made for individual health care providers, except for mass routine clinics.

(4) All follow-up appointments should be made through the CAS.

(5) The cancellation rate should not exceed ten percent.

(6) The no-show rate should not exceed five percent.

(7) At least 90 percent of the incoming calls should concern an appointment transaction (i.e., request, verify, or cancel).

(8) A minimum of 80 percent of the patients responding to the survey should be of the opinion that the appointment system works well.

(9) A minimum of 90 percent of the professional staff surveyed should have a generally favorable opinion about the effectiveness and efficiency of the appointment system.

(10) Patient waiting time and physician idle time must be minimized.

(11) The system should be capable of efficiently handling multiple appointments and the time span necessary to complete a multi-appointment diagnostic and/or treatment plan.

(12) The scheduling process should encourage an increase in CAS personnel morale and minimize turnover.

(13) The appointment system should easily conform to the design requirements of any automated appointment system.

The data that has been gathered and generated has been designed for ease of comparison to each of the criteria. The results of this analysis are discussed in the following section.

FOOTNOTES

1. Comptroller of the Army, "Analysis of CONUS Outpatient Care Systems (COCAS)," presented to the Chief of Staff of the Army 2 June 1972.

2. Department of the Army Message 041230Z April 1978, DASG-HCC-C, Subject: Patient Appointment Systems.

3. Mark E. Singer, John E. Rossfeld, and Michael C. Van Hall, "Centralized Appointment System Reduces Patient Waiting Time," Hospitals 50 (March 16, 1976): 151.

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6. Leonard W. Cronkhite, Jr., "Computer Brings Order to Clinic Scheduling System," Hospitals 43 (April 16, 1969): 55.

7. Werner F. Daechsel, "General Hospital Scheduling," Hospital Administration, Fall 1972, p. 36.

8. Gordon H. Robinson, Paul Wing, and Louis E. Davis, "Computer Simulation of Hospital Patient Scheduling Systems," Health Services Research 3 (Summer 1978): 573.

9. Bernard J. Schroer and Herman T. Smith, "Effective Patient Scheduling," Journal of Family Practice 5 (September 1977): 407.

10. R. B. Stuart, "A Study of Appointment Scheduling Control for Outpatients," Report No. 6, Health Care Studies Division, Academy of Health Sciences, Fort Sam Houston, Texas, January, 1973.

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12. Arnold Reisman, Joao Mello da Silva, and Joseph B. Mantell, "Systems and Procedures of Patients and Information Flow," Hospital and Health Services Administration, Winter 1978, p. 42.

13. Leonard S. Rosenfeld, Ambulatory Care: Planning and Organization. (New York: Health and Hospital Planning Council of Southern New York, Inc., 1971), p. 74.

14. Gene L. Oppenheim, James L. Bergman, and Eugenia C. English, "Failed Appointment: A Review," The Journal of Family Practice 8 (July 1979): 789.

15. Gordon A. Hagerman, "Testing the Mailed Appointment Reminder in Family Practice," The Journal of Family Practice 7 (January 1978): 199.

16. Lawrence F. Nazarian, et. al., "Effect of a Mailed Appointment Reminder on Appointment Keeping," Pediatrics 53 (March 1974): 349.

17. Leonard W. Cronkhite, Jr., p. 55.

18. Franz L. Herpok, et. al., "Automated Appointment System Excels," Hospitals 54 (August 1, 1980): 65.

19. Ibid., p. 67.

20. Gordon H. Robinson, Paul Wing, and Louis E. Davis, p. 573.

II. DISCUSSION

Present System

Following the directive issued by Health Services Command, a central appointment system was implemented in September 1975. Although no records are available for verification, an appointment clerk who was employed at that time has stated that less than half of the clinics utilized the system. A four-station, rotary tiered file was used to contain the appointment schedules. Numerous problems were caused by the inadequate telephone system that existed in the cantonment facility.

The CAS operation moved to its current location in March 1976, after completion of the new medical center building. This function was one of the first to occupy the building because of a major electrical and mechanical upgrade. A large number of clinics did not move until as much as a year later. The separation of the CAS from the clinics created numerous, but temporary problems.

Organizationally, the CAS is under the direct supervision of the Chief, Administration Support Branch, Department of Primary Care and Community Medicine.

Physical Facility

The present central appointment facility is centrally located on the second floor of the hospital. Forty-one of 49 hospital clinics are located on either the first or second floor. The main room is approximately 30 feet square

with an adjoining eight feet by ten feet office for the supervisor. A portion of the main room has been partitioned off as a lounge area. This area was not originally designed to house CAS, and therefore, does not have access to the pneumatic tube system; an integral asset to communication within the facility. Appendix E is a diagram of the physical layout and equipment.

The room is carpeted for sound-deadening purposes. Since the office is located in the center of the building there are no windows; however, pictures and plants have been brought in for decoration by the appointment clerks. The main entrance to the office is marked "Clothing and Baggage" to prevent patients from walking in to make appointments and other interruptions.

Equipment

Upon occupying its present location, the rotary-tiered file was replaced with a six station, Acme Visible, five section Centrac Tub File. Each section of the file can be subdivided into ten sections and can hold up to 30 Veri-Visible Outpatient Appointment Schedule cards (Appendix F). This represents a maximum capability to appoint for 50 clinics or individual providers for a 30 day period.

Each of the six appointment clerk stations has an 18 key telephone instrument available and a Pacific Plantronics headset. These lines are utilized as described in Table 1.

The five rotary appointment lines are controlled by an Automation Electronics Corporation Automatic Call Sequencer (ACS). This device provides the capability to answer these five lines with a pre-recorded message, to place the call on hold, and to indicate the priority line by blinking the key instrument light at a rate twice the normal hold rate. When the priority call

is taken, the next oldest call in memory immediately starts blinking at the rapid rate. The ACS has a maximum capability to control up to eight lines. Pre-recorded messages have been prepared for use during operating hours; during off-duty hours on weekdays; and, on weekends. The ACS is also equipped to record the total number of calls answered by the machine. Cost data for the equipment located within the CAS is at Appendix G.

TABLE 1

UTILIZATION OF CAS TELEPHONE LINES

Number of Lines	Function
5 791-6101 thru 6105	Rotary ringdown system without stacking capability; for incoming appointment calls only
2	Direct tie-lines from Main Lobby
2	Shared with Pediatric Clinic
1	Long distance and staff incoming only
1	Outgoing calls only
1	Hold switch
6	Unused
Total 18	

Personnel

The most recent manpower survey (1979) recognized a need for one GS-5 Appointment Clerk Supervisor and five GS-4 Appointment Clerks. This authorization was based on 9274 average monthly contacts at a maximum of 2000 contacts per clerk per month. (See Appendix H.) At the present time, the CAS

staff consists of a supervisor and four appointment clerks. Turnover among the staff has been exceptionally low. One of the clerks has been with CAS since its inception and two others have been there for seven years. The other clerk has only been working for two months.

The CAS supervisor assumed this position five years ago; just prior to its move into the new building. She had previously been employed as a Secretary-Steno in a major hospital department.

Operating Procedure

The flow chart at Appendix I and DDEAMC Regulation 40-53, Central Appointment System at Appendix J describe the current procedures and functions performed by CAS. It is important to note that a number of clinics appointed by CAS have specific requirements in terms of patient knowledge and preparation. It would be unnecessary and impossible to completely document each of these nuances. Therefore, only a general description of the appointment process is presented below:

1) All clinics are required to provide the CAS with a monthly clinic schedule (DDEAMC Form 1859) at least five weeks in advance. This schedule should include an accurate by-name listing of the providers and the specific times each will be available for appointments for the entire period; in addition to special situations of which CAS must be aware. Changes to this schedule can be submitted to CAS on DDEAMC Form 1830; however, approval of these changes is the responsibility of the department chief.

2) CAS staff transcribe the clinic schedule information onto the Veri-Visible Outpatient Appointment Schedule (OAS) form. These forms are completed either for the total clinic on a daily basis or for individual

providers on a daily basis. Once again, this varies with the needs of the clinic. The completed OAS is then placed in the appropriate section of the Centrac Rotary File.

3) When a patient calls for an appointment, several things must be determined. These include the nature and urgency of the problem and the referral source if the appointment is for a specialty clinic. If the patient desires an appointment to a direct appointment clinic and the problem is not urgent, the patient is given the next available appointment. If there are no openings in the current schedule, the patient is instructed to call back on or after a specific date when the appointment book will be open. If the patient feels the problem is truly urgent, he/she is told to call the clinic directly to obtain assistance, or to come to the General Medical Clinic for treatment.

4) Two days prior to the scheduled appointment day, the white copy of the OAS is removed and sent to the Outpatient Records Section of the Patient Administration Division. Individual medical records are pulled and distributed to the appropriate clinics. Patients given appointments after this time are instructed to pick up their medical records prior to reporting to the clinic. The OAS remains in the Centrac file until the afternoon prior to the scheduled day. At this time, the green copy is sent to the respective clinic and the pink copy is filed within CAS.

5) If a patient calls CAS to cancel an appointment, the clerk deletes the name from the OAS and reschedules, if necessary. If the OAS has been distributed to the clinic, CAS will notify the clinic receptionist of the cancellation.

6) If a clinic or provider must cancel an appointment, they are responsible for notifying CAS as soon as possible. If it is more than two days before the appointment, CAS will notify the patient and reschedule as necessary. Otherwise, the clinic is responsible for notifying the affected patients.

The CAS supervisor is responsible for compiling and submitting the following routine reports: (1) Earliest Available Appointment for each clinic (weekly); (2) Daily Labor Performance Register (monthly); and, (3) Patient Appointment Service Report (monthly). (See Appendix E.) The supervisor is also responsible for personally scheduling all VIP physical examinations.

Data Analysis

As discussed previously, data was obtained from three primary sources to analyze the current Central Appointment System. These sources being: system workload data, CAS incoming call data, and opinion surveys. For ease of presentation, the data will be discussed in this order.

System Workload Data

At the present time, 44 percent of the total hospital clinics are utilizing CAS for either all or part of their appointments. A listing of these clinics can be found at Appendix L. It is important to note that 12 out of the 19 clinics require a referral in order to be seen. This places a burden on CAS personnel in attempting to insure that an individual calling for an appointment does, in fact, have a legitimate referral.

Table 2 contains a summary of selected hospital-wide information for the period from July to December 1980. The information was obtained from each department's Medical Care Evaluation Committee Cover Sheet (DDEAMC Form 1869). The most significant statistic within this table is the percentage of clinic visits which were appointed by CAS. As can be seen, this percentage ranges from 12.3 to 16.7 with an average of 14.6 percent. Clinic appointments and walk-ins account for the remainder of clinic visits and are split practically even. It must be remembered that the operation of four troop medical clinics and a general medicine clinic account for the majority of the walk-in patients.

TABLE 2

SYSTEM WORKLOAD DATA
(Compiled from departmental DDEAMC Forms 1869)

	1980					
	July	Aug	Sept	Oct	Nov	Dec
Clinic Visits*	47601	46380	47018	45475	42809	38210
CAS Appointed	5864	6461	7850	6833	6533	5472
Clinic Appointed	22757	21533	19317	19456	19093	18252
Walk-ins	18980	18386	19851	19186	17183	14486
CAS No-Shows	466 (7.9%)	637 (6.7%)	679 (8.6%)	621 (9.1%)	637 (9.8%)	451 (7.9%)
Clinic No-Shows	1060 (4.6%)	1047 (4.9%)	1223 (6.3%)	928 (4.8%)	974 (5.1%)	850 (4.6%)
No-Show Rate	5.3	5.8	7.0	5.9	6.1	5.4
Percentage of Clinic Visits Appointed by CAS	12.3	13.9	16.7	15.0	15.3	11.5

*Excludes DENTAC and Family Practice

Although the overall no-show rate is relatively consistent and considered within a normal range, the CAS no-show rate is consistently several points higher than the clinic appointed no-show rate. The reasons for this discrepancy cannot be exactly determined. However, the appointment methodology could be a major factor. CAS, in some cases, can make an appointment up to six weeks in advance, although the average is three to four weeks. Much can happen to a patient in this period of time which would cause him or her to overlook an appointment. At the present time, there are no provisions within CAS for personnel to actively pursue an appointment reminder system. On the other hand, several clinics which appoint themselves were observed calling patients to verify their appointment. This provided for the timely identification of cancellations, thus allowing the clinic to insure a full schedule of patients.

CAS Incoming Call Data

A recapitulation of the Incoming Call Worksheets which were completed during the survey period can be found in Table 3. A total of 9501 calls were received during this four week period. Of this total, 92.9 percent were calls requesting, verifying or cancelling an appointment. This figure certainly indicates that the vast majority of callers have a legitimate purpose for calling. The number of calls for information was only 3.5 percent of the total. This amount is not considered significant and is probably low based on the fact that the Information Desk telephone number is widely publicized.

The most important statistic to note from this table is that of all the calls received requesting an appointment, 75% are given an appointment. This could be considered a measurement of the relative effectiveness of the CAS;

however, it must be viewed in relation to the total number of appointments made to both CAS and the individual clinics. This will be further discussed at a later point.

TABLE 3

INCOMING CALL WORKSHEET RECAP

Week	Appt. Made	Appt. Req'd. Not Made	Verify	Cancel	Info	Other	Total
1	1640	553	49	83	140	153	2618
2	1325	541	70	47	64	77	2124
3	1784	505	44	65	77	108	2583
4	1464	474	55	77	50	56	2176
Totals	6213	2073	218	272	331	394	9501

Tables 4 and 5 present the data for the total calls received for each survey week by time period and day of the week, respectively. In Table 4, the Incoming Call Worksheet was divided into four equal time periods for each day. A simple examination of the figures indicates that the number of calls significantly decrease as the day progresses. This is verified by calculating the Pearson Product Moment Correlation Coefficient for the variables time period to number of appointments. The resulting $R = -0.8954, (p = .005)$. This finding should be considered by management when evaluating staffing and hours of operation.

As might be predicted, Table 5 indicates that Monday is the heaviest day for calls. However, the difference is not considered significant, based on the fact that only four weeks were surveyed. The correlation coefficient for the variables number of calls to day of the week was found to be 0.3746 ($p = .005$).

Since appointments are made for a number of clinics only on specific days (i.e., first Monday of the month, etc.), it is difficult to draw any conclusions from this information.

TABLE 4

TOTAL CALLS TO TIME OF DAY

	WEEK				
Time Period	1	2	3	4	Total
I	902	704	980	672	3258
II	676	681	644	700	2701
III	684	449	591	445	2169
IV	356	290	368	359	1373
Total	2618	2124	2583	2176	9501

TABLE 5

TOTAL CALLS TO DAY OF WEEK

	WEEK				
Day	1	2	3	4	Total
M	664	484	452	589	2189
T	496	429	316	595	1836
W	384	475	573	375	1807
Th	490	405	664	304	1863
F	584	331	578	313	1806
Total	2618	2124	2583	2176	9501

Survey Results

The professional staff survey was distributed to 193 direct providers of health care. Eighty-nine responses were received for a return rate of 46 percent. A compilation of all responses and other comments which were made is located at Appendix N. Several points are considered significant and require discussion.

Eighty-seven percent of the respondents had never received an orientation to CAS. The acceptance and success of any system is dependent upon an understanding of the system by its participants. This lack of understanding of the CAS could be the basis for the general dissatisfaction with CAS by the professional staff. The survey found that 24 percent were satisfied, 37 percent were not satisfied, and 32 percent did not know either way. This last figure could be related to the fact that 47 percent of the respondents do not conduct a clinic which utilizes the CAS.

A number of additional comments were received on the surveys. While a few positive remarks were made, the majority centered around the inability of CAS to provide the flexibility and control desired by the clinic and staff.

The full results of the 173 patient surveys received can be found at Appendix O. It is interesting to note that although only 20 percent indicated they had trouble reaching CAS; 65 percent of this number had to call three or more times before reaching an appointment clerk. The survey showed that 50 percent received the CAS telephone number from the hospital information desk. This would indicate a fairly widespread knowledge of that number and would further substantiate the small number of calls for information made to CAS.

Table 6 consolidates the preferences for an appointment system for both the staff and patients. Both groups clearly support a decentralized appointment system. The majority of additional comments received on the surveys provide support for these preferences. These comments may be found in the respective appendix.

TABLE 6

APPOINTMENT SYSTEM PREFERENCES

	Professional Staff	Patients
CAS	18%	30%
Decentralized	68%	56%
No Preference	7%	14%
Other	7%	0
	100%	100%

Strengths/Weaknesses of Current System

A number of strengths and weaknesses of the current scheduling system were identified as a result of the analysis. The positive aspects of the system are as follows:

1) The existence of a partial CAS within the hospital provides patients with an initial point of contact. Appointment clerks were able to direct patients to the proper clinic.

2) The staffing of CAS is adequate to handle the current workload. Morale was satisfactory and turnover was minimal.

3) The CAS equipment, to include, telephone answering devices, are up-to-date and adequate for the present workload. However, any substantial increase in telephone calls would require the addition of another trunk line into the facility.

4) The CAS supervisor coordinates all VIP appointments and physical examinations.

5) Over 90 percent of the calls to CAS concerned an appointment transaction.

6) The CAS provides an efficient mechanism for making multiple appointments, but only if the appointments are for clinics within CAS.

The weaknesses of the current system are as follows:

1) The system is only appointing for approximately 15 percent of all clinic visits.

2) Only 44 percent of all clinics are under CAS. Patients do not know whether to call CAS or the clinic.

3) The majority of follow-up appointments are made by the clinics. Secretaries and receptionists continue to perform dual functions.

4) Although the written operating procedures are adequate, there is a lack of timely submission of clinic schedules and associated changes to CAS.

5) There is a potential for a great deal of management information which is not being generated or utilized.

6) The no-show rate for CAS appointed visits is higher than that for clinic appointed visits.

7) Only 24 percent of the surveyed professional staff and 30 percent of patients surveyed are satisfied with the current system. In both cases, the majority would prefer a decentralized system.

Proposed Alternatives

Based upon the shortcomings which were found within the present system, it is considered appropriate to identify alternative appointment and scheduling methods and to briefly examine the advantages and disadvantages of each. Since the current appointment making process is a mixture of both centralized and decentralized systems, the two obvious alternatives are to either totally centralize under CAS or to entirely decentralize under the clinics. Another alternative which deserves discussion is a basic modification of the current system.

Centralization

This alternative would place the total responsibility for all clinic appointments within the CAS. Certain clinics, such as Family Practice, Radiology, and Psychiatry, could be exempted based on their unique requirements. Management should expect CAS to ultimately appoint at least 50 percent of all clinic visits.

The advantages of a total CAS are:

1) The basis for this system, to include equipment and personnel, currently exists which should make the transition somewhat smoother.

2) Patient entry into the health care system is easier and more convenient.

3) All clinics would be relieved of appointment making responsibility. This would delete the dual function currently being performed in several areas, thus allowing clinic personnel more time to perform direct mission requirements.

4) Management would be able to obtain more and better information concerning clinic and provider activities. This would allow for the exercise of more control over clinic productivity.

The disadvantages of this system are:

1) The clinic would lose a certain amount of control over its operation. This amount would be inversely related to the amount of communication the clinic maintains with CAS.

2) Communication between the clinics and CAS becomes very important. Timely submission of accurate clinic schedules and changes become a key element to success.

3) The current staffing would be inadequate to handle the increase in workload. If this system were implemented, CAS would be making approximately 20,000 to 25,000 appointments each month. Based upon the yardstick of 2000 contacts per clerk per month, 10 to 13 clerks would be required. This would be more than a 100 percent increase over the current authorizations.

4) The current equipment, to include telephone lines, is not capable of handling the projected increase in workload. Another main trunk line and rotary file would have to be installed. The present location is not large enough to accommodate another six station file.

5) It is expected that the current level of professional staff dissatisfaction with the system would continue.

Decentralization

Under this concept, the current CAS would be dissolved, with the personnel being reassigned to those departments which would most require an appointment-making function. This should be based upon total appointed clinic visits. However, the yardstick of 2000 contacts per clerk per month should only be a rough guideline. An appointment clerk with the sole responsibility for only one or two clinics should be expected to handle far more than 2000 contacts per month.

The advantages of a decentralized system are:

1) Clinic personnel have complete control over the operation of the clinic, allowing them much more flexibility.

2) Professional staff satisfaction and morale should increase.

3) As noted above, the efficiency of appointment clerks could increase in terms of calls handled per day.

4) The space currently occupied by CAS would be available for reassignment to another area.

5) The system would accommodate specific patient and provider requests more easily.

The disadvantages of this proposal are:

1) The current CAS equipment would no longer be required. However, the Department of Family Practice may utilize it within their system.

2) Some clinics may require an additional telephone line. However, since the main circuits are currently full in the clinic area, the present CAS lines could be redistributed on a most needed basis.

3) The capability to coordinate multiple appointments would be lost.

4) This system would not contain any provisions for the pulling of medical records prior to an appointment unless specifically arranged by each clinic. Patients would be told to pick up their records before proceeding to the clinic. This would pose a potentially serious queuing problem at the Outpatient Records Section.

5) Management would lose substantial control over the clinic operations. Furthermore, information would not be as readily available.

6) Departments would be required to identify their personnel resources needed to operate the appointment function. Some may be required to absorb this workload within its current authorizations.

Modification of Current System

This alternative is designed to maximize the effectiveness of the current system. Any clinic which utilizes CAS would be required to have all clinic appointments made through CAS. Communication between the clinics and CAS would be continually stressed.

The advantages of enforcing this modification would be:

1) The current system would require no changes or additional resources, as long as the number of clinics within CAS does not increase.

2) Those clinics within CAS would be totally relieved of appointment making responsibility.

3) Patient entry into the system would be more convenient if their clinic is within CAS.

4) It is expected that the number of CAS appointed clinic visits would increase.

The disadvantages of this modification are:

1) The level of confusion could increase if the patient does not know if the clinic is in CAS.

2) Based upon the current level of staff dissatisfaction with the current system, the enforcement of this modification could lead to an increase in the number of requests to withdraw from CAS.

3) The perception on the part of the staff and patients would be that nothing has changed. Therefore, the level of dissatisfaction would remain the same or, possibly increase.

4) Although CAS would provide a more complete service to a portion of the clinics, a multi-system appointment procedure would still exist. This poses several inequities to members of the professional staff.

The preceeding discussion of the advantages and disadvantages of each proposed alternative should not be construed as being all-inclusive. It must be recognized that the nuances of each system are seemingly unending. Additionally, there are advantages and disadvantages which apply to all systems. Therefore, only those strengths and weaknesses considered unique to each system were identified and discussed.

In an effort to be as objective as possible and to insure that each established criteria was evaluated within each alternative, the following decision table was utilized. The numbered criteria correspond to those contained on page 11. Each criteria was examined within the proposed alternatives and assigned either a positive or negative value, depending on whether or not the criteria could be satisfied by the alternative. The alternative with the fewest negatives would be the most acceptable alternative.

Automation Considerations

At this time, DDEAMC is scheduled to receive the Tri-Service Patient Appointment and Scheduling System (TRIPAS) in October, 1982. This system is a part of the Tri-Service Medical Information Systems (TRIMIS) program. The TRIPAS system will provide "a complete stand-alone, multi-station data entry system that is capable of functioning as a centralized appointment and scheduling system."[1]

The system will feature a registration function to allow for the proper identification of patients; a scheduling function to allow providers and clinics the ability to program their available times; and, an appointment function which will allow patients to be assigned to a specific provider, date, and time. The

system will also provide a number of specific outputs which, if used properly, should increase the efficiency and effectiveness of the appointment and clinic personnel.

TABLE 7

DECISION TABLE

Criteria	Centralize	Decentralize	Modify Current System
1	+	+	+
2	+	+	+
3	+	+	+
4	+	-	-
5	NA	NA	NA
6	-	NA	-
7	+	+	+
8	-	+	+-
9	-	+	+-
10	+	+	+
11	+	-	+-
12	-	+	-
13	+	+	+
	-4	-2	-3

Although designed to be utilized in conjunction with a centralized appointment system, TRIPAS has the flexibility to be implemented on an entirely decentralized basis. The number of data entry terminals should not change. However, if a CAS was not present, the terminals would be distributed to those areas operating a full or part-time appointment system.

The patient registration function presents the primary concern to management. The responsibility for the establishment and maintenance of this data base becomes a critical issue if a decentralized system is in existence. However, even if a CAS was in operation, it would be questionable whether or not these personnel would have the time and expertise to satisfy this requirement. Therefore, management faces a dilemma regardless of the existing operation.

FOOTNOTES

1. Tri-Services Patient Appointment and Scheduling System, Request for Proposal from U. S. Army Computer Systems Selection and Acquisition Agency, Alexandria, Virginia, April 30, 1980.

III. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The purpose of this study has been to examine the efficiency and effectiveness of the Central Appointment System within this facility. An analysis of the data that has been presented allows several conclusions to be made.

For this study, effectiveness has been defined as the amount of appointments made by CAS compared to the total number of clinic appointments. It was shown that CAS is appointing approximately 15 percent of all appointed clinic visits. Even when it is considered that only 44 percent of the clinics are subject to CAS, this amount is still low and not indicative of a fully effective system. Conversely, the efficiency of CAS, defined as the number of calls received per clerk per day is comparatively high. It was found that each clerk, on the average, handles 100 to 150 calls per day. Although some idle time was observed, it must be remembered that CAS efficiency is directly related to the number of providers and the time of day and month. It is felt that the current system has only minimal expansion ability without severely hampering the overall system.

A thorough understanding of the system and a willingness to accept the concept of CAS on the part of management and the health care providers is essential if it is to succeed. The provider survey showed that only 12 percent

received an orientation to CAS. It is not a required portion of the in-processing mechanism.

A great deal of potential information is available from CAS that has not been required by management. Examples are clinic backlog data and and the monthly statistical report. It is felt that if management clearly supported this system, more interest would be taken in the generation of this potentially valuable information.

Both the provider and patient surveys indicated a dissatisfaction with CAS. Sixty-seven percent of providers and 56 percent of the patients surveyed would opt for a totally decentralized system. These rates could be related to the fact that the current system is a mixture of both centralized and decentralized systems.

An original basis for the concept of a CAS was that it should serve as a centralized source of information about the facility. The data showed that this was not true within this system. Only three percent of the calls received within CAS were for information. This certainly cannot be used as a basis for maintaining a CAS.

Previously published guidelines have indicated that a CAS insures fuller utilization of available provider time.[1] Is provider productivity a function of the appointment system or a function of effective management at all levels? The appointment system exists at one level. It is the control and monitoring mechanisms used in conjunction with the appointment system that can improve productivity. The restrictions on the cancellation of appointments without prior approval of the department chief and/or Chief of Professional Services can be effective regardless of the appointment process.

Recommendations

Based upon the above conclusions and the results shown in Table 7, it is recommended that consideration be given to dissolving the present CAS and implementing a totally decentralized appointment system. If this recommendation is accepted, the following actions should be considered:

1) A task force be appointed to fully coordinate the transition. Participants should include the Chief, Administrative Support Branch; Chief, Patient Administration; Chief, Force Development; and a representative from each major department.

2) In a decentralized mode of operation, an appointment clerk could adequately handle up to 3000 contacts per month. Based upon this and an evaluation of the total appointed patient workload for each department, Table 8 shows the recommended locations for appointment clerks. As can be seen a projected shortage of three appointment clerks would exist. This does not include the current CAS supervisor. However, this individual would require a transfer to another position based upon grade. Those departments affected would be required to submit an Interim Schedule X justifying these positions. It is felt that the workload data alone would adequately support these requests.

3) The task force should identify what information would be required by management from the clinics and then develop policies and procedures that would insure this information is generated and utilized.

4) The task force should develop a standard appointment methodology that allows the flexibility needed by each clinic. However, the issue of

providing Patient Administration with a timely medical record pull list should be considered as a standard throughout all clinics.

5) An appointment reminder system, standardized for all clinics, should be considered as an integral part of the appointment process.

6) A publicity program, outlining the new system, must take place to insure the community's awareness of the change.

TABLE 8

PROPOSED APPOINTMENT CLERK LOCATIONS

Department	Number of Clerks	Comments
Surgery	3	-
Medicine	2	-
Pediatrics	1	-
OB-GYN	1	-
PCCM	0	Only physical exams are appointed.
Psych-Neuro	0	Maintain own intake process.
Other*	0	Workload insufficient to justify a clerk.
Total	7	
Present On-hand	4**	
Shortfall	3	

*Includes Social Work, Community Health Nurse, Occupational Health, and Clinic.

**Does not include CAS Supervisor.

This investigator strongly feels that any appointment system must be directed at an effective outcome. The primary concern cannot be the process of how appointments are made, but rather insuring a satisfactory patient-provider encounter. The implementation of a decentralized appointment system at DDEAMC would balance the legitimate professional requirements of the provider staff against the legitimate service needs of the patient.

FOOTNOTES

1. "A Central Appointment System," APC Model #1, U.S. Army Health Services Command Ambulatory Patient Care Program, Fort Sam Houston, Texas, July 1974.

APPENDIX A

AMBULATORY PATIENT CARE COMMITTEE

MINUTES OF 16 JUNE 1980

DEPARTMENT OF THE ARMY
[illegible]
[illegible]

MEDFG-PC [illegible] June 19[illegible]

SUBJECT: Minutes of Ambulatory Patient Care Committee

1. The DDEAMC Ambulatory Patient Care Committee met at [illegible] hours, 5 June 1980, in the Headquarters Conference Room. The meeting was called to order by COL K. Eric Nelson, Chairperson.

2. Members:

a. The following members or their representative were present:

COL K. Eric Nelson, Chief, Professional Svc (Chairperson)
COL George G. Powell, Chief, Dept of Surgery
COL David T. Armitage, Chief, Dept of Psychiatry/Neurology
COL Ernest M. Edington, Jr., Rep [illegible]
LTC Gary B. Broadnax, Chief, Dept of OB/GYN
LTC John B. Woodall, Chief, Dept of Pediatrics
LTC Raymond A. Montgomery, Rep, Dept of Nursing
LTC Joseph P. DiLuciano, Chief, Dept of Primary Care
MAJ Dale A. Carroll, Rep, Dept of Family Practice
CPT Randy Perry, Chief, Administrative Svc (Recorder)

b. The following member was absent:

COL James W. Reed, Chief, Dept of Medicine

c. Others present:

COL Freeman I. Howard, Chief, Ophthalmology [illegible]

3. Old Business:

a. The minutes of the previous meeting held on 20 March 1980 which had been distributed earlier were approved as written.

b. Actions pending: The Committee continued [illegible] the possibility of decentralizing patient appointments in [illegible] specialty clinics at DDEAMC. CPT Perry furnished the Committee with statistical data concerning the utilization of Central Appointment [illegible] clinic [illegible] patients and supporting DA [illegible] giving an option [illegible]

or partially decentralized at the discretion of the Medical Center Commander. COL Nelson recommended that a study of the current status of Central Appointment System in our operations be a good project for the next Administrative Resident.

4. New business:

a. CPT Perry reviewed with Committee Chapters 3 and 4 of the Ambulatory Patient Care Program Document. The Chapters were discussed and the objectives and assessments of each section of both Chapters were made. Dr. Carroll of Dept of Family Practice discussed the role of the Family Practice physician in providing family oriented care. He also discussed how Family Practice is utilized at other medical facilities by assigning certain units to a certain Family Practice physician and the health care extenders assigned to that particular physician. The Committee discussed the Emergency Medical [illegible] Service and the SOP's that have been prepared and are in use.

b. The Committee briefly discussed the combining of the APC Committee with the CHEP Committee and a decision was made to postpone the discussion until COL Nogueras, Chief, Preventive Medicine Activity returns from TDY.

c. [illegible] DiLuciano briefed the Committee on [illegible] TMC consolidation. At this time it is not considered feasible to consolidate all TMC's under one roof, perhaps in a year a study will be completed by Comptroller for a building. A physician will be rotated to one TMC with ASSISTS under that physician so they can function as [illegible] so partial consolidation will be accomplished. The other TMC's will be manned by the Physician Assistant's following an algorithm that has been setup.

5. Actions pending: Discussion of combining APC Committee and CHEP Committee pending the return of COL Nogueras from TDY.

6. Recommendations: That organization and function of Central Appointment System be studied by the new Administrative Resident.

MEDFG-PC
SUBJECT: Minutes of Ambulatory Patient Care Committee

7. There being no further business the Committee adjourned at 1600 hours. The next APC Meeting is scheduled for 4 September 1984 at 1500 hours.

SANDY PERRY
CPT, MSC
Recorder

E. ERIC NELSON, M. D.
Colonel, MC
Chairperson

APPROVED/DISAPPROVED

FREDERICK C. BIEHUSEN
BG, MC
Chairman, Executive Committee

DATE APPROVED:

DISTRIBUTION:
CFS
C, Dept of Primary Care
C, Dept of Surgery
C, Dept of Psychiatry/Neurology
C, Dept of Medicine
C, Dept of Family Practice
C, Dept of OB/GYN
C, Dept of Nursing
C, Dept of Pediatrics
DENTAC

APPENDIX B

INCOMING CALL WORKSHEET

[illegible]

Date: ______________ [illegible] ______________

Call / Time	INCOMING						OUTGOING			
	Appt Made	Appt Reqd. Not Made	Verify	[illegible]	Information	Other	Reschedule	Cancel	Coordinate	Other
[illegible]										
[illegible]										
[illegible]										
[illegible]										

APPENDIX C

PROFESSIONAL STAFF SURVEY

PROFESSIONAL STAFF SURVEY

A study is currently being undertaken to examine the efficiency and effectiveness of the Central Appointment System. As the key element in the health care delivery encounter, your answers to the following questions will provide a great deal of valuable information. Your participation is essential if this study is to successfully provide objective recommendations.

Please complete the questionnaire, place in the attached envelope, and return to the Executive Officer through the hospital distribution system.

1. Did you receive an orientation on the Central Appointment System (CAS) shortly after your arrival?

   Yes_____ No_____

2. If you did not receive an orientation, how did you learn about the functions of the Central Appointment System?

   _____ I have never heard of CAS.
   _____ I have heard other people talk about it.
   _____ I asked for information. Who? _____
   _____ Other (briefly describe)

3. If you conduct a clinic by appointment, does it utilize the Central Appointment System?

   _____Yes
   _____No
   _____I do not conduct a clinic.

4. If your clinic is not scheduled by CAS, by what method are appointments scheduled?

   _____Clinic secretary/receptionist
   _____All patients are walk-ins
   _____Do it myself
   _____Other (please describe)

PROFESSIONAL STAFF SURVEY (CONT'D)

5. Are you satisfied with the present Central Appointment System?

_____Yes
_____No
_____Don't know

a. If you are satisfied, please indicate why (check one or more):

_____Reduces workload on clinic secretary
_____Increases availability of clinic telephone
_____Scheduling done in a consistent manner
_____Easier to make multiple appointments
_____Other (please describe)

b. If you are not satisfied, please indicate why (check one or more):

_____Requires too much lead time.
_____I have no control over appointments.
_____The system does not allow the flexibility I need.
_____I have to devote time to overcoming problems that patients encounter with CAS.
_____Other (please describe)

6. If you had the authority and the option for your clinic/service, which would you choose?

_____Central Appointment System
_____Decentralized system (allow the clinic to schedule)
_____Do not schedule appointments
_____Other (please describe)

7. Please check your branch of service:

_____MC
_____ANC
_____MSC
_____AMSC

Please feel free to make other comments, if you desire.

APPENDIX D

PATIENT SURVEY

PATIENT SURVEY

In an effort to continuously improve our total service to you, DDEAMC is conducting a study of the Central Appointment System. Your input is valuable and necessary for a complete and objective investigation.

Please complete the questionnaire and place in the container located at the Pickup Window.

1. Which clinic(s) were you seen in today? _____

2. Have you used the Central Appointment System before?

_____No
_____Yes, within the last month
_____Yes, within the last 6 months
_____Yes, but longer than 6 months ago

3. How did you find out where to call for an appointment?

_____Previous experience
_____Information Desk
_____General Medical Clinic
_____Emergency Room
_____I called the appropriate clinic
_____Other (please describe)

4. If you have called Central Appointments before, did you have difficulty determining the telephone number?

_____Have never called
_____No difficulty
_____Yes, I had trouble

5. If you had trouble, approximately how many other calls did you make before reaching Central Appointments?

_____One
_____Two
_____Three or more

6. From which source did you obtain the Central Appointment number?

_____Hospital Information
_____Ft. Gordon information
_____Local information service
_____A hospital clinic
_____Telephone book/Yellow Pages

PATIENT SURVEY (CONT'D)

7. If you experienced a delay in obtaining an appointment through Central Appointments, do you feel the CAS personnel provided accurate information concerning the clinics backlog and other reasons for the delay?

_____Have never called CAS
_____Yes
_____No

If you answered no, please explain why.

8. Please check if you are:

_____Active Duty
_____Active Duty Dependent
_____Retired
_____Retired Dependent
_____Other (please explain)

9. Which one of the following would you prefer?

_____To make all appointments with Central Appointment System

_____To make appointments directly with the clinic

Please feel free to make any other comments.

APPENDIX E

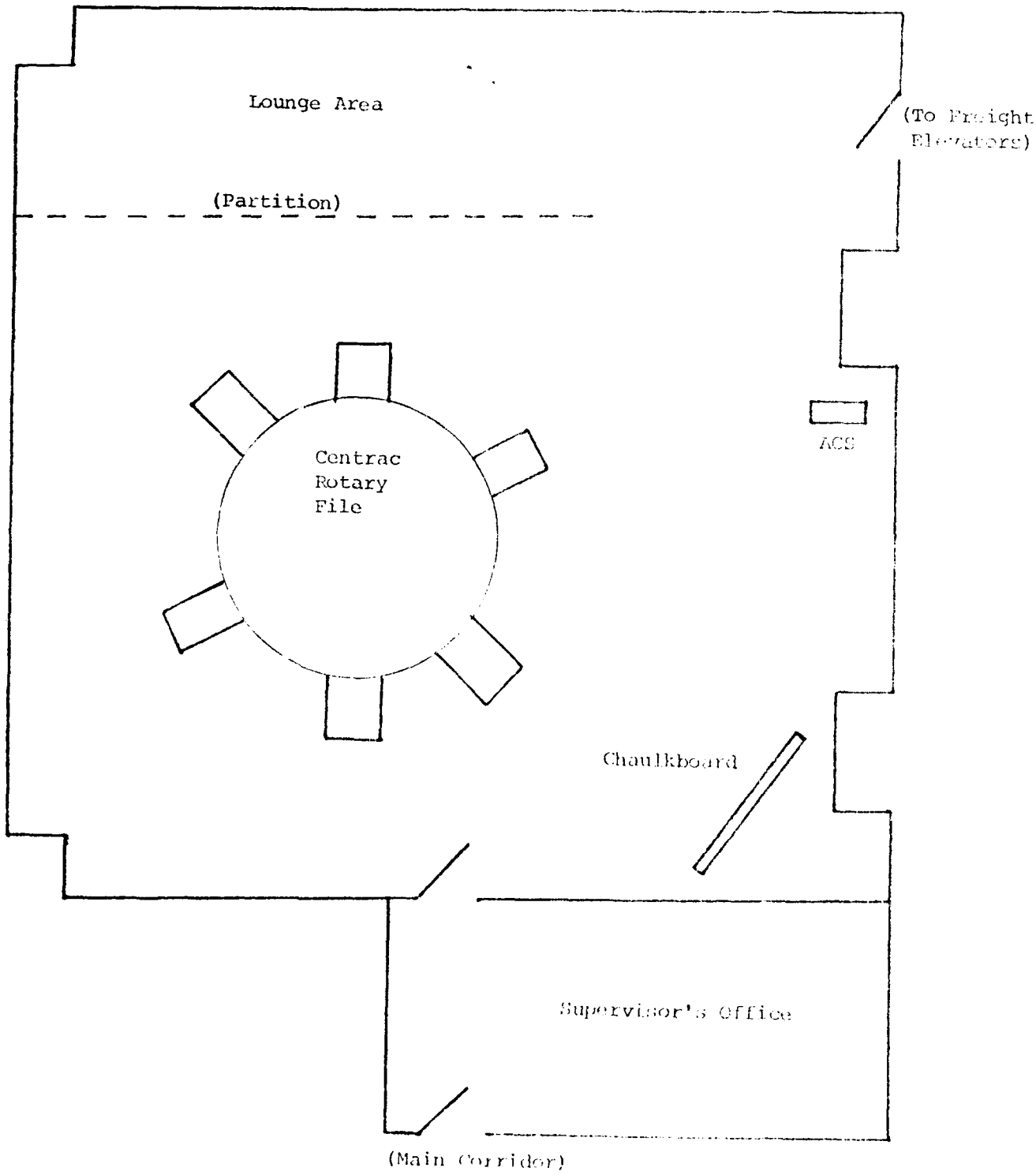
CAS OFFICE LAYOUT DIAGRAM

APPENDIX F

OUTPATIENT APPOINTMENT SCHEDULE CARD

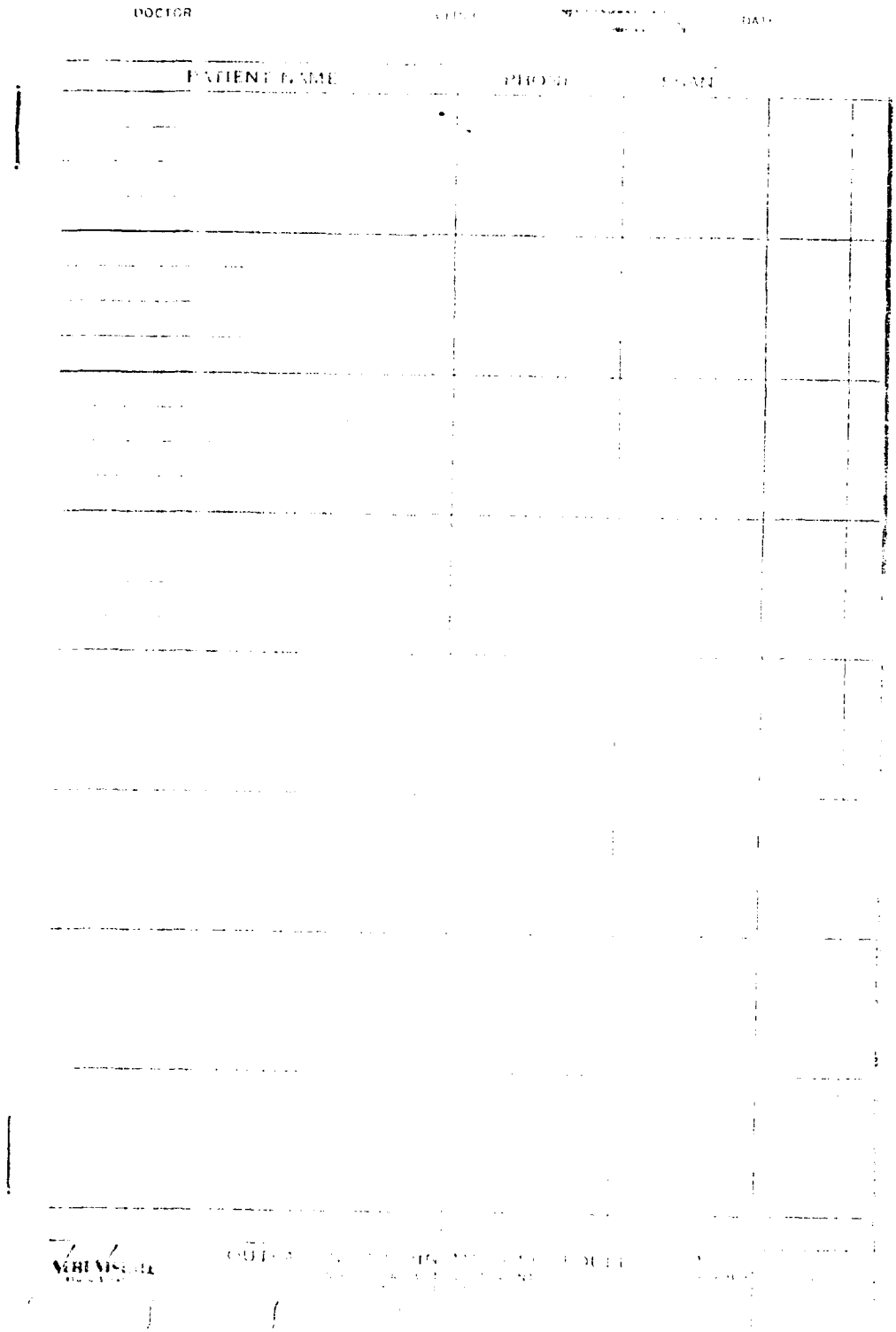
APPENDIX E

CAS OFFICE DIAGRAM



APPENDIX F

OUTPATIENT APPOINTMENT SCHEDULE CARD



APPENDIX G

CAS COST DATA

APPENDIX G

CAS COST DATA

*Equipment:

Acme Visible Central File (complete with dividers)	$ 6177.
Automatic Call Sequencer	5187.
Veri-Visible Outpatient	
Appointment Schedule Forms; 3 part;	
Stock of 1000 @ $.12 each	120.
Total	$11,484.

*Cost of office furniture and telephone equipment not included.

Personnel: (current assigned strength)	**AAS
1 - GS-5 Supervisor	$14,107.
4 - GS-4 Appointment Clerks	50,422.
	$64,529.

**Average Annual Salary

APPENDIX H

CAS SCHEDULE X

MANPOWER SURVEY REPORT - SCHEDULE X - MANPOWER AND WORKLOAD DATA

REPORTS CONTROL SYMBOL CSCPA-1302

MAJOR STAFF ELEMENT	DIVISION	BRANCH	SECTION OR UNIT	SHEET NO	LINE NO
DDEAMC/Prof	Dept of PC & CH	Admin Spt Br	Central Appt Sec	7	6

DESCRIPTION OF WORK PERFORMED

Same as APC Model #1 except computer support is not available.

YARDSTICK CODE: 557-56.1

WORK UNIT: Appointments Made

SECTION A - SUMMARY OF MANPOWER

	OFF	WO	ENL	US CIV	NON-US CIV	TOTAL MANPOWER SUBJ TO ALLOC	OTHER MANPOWER US	OTHER MANPOWER NON-US	TOTALS
1. ALLOCATION				6		6			6
2. ACTUAL STRENGTH				6		6			6
3. RECM BY CO				6		6			6
4. RECM BY SURVEY TEAM				6		6			6

YARDSTICK OR ALLOWANCE COMPUTATION

See Survey Teams' Remarks

SECTION B - PERFORMANCE DATA

MONTH 78	NO. PERS	TOTAL MAN-HOURS WORKED	HRS OF DUTY	EQUIV MAN-MONTHS	NO. OF WORK UNITS	WU PER PERSON
Oct	[illegible]	941	168	5.6	12,125	2165.4
Nov	5	825	160	5.2	11,371	2186.7
Dec	5	730	160	4.6	9,341	[illegible]
Jan	5	784	176	4.5	13,072	[illegible]
Feb	4	635	152	4.2	13,149	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Apr	[illegible]	946	168	5.6	14,030	2505.4
May	6	965	176	5.5	16,414	[illegible]
Jun	5	787	168	4.7	13,[illegible]	[illegible]
Jul	[illegible]	780	168	4.6	[illegible]	[illegible]
Aug	[illegible]	920	184	5.0	[illegible]	[illegible]
Sep	5	778	152	5.1	[illegible]	[illegible]

1. WORKLOAD USED AS BASIS FOR APPRAISAL: 13,[illegible]

2. AVERAGE PRODUCTIVITY

3. MANPOWER ALLOWANCE

SURVEY [illegible] 13323 ÷ 4.9 = 5.5

SECTION C - MANPOWER

ALLOC STR	RANK OR GRADE	ACTUAL STR	RANK OR GRADE	JOB TITLE
1	GS5	1	GS5	Supv Appt Clerk
5	GS4	5	GS4	Appt Clerk Typist

DA FORM 140-4 PREVIOUS EDITION OF THIS FORM ARE OBSOLETE

The Central Appointments Section [illegible] patients for [illegible] clinics and will be [illegible] the operation to [illegible] or 4 new clinics in the near future.

The workload of the section has been distributed throughout the day as much as possible in order to enable the section to operate with the assigned staffing of five appointment clerks and a supervisor. However, peak periods of operation, primarily from [illegible] to 0900 hours and from 1300 to 1430 hours are unavoidable. During these peak periods staffing must be 100%. This leaves little room for leave time. All appointment clerks are in leave categories earning 6 or 8 hours leave per pay period (3 employees earn 8 hours, 2 employees earn 6 hours).

The CAS is housed in space designed for patient [illegible] and therefore is not connected to the [illegible] system. The inability to transport appointment information to and from the clinics via automatic means hinders operations and detracts from the section's ability to perform its primary function of scheduling appointments.

Clinic schedules are received, verified and appointment cards prepared by the appointment clerk assigned to the clinic. This function is vital to the operation. However, it detracts from the time the appointment clerk can devote to scheduling patients.

A senior appointment clerk is necessary to verify clinic schedules, prepare a list of patients to the Record Section, coordinate changes in schedules with physicians, and act as section head in the absence of the supervisor.

The number of appointments made is a good yardstick for the staffing required only when appointments in the clinics are readily available. As appointment times decrease, so does the effectiveness of the yardstick in determining staffing required. Fewer available appointment times result in an increased number of unproductive phone calls, and as a rule, an unappointed caller requires more telephone time.

Requirements recap:

CAS Supervisor (Civ 1)
CAS Clerks (Civ [illegible])
Files Schedule Clerk (Civ 1)

Total [illegible]

MANPOWER SURVEY REPORT - REMARKS

For use of this form, see AR 570-4; the proponent agency is Office of the Assistant Chief of Staff for Force Development.

SHEET NO.	LINE NO.	REPORTS CONTROL SYMBOL
7	6	[illegible]

3. CHECK APPLICABLE BLOCK: [ ] SURVEY TEAM GENERAL REMARKS (complete item 4, only, and file after Commander's General Remarks.)

[ ] COMMANDER'S GENERAL REMARKS (complete item 4, only, and file after Coversheet, DA Form 140.)

XXX SURVEY TEAM SPECIFIC REMARKS (If this block is checked, complete items 1, 2 and 4 and file with Schedule X.)

4. REMARKS (If more space is required, continue on plain paper 10½" x 8".)

a. The functions indicated on this schedule were reviewed and found to be as stated.

b. The information in Section B was reviewed, found to be invalid, and was not considered in determining manpower requirements. Data obtained on site by the surveyor was used in determining manpower requiremnts.

Actual Contacts Made

Jun 1979	8178
Jul 1979	11678
Aug 1979	6483
Sep 1979	8753
Oct 1979	10032
Nov 1979	10519
	55643

Divided 6 = 9274 Avg monthly contacts

c. Yardstick code 557-56.1 was applicable to this activity and directed the use of local appraisal to determine minimum essential manpower requirements.

(1) Local Appraisal: Plus 5 requirements.
Rationale: Five appointment clerks are recognized based on 1 clerk per 2000 contacts each month and is computed as follows: 9274 divided by 2000 = [illegible]

(2) Local Appraisal: Plus 1 requirement.
Rationale: One supervisor appointment clerk is recognized to supervise the appointment clerks, perform monthly and quarterly reports, etc and accomplish scheduling the VIP physicals. Supervisor also fills in when clerks are on leave, conducts training, handles problem calls referred from clerks, schedules and assigns work and conducts clinic liaison visits.

(3) Total Yield 6 requirements.

Manpower Survey Report Sheet 7 Line 6

Survey Team Remarks (continued)

d. The commander's remarks, Section D, were found to be essentially as stated.

e. The survey team non concurred with the commander and recommended staffing as indicated below:

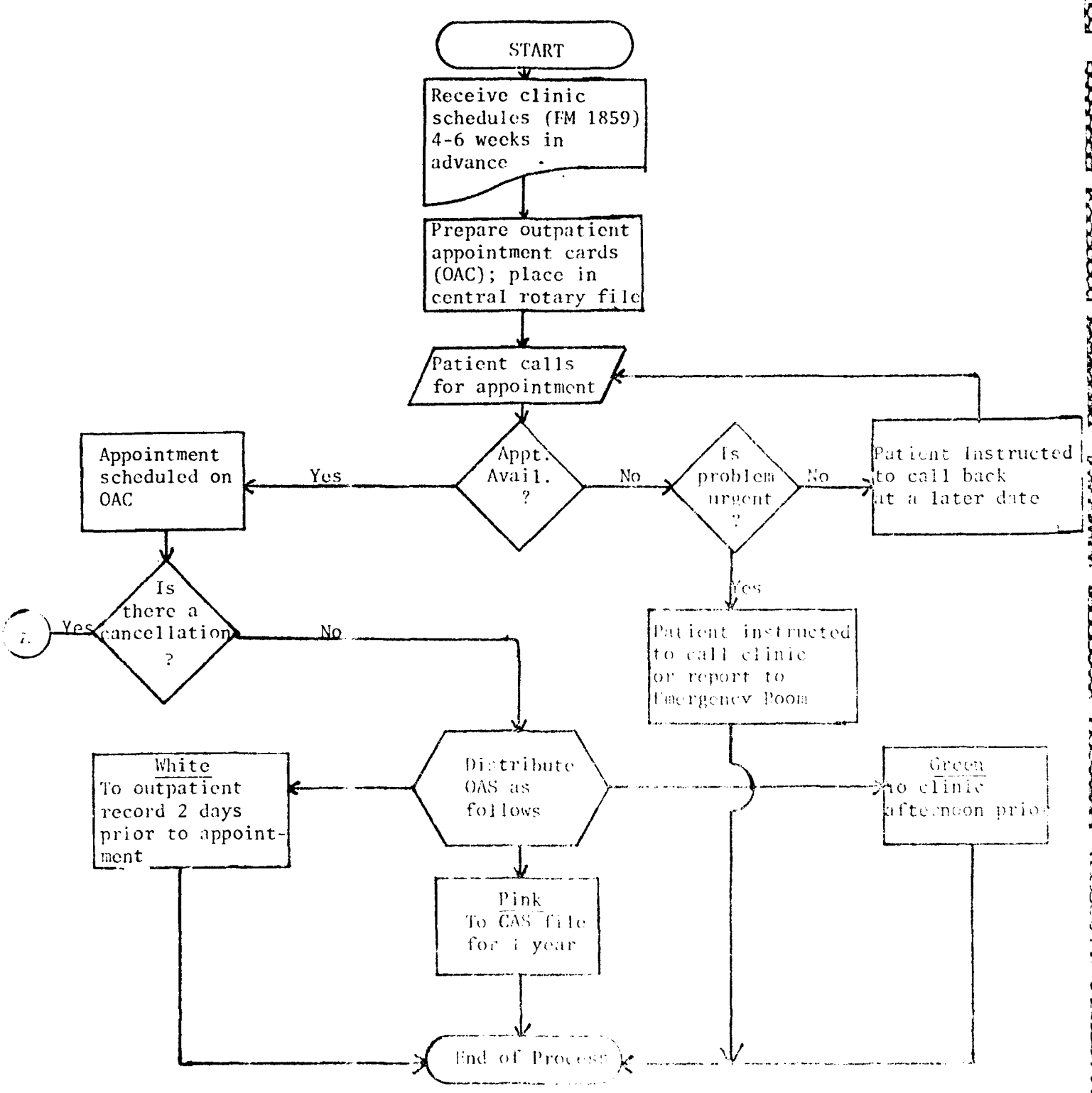
1	Civ	Supervisory Appointment clerk
5	Civ	Appointment clerk/typist
6	Total	

APPENDIX I

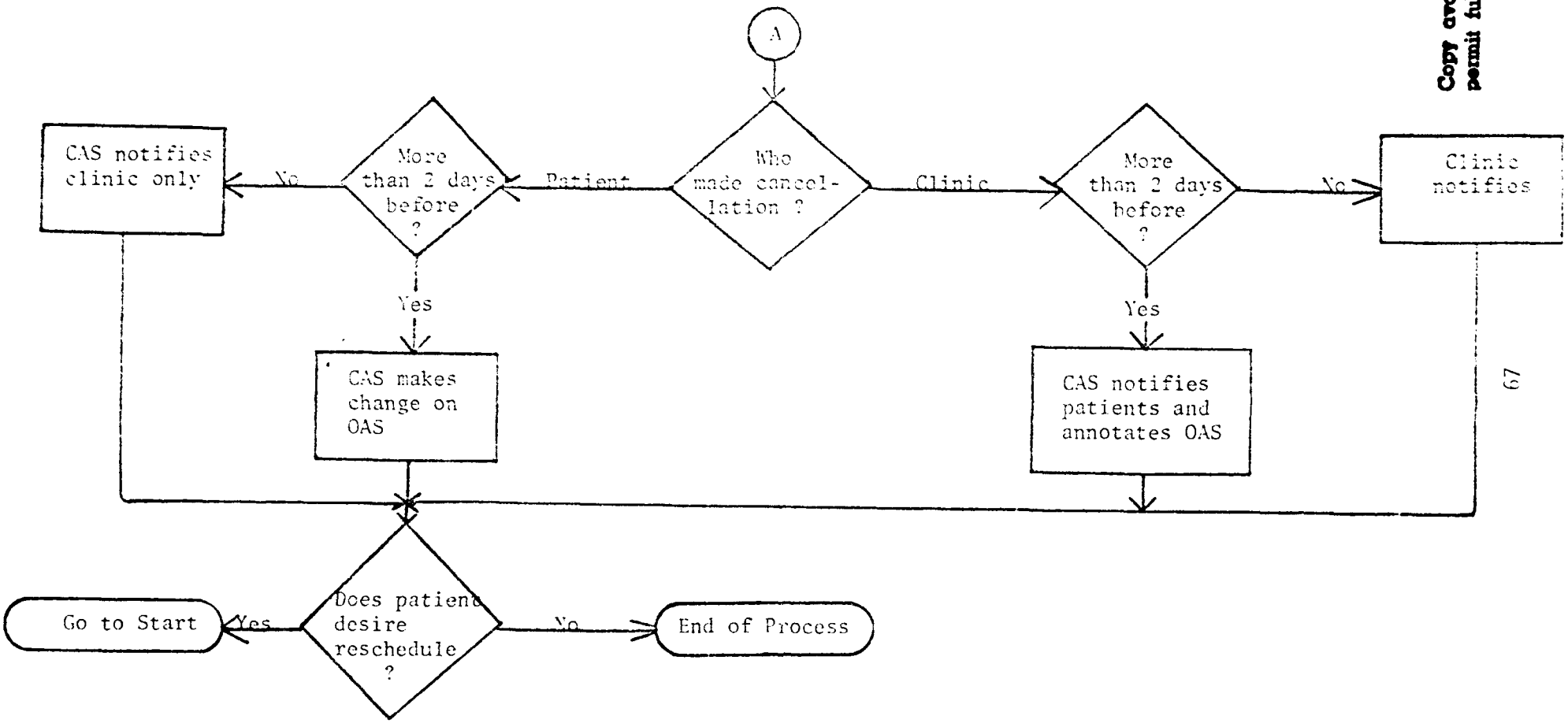
CAS OPERATING PROCEDURE FLOW CHART

APPENDIX I

CENTRAL APPOINTMENT OPERATION



CANCELLATION PROCEDURE



APPENDIX J

DDEAMC REGULATION 40-53

[illegible]

[illegible] REGULATION
[illegible] 40-53

[illegible]

1. Purpose. To delineate the [illegible] (C[illegible]) within [illegible].

2. [illegible]:

a. A Health Care Provider (H[illegible]) [illegible] officer or enlisted, [illegible] individual patient[illegible].

b. Walk-in [illegible] – an individual [illegible].

3. Responsibilities.

a. The Chief, [illegible] the operation of the C[illegible], and [illegible] procedures.

b. The Chief, [illegible] responsible for the [illegible] for the [illegible].

c. Chief of [illegible]:

(1) [illegible] and the [illegible].

(2) [illegible]

(3) [illegible]

(4) Notify [illegible] the supervisor [illegible].

(5) [illegible]

(6) [illegible]

(7) Insuring that CAS schedules a minimum of [illegible] visits.

(8) Submitting information to the CAS as outlined in this regulation.

d. The Chief, Department of Family Practice will be responsible for insuring their Family Practice patients are fully oriented on their authorization of use of any DDEAMC Clinic.

e. The Chief, Logistics Division is responsible for maintaining an adequate supply level of Outpatient Appointment Cards for use in the Central Appointment System.

4. General Policies.

a. The purpose of the CAS is to serve the health care provider and the patient by reducing the administrative time required by both to arrange an appointment.

b. Each Clinic Chief will provide the CAS with guidance for scheduling the appointment schedules for the respective clinic. Such guidance will include:

(1) Health care providers for whom patients are to be scheduled.

(2) Length of appointment required for each visit, including categories as follows:

(a) Initial appointment

(b) Follow-up appointment

(c) Other (procedures, etc.)

(3) Whether X-rays, laboratory work or other examinations are required for the visit.

(4) Under what conditions another provider usually is required to be present.

(5) Administrative instructions to be given to the patient.

(6) How short lead time appointments (less than 7 days) are to be managed.

(7) Other instructions peculiar to the particular clinic.

c. Instructions for patients to return will be interpreted in the following manner.

(1) One week - between 6 and 9 days.

(2) Ten days - between 8 and 12 days.

(3) Two weeks - between 8 and [illegible] days.

(4) Four weeks - between 25 and 30 days.

(5) One month - between 25 and 35 days.

(6) Over one month - between 7 days either way.

(7) If any patient states that the HCP [illegible], the patient will be booked and a notation made on the [illegible].

d. The CAS will not schedule appointments [illegible].

e. All appointments will be made by telephone [illegible] locally, and 791-6[illegible] long distance.

f. The HCP is responsible for informing [illegible] when they wish an initial or follow-up appointment [illegible].

g. The following Clinics will have their patients [illegible] the CAS:

(1) Allergy

(2) Audiology

(3) Cardiology (to include [illegible])

(4) Dermatology

(5) Diet Therapy

(6) EEG [illegible]

(7) ENT

(8) Gastroenterology

(9) General Surgery

(10) GYN

(11) Internal Medicine

(12) Neurology

(13) OB

(14) Ophthalmology

(15) Optometry

(16) Orthopedics

(17) Pediatrics (to include Pediatric Psychology)

(18) Physical Exam

(19) Plastic Surgery

(20) Podiatry

(21) Pulmonary

(22) Thoracic Surgery

(23) Urology (to include Vasectomy)

(24) Well Baby

(25) Well Woman

(26) Other Clinics may be added at the discretion of the Chief, Professional Services.

b. Specific Procedures:

a. The Supervisor, CAS, will be furnished a schedule, [illegible] by the Clinic Chief showing the clinic hours for each [illegible] for which CAS books appointments. Appointments will be [illegible] these periods unless the Supervisor, CAS, receives a [illegible], DOLAMS Fm 1830. This Corrected Schedule must include [illegible] working in the cancelled periods, and must be approved by the [illegible] Chief.

b. Any HCP [illegible] leave, TDY, [illegible] Department Chief in order to have it included in the [illegible]. [illegible] any HCP desire [illegible], TDY, [illegible] CAS, a corrected schedule, [illegible], must be submitted through the Department Chief to Supervisor, CAS. Should any HCP request an [illegible] absence for a period when the appointment schedule [illegible] already prepared, arrangements will be made by the HCP to see the patients prior to departing or arrangement will be made by the HCP to [illegible] patients at the scheduled times, or reappoint the patients [illegible].

(1) An approved Corrected Schedule, [illegible], must be received by CAS with two full working days notice in order to [illegible] cancellations. With less than two full working days notice, clinic personnel must cancel appointments.

c. Block appointments will not be utilized in any area without written approval by Chief, Professional Services.

d. Patients will be appointed [illegible] the clinic. Patients requesting [illegible] will [illegible] honored in so far as possible.

e. Patients will make their appointments with the [illegible] only. There will be no person to person contact between [illegible] personnel of the CAS.

f. Telephones [illegible] located within the [illegible] to make appointments will be utilized.

g. [illegible] by [illegible] the [illegible] by telephone [illegible] personnel should instruct patients [illegible].

h. At 1300 hours [illegible] days prior [illegible] appointments [illegible]

i. Appointments [illegible] the duty day prior to the date of appointment [illegible] appointments, CAS will [illegible] to each HCP [illegible] the Outpatient Medical [illegible].

Copy available to DTIC does not permit fully legible reproduction

j. Pink copies of the appointment sheet will be maintained at the CA[illegible] for one year and then destroyed. No requirement [illegible] for maintaining copies within [illegible] clinic except as determined by the Clinic Chief.

k. Patients requesting appointments beyond the 4 week period for which the appointment schedules are open will be requested to call for an appointment after the appointment schedule has been opened.

l. Clinic personnel will substitute walk-in patients for cancellation and no show slots. Additional walk-in patients will be [illegible] in the manner directed by the Clinic Chief.

[illegible] Reports. The following report will be rendered by the CA[illegible] to provide [illegible] data:

[illegible] CP 1601, Subject: Earliest Available Appointments in [illegible] Clinics, will be prepared by the [illegible], CA[illegible], [illegible] and distributed to the Chief, Department of Primary Care, [illegible], Professional Services, General Medicine [illegible], [illegible], and Specialty Clinic Chiefs.

[illegible] of this regulation [illegible], [illegible] are invited to send comments and [illegible] improvements to the [illegible]

[illegible] COMMANDER:

[illegible]

[illegible]:

C O R R E [illegible] C O [illegible]

Appointment Sheet

Clinic ______________________ Date Prep[illegible] ________

Appointment Sheet for ______________, ______________ [illegible]
(day of week) (date)

NEW SCHEDULE	Name of Doctor or HCP	Appointment Time Span	Type of Appt	[illegible]
AM				
PM				

[illegible] IF NEW SCHEDULE INVOLVES ANY DELETIONS:

[illegible] Provider must contact the Central Appoint[illegible] [illegible] 1 to 2 below.

1. Has CAS already scheduled patients for the time involved? ________
2. Number of patients already scheduled ________
3. Will another staff member see these patients [illegible]? If so, which staff member? ______________; or, will the [illegible] cancellation ______________
4. [illegible] date or d[illegible] can CAS [illegible] schedule any patient [illegible]
____
____
____
____
5. Any special instructions to CAS ______________
____
____

Approved, Clinic [illegible]
Approved, [illegible]

APPOINTMENT SHEET

Clinic _____ Week of _____

	Name of Doctors	Appointment Time Span	Type of Appt.	Special Instructions
Monday AM _____ (date)				
PM				
Tuesday AM _____ (date)				
PM				
[illegible] AM (date)				
PM				
[illegible] (date)				
[illegible]				
[illegible] (date)				
PM				

Approval, Clinic Chief _____

Approval, Executive Chief _____

APPENDIX K

SOP FOR RECURRING REPORTS

DEPARTMENT OF THE ARMY
[illegible]
[illegible]
[illegible]

MEDPG-CL

SUBJECT: Standing Operating Procedure [illegible]
Appointment Section

1. GENERAL: Responsibility of [illegible] Appointment Section (CAS) is assigned to the [illegible].

2. DAILY REPORTS:

a. EARLIEST AVAILABLE APPOINTMENT: [illegible] day of each week, a report is prepared listing the [illegible] available appointment in each clinic, Incl 1.

3. BI-MONTHLY REPORTS:

a. TIME AND ATTENDANCE REPORT: [illegible] of each pay period, Time and Attendance [illegible] prepared for each civilian employee [illegible] care, Incl 2.

[illegible]

[illegible]

APPENDIX L

CLINICS ON CAS

APPENDIX L

CLINICS CURRENTLY UTILIZING CAS

	Require Referral ?
Dermatology	Yes
General Surgery	Yes
Neurosurgery	Yes
Ophthalmology	Yes
Optometry	No
Orthopedic (includes Cast Clinic)	Yes
Vascular Surgery	Yes
Podiatry	Yes
Hand Clinic	Yes
Thoracic Surgery	Yes
Urology	Yes
Audiology	No
Physical Exam	No
Neurology	Yes
Gynecology	No
Nutrition	No
Occupational Health	No
Pediatric (includes Well Baby)	No
*Otolaryngology	Yes

Total on CAS [illegible] (41%)

*Specialty physician not available

APPENDIX M

CLINICS NOT ON CAS

APPENDIX M

CLINICS NOT UTILIZING CAS

Allergy	Physical Therapy
Cardiology	*Plastic Surgery
Gastroenterology	Orthopedic Appliances
Inhalation Therapy	**General Medical Clinic
Internal Medicine	Aviation Medicine
Pulmonary	Child Guidance
Rheumatology	Psychiatry
Hematology/Oncology	Psychology
Infectious Disease	Family Practice
Endocrine	Obstetrics
Nephrology	Social Work
Occupational Therapy	Radiology

Total - 24 (56%)

*Specialty physician not available

**Walk-in clinic only

APPENDIX N

PROFESSIONAL STAFF SURVEY RESULTS

PROFESSIONAL STAFF SURVEY

A study is currently being undertaken to examine the efficiency and effectiveness of the Central Appointment System. As the key element in the health care delivery encounter, your answers to the following questions will provide a great deal of valuable information. Your participation is essential if this study is to successfully provide objective recommendations.

Please complete the questionnaire, place in the attached envelope, and return to the Executive Officer through the hospital distribution system.

1. Did you receive an orientation on the Central Appointment System (CAS) shortly after your arrival?

   Yes 11 (12%) No 78 (87%) Don't remember - 3

2. If you did not receive an orientation, how did you learn about the functions of the Central Appointment System?

1	(1%)	I have never heard of CAS.
53	(68%)	I have heard other people talk about it.
13	(17%)	I asked for information. Who? (See attached explanation)
11	(14%)	Other (briefly describe)
78	(100%)	

3. If you conduct a clinic by appointment, does it utilize the Central Appointment System?

33	(36%)	Yes
43	(47%)	No
7	(7%)	I do not conduct a clinic.
9	(10%)	Portion of clinic on CAS
*92	(100%)	

4. If your clinic is not scheduled by CAS, by what method are appointments scheduled?

43	(60%)	Clinic secretary/receptionist
3	(5%)	All patients are walk-ins
19	(25%)	Do it myself
9	(10%)	Other (please describe)
74	(100%)	

Freq	
5	- Family Practice Clinic
2	- Social Work Specialist (91C)
1	- Secretary schedules procedures only
1	- All of the above

* Total varies due to multiple responses.

PROFESSIONAL STAFF SURVEY (CONT'D)

5. **Are you satisfied with the present Central Appointment System?**

21	(24%)	Yes
33	(37%)	No
28	(32%)	Don't know

Yes and No - 2 (2%)
No response - 5 (5%)
89 (100%)

a. **If you are satisfied, please indicate why (check one or more):**

13	(33%)	Reduces workload on clinic secretary
8	(21%)	Increases availability of clinic telephone
11	(28%)	Scheduling done in a consistent manner
4	(10%)	Easier to make multiple appointments
3	(8%)	Other (please describe)
39	(100%)	1 - CAS is most efficient and effective method 1 - All apply 1 - No secretary available; would be my responsibility

b. **If you are not satisfied, please indicate why (check one or more):**

14	(14%)	Requires too much lead time.
20	(19%)	I have no control over appointments.
29	(28%)	The system does not allow the flexibility I need.
26	(25%)	I have to devote time to overcoming problems that patients encounter with CAS.
14	(14%)	Other (please describe)
* 103	(100%)	(See attached explanation)

6. If you had the authority and the option for your clinic/service, which would you choose?

16	(18%)	Central Appointment System
60	(67%)	Decentralized system (allow the clinic to schedule)
0		Do not schedule appointments
7	(7%)	Other (please describe)
6	(7%)	No response
89	(100%)	

Freq
4 - Combination
2 - Do it myself
1 - Decentralize if I had [illegible]

7. Please check your branch of service:

66	(74%)	MC
3	(3%)	ANC
13	(15%)	MSC
6	(7%)	AMSC
1	(1%)	DAC
89	(100%)	

Please feel free to make other comments, if you desire.

* Total varies due to multiple responses.

#2. Asked for information from:

Frequency

4 - Secretary
3 - CAS staff
3 - House staff
1 - Clinic NCOIC
1 - Department administrator
1 - Spouse

Learned of CAS from:

Frequency

8 - Previous experience
2 - By using the system
1 - Briefed by predecessor

#5b. Reasons for dissatisfaction:

Frequency

- Many post-op and outpatients have to be seen and given appointments after CAS book is full.
- No knowledge of physician's leaves, TDY, etc.
- No expertise in defining medical problems.
- Impersonal.
- Does not for special instructions to patients referred for consultations.
- Absolutely no control.
- Patients complain about switchboard.
- CAS staff does not know what is going on and cause problems by appointing to wrong physician.
- Cannot screen for cases versus those that can wait (this is important in a teaching institution).
- Follow-up appointment times not utilized properly.
- CAS averages at least one mistake per week (e.g. double booking; telling patient the wrong time).
- Pediatric patients need medical judgements to determine when and by whom patient should be seen.
- Causes too long of a delay.

Professional Staff Comments

The phones are always busy, making scheduling tedious.

Patients often wait 1-2 months for appointments.

Decentralized offers more flexibility and greater patient satisfaction - orthopedic needs - due to many different types of patients.

Pediatrics needs flexibility.

Physicians could see more patients if all booked by clinic.

Modified CAS with clinic maintaining control over portion of each day.

CAS invaluable in assisting to optimize health care.

More communication needed between clinic and CAS.

CAS is functional only for most routine, general and perfunctory type of clinic activities.

Complex patients can only be handled by the clinic.

CAS does not take in consideration medical priorities.

CAS is a too rigid system which attempts to do too much for too many departments and services with highly variable and specialized requirements to the degrading of personalized service to the patient.

CAS to cumbersome and inflexible to properly provide an adequate service to staff and patients.

The system does not work and it causes problems each day.

Because of nature of nuclear medicine, CAS would not provide most efficient means of scheduling appointments.

CAS cannot determine urgency of appointments and how long patient will have to be seen.

Green card needs to include diagnosis/problem and source of referral.

APPENDIX O

PATIENT SURVEY RESULTS

PATIENT SURVEY

In an effort to continuously improve our total service to you, [illegible] is conducting a study of the Central Appointment System. Your input is valuable and necessary for a complete and objective [illegible].

Please complete the questionnaire and place in the envelope located at the Pickup Window.

1. Which clinic(s) were you seen in today? See attached.

2. Have you used the Central Appointment System before?

11	(6%)	No
93	(54%)	Yes, within the last month
45	(26%)	Yes, within the last 6 months
24	(14%)	Yes, but longer than 6 months ago
173	100%	

3. How did you find out where to call for an appointment?

114	(67%)	Previous experience
21	(12%)	Information desk
7	(4%)	General Medical Clinic
1	(0.5%)	Emergency Room
19	(11%)	I called the appropriate clinic
8	(5.5%)	Other (please describe)
170	100%	

Outpatient brochure (2)
Troop Medical Clinic (3)
Friend (2)
Tie-line (1)

4. If you have called Central Appointments before, did you have difficulty determining the telephone number?

5	(3%)	Have never called
134	(77.5%)	No difficulty
34	(19.5%)	Yes, I had trouble
173	100%	

5. If you had trouble, approximately how many times did you call before reaching Central Appointments?

5	(10%)	One
13	(25%)	Two
34	(65%)	Three or more
52	100%	

6. From which source did you learn the Central Appointment System?

84	(50%)	Hospital Staff
21	(12.5%)	Ft. Gordon Publication
4	(2.5%)	Local Information Center
31	(18.5%)	A hospital flier
27	(16.5%)	Telephone Information
167	100%	

PATIENT SURVEY (CONT'D)

7. If you experienced a delay in obtaining an appointment through Central Appointments, do you feel the CAS personnel provided accurate information concerning the clinics backlog and other reasons for the delay?

10	(6.5%)	Have never called CAS
106	(67.5%)	Yes
20	(12.5%)	No
21	(13.5%)	No delay
157	100%	

If you answered no, please explain why.

8. Please check if you are:

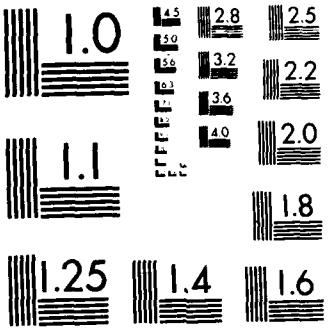
22	(13%)	Active Duty
28	(16%)	Active Duty Dependent
51	(30%)	Retired
57	(33%)	Retired Dependent
0	0	Other (please explain)
15	(8%)	Blank
173	100%	

9. Which one of the following would you prefer?

52	(30%)	To make all appointments with Central Appointment System
97	(56%)	To make appointments directly with the clinic
9	(5%)	No preference
15	(9%)	Blank
173	100%	

Please feel free to make any other comments.

AD-A195 651 A STUDY OF THE CENTRAL APPOINTMENT SYSTEM AT DWIGHT 2/2
DAVID EISENHOWER ARMY..(U) ACADEMY OF HEALTH SCIENCES
(ARMY) FORT SAM HOUSTON TX HEALTH C.. D L CHAFFEE
UNCLASSIFIED JUL 81 HCA-35-88 F/G 5/1 NL



1. Clinics:

Family Practice	46	(28%)
General Medicine	19	(11%)
Internal Medicine	11	(7%)
Allergy/Dermatology	8	(5%)
General Surgery	6	(4%)
OB/GYN	13	(8%)
Pediatrics	20	(12%)
EENT	10	(7%)
Psychiatry/Neurology	4	(2.5%)
Orthopedics	3	(2%)
Laboratory	2	(1%)
Physical/Occupational Therapy	2	(1%)
Pharmacy refill	17	(10.5%)
TOTAL	162	100%

7. Negative responses:

Frequency

5 - Difficult to get an appointment when they are only given one day each month.
5 - CAS personnel don't give explanations.
4 - Doctor requested a specific date which CAS would not give.
2 - Too many incoming calls.
1 - Always on coffee break.
3 - CAS personnel do not have enough information.

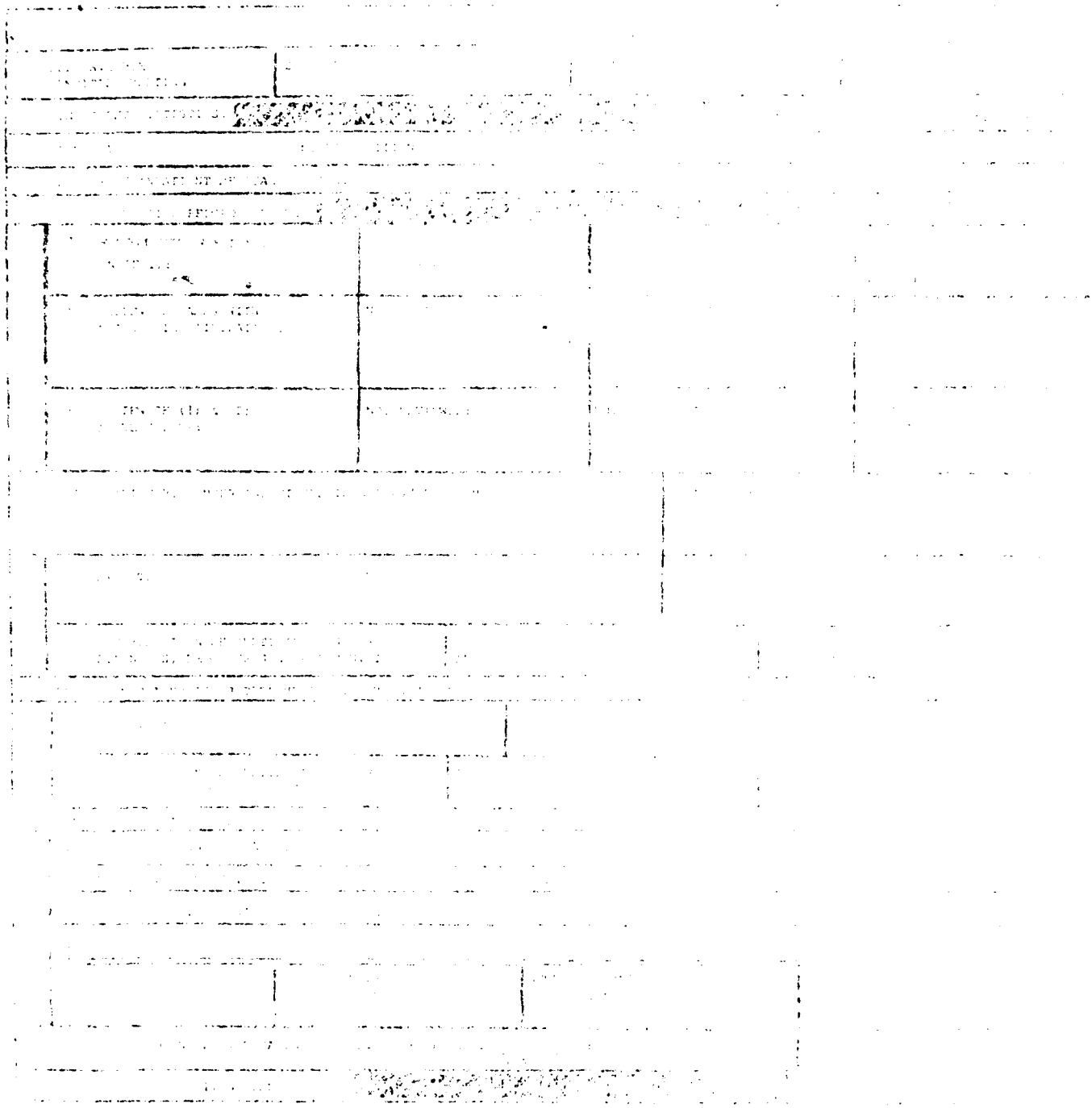
Additional Comments:

Frequency

2 - Would like separate telephone number for walk-in appointment.
3 - Difficulty when calling long-distance.
6 - CAS staff very courteous and helpful.
2 - Want CAS hours expanded.
1 - Clinic personnel are more familiar with situation and can give better service.
4 - Need more phone lines.
2 - Unfair to wait for an appointment and then have it cancelled by physician.
4 - CAS staff rude and discourteous.
3 - Follow-up appointments made at clinic.

APPENDIX P

DDEAMC FORM 1869R



4. OUTPATIENT STATISTICS:

a. TOTAL CLINIC VISITS	(1) [illegible]		
[illegible]	[illegible]		
	(7) TOTAL NO. OF PATIENTS [illegible] PHYSICIAN [illegible]		
	(9) TOTAL NO. OF TELEPHONE CONSULTATIONS (NOTE 4)		
	(11) TOTAL NO. OF RECORDS OF PHYSICIAN EXTENDERS (SPECIFY [illegible]) (NOTE 6)		

5. REVIEW OF OUTPATIENT RECORDS:

a. ROUTINE:

(1) RANDOM REVIEW FOR MCE (NOTE 8):	NUMBER OF RECORDS REVIEWED:	[illegible]	
(2) REVIEW OF CASES WITH ANTIBIOTIC UTILIZATION:	NUMBER OF RECORDS REVIEWED:	[illegible]	
(3) [illegible] (1) + (2) ABOVE [illegible]:	NUMBER OF RECORDS REVIEWED:	[illegible]	

b. [illegible]	EXPECTED		
c. [illegible] (LIST BY NO.)	EXPECTED:		
d. COMPLICATIONS AND CASES [illegible] (LIST BY NO.):	EXPECTED:		

6. [illegible], ETC.:

7. ATTENDANCE:

NAMES OF DEPT/SVC MEMBERS AND GUESTS	INITIALS	NAMES [illegible]	

NOTE 1: 4a(4) PLUS 4a(5) DIVIDED BY 4a(1) PLUS 4a(2) [illegible]
NOTE 2: PATIENTS SEEN AND TREATED BY PHYSICIAN ASSISTANTS, NURSE CLINICIANS, [illegible] PHYSICIAN INVOLVEMENT.
NOTE 3: PATIENTS SEEN AND TREATED BY PHYSICIANS NOT TO INCLUDE THOSE [illegible] THE SUM OF 4a(2) AND 4a(3) EQUALS TOTAL CLINIC VISITS
NOTE 4: ANY CONVERSATION REGARDING THE TREATMENT OF A PATIENT [illegible]
NOTE 5: CAST REMOVAL, SUTURE REMOVAL, CAST APPLICATION, INCISION [illegible]
NOTE 6: BASED ON NO. OF PNTS TREATED BY PHYSICIAN EXTENDERS [illegible] 5,000 VISITS=25 RECORDS. SPECIFY [illegible]
NOTE 7: RATE COMPUTED BY DIVIDING NO. OF RECORDS [illegible]
NOTE 8: BASED ON AVERAGE CLINIC VISITS PER [illegible] 25 RECORDS; 5,000-10,000 = 50 [illegible]

APPENDIX Q

DA MESSAGE DATED 4 APRIL 78 (PATIENT

APPOINTMENT SYSTEMS)

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY HEALTH SERVICES COMMAND
FORT SAM HOUSTON, TEXAS 78234

HSPA-A

24 [illegible] 1978

SUBJECT: Patient Appointment Systems

Commanders
HSC MEDCEN/MEDDAC

1. Reference is made to DA message 041230Z [illegible] 78, DASG-HCC-C, subject as above (Inclosure 1).

2. The policy guidance contained in referenced message permits [illegible] commanders to partially or completely decentralize the central appointment systems (CAS) patient scheduling function; however, it should be noted that a requirement also exists to provide "maximum patient accessibility to appropriate levels of available care in an expeditious manner." Actions [illegible] to restructure an existing CAS must therefore be carefully [illegible] to ensure that patient access to the health care delivery system is not compromised.

3. The central appointment system concept [illegible] valid, [illegible] to each MTF, and its continued use is [illegible].

1 Incl
as

MARSHALL E. McCABE, M.D.
Major General, MC
Commanding

DEPARTMENT [illegible]
HEADQUARTERS, UNITED STATES [illegible]
FORT SAM HOUSTON [illegible]

HSPA-A [illegible]

SUBJECT: Patient Appointment Systems

Commanders
HSC MEDCEN/MEDDAC

1. Reference is made to:

a. Letter, HSPA-A, this headquarters, 24 May 197[illegible], subject [illegible] above.

b. Chapter 3, Section D, Paragraph 2a of the [illegible] Command Ambulatory Patient Care Program, 1 July 197[illegible].

2. The intent of guidance contained in the above [illegible] flexibility in patient appointing. It [illegible] appointment systems (CAS) be completely [illegible] staff support, CAS have been highly effective [illegible] both patients and clinics, and as a source of [illegible] management.

3. The most effective means of providing maximum patient [illegible] is the continued use of CAS in conjunction with alternate [illegible] determined by local commanders.

MARSHALL [illegible]
Major General, MC
Commanding

PT 03725

ACT___PT___ ACT___PT___

5TH US ARMY FT SAM HOUSTON HEALTH SERVICES OTHER COMMANDS

__C/S __PAO __DC __PAO __DRSC
__PA __SJA __JA __CPO
__RM __OIS __IG __ASA
__LOG __ORR __FM __ADJ __CHAPLAIN __CPSTAN
__TNG __PM __4IHG __DPCA __JPPSO
__OPS __CHAP __DIO __COMP
__I __AHA __DCE __DFAE __DPTSEC __PA

RTTUZYUW RUEADWD0021 0941911-UUUU--RUWTNFA

ZNR UUUUU

P 042233Z APR 78

FM DA WASH DC //DASG-HCC-C//

AIG 7956

INFO RUEADWD/DA WASHDC //DAIO-ZA/DASG-HCC/DA...//

UNCLAS

ASG TO MEDCOMS, MEDDACS

SUBJ: PATIENT APPOINTMENT SYSTEMS.

A. LETTER, DASG-HCC-C (M) 9 MAY 1977 SUBJECT: IMPROVEMENT OF AMBULATORY HEALTH CARE.

1. TO PERMIT REEXAMINATION OF THE CENTRAL APPOINTMENT SYSTEM ... ITS APPLICATION, A MORATORIUM ON THE ... OF CENTRAL APPOINTMENT SYSTEMS WAS ESTABLISHED ... (REF A ABOVE). SUBSEQUENT REVIEW HAS ... SYSTEMS TO BE ONE OF THE ... ALTHOUGH OPERATIONAL CHARACTERISTICS ... TREATMENT FACILITIES. IT HAS BEEN ... MAY BE EFFECTIVELY SCHEDULED ON EITHER A ... CLINIC BASIS DEPENDING ON THE ... VARIOUS LOCAL CIRCUMSTANCES.

PAGE 2 RUEADWD0021 UNCLAS

2. BASED UPON THE ABOVE CONSIDERATIONS THE FOLLOWING ... PATIENT APPOINTMENT SYSTEMS. THE COMMANDER ... IS RESPONSIBLE FOR PROVIDING MAXIMUM PATIENT ... LEVELS OF AVAILABLE CARE IN AN ... APPOINTMENTS MAY BE ARRANGED USING EITHER A ... CENTRALIZED SYSTEM, OR COMBINATION OF THE TWO METHODS ... TO PERMIT EFFECTIVE COORDINATION OF PATIENTS, ... PROVIDERS, MEDICAL RECORDS, AND TREATMENT SITES.

3. PENDING CHANGE TO AR 40-3, THIS MESSAGE WILL BE ... AUTHORITY FOR APPLICATION OF THE GUIDANCE PROVIDED ...

#0021

NNNN

UNCLAS

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