

Systems Analysis

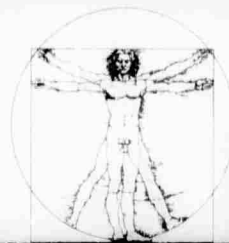
For a "New Generation" of Military Hospitals

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Volume 8. Appendix: Survey of Military Hospitals

Final Report

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**SYSTEMS ANALYSIS
FOR A "NEW GENERATION" OF MILITARY HOSPITALS**

**VOLUME 8 – APPENDIX
SURVEY OF MILITARY HOSPITALS**

**Final Report to the
ADVANCED RESEARCH PROJECTS AGENCY
DEPARTMENT OF DEFENSE**

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Arthur D Little, Inc.

**SYSTEMS ANALYSIS
FOR A "NEW GENERATION" OF MILITARY HOSPITALS**

LIST OF VOLUMES

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- VOLUME 1 ANALYSIS OF MILITARY HEALTH CARE**
- VOLUME 2 REORGANIZATION OF THE BASE-LEVEL MILITARY
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8.1 WALSON ARMY HOSPITAL
FORT DIX, NEW JERSEY

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8.1 WALSON ARMY HOSPITAL FORT DIX, NEW JERSEY

8.1.1 MISSION AND ENVIRONMENT

8.1.1.1 Brief History

The first hospital at Fort Dix, New Jersey, was organized on 27 August 1917, with the arrival of Field Hospital Number 22 and an ambulance company from Fort Oglethorpe, Georgia. These units set up a field hospital which opened on 22 October 1917. The largest number of patients admitted to this hospital was 6,507 during September 1918.

Following demobilization after World War I, activities at Fort Dix were minimal. In 1933, the Civilian Conservation Corps established a camp at the base, and to support this activity, the Fort Dix Medical Service was composed of one medical officer and 23 men, operating 70 beds in a converted permanent-barracks building. In 1939, another barracks building was converted to give a total capacity of 350 beds.

In 1940, a cantonment-type hospital was constructed at Fort Dix to support the troops being trained there. In 1942, the original 80-building cantonment hospital was enlarged by the addition of 49 buildings which increased the total hospital capacity to 1,500 beds.

During 1941 it became necessary to construct a general hospital at Fort Dix.

Early in 1944, the station hospital and the general hospital were merged to form a general hospital complex. This hospital was known as Tilton General Hospital (TGH). Because of the dire need for hospital beds, many convalescent and ambulatory patients were housed in barracks and other available buildings. By the middle of 1945, TGH had approximately 4,000 beds available for patients of various categories.

With the end of the war in Europe, the bed requirement dropped rapidly and most of the old temporary buildings were either demolished or modified for other use. In 1949, TGH was redesignated Fort Dix Station Hospital and in 1950 renamed U.S. Army Hospital, Fort Dix, New Jersey.

Walson Army Hospital (WAIH), Fort Dix, New Jersey, a nine-story permanent structure containing space for 500 beds and limited clinical service, was completed in 1960. At the time a permanent building was planned for WAIH, the clinic areas

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were designed to support the local military population, but when bed requirements were determined for WAH there were no provisions made for support of the Aeromedical Evacuation System, since that was an Air Force responsibility. Because of the shortage of space in the existing permanent building, WAH has to maintain and operate portions of the World War II cantonment-type hospital at Fort Dix.

In 1964, a two-story addition was made to the permanent structure, which contains the General Outpatient Clinic, the Pharmacy, and various specialty clinics. Also, a single-story addition was constructed to facilitate the arrival, processing, and departure of the Air Evacuation patients.

8.1.1.2 Mission

The major mission of Fort Dix is to provide basic training for newly inducted members of the United States Army. The activities of the base as a whole, and the medical demands placed on WAH, reflect this emphasis on training.

WAH's mission is to provide health care to the military and civilian population of Fort Dix, as well as other service to related personnel in the surrounding area. The mission for WAH is stated as follows:

1. **Provide medical care, hospitalization, and general and specialized clinic services for all military personnel, dependents, retired personnel, and other authorized personnel stationed at/or located within the geographical jurisdiction of Fort Dix:**
 - Provide intransit medical facilities for aeromedical evacuees arriving at McGuire Air Force Base (MAFB) from overseas, and for those in the intra-continental United States aeromedical evacuation channels processed through MAFB;**
 - Provide medical supply and maintenance support within the assigned area of responsibility;**
 - Provide for residency training in various professional specialties and hospital administration;**
 - Provide facilities for training of personnel attached to TOE (organized under a Table of Organization and Equipment) medical units; and**
2. **Under the Medical Department Activity (MEDDAC), provide medical care for the following activities and installations other than Fort Dix:**
 1. **Fort Hamilton, New York**
 2. **Fort Wadsworth, New York**

3. Army Pictorial Center, New York
4. Tobyhanna Army Depot, Pennsylvania
5. Defense Personnel Support Center, Pennsylvania
6. Electronics Command, Pennsylvania
7. Frankford Arsenal, Pennsylvania
8. Picatinny Arsenal, New Jersey
9. ARADCOM Sites
10. McGuire Air Force Base
11. Lakehurst Naval Air Station, New Jersey.

8.1.1.3 Size of Base

Fort Dix has an active-duty military population of approximately 26,700. (The majority of these personnel are in training.) In physical size, the base area is about 55 square miles.

8.1.1.4 Geography and Climate

Fort Dix is located in central New Jersey, southeast of Trenton, New Jersey, and to the east of Philadelphia, Pennsylvania. The area is approximately 55 feet above sea level, and the surrounding terrain is primarily level.

The climate in the Fort Dix area is moderate with predominately northerly winds. Summer temperatures average 70 degrees to 95 degrees with the winter temperatures averaging in the 20's and below. The area receives a moderate amount of snow during the winter months.

8.1.1.5 Population Served

The current population served by the WAH and its associated satellite units under the MEDDAC Command is as follows:

Active Duty Military	50,000
Retired Military	3,500
On-Post Dependents	14,000
Off-Post Dependents in Area	60,000
Civilian Employees	<u>7,000</u>
Total	134,500

A large portion of the demand for medical services made on WAH is derived from the training brigades present at Fort Dix. This is an all-male, young (eighteen to nineteen years old) population which is present at Fort Dix for eight weeks of basic infantry training. The physical demands of the training program lead to larger numbers of orthopedic cases and other problems (blisters, sprains, etc.) than would be present in a nontraining population. The physical training program may also lead to malingering, exaggeration, and deception by the individuals demanding medical care, which would also be less pronounced in a nontraining population.

8.1.1.6 Relation to Other Services and Community

There are no other federally owned hospitals within the area of Fort Dix, New Jersey, that can assume any part of the station hospital load of WAH. Walson's location within the confines of a major troop concentration dictates that WAH must be able to furnish complete medical care to the military personnel present and quickly return them to duty. In the event of a need for highly specialized treatment, two of the Army's General Hospitals – Valley Forge General Hospital and Walter Reed General Hospital – are available by rail and air transportation.

Medical care services can be purchased from the civilian sector through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). Wah rarely uses the CHAMPUS program because of the lack of conveniently located civilian facilities. Facilities in Trenton (20 miles) and Philadelphia (45 miles) could feasibly be used if necessary.

8.1.2 DESCRIPTION OF HEALTH CARE FACILITIES

8.1.2.1 Main Physical Plant

The main physical plant for the Walson Army Hospital (WAH) is a nine-story structure with two major wings. There is also a fully utilized basement area. The major facts are summarized below:

- Age – primary structure built in 1960, additions made in 1964
- Structure cost – \$10,401,000
- Equipment cost – \$2,154,436
- Area of main structure – 426,991 square feet
- “Nominal” bed capacity -- 550
- Actual beds set up during the study period – 905

Each floor of WAH has two wards, one in each wing, with the exception of the first floor, which is devoted to administrative office space and clinics, and the second floor, which has a third ward (2C) near the Surgical Suite used for postoperative recovery and surgical intensive care patients. The allocation of wards among the various medical categories, and the number of beds in each ward is shown in Table 8.1.1. The main facility for WAH appears well kept and well maintained, but it is overcrowded with the present number of beds set up. Areas originally designated as patient lounges or visiting rooms have been converted into four to eight-bed rooms while what were designed as single or double rooms are now two or three-bed rooms, respectively.

The layout of each ward is linear, with rooms on either side of, and at the end of, the main hallway. Nursing stations are located approximately halfway down the main corridor. From the nursing stations, visual contact with the patients is poor. This is particularly undesirable in the ward (9B) which houses the medical intensive care patients. The Surgical Intensive Care Unit and Postoperative Recovery Room (2C) is also poorly arranged, allowing little visual contact between the nursing station and patient beds. The floor plans in Figure 8.1.1 show the physical arrangement of all floors of WAH.

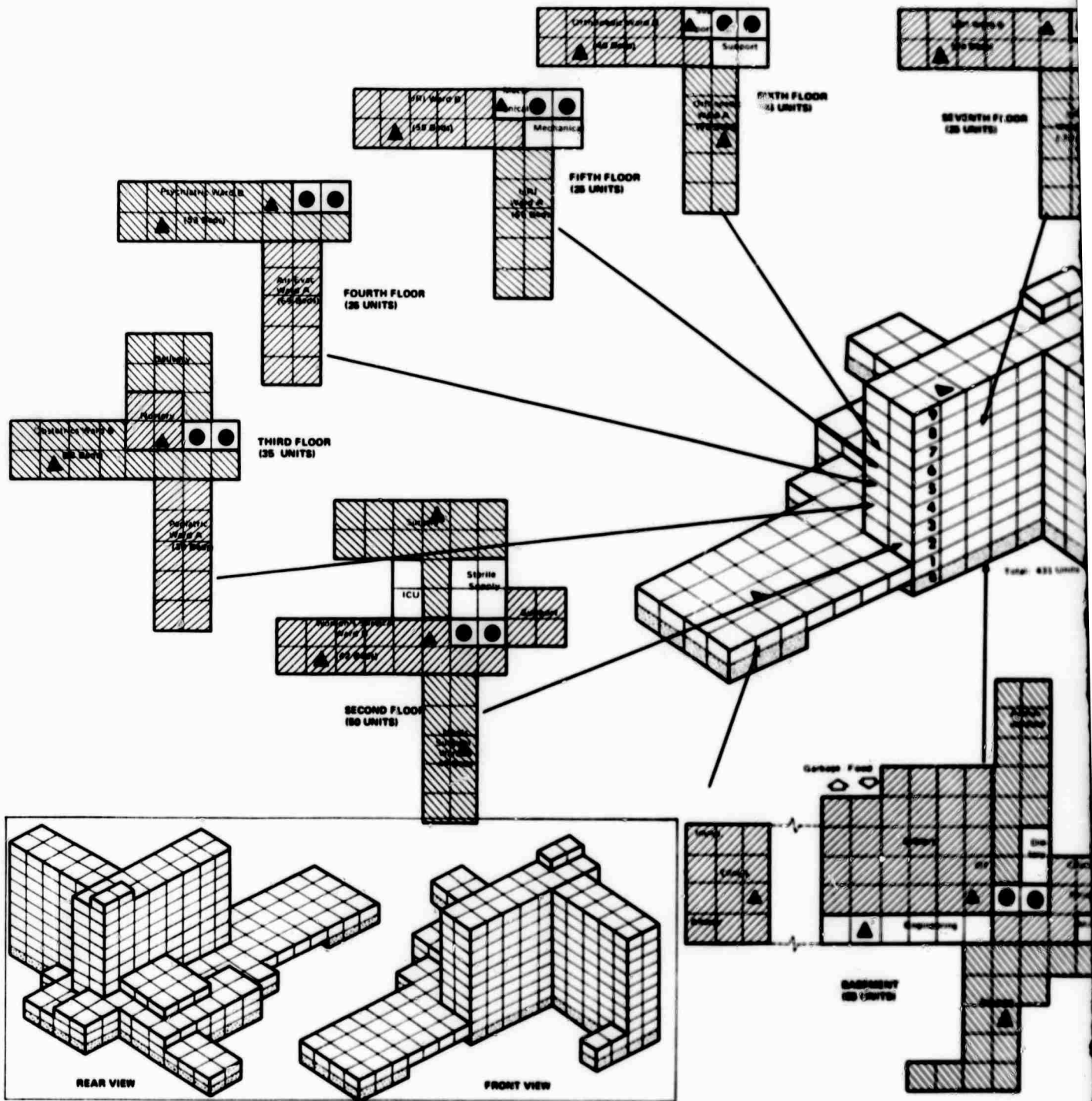
WAH has received bids for adding space for a 230-bed URI ward.

8.1.2.2 Dispensaries and Satellite Facilities

There are nine dispensaries at Fort Dix which are administered by the Department of Clinics at WAH. These structures range from relatively new modern

TABLE 8.1.1
WARD AND BED ALLOCATIONS
WALSON ARMY HOSPITAL
MAIN FACILITY

<u>Service</u>	<u>Wards Allocated</u>	<u>Typical Number Of Beds Setup</u>
<u>Medical and Neuropsychiatric</u>		
Neuropsychiatric	4B	53
Pediatric	3A	30
Upper Respiratory Infection	5A	65
	7A	73
	8A	73
Upper Respiratory Infection and Contagion Pneumonia	7B	64
	8B	60
General Medicine, Male	9A	58
Intensive Care, Medicine	9B	33
Total Medical and Neuropsychiatric		509
<u>Surgery</u>		
Air Evacuation	4A	69
Surgical, Male	2A	45
Medical/Surgical, Female	2B	42
Intensive Care, Recovery	2C	18
Obstetrics	3B	38
Newborn Nursery	3BN	30
ENT/EENT/Septic, Male	5B	55
Orthopedic, Male	6A	53
	6B	46
Total Surgical		396
Total Beds Setup		905



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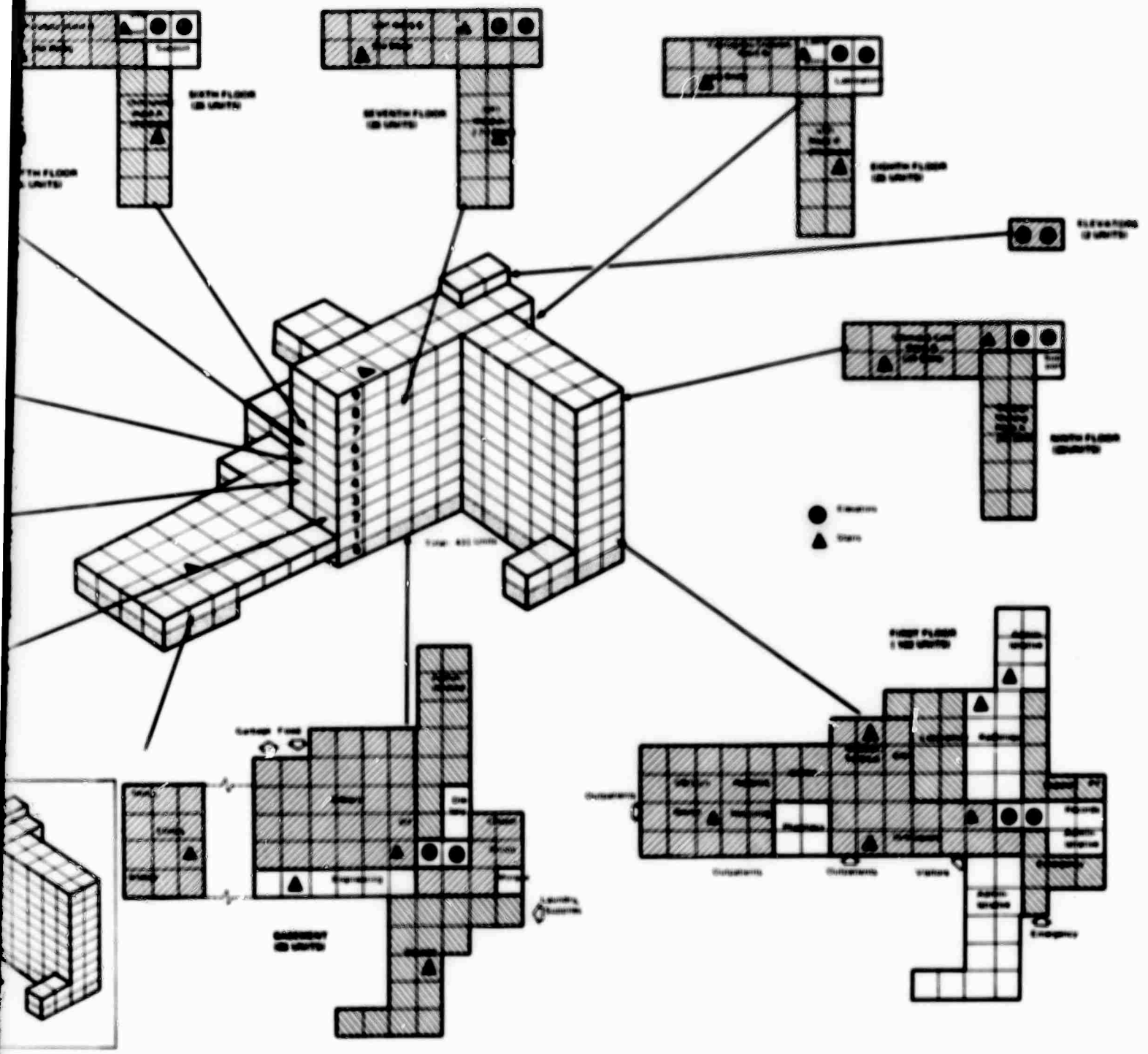


FIGURE 8.1.1 WALSON ARMY HOSPITAL - SCHEMATIC DIAGRAM

B

brick construction to very old, frame construction of World War II vintage. The pertinent statistics for the dispensaries are:

- Total area for all nine dispensaries - 38,888 square feet
- Cost of nine structures - \$732,500
- Equipment costs for all dispensaries - \$59,384

The newer dispensaries (e.g., Dispensary No. 2) each have a large waiting room with a reception desk, facilities to store patient records, a moderate-size room for pharmacy/laboratory operations, a "clean" room for minor procedures, and a series of smaller rooms which are used for office space, examining rooms, or storage. To accommodate the large demands of peak-load periods, sick call at Dispensary No. 2 is held in the adjacent gymnasium; only after initial screening there are trainees sent to the dispensary. The older dispensaries have obviously been adapted from barracks or other building floor plans which were not intended to serve as dispensaries. The physical layout is poor, the facilities are not well maintained, and the general atmosphere is uncomfortable.

The third major health care facility at Fort Dix is the annex, the World War II cantonment-type hospital building, which is still used to accommodate overflow loads on the main facility. The pertinent statistics on the annex are:

- Area - 53,805 square feet
- Cost of structure - \$376,100
- Cost of equipment - \$273,210
- Bed capacity - 12 wards; 35 beds per ward; total capacity 420 beds
- Age - erected in 1940 and 1942

The annex has a main passageway, with each of the 12 wards running off the passageway at right angles. Wards in the annex are opened or closed one at a time to adjust to the excess demand for medical care which cannot be accommodated at the main facility. The buildings are old and are difficult to maintain and staff. The annex is approximately two miles from the main facility, which makes the transportation of patients, staff, and supplies inconvenient.

Fort Dix also has four dental clinics, which operate in separate buildings, under the supervision of the Post Dental Surgeon.

8.1.3 ORGANIZATION AND STAFFING

The organization of **Walson Army Hospital (WAH)** is more or less standard for an Army medical facility. The organization chart in **Figure 8.1.2** shows relationships and partial breakdown of the main groups.

Note that at **Fort Dix** the **Director of Medical Department Activity (MEDDAC)**, is also the **Commanding Officer** of the hospital and **Post Surgeon**.

Following the chart **Table 8.1.2** lists the personnel assigned to the various departments of **WAH**.

TABLE E.1.2

STAFFING FOR WALSON ARMY HOSPITAL, March 1969

	Medical Corps	Medical Service Corps	Army Nurse Corps/Army Medical Service Corps	Veterinary Corps	General Staff	Food Service	Total Hospital	Total Military	Contracted Services	Army Medical Center	Total	Total Personnel
Office Of Communicable Diseases	1	4				4	1	4	0	0	4	4
Admission	1	3				4	4	0	0	0	4	4
		1				1	3	0	0	0	3	3
		1				1	1	0	0	0	1	1
		1				1	6	7	0	0	7	14
Dept Of Medicine	20	1				21	5	24	0	0	24	47
	20	1				21	6	27	0	0	27	54
	20	1				21	5	26	0	0	26	50
Dept Of Surgery	20	0	0			20	27	47	16	0	43	87
	20	0	0			20	27	44	17	0	44	91
	20	0	0			20	24	44	14	0	44	88
Dept Of Psychiatry & Neurology	5	1	0			6	3	9	5	0	9	14
	5	1				6	3	9	5	0	9	14
	5	1				6	3	9	5	0	9	14
Dept Of Hospital Clinics	27	3				30	44	74	19	0	93	112
	27	3				30	44	74	17	0	91	108
	27	3				30	42	72	16	0	88	106
Dept Of Dentistry	10	2				12	1	13	0	0	13	13
	10	2				12	1	13	0	0	13	13
	10	2				12	1	13	0	0	13	13
Pharmacy Service	5	0				5	19	24	0	0	24	29
	5	0				5	15	20	0	0	20	25
	5	0				5	13	18	0	0	18	23
Pathology Service	3	0				3	40	43	0	0	43	46
	3	0				3	7	10	0	0	10	13
	3	0				3	40	43	0	0	43	46
Nursing Service						78	312	390	141	0	390	530
						74	278	352	140	4	356	476
						51	205	256	100	0	256	357
Sanitary Service	7	0				7	17	24	0	0	24	27
	6	0				6	6	12	0	0	12	14
	6	0				6	6	12	0	0	12	14

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TABLE 8.1.2 (Cont'd.)

	Medical Camp	Medical Camp	Army Nurse Corps	Veterinary Corps	Quartermaster Corps	Food Officer	Total	Medical	Quartermaster	Food Officer	Other	Total	Medical	Quartermaster	Food Officer	Other	Total	
Pharmaceutical Services																		
Management Services Division																		
Supply and Services Division																		
Regulatory Division																		
Personnel Division																		
Food Service Division																		
Plans, Operations, and Training Division																		
Total BAH	02	03	2071	2	223	58	223	58	223	58	223	58	223	58	223	58	223	58
Other Post Activities																		
Procurement Services																		
Medical Health Care Services																		
Post Veterinary																		
Post Dental																		

8.1.4 OPERATIONAL CHARACTERISTICS

8.1.4.1 Inpatient Activities

The bulk of admissions for inpatient treatment at Walson Army Hospital (WAH) are made through one of two mechanisms:

1. Referral by the general medical officer in one of the nine remote dispensaries, and
2. Referral by a doctor in the General Outpatient Clinic or in a specialty clinic.

Direct admissions from the dispensaries are exclusively for active duty personnel, in cases where a more definitive diagnosis by a specialty clinic is not needed (e.g., a case of upper respiratory infection). Admission by a doctor in the General Outpatient Clinic or in a specialty clinic is the normal mechanism for retired military personnel and dependents of active-duty or retired personnel to be admitted to WAH. There are, of course, admissions by transfer from other military health care facilities, as well as the occasional direct admission for emergency cases.

The inpatient population of WAH appears to be predominantly active-duty personnel. For example, the Consolidated Morning Report for 1 September 1969, shows 514 patients (including infants) occupying bed space at WAH. The Consolidated Morning Report does not break down this "patients remaining" figure by patient category, but the entire hospital census (including the Convalescent Ward, personnel on leave, etc.) is broken down, and shows 19 retired service personnel, 91 civilian (dependent) personnel, and one civilian emergency on the hospital census. If we assume that these three categories are all occupying beds at WAH, then the total population occupying beds at WAH was as shown in Table 8.1.3.

TABLE 8.1.3

DERIVED PATIENT-CATEGORY POPULATION
WALSON ARMY HOSPITAL, 1 SEPTEMBER 1969

<u>Category</u>	<u>Number on Census</u>	<u>Percent</u>
Active Duty	403	78.4
Retired	19	3.7
Civilian	92	17.9

The services demanded by this inpatient population at WAI range from very intensive care, administered in the Surgical ICU/Recovery Room (Ward 2C) and the Medical ICU (WARD 9B), to only minimal care administered to the URI patient (rest, aspirin, and large amounts of fluids).

The patients at WAI are segregated by the general severity of their illnesses and the resulting levels of nursing care required. This is reflected in the allocation of wards to various illness categories, as shown in the section describing hospital facilities.

There are no ward clerks at WAI. As a result, the nurses are responsible for all of the paper work associated with ordering medication and laboratory services and maintaining patients' medical records. Nursing service personnel were very much in favor of having clerical assistance available on the wards. When asked about the possibility of giving more responsibility for patient care to corpsmen, the nurses generally responded that it would not be feasible without more training for the corpsmen.

Quantitative data about the inpatient activities at WAI are available through four major reports:

1. *Consolidated Morning Report* – prepared daily, this report details the hospital census as of the early morning hours of the date of the report. Copies were obtained for the period October 1968, through September 1969.
2. *Monthly Analysis of Hospital Service* – obtained for 1967, 1968, and January through September 1969.
3. *Beds and Patients Report (AR40418)* – obtained for 1967, 1968, and January through September 1969.
4. *Morbidity Report (AR40417)* – obtained for 1967, 1968, and January through September 1969.

All of the above reports appear to use varying definitions of the patient population. For instance, we were told that the Beds and Patients Report excluded all those who were either absent-sick or on quarters in deriving the total number of patient days. The Morbidity Report, however, includes those who are absent-sick or on leave because WAI is still administratively responsible for those personnel. Hence, they are included in the derivation of total sick days shown on the Beds and Patients Report. The Monthly Analysis of Hospital Service appears to use a different definition, as its figure for total patient days does not agree with that shown on

either the **Beds and Patients Report** or the **Morbidity Report**. For example, Table 8.1.4 shows the total sick days or patient days reported for WAH for the month of January 1969. The variance between the lowest figure reported and the highest figure reported is about 25%.

TABLE 8.1.4
TOTAL SICK DAYS
REPORTED AT WAH
JANUARY 1969

<i>From Monthly Analysis of Hospital Service</i>	35,542
<i>From Beds and Patients Report</i>	28,542
(Excludes absent-sick, and on-quarters)	
<i>From Morbidity Report</i>	28,901
<i>From Manual Total of Census Figures</i>	29,893
for 1-31 January 1969	

An average length of hospital stay for active duty patients, newborn, and others is shown on each *Monthly Analysis of Hospital Service*. It appears, however, that this figure is derived by taking the total number of patient days shown on that same report and dividing by the number of admissions which have occurred during that month. Since the initial figure for total sick days or patient days is considerably inflated by the number of personnel who are either absent or assigned to the Convalescent Ward, the derived figure for average length of hospital stay does not give any accurate indication of the severity of illness or the quality of health care service at WAH. Sample copies of the *Monthly Analysis of Hospital Service*, the *Beds and Patients Report*, and the *Morbidity Report* for the month of September 1969, are included here for illustration.

8.1.4.2 Outpatient Activities

The outpatient activities at Fort Dix include the dispensaries located remotely from the main facilities, the General Outpatient Clinic, and the several specialty clinics within WAH. The dispensaries are for the exclusive use of active-duty military personnel and serve as the first triage or screening point for all military personnel except those assigned to WAH. The general outpatient clinic is primarily intended to serve retired military personnel and the dependents of active duty military personnel. The General Outpatient Clinic also serves the active duty military personnel assigned to WAH, serving as their "sick call" station. The specialty clinics serve both military and civilian patients, primarily on a referral basis from either the base dispensaries or the General Outpatient Clinic.

DISPOSITION FORM

(AK 540-15)

REFERENCE OR OFFICE SYMBOL: AHOMS-R
 SUBJECT: SEPTEMBER 1969
 MONTHLY ANALYSIS OF HOSPITAL SERVICE
 TO: See Distribution FROM: C, Registrar Division DATE: 20 Oct 69 CMTI

1. Census, Admission and Discharge Data

Number of Patients 1 Sep 69		1012
Number of Patients Occupying Beds 1 Sep 69		661
Number of Direct Admissions	2477	
Number of Admissions by Transfer	105	
Number of Transfers to Other Hospitals	18	
Number of Hospital Deaths	8	
Number of Other Dispositions	2438	
Number of Patients Remaining 30 Sep 69		1130
Number of Patients Occupying Beds 30 Sep 69		817

Number of Bassinets Occupied 1 Sep 69		18
Number of Live Births	106	
Number of Neonatal Deaths	2	
Number of Live Births Discharged	102	
Number of Bassinets Occupied 30 Sep 69		20

2. Length of Hospital Stay

	Days	Average
Active Duty Patients	28575	14.52
New Born	328	3.15
Others	2769	7.06

3. Deaths (AMA Rate 4%)

	Number	Rate
Number of Deaths (Excluding Fetal Deaths)	8	0.32
Number of Deaths (48 hours or longer)	6	0.24
Number of Maternal Deaths (AMA Rate 0.25%)	-	-
Number of Neonatal Deaths (AMA Rate 2%)	2	1.88
Number of Postoperative Deaths	-	-
Number of Anesthetic Deaths (AMA Rate 0.25%)	-	-

4. Fetal Deaths

Less Than 20 Weeks	11	10.37
20 Weeks but Less Than 28 Weeks	-	-
28 Weeks or More	1	0.94
Gestation not classifiable in above	-	-

5. Autopsies (AMA Rate 25%)

Active Duty	-	-
Other Patients	5	62.50
Gross	5	62.50

6. Consultations (AMA Rate 20% Minimum)

	Number	Rate
Number of Patients Dispositioned Who Had One or More Consultations	422	17.12 44.79*
Total Number of Consultations	537	21.79 57.11*

(*Less OB - INF - URI Dispositions)
 FD-503 (REV. 4-22-64) REPLACES DD FORM 503 (STENCIL), EXISTING SUPPLIES OF WHICH WILL BE ISSUED AND USED UNTIL FEB. 63 UNLESS SOONER EXHAUSTED.

DISPOSITION FORM

(AR 20-12)

20 OCT 69

REFERENCE OR OFFICE SYMBOL

SUBJECT

AFMIS-R

SEPTEMBER 1969
MONTHLY ANALYSIS OF HOSPITAL SERVICE

TO

FROM

DATE

CITY

7. Infections

	Number	Rate
Number of Hospital Infections (excluding Common Respiratory Disease)	3	0.12
Number of Common Respiratory Diseases	-	-
Total Infections	3	0.12

8. Surgical Procedures

Number of Patients undergoing surgery (Opr Room)	310	
Number of major surgical procedures (Opr Room)	251	
Number of minor surgical procedures	1527	
Number of cases in which normal tissue was removed	2	
Number of cesarean sections performed (AMA Rate 6%)	6	5.66
Number of tubal ligations	1	

9. Outpatient Service

Number of Outpatients, Active Duty Visits	41701
Number of Outpatients, Other Personnel Visits	16599
Total Number of Outpatient Visits	58300

10. Inpatients Service

	Surg	Med	NP	Total
Number of Patients 1 Sep 69	638	335	39	1012
Number of Inpatients admitted	751	1773	58	2582
Number of Inter-service transfers	3	2	4	9
Number of Inpatients treated	1392	2110	101	3603
Number of Transfers to Other Services	2	4	3	9
Number of Hospital Deaths	2	6	-	8
Number of Transfers to Other Hospitals	8	8	2	18
Number of Other Types of Dispositions	757	1627	54	2438

11. Number of Outpatient Clinic Visits

Number of Hospital Infections (Dispositions)	2	-	1	3
Number of Other Complications	1	-	-	1
Number of Disposed Patient, who had one or more consultations	240	99	83	422
Total Number of Consultations (Dispositions)	257	117	163	527
Total Number of Autopsies	2	3	-	5
Aggregate number of hospital days (Dispositions)	18475	12023	1174	21672

Six Carded for Record Only Deaths - Three Autopsied

One Stillborn - One Autopsied

DA FORM 2496-1 REPLACES DD FORM 2496 (15 JAN 64) EXISTING SUPPLIES OF WHICH WILL BE ISSUED AND USED UNTIL 1 FEB 69 UNLESS SOONER EXHAUSTED.

CENSUS AND PATIENTS REPORT			FISCAL YEAR				PATIENTS				
U. S. MARINE AVIATION HOSPITAL PUEBLO MILITARY RESERVE CENTER			1951				1950				
DEPARTMENT OF DEFENSE	UNIT	CLASSIFICATION	ADM. CEN.	ADM. CEN.	ADM. CEN.	ADM. CEN.	PATIENTS				
							IN	OUT	ADMITTED	RELEASED	
TOTAL ALL PATIENTS			976	2476	305	2371	2360	1110	1274	2302	1814
ADMITTED TO HOSPITAL			865	1662	96	1766	1721	864	2767	1936	1826
DISCHARGED FROM HOSPITAL			0	0	0	0	2	2	100/00	10/24	0/0
DEATHS			14	26	20	26	14	601	100	00	
DIED IN HOSPITAL				1	1	1	1	2	2	-	
DIED OUT OF HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL			13	207	207	207	13	1062	970		
DIED IN HOSPITAL			0	8	3	3	0	228	100	-	10
DISCHARGED FROM HOSPITAL											
RECEIVED IN HOSPITAL				2	2	1	1	21	11	-	
ADMITTED TO HOSPITAL											
DIED EN ROUTE TO HOSPITAL			12	20	1	10	16	676	476		
DISCHARGED FROM HOSPITAL			1	6	0	6	1	50/0	50/0	15/0	
DEATHS			2	7	7	6	1	04	06	10	
DIED IN HOSPITAL				1	1	1		2	2	-	
DIED OUT OF HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL			30	123	1	122	111	26	770	770	
DISCHARGED FROM HOSPITAL			3	16	10	10	3	151/97	153/97		
DEATHS			10	107	1	106	111	12	512	511	
ADMITTED TO HOSPITAL			11	64	44	43	12	230	230		
DISCHARGED FROM HOSPITAL				11	1	12	3	64/23	64/23		
DEATHS			5	15	15	12	8	97	97		
DIED IN HOSPITAL											
DIED OUT OF HOSPITAL				1	1	1		10	10		
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
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DIED EN ROUTE FROM HOSPITAL											
DIED EN ROUTE TO HOSPITAL											
DIED EN ROUTE FROM HOSPITAL											
DIED EN ROUTE TO HOSPITAL			1	1	1	1	1	17	17		

DA FORM 2789

SECTION 00700 GENERAL SERVICES ETC. ALL PATIENTS		SECTION 0 - CLINICAL SERVICES													
ITEM	NO.	DESCRIPTION	UNIT	ADMITTALS		PATIENTS									
				ADMITTALS	DISCHARGES	INPATIENTS		OUTPATIENTS		TOTAL		PERCENT			
01	001	TOTAL	9	1842	834	203	594	648	1	7	66	43	55		
02	002	GENERAL	4	34	7	18	21	34	1	3	1	1	1		
03	003	INTERNAL MEDICINE	1	113	21						20	18	1		
04	004	INTERNAL MEDICINE	2	28	6						6	3			
05	005	INTERNAL MEDICINE	1	144	309	7	328	279	3	17	11	36			
06	006	INTERNAL MEDICINE	3	324	173	178	218	333	1	3	20	10	17		
07	007	INTERNAL MEDICINE	17												
08	008	INTERNAL MEDICINE	231												
09	009	INTERNAL MEDICINE	1327												
SECTION 00800 LABORATORY SERVICES															
10	010	TOTAL	40												
11	011	LABORATORY	5												
12	012	LABORATORY	1073												
13	013	LABORATORY	3												
14	014	LABORATORY	9												
15	015	LABORATORY	5												
16	016	LABORATORY	9												
17	017	LABORATORY													
18	018	LABORATORY													
19	019	LABORATORY													
20	020	LABORATORY													
21	021	LABORATORY													
22	022	LABORATORY													
23	023	LABORATORY													
24	024	LABORATORY													
25	025	LABORATORY													
26	026	LABORATORY													
27	027	LABORATORY													
28	028	LABORATORY													
29	029	LABORATORY													
30	030	LABORATORY													
SECTION 00900 CAPACITY & BED STATUS															
31	031	TOTAL	40												
32	032	LABORATORY	744												
33	033	LABORATORY	1047												
34	034	LABORATORY	47												
35	035	LABORATORY	1000												
36	036	LABORATORY	150												
37	037	LABORATORY	9												
38	038	LABORATORY	29												
39	039	LABORATORY	20												
Average Strength - See Attached Report Aeromedical Evaluation - See Attached Report															
PHILLIP C BRENNER MAJ MSC CHIEF, REGISTRAR DIVISION															
													6 October 1969		

MOBILITY REPORT					ACCOUNTING PERIOD	
NAME OF HOSPITAL					DATE REPORT	
ADDRESS					PERIOD COVERED	
C. S. WELCH MEM. HOSPITAL					10/1/53-10/31/53	
7001 20th, NEW JERSEY						
SECTION A - PATIENTS TABLE						
SECTION	DESCRIPTION	ALL PATIENTS	TOTAL	DISCHARGED	ADMITTED	NET
01	ALL CASES	297				
02	PATIENTS RECEIVED FROM LAST REPORT	58				
03	DISCHARGES	1700		1700		
04	ADMITTED BY TRANSFER	103				
05	ADMITTED BY SURG.	100				
06	ADMITTED BY MEDICAL	12				
07	ADMITTED BY OTHER	1				
08	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
09	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
10	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
11	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
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98	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
99	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
100	ADMITTED BY TRANSFER FROM OTHER HOSPITAL	1				
SECTION B - SUMMARY OF AVERAGE STAYS						
TYPE OF PERSONNEL	ARMY	NAVY	AIR FORCE	OTHER		
01 ALL PERSONNEL	1160	7	13	167		
02 MILITARY	2717	7	13			
03 NAVAL	303		1			
04 OTHER	65					
05 CIVILIAN PERSONNEL	158					
06 NAVAL	21					
07 DEPENDENTS						
SECTION C - PATIENTS IN HOSPITALS OTHER THAN U.S. MILITARY				SECTION D - INFORMATION FROM DISPENSARIES		
DISCHARGED, ETC.	ARMY	NAVY	AIR FORCE	01 NUMBER OF DISPENSARY CASES SET UP		
01 DISCHARGED	37			02 NUMBER OF DISPENSARY CASES OCCURRED		
02 DISCHARGED	21			03 PATIENTS RECEIVING HOSPITAL TREATMENT TRANSFERRED		
03 DISCHARGED	11					
04 DISCHARGED	10					
SIGNATURE				DATE		
WILLIAM C. BRIDGES, M.D., M.P.H.				10/31/53		

DA FORM 8-268 OCT 53

SECTION E - SELECTED REPORTABLE CONDITIONS									
DIAGNOSIS, ETC. (Diagnoses reported in Department Report of 20-2070)		ARMY		NAVY		AIR FORCE		OTHER	
		NEW CASES	CASES REMOVED OR TREATED	NEW CASES	CASES REMOVED OR TREATED	NEW CASES	CASES REMOVED OR TREATED	NEW CASES	CASES REMOVED OR TREATED
04	TUBERCULOSIS PULMONARY ACTIVE (Group 100)								
05	TUBERCULOSIS PULMONARY ACTIVE (Group 100)								
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08	CONSTITUTIONAL CONDITIONS (Group 100)								
09	OTHER GENERAL DISEASES (Group 100)								
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There are nine dispensaries at Fort Dix serving a total military population of approximately 26,500, plus about 3,500 civilians. The accompanying tables show the population served and the staff available for each dispensary, the number of visits to each dispensary during the period 27 October through 22 November 1969, and the number of admissions to WAI for treatment of upper respiratory infection (URI). The great majority of the visits to each dispensary occurred during the morning sick call period between 6:30 and 8:00 a.m.

The initial triage at the dispensaries is handled primarily by a corpsman who takes temperatures and examines throats. At Fort Dix, any recruit or trainee with a temperature above 100 degrees is automatically admitted to the main hospital without further examination. Individuals with temperatures between 99 and 100 degrees are examined by a physician later in the morning. Those with temperatures below 99 degrees may be either sent back to full duty status by the corpsman or may be seen by a physician for further disposition. It should be noted that the only course of action available to the examining corpsman is to either reinstate the patient to full duty status or to refer him to one of the general medical officers in the dispensary for further disposition. The corpsman is *not* allowed to treat minor problems (such as blisters, sprains, etc.) and certify the individual for a day of bed rest or light duty. We were told that there had been earlier problems with corpsmen selling days of bed rest for a fee. Accordingly, the commanders of the training companies now insist that only a physician be able to authorize a decreased or lightened duty status. Overall, the dispensaries provide only a minimum level of care such as bandages, liniment, and a few limited pharmaceuticals, with the remaining health care requirements being met by the main hospital facility.

The dispensaries at Fort Dix had no statistics available on the patient flow from the dispensaries to the main hospital, aside from the number of URI patients. The ADL survey team requested that WAI carry out a sample survey of two dispensaries for several days to determine the number of visits to each dispensary, the number of visits which resulted in further visits to the main hospital facility, and a breakdown of these visits by cause with some indication of final disposition. The results are summarized in Table 8.1.5. Of the total number of visits, about 24% resulted in further visits to the hospital, while the remainder were apparently taken care of at the dispensaries. About 12% of the visits resulted in direct admissions to the hospital; these will be primarily URI cases with elevated temperatures. The other 12% referred to the hospital were sent for outpatient clinic consultations (6.4%), X-rays (3.8%), and laboratory procedures (1.6%). Some of these latter referrals also presumably resulted in admission to the hospital – possibly another 2%. Table 8.1.6 also shows a subtotal of visits to the main hospital which were not direct admissions. This represents an approximate number of visits to the main facility which might be saved by making additional diagnostic and laboratory capability available at the dispensaries. The transportation system for patients between the dispensaries and

TABLE 8.1.5
WALSON ARMY HOSPITAL
DISPENSARY ACTIVITIES
November 4-5, 1969

	<u>Dispensary No. 1</u>		<u>Dispensary No. 4</u>		<u>Number Percent</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Total Visits	229		317		546	
Admissions	18	7.9	46	14.5	64	11.7
Consultations	27	11.8	8	2.5	35	6.4
X-Rays	14	6.1	7	2.2	21	3.8
Lab	7	3.1	2	.6	9	1.6
Total Hospital	<u>66</u>	<u>28.8</u>	<u>63</u>	<u>39.7</u>	<u>129</u>	<u>23.6</u>
Nonadmissions	48	21.1	17	5.4	65	11.9

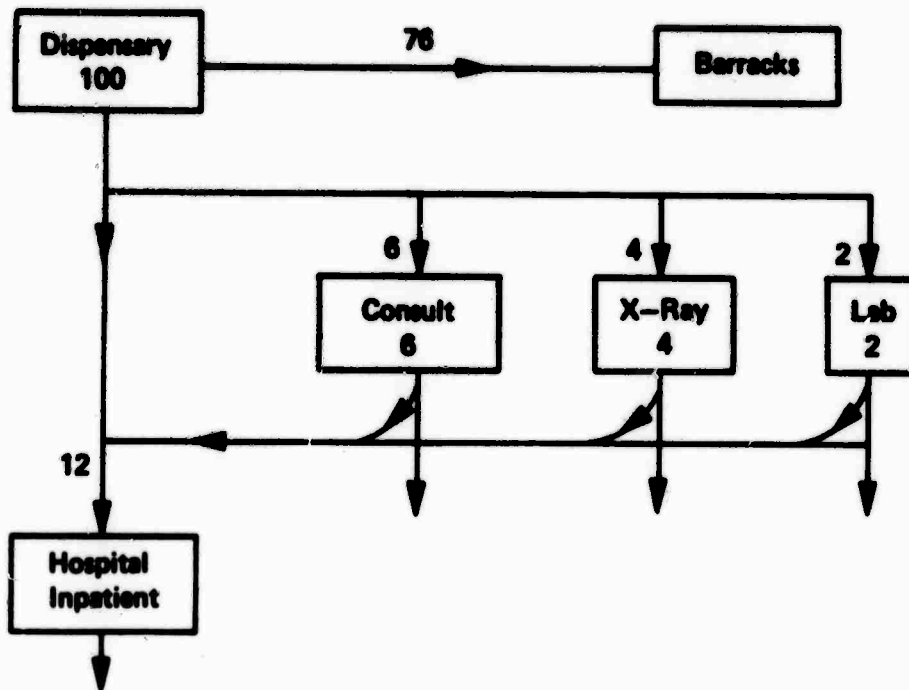


TABLE 8.1.6
FORT DIX DISPENSARY DATA
 24 November 1969

Dispensary	Population Served	Staff		Number of Visits 27 October - 22 November	Military Population Served Per Staff	Visits Per 1000 Population	URI Admissions	URI Admissions
		Medics	Clerks Total					
1	4200	4	1 5	2866	840	.685	211	7.35
2	4000	4	1 5	1805	800	.450	151	8.40
3	1890	3	3	1058	630	.56	109	9.40
4	4515	5	1 6	3749	750	.83	368	9.80
Stockade 5*	600	3	3	2316	200	3.86	8	
Cadre 6	3200	4	1 5	1806	640	.56	20	1.1
7	3900	5	1 6	2447	650	.63	215	8.8
8	500(+3500 civilian)	1	1	403	500(+3500)		6	1.2
9	3900	5	1 6	2115	650	.54	78	2.0
TOTAL	26,705 + 3500 civilian	34	6 40	18,565	668	.63	1,166	6.25

*Patients in stockade must come to dispensary for medication each time required.

the main hospital consisted of a bus service which ran only in the mornings, post taxicabs, or in some cases walking on foot. There seemed to be a fair amount of wasted patient time just in going to and from the hospital, perhaps as much as one-and-one-half to two hours per patient.

The physicians arrive at the dispensaries around 8:30 a.m. and examine patients who have been initially screened by the corpsmen. The physicians at Fort Dix are not permanently assigned to a specific dispensary, but rotate on a weekly basis so that each physician goes to an individual dispensary for only one week at a time. Assignment to the dispensaries for morning sick call seems to be a "nonprestigious" assignment for the physicians which makes the rotation system necessary. The physicians return to the hospital around 1:00 or 2:00 p.m. Any soldiers reporting to the dispensaries after 2:00 p.m. have to go to the main hospital for disposition, as the corpsman on duty can only authorize a full-duty status.

The General Outpatient Clinic at Walston Army Hospital must deal with a large and unscheduled demand for health care services during the morning hours of each working day. The patients are primarily dependents of active duty military personnel or retired military personnel and their dependents, but the clinic also handles referrals from the outlying dispensaries during the morning sick call. During the morning hours, the scene is typical of many civilian and military outpatient clinics with large crowds of people waiting for several hours for medical care. There is a large counter which acts as a reception desk where the patients must check in and identify themselves and their sponsor (by social security number) so that the appropriate medical records can be retrieved. (The records system for the outpatient clinic will be covered in a later section.) After about 11:00 a.m. the work load in the General Outpatient Clinic tapers off until around 2:00 or 3:00 p.m., when the department appeared to be virtually empty. Each physician in the General Outpatient Clinic had a single combination office and examination room. This approach of not providing multiple examination rooms for each physician appeared in most of the specialty clinics as well. There appeared to be some disagreement among the staff members at Walston Army Hospital as to whether multiple examination rooms would increase the number of patients seen by each physician during the day.

The specialty clinics at WAH include the following:

Allergy	Cardiac
Dermatology	Diabetic
Ears, nose, and throat	Gastroenterology
Medical	Optometry
Pediatric	Ophthalmology

Orthopedic	Podiatry
Surgical	Obstetrics and Gynecology
Neurology	Neuropsychiatric
Well baby	Occupational therapy
Physical therapy	Dental
Urology	Cerebral palsy
Pulmonary function	Radioisotope
Metal hygiene	Immunizations

The locations of these clinics are shown on the floor plans of WAH included in the section on the description of the health care facilities, while the hours of operation are provided as part of the basic data package. The specialty clinics at WAH provide a wide range of health care services and are typical of specialty clinics found in civilian hospitals of comparable size. Some of these specialty clinics use the facilities of the Central Appointments Service (CAS) to schedule the patients through the clinic. Those clinics that do not use the Central Appointments Service maintain their own scheduling system.

The Central Appointments Service at WAH is a telephone-only service which does not have any face-to-face contact with the patient. There are four clerks who occupy work stations around the circumference of a large "lazy susan" which holds schedules for each of the specialty clinics. The clerks are trained to do an initial verbal screening of the patient to determine the appropriate specialty clinic. The schedule for the chosen clinic is taken from the lazy susan and the assigned date and time position is checked off. A multiple copy form is also completed which indicates the clinic, date, time of appointment, patient name, and doctor name involved in the transaction. One copy is filed by clinic, date, and time of appointment while a second copy is filed alphabetically by patient name. For military personnel, an additional copy is sent to the dispensary which had originally requested the appointment with the concerned clinic. This third copy enables the dispensary to pull the enlisted man's health record and remind the man of his appointment.

Three working days ahead, all appointment slips for each clinic are pulled together and a master list is typed. The scheduling master list is sent to the relevant clinic and the lists for all clinics, along with the original appointment forms for dependents and retired personnel, are sent to the outpatient records room the day prior to the appointment date. The outpatient record can then be pulled ahead of time and sent to the appropriate specialty clinic, ready the following day for the patient's appointment. The original copy of the appointment slip is inserted in the outpatient file, acting as a receipt for the record and indicating the current location of the record.

In general, the Central Appointments Service will only schedule for the current calendar month and the calendar month immediately following. When all available appointment time slots have been filled, callers are asked to call back on the first working day of the following month. This policy causes a drastic increase in work load during the first one or two working days of each month. For example, on August 30, 270 calls to the Central Appointments Service received 644 calls. Table 8.1.7 lists the clinics which are scheduled by the Central Appointments Service at Walson Army Hospital, the number of weeks or months ahead that each clinic may be scheduled, and the time span for appointments reserved in each of the clinics. As an indication of the delay encountered by personnel requesting clinic appointments, the next available appointment (as of October 8, 1969) is shown. Appointments are not made directly to specialty clinics without being referred from the outpatient clinic, the pediatric clinic, a troop dispensary, or a neighboring military medical facility.

The Emergency Room at WAH is very poorly designed. The ambulance entrance comes in at right angles to the main corridor, just opposite the registration desk. The treatment area consisted of several open cubicles down the hall which gave no privacy and seemed to be poorly arranged in terms of patient flow. The Emergency Room is required to handle many "routine" dispositions of referrals made by the troop dispensaries in the late afternoon. Also, after 5:00 p.m. the Emergency Room operates as an outpatient clinic, servicing requests for medical care from dependents and retirees who are unable to visit the general outpatient clinic in the morning. It appears that both the bad physical layout of the Emergency Room and its policy of servicing the more routine requests for medical care create a great deal of inefficiency.

Throughout the clinics at WAH, nurses and other females who might be doing other jobs must chaperone all male-physician/female-patient encounters. Apparently, this is related to a single incident and its repercussions. This use of nursing manpower contrasts sharply with the generally heard complaint of inadequate staff.

The major report which quantifies the outpatient activity at WAH is the monthly *Outpatient Report*. A sample of this report is included here for illustration. The figures include dispensary visits as well as clinic visits.

8.1.4.3 Medical Records Handling

At Fort Dix the medical records are divided between the inpatient records and the outpatient records. The equivalent of an outpatient record for an active-duty enlisted man is called a health record. WAH holds its inpatient records for five years and holds its outpatient records for three years since their last use. There are approximately 250,000 inpatient records and 68,000 outpatient records. WAH staff

TABLE 8.1.7
CLINICS SCHEDULED BY CENTRAL APPOINTMENTS SERVICE AT WAH

<u>Clinic</u>	<u>The Next Available Appointment as of 10/8/59</u>	<u>Schedule Ahead</u>	<u>Schedule Interval</u>
1. Allergy	November 25	(Current + 1) months	30 minutes
2. Cardiac	October 30	(Current + 1) months	30 minutes
3. Dermatology	October 21	(Current + 1) months	10 minutes
4. Diabetic	October 15	(Current + 1) months	N.A.
5. Ears, Nose, & Throat	October 9	(Current + 1) months	Military: 15 minutes; Dependents: 30 minutes for new appointment; 15 minutes for return appointment.
6. Medical	November 5	(Current + 1) months	30 minutes for new appointment; 15 minutes for return appointment.
7. Outpatient	October 10	(Current + 1) months	15 minutes; 30 minutes for physical.
8. Ophthalmology	November 3	(Current + 1) months	30 minutes
9. Optometry	November 4	(Current + 1) months	15 minutes
10. Orthopedic	October 21	(Current + 1) months	30 minutes for new appointment; 15 minutes for return appointment.
11. Pediatric	October 9	(Current + 1) weeks	15 minutes unless doctor specifies otherwise.
12. Podiatry	October 24	(Current + 1) months	30 minutes
13. Surgical	Male: October 10 Female: October 13	(Current + 1) months	15 minutes

OUTPATIENT REPORT										REPORT CONTROL SYMBOL (MED SERV)			
REPORTING FACILITY AND LOCATION										PERIOD COVERED (DDMM)			
U S WALSON ARMY HOSPITAL FORT DIX, NEW JERSEY 08640										DATE ENDING 30 SEPTEMBER 1969			
SECTION A - VISITS, EXAMINATIONS, AND IMMUNIZATIONS										ALL VISITS, EXAMINATIONS, OR IMMUNIZATIONS			
I L N E	INITIAL VISITS	TOTAL	ACTIVE DUTY MILITARY			SHORT TOUR ACTIVE DUTY	ALL MILITARY IDENTIFICATION ENTS	U. S. CIVILIAN EMPLOYEES	OTHER	REP 63 AC Du Inq	A	B	
			ARMY	NAVY	AIR FORCE								NAVY
1	OUTPATIENT VISITS - TOTAL (Line 2 thru 12)	58300	39234	79	619	1769	14306	184	2109	1769			
2	DIARRHEA AND DIGESTIVE TRACT INFECTIONS	685	365			13	229		78	13			
3	NEUROPSYCHIATRIC CONDITIONS	2900	2306	5	73	15	420	1	80	15			
4	DISEASES OF EYE AND ADJACENT	10773	9535	20	54	139	920	2	103	139			
5	DISEASES OF EAR, NOSE, THROAT	1853	788	3	69	71	794	2	126	71			
6	ACUTE RESPIRATORY INFECTIONS	7321	6511	1	3	395	293		118	195			
7	GYNECOLOGICAL CONDITIONS	948	26			3	896		23				
8	OBSTETRICAL CONDITIONS	1429	11			1	1434		3				
9	DERMATOLOGICAL CONDITIONS	1002	471		18	30	379		104	30			
10	INJURIES	2463	1672	2	6	113	466	93	113	113			
11	OTHER MEDICAL CONDITIONS	23082	14340	23	120	659	7076	76	788	659			
12	OTHER SURGICAL CONDITIONS	5824	3209	25	274	334	1399	10	573	334			
13	QUARTERS PATIENT VISITS	2	2										
14	FLIGHT PHYSICAL EXAMS	23	23							610			
15	OTHER COMPLETE PHYSICAL EXAMS	2646	1920			610		86	30				
16	LIMITED PHYSICAL EXAMS AND TESTS	1508	565		1		850	87	5	414			
17	SCREENING EXAMS AND TESTS	7091	6614			414		63		1251			
18	IMMUNIZATIONS	79928	268		1	1251	2334	54	20				
SECTION B - ADJUNCT SERVICES												SECTION C - VISITS OF MILITARY DEPENDENTS	
I L N E	TOTAL	INPATIENT	OUTPATIENT	TOTAL	ARMY	NAVY	AIR FORCE	NAVY	AIR FORCE	NAVY	AIR FORCE		
19	X-RAY FILMS EXPOSED	20420	6673	13747	10	ALL AREE	14306	7872	894	5520			
20	FLUOROSCOPIC EXAMS	265	34	231	31	UNDER 14 YRS	6044	2555	433	4046			
21	PHARMACY	87328	9714	77614	32	14 YRS & OVER	8267	5317	461	2484			
22	LABORATORY	169680											
23	PHYSIO THERAPY	3363	2658	705									
24	ELECTROCARDIOGRAMS	708	211	497									
25	PSYCHOLOGICAL TEST	64	4	60									
26	PSYCHIATRIC EVAL												
27	OCUL. THERAPY	1008	663	345									
28	SOCIAL WORK SVC	2409	265	2144									
29													

DD FORM 1 DEC 68 444 EDITION OF 1 FEB 61 IS OBSOLETE.

BP2400
DATE 6 OCT 1969
SIGNATURE PHILLIP C. BREUNLE MAJ MSC
CHIEF REGISTRAR DIVISION

SECTION D - REMARKS

SUPPLEMENTAL ARMY	INTERIM REPORT	REPORTS CONTROL SYMBOL MED 80 (R1)			
DISPENSARY AND CLINIC VISITS					
U S WALSON ARMY HOSPITAL FORT DIX, NEW JERSEY 08640 30 SEPTEMBER 1969 (a)	Number of Visits				
	Grand Total c through f (b)	Patients			Complete Physical exami- nations (f)
Inpa- tients (c)	Quartere patients (d)	Outpa- tients (e)			
1 GRAND TOTAL (2 through 7; also 8+9+10)	67321	6350	2	58300	2669
2. Army active duty	45781	4602	2	39234	1943
3. USAF, Navy, Marine active duty	1222	524		698	
4. Dependents, US active duty military	13682	789		12893	
5. Retired members, US uniformed services	1932	200		1732	
6. Dependents, retired and deceased members US uniformed services	1553	140		1413	
7. Other Personnel	3151	95		2330	726
8. Dispensary Visits	33074			30405	2669
9. General Outpatient Clinic Visits	8419			8419	
10. TOTAL SPECIALIZED CLINIC VISITS 11 through 26	25828	6350	2	19476	
11. Medical	2550	1279	2	1269	
12. Pediatrics	4475	265		4210	
13. Dermatology	565	12		553	
14. Allergy	1036	69		967	
15. Neuropsychiatry	2362	194		2168	
16. Neurology	793	397		396	
17. E E G	108	9		99	
18. Surgical	1333	310		1023	
19. Orthopedic	3324	260		3064	
20. Occupational Therapy	1008	663		345	
21. Physical Therapy	3363	2658		705	
22. G U Clinic	674	35		639	
23. E N T	1159	151		1008	
24. Eye	733	48		685	
25. Obstetrics	1444			1444	
26. Gynecology	901			901	

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are currently in the process of converting their outpatient records from an alphabetical filing system to a terminal digit filing system, using the sponsor's social security number as the filing key. They presently have about 16,000 of the 68,000 outpatient records converted to the new filing system.

The demand for outpatient records arises from two sources, the so-called "walk-ups" who arrive for sick call in the morning, and appointments in specialty clinics which have been made by Central Appointments. An average day would have about 325 "walk-up" patients, and would require pulling about 175 records for previously made appointments with specialty clinics. The records drawn for specialty clinic appointments are delivered to the clinics the evening prior to the appointment. The room devoted to storage of outpatient records is approximately 600 square feet. The staff involved included one supervisor and eight clerical personnel (including two senior enlisted men who supervised the operation during the second and third shifts). An average of six patients from the medical holding ward are also used to meet the work load. A large "elevator file" is used to maintain an alphabetical file of outpatients with a cross reference to the social security number of the sponsor (i.e., the number the outpatient record is filed under).

The flow of information to the inpatient record is as follows. On admission, a file folder and several copies of the "clinical record cover sheet" are created and stored in the Medical Records Library. This serves as a "shell" and contains no substantive information until after the patient has been discharged. A copy of the clinical record cover sheet and admission information is sent to the ward and installed in a clipboard which is kept at the nurses' station. All information obtained during the patient's stay is posted in his record at the nurses' station. This would include all slips from the laboratories and all results from X-ray. When the patient is discharged, his chart is given to the secretary for the particular department responsible for his admission. This secretary then holds the chart until the information is relatively complete (i.e., all lab slips and X-ray results have been posted to the record and the doctor has dictated his narrative summary). The Medical Records Librarian indicated that the delay from the time of patient discharge to the time his chart arrived for filing and processing at Medical Records was approximately one month for Surgery and approximately two months for General Medicine. When the folder arrives at Medical Records, there is presently about a two or three-month delay for placing the record in the permanent Inpatient Record Library. A manpower shortage was cited as creating a great backlog which they were just in the process of reducing. It was projected that an average delay after the backlog gets cleared up would be two or three weeks for this last filing procedure. The inpatient records are finally filed by discharge date, with a master index alphabetic by name. The master index will be maintained in a large Remington Rand "Lektiever" automatic file, which will contain limited information on all Fort Dix inpatients. WAH personnel implied that they were not happy with the

system, mainly because of reliability problems with the "Lektrierer" file (cost: \$8,000). The staff for Inpatient Records includes three supervisory personnel and about six clerical personnel. An average of about three holding ward patients also help with some of the basic filing and record processing.

We spoke briefly with the Secretary of the Department of Medicine, trying to get information on delays in posting clinical lab information to the patient charts. Recall that she holds the patient records until all laboratory materials have been returned and posted to the chart. She estimated that 70% of all laboratory and X-ray results come back to her after the patient has been discharged. She showed us two instances where the laboratory report showed possible cases of pneumonia, but the patients had already been discharged and now would have to be recalled to the hospital. The great majority of these cases, however, are upper respiratory infection (URI) and have a total stay in the hospital of only a few days. She also mentioned problems associated with not being able to identify the patient name on a laboratory reporting slip. They presently use a metal identifying plate which is inserted in a hand-operated stamping mechanism, much like a credit card, and stamped on all requests for laboratory work, X-rays, etc. She estimated that about 1% of all such stampings were illegible due to misplacing the plate in the stamping mechanism.

WAH is equipped with about sixty special dictating telephones spread throughout the facility. They all connect into a large patchboard which allows switching the units to one of ten available recording machines. This enables the doctors to call up and dictate the narrative summaries which are required to complete the patient's chart. The Supervisor of the dictating and Stenography Pool estimated an average three or four day delay from the time of dictation until the medical record arrived at the Stenography Pool, and an additional three or four day (average) delay for transcription and return to Medical Records.

8.1.4.4 Medical Support Services

8.1.4.4.1 Pharmacy

The Pharmacy for WAH operates between 8:00 a.m. and 6:00 p.m. The staffing consists of two authorized (one actual) military pharmacists and two authorized (two actual) civilian pharmacists. The "authorized civilian" figure is expected to go to three pharmacists as a result of a recent manpower survey. There are 12 authorized pharmacy technicians (6 actual) to carry out the other duties in the pharmacy. The authorized figure is also expected to go to 21 as a result of a recent manpower survey.

The Pharmacy is headed by Captain Hiner. Captain Hiner felt that he was extremely lucky in that four of his pharmacy technicians were in fact registered pharmacists who had been drafted (so that they would only have to serve two years) rather than enlisting as officers (requiring them to serve four years). Additional personnel in the Pharmacy includes one civilian clerk typist and an average of twelve enlisted men from the Medical Holding Company. These men are used in the manufacturing and prepackaging operation of the pharmacy. Captain Hiner remarked that if it were not for these 12 Medical Holding personnel, manufacturing and prepackaging operations just could not be done.

The facilities of the Pharmacy consist of a large front room for outpatient prescription dispensing, several intermediate rooms for record storage and supply storage, and several large back rooms for manufacturing, prepackaging, labeling, making special compounds, and bottling. For further details on the physical layout, refer to the floor plans (first floor addition). The pharmacy appears to be well laid out and well organized.

The work load at the Pharmacy can be broken down by dispensing prescriptions to outpatients there at the Pharmacy, dispensing prescriptions to inpatients via intermediate storage points at the nursing station on each ward, prepackaging pharmaceuticals for use at the dispensaries and at the Pharmacy, and stock preparation. Outpatient prescriptions are dispensed at the rate of approximately 20,000 per month, consisting of 16,500 per month for new prescriptions and 3,500 per month for renewal prescriptions. Several informal surveys that Captain Hiner has made indicate that the average waiting time to receive an outpatient prescription is approximately six minutes. The inpatient prescription load is about 8,500 prescriptions per month. This would be partially prepackaged material which is stored at local inventory points on each ward (the nursing stations). This buffer stock at each ward seems to satisfy most of the inpatient demands, only four or five special requests per day being received. The local stocks in each ward are checked daily by pharmacy personnel and refilled as appropriate. They use a basic two-bin inventory system with permanent labels on the bottles. Captain Hiner had the following figures on his prepackaging operation:

1. External liquids – 4,000 bottles per month.
2. Internal liquids – 17,700 bottles per month.
3. Ointments and creams – 1,500 units per month.
4. Capsules and pills – 27,000 vials per month.

Captain Hiner distributes a monthly pharmacy newsletter which keeps the doctors informed on which drugs are available on a prepackaged basis. He does this as an effort to save both his staff time and the doctor's time. He also mentioned preprinted prescription forms on which the doctor can check the commonly used drug, the dosage, etc., and merely sign the form. Captain Hiner provided the following figures on stock preparation and manufacture:

1. External liquids – 490 gallons per month.
2. Internal liquids – 359 gallons per month.
3. Ointments and creams – 76 pounds per month.

Captain Hiner compiled these figures for the recent manpower survey, so his estimates should be fairly current.

The daily peak periods at the outpatient window come between 10:30 a.m. and 3:30 p.m. The seasonal loads hit their peak in the February through April periods (the height of the URI season) and appear to impose a work load which is about 50% over the average work load for the remainder of the year.

Most of the record keeping in the Pharmacy consisted of prescription records (held in the pharmacy for one year and then transferred to the Fort Dix record center for another two years), and inventory records (a manual card system). Captain Hiner indicated that the inventory control was a rather informal order-point system consisting of a visual inspection of the stock once a day, noting the material needed, and placing an order through the Central Medical Supply. On standard items (i.e., those which are stored by Central Medical Supply downstairs) the lead time for delivery is about one day. On nonstandard items (i.e., those which are not stocked by Central Medical Supply) the lead time delay can be up to two months. Captain Hiner estimated that an average delay for stock replenishment would be twenty to thirty days. These nonstandard items are purchased locally through the Fort Dix purchasing office. Captain Hiner indicated that the pharmacy ordered about \$50,000 worth of supplies each month. He also estimated that he had an average of two weeks of supplies on hand in the pharmacy, which would imply about \$25,000 worth of inventory. Notice, however, that this does not include the stocks which are being carried downstairs at Central Medical Supply. As was mentioned earlier, a "two-bin" control system is used for the inventory at the nurses' station at each ward. Captain Hiner consulted with the nurse on each ward to determine which drugs were getting the most frequent use and what drug complement would satisfy that ward's particular demands. He felt that he had been able to reduce the amount of inventory kept locally at the nurses' station and the corresponding pilferage, theft, misuse, etc. He had no figures, however, which could quantify any cost saving.

The equipment complement at the Pharmacy included a large bottling machine (for converting bulk purchases to individual dispensing units), several large mixing machines for ointments and liquids, a capsule-counting machine for the prepackaging operation, and a labeling machine which prints labels for the prepackaged pharmaceuticals for use at the dispensaries. The corpsman would then fill in the amount of medication and interval at which it was to be taken.

8.1.4.4.2 Radiology

The Radiology Department at WAH performs approximately 357,000 exposures per year. The work is carried out in eight exposure/diagnostic rooms which are serviced by a single darkroom. The Department is equipped with approximately \$500,000 worth of X-ray equipment, but the efficiency of the equipment is limited by the poor physical layout. The Radiology Department is staffed by three radiologists (including the Department Head), one or two on-the-job trainees, two typists, one department secretary, three file girls, and the enlisted and civilian technicians. The total complement is 39 personnel.

The physical layout of the Radiology Department does not encourage efficient use of the X-ray facilities. The inefficiencies in physical design include:

- Only one darkroom to service eight exposure/diagnostic rooms;
- X-ray Department separated from the major using clinics (This necessitates the patient getting dressed in the Specialty Clinic, undressing and being X-rayed, and redressing to proceed back to the Specialty Clinic to await the reading of the X-ray.); and
- Inappropriate location of the Chief Radiologist's Office, causing many interruptions when patients ask directions about where to go within the hospital.

The head of the Radiology Department is now taking steps to add additional darkroom facilities and to subdivide the present darkroom to provide an area for quality control.

Maintaining X-ray films as a portion of patient's medical records is a continuing problem at WAH. Over one-half of all X-ray films are taken out on an emergency basis. Films are now kept for five years in dead storage, but an efficient retrieval system is not currently in operation. The failure to find old films for comparison over time is thought by several staff members at WAH to be a major loss of ability to provide proper medical service.

8.1.4.4.3 Laboratory

The Laboratory at WAH is located on the first floor, between the Genitourinary (GU) Clinic and Radiology. This section describes the overall laboratory system, from initiation of a request for service to the delivery and handling of the test results.

The lab request forms are filled out by a doctor, a nurse at the doctor's request, or a corpsman, depending upon the location of the request. In the clinic, the request form is usually filled out by the doctor; at the dispensary it is usually filled out by a corpsman. When the doctor is at the dispensary in the morning he orders the test and fills out the slip. In the afternoons, however, only enlisted men are at the dispensary and they tend to request tests in what Captain Blank feels is a casual or uninformed fashion. In his opinion, many unnecessary tests are requested, adding needlessly to the lab's work load. Request forms originating from Medical Processing are filled out by a doctor.

Oftentimes the slips are not legible – the patient's name has not been written clearly or the form has not been completely filled out. For instance, a patient's unit, clinic, dispensary or ward number may be omitted, making it difficult to return the request form to the proper place once the test result has been determined. Inpatients and outpatients have addressograph plates which are being used more frequently to stamp patient names on the slips. Even these may create problems, however, for the addressograph does not print clearly on the first page although it does make a good carbon. The troops in training do not have an addressograph, because their location is constantly changing.

The problem described above – that of illegibility and incomplete information on the forms – came up again and again during conversations with WAH staff, and this problem seems to create a great deal of confusion.

Captain Blank is attempting to overcome the identification problem by sending all lab request forms with illegible or incomplete patients' names back to the ward, clinic or dispensary from which they originated, provided the particular ward, clinic or dispensary is indicated on the slip. When the slips have been identified with a patient, the corrected slip is sent back to the lab so that it can be sent on to Medical Records.

There are a number of procedures for getting request slips to the laboratory:

1. Inpatient slips are picked up by the nurse in the morning. Slips requesting routine specimens such as urine are sent down to the lab together with the specimen which has been collected by the nurse. A runner (corpsman) carries the slips

and specimens from the ward to the lab. Those slips which request that blood be drawn are also sent down to the lab and five laboratory technicians come up to the wards from 7:00 to 8:00 a.m. to draw blood.

2. Ambulatory patients in the hospital carry their slips with them when they go to the lab to have their specimen taken. They are not sent during off-hours, on weekends, or after 4:30 p.m.
3. An outpatient who has come to a clinic is sent to the laboratory with his slip. If the outpatient is not ambulatory, he is carried to the laboratory on a stretcher.
4. A request form and corresponding specimen from the dispensary may be brought in by driver, or a patient from the dispensary may bring in his slip and his specimen will be taken in the hospital. The only specimen which can be taken in the dispensary is a throat culture.
5. A pneumatic tube system is available, but rarely is used.

According to the standard operating procedure manual of the Pathology lab, all request slips on each patient should be sent to the laboratory simultaneously. If one specimen is to be processed in more than one laboratory section, separate slips must be received. Requests are received in the laboratory throughout the day.

A STAT is defined as a test which is urgently needed to make a therapeutic decision. STAT requests may be received via the telephone, i.e., a doctor may request a test and the pathologist or technician will go to the ward and draw the sample. "STAT" should be written on the request form together with the phone number to which the report is to be transmitted. The STAT tests are conducted immediately upon receipt. Usually, a STAT will be completed within one hour. The results of the STAT tests are usually phoned to the doctor.

Another urgent request may be "ASAP". An ASAP indicates that the test should be conducted "as soon as possible", but does not imply a life-or-death situation. Only STAT or ASAP requests are honored after normal duty hours.

The tests are performed in the laboratory usually on the same day the request is made. Once a test has been completed and the results recorded on the request slip, the multi-part slip is sent to the front desk of the laboratory where it is pulled apart. The carbon copy is retained for ninety days at the front desk, where two women are responsible for transmitting the test results should a doctor call the laboratory. The particular section of the laboratory which conducted the test has also recorded the test result, patient's name, and date the test was conducted into a sectional log book.

The original of the slip is filed according to its origin at the front desk. The original slips are picked up at 5:00 p.m. or around that time by various people (i.e., a man from the Chief Ward's Office picks up the hospital slip, secretaries pick up those slips that originated in the clinics, and a truck driver picks up the slips that originated in the dispensaries). The results of STAT or ASAP tests are usually called back to the physician. Test results may also be sent back in the pneumatic tube system but again it is rarely used.

The test results get into Medical Records in a variety of ways:

1. Inpatient slips are sent to the ward, then relayed to Medical Records along with the patient's chart. Provided the slips are legible, there is little problem.
2. Outpatient slips which originated in the clinics are taken to the Outpatient Record Room. If the results of the test are normal, they are not recorded but are thrown into a box to be entered into outpatient medical records at some later time. If the test results are abnormal, then the slip is placed on the doctor's desk. Currently, the filing of the "normal" test result slips are three to six months behind schedule.

Since the filing of normal results is behind schedule three to six months, the doctor cannot refer to his medical records when the patient returns for his results. The doctor will, therefore, turn to the lab which has maintained a copy of the test result both at the front desk and in sectional log books. Since two women are stationed at the front desk for the purpose of answering such phone calls, a call which terminates there does not cause a great deal of disruption. However, doctors seem to be mistrustful of obtaining information at the front desk and request that the various sectional log books be consulted. The result is that the lab technician in the specific section must halt testing and check the log book for the test results.

A small percentage of the chemistry, serology, and bacteriology tests are sent to the First Army. The First Army gives slow service for chemistry: the turnaround time may be one to two months. Serology tends to take only one to two weeks. Samples are shipped on Tuesdays and Thursdays. Many of the tests that are sent on to the First Army are high-blood-pressure tests originating in medical processing.

Some tests are sent on to private laboratories at the request of a physician. The number of tests sent on is minute, perhaps one or two a month, and they are usually serology tests, either thyroid or protein. Occasionally a chemistry test is sent out. Captain Blank indicated that there was no scientific need for the chemistry tests to be sent on, but that they were usually sent on as a favor to physicians who had requested them.

The laboratory is busiest in February, March, and April because of the high incidence of colds and infections. Summer tends to be a slack time. Peak loads during the week occur on Monday and continue into Tuesday since normally specimens are not collected on the weekend (except for incoming or new patients). Captain Blank has been authorized more technicians on Monday nights, to take care of the load to some extent. During Friday the number of STAT's increases significantly, as much as 50% to 100%.

The daily peak varies with the type of test and is indicated below:

1. Bleeding tends to be heavy in the morning and reaches a peak at 11 a.m.;
2. The blood bank has no daily or seasonal peak;
3. Bacteriology is heavy in the morning and early afternoon;
4. Urinalysis is heavy Monday, Wednesday, and Friday – the days the OB/GYN clinic is open (At 10 a.m. there may be 120 waiting to use the toilet to get urine samples.);
5. Chemistry is not heavy, except on Fridays with STAT's, because they accept no request after 9:00 a.m.; and
6. Hematology is busy all day with no peak.

The automation of tests is confined to the categories of chemistry and hematology. The percentage of chemistry and hematology procedures that were automated for the quarter of April-June 1969 is:

	<u>Number of Procedures</u>	<u>Number Automated</u>	<u>Percent Automated</u>
Chemistry	41,210	22,732	55.1
Hematology	47,638	15,264	32.0

The percentage of the total procedures of the laboratory that are automated is around 12%, as can be seen from Table 8.1.8, which presents the percentage of tests automated. The degree of automation has experienced little change.

TABLE 8.1.8
LABORATORY PROCEDURES

	<u>Total Number Procedures</u>	<u>Total Number Automated</u>	<u>Percent Automated</u>
<u>1967</u>			
July-September	214,323	25,706	11.99
October-December	197,959	27,206	13.74
<u>1968</u>			
January-March	257,970	35,327	13.69
April-June	253,143	30,541	12.06
July-September	216,855	25,714	11.86
October-December	228,051	34,098	14.95
<u>1969</u>			
January-March	271,064	40,484	14.94
April-June	286,842	37,996	14.79
July-September	238,659	30,881	12.94

Other statistics on laboratory operation are presented in Section 8.1.5 on work load statistics.

8.1.4.4 Centralized Materiel Section (CMS)

CMS, headed by Captain Cummings, is administratively responsible to the Head of Nursing Service. CMS is located on the second floor at WAH and is responsible for sterilization, surgical instruments, sterile linen, special medical machinery, and general medical supplies (bandages, gauze, etc.). The operating room and the labor/delivery wards are its major customers. CMS has recently taken on the responsibility for sterilizing thermometers for about half of the hospital, and this will impose an additional sterilizing work load on the department of between 2,500 and 3,000 thermometers per day. We got the impression that Captain Cummings ran a fairly efficient department, largely because of a "prepackaged" approach. CMS sticks standard "packages" of sterile linen (e.g., a complete set of linens for the operating room) and trays which contain the standard instruments for the more common surgical procedures.

The inventory for the prepackaged linen and surgical trays is controlled by an "empty-shelf" system, requiring an examination of the physical inventory daily. Each shelf is labeled with the desired number of items to be kept in inventory. When the physical count comes up short of that number, new packages are assembled. The inventory levels were established by "feel" and an informed guess of what would be

required. CMS has been dispensing an average of 75,000 to 95,000 items of linen each month. The consumable inventory (bandages, hypodermics, etc.) is controlled via a manual file system. The noncommissioned officer in charge reads through the file each day, noting which items are low and need replenishment. They then order through central supply downstairs, or through the Post Purchasing Office in the event that an outside vendor is required. Captain Cummings complained about the bad service he had received from the Post Purchasing Office. Captain Hiner of the pharmacy had mentioned this problem earlier. The nonconsumable inventory, which nonetheless has a maximum shelf life (i.e., some of the sterile items are only good for 30, 180, or 365 days) is controlled by the physical examination technique mentioned earlier.

A large magnetic board is used in CMS to keep track of the equipment which is out on loan to the various wards. This allows a quick visual verification of where certain pieces of equipment are located. This is backed up by a manual card system which the borrower uses to "sign out" a piece of equipment. Captain Cummings indicated that he was quite adamant about having people return the equipment to him, and that "third-party" borrowing was not a problem. All service on the various instruments (aside from a thorough check-out upon borrowing and return) is performed by the central maintenance service downstairs.

The sterilizing facilities maintained by CMS consist of three regular steam and pressure units and one gas-type sterilizer. One of the regular sterilizers is quite large and bulky, requiring two people to close the door properly, and is not often used. A large room is devoted to inspecting, repairing, folding, and prepackaging the sterile linens.

8.1.4.5 Other Support Services

8.1.4.5.1 Central Supply

A major function for Central Supply is furnishing medical supplies, both consumable and nonconsumable, to WAH and the New Jersey MEDDAC Command. Central Supply has 1,800 to 2,000 active items, and 3,000 items in total including the war-reserve stock which consists mainly of equipment.

Stock control is entirely manual. They keep a running balance on a Kardex-type card utilizing the requisitions which come in from various departments and various MEDDAC ordering points. The balance on hand is compared with the order point and the card is pulled when it reaches the order point. However, considerable judgment appears to be used both in decisions about reordering and also in calculating the order point itself. They have standard formulas for calculating the

order point, utilizing tables provided by the Army. There are about ten people in the stock control section posting cards, doing the accounting, processing purchases, and typing and filing the MILSTRIP requisitions. The major single item is the posting of cards, so that there appears to be a fair amount of potential here for using mechanization to reduce the work load. There is a separate control of items with turnover less than \$300 per year. These are standard issue items and are drawn without detailed requisitions.

As mentioned above, orders are placed on invoice-type requisition forms, as opposed to preprinted cards. The order is posted to the perpetual inventory card, the cost extension is made and the charge code, which identifies the department, is added to the invoice. One clerk keeps a running total of accumulated "sales" for management purposes. The invoice is then sent to the base Finance and Accounting Department via the Director of Supplies who punches a card for each line item. However, before this is done, the hospital Management Operations Office takes the charges off the invoice manually. The MOS Department apparently compares their manually calculated charges and totals with the computer listing. It is clear that there is considerable duplication of effort in keeping track of the supplies, costing, and accounting.

It was estimated that Central Supply processes about 250 to 300 issue slips per month, and that there are about 15 items per slip or about 4,000 individual issues per month. During the month of September, their "sales" totaled \$226,000. Over the year, however, they sold about \$2,000,000 worth of supplies compared with their requisition authority of \$1.93 million. The current inventory is about \$1.06 million, of which only \$330,000 is operating stock. It would appear that they thus achieve six or seven turns per year.

The major categories of inventory are:

<u>Category</u>	<u>Class</u>
Drugs	6505
Surgical Dressing	6510
Surgical Instruments	6515
Dental Supplies and Equipment	6520
X-ray Supplies and Equipment	6525
Hospital Supplies and Equipment	6530
Hospital Clothing	6532
Optical Equipment	6540
Field Sets	6545

Laboratory Supplies	6566
Linen	6572

Of these, the major categories of inventory include drugs, which probably amount to both one-quarter of dollar sales, inventory, and space; and hospital clothing and linens which constitute another one-quarter of the inventory. Hospital supplies and equipment take up a lot of space – perhaps a quarter of the total. They do not receive reports broken out by category, however, so that these were estimates. The only reports they receive are on total sales and inventory.

Central Supply's major supply depot is Harrisburg, although they also receive materiel from other depots as far away as Tracy, California. They consider the lead time to be 20 to 30 days, although the review period is essentially zero, since they update upon any receipt or issue; order placement takes about one day; and transportation from Harrisburg is, at most, about half a week. Delivery from Harrisburg is by commercial transportation. The reorders are punched in the base supply Data Processing Department and sent to the Data Processing Central Service in Philadelphia via transceiver, where they are sent again by transceiver to the Harrisburg depot. Civilian sources are used when an item is not available through the Defense Personnel Support Center in Philadelphia. When the order is received, the stock card is updated.

The storage area in the hospital is approximately 8,000 square feet. This is inadequate to house the required volume of materiel, so bulky or slow-moving items are stored in the Annex (WW II cantonment-type hospital).

8.1.4.5.2 Linen

General linen service at WAH is handled through the Supply and Services Division. The staff assigned to this function consists of 12 civil servants. In addition, ambulatory inpatients from the Medical Holding Company provide the equivalent of two full-time workers. This staff collects, sorts, and distributes linens throughout the hospital and arranges transport to and from the base laundry, which is run by the Quartermaster. Truck transport is provided by the base Motor Pool.

White clothing worn by the medical staff, such as doctors' coats, nurses' uniforms, and corpsmen's shirts and trousers, is handled separately by the Medical Holding Company and is not the responsibility of the Supply Division staff mentioned above. However, the Supply Division does take care of the uniforms worn by food service attendants.

One room in the hospital, about 1000 square feet in size, is used for storage of clean linens, and another room about half as large is used for sorting and temporary

storage of soiled linens. Twelve pushcarts are used to move linens about the hospital, six for clean linens and six for soiled linens. Ward personnel notify the Supply Office daily as to their linen requirements and these are delivered as requested. A one- or two-day buffer stock is maintained in the wards in their linen closets.

No precise counts are maintained by the hospital staff on the amount of linen used, but it was estimated to average about 13,000 pieces per day of all types. Moreover, no running inventory of linen stock is kept. Total value on hand was estimated to be on the order of \$300,000. Most of the new stock is kept in a separate warehouse about 2½ miles from the hospital.

Because of lack of detail in the accounting system, the true cost of linen service at Walson Hospital is impossible to determine. Certain gross items can be identified and priced, but others are hidden in various aggregates. The known figures are as follows:

	<u>FY 1968</u>	<u>FY 1969</u>
Supplies purchased	\$173,000	\$120,000
Civilian labor	75,000	61,000
Laundering cost	--	176,000

It should be noted that the laundering cost given above is an estimate supplied by the Quartermaster of the proportionate share of the total base laundry operating costs that he would assign to the hospital. It is not actually a line item in the hospital budget, and there is no transfer of funds. In other words, the hospital gets its laundry done free, so far as its operating budget is concerned. The hospital pays only for the linens it buys and for the civilian labor it assigns to linen handling. Moreover, the hospital does not pay for any trucking and transportation, and neither does the laundry. That is all included in the Motor Pool expense. Also, no military labor is charged to the hospital budget, nor are any utilities.

Under these circumstances there has been no reason for the laundry to try to develop a price list, item by item, for its services to the hospital, nor has the hospital felt any need to allocate linen service costs to separate functional or organizational groups. Two effects can be noted. One is that no meaningful comparisons with the costs of alternatives can be carried out. The other is that there is no direct incentive to economize linen service. So far as the hospital administration is concerned, it is enjoying a bargain and any change, either to another laundry service or to increased use of disposables, would only increase its *visible* costs. So far as a consuming unit is concerned, linens are free and no one has to account for his usage, so why be frugal.

It might be mentioned that despite the "free" laundry service, WAH has switched largely to disposable diapers because of their convenience. Apparently, the

added expense has not been large enough to act as a deterrent. Also, disposable patient bibs are used in the dental clinics, and some disposable washcloths in the hospital. There is no use of disposable surgical packs or drapes; these are all launderable-type items processed through the central sterile service.

No specific checks are made on pilferage of linens at WAH, but there seemed to be a confident feeling on the part of the Supply staff that this is quite low. Nevertheless, some sort of routine inventory count and comparison with purchase and salvage records would seem to be prudent. This apparently is not done now.

8.1.4.5.3 Food Service

The hospital serves 450 meals at breakfast, lunch, and dinner to inpatients, or approximately 1,350 inpatient meals per day. In addition, they serve 400 meals at breakfast, 800 at lunch and 500 at supper in the mess for an additional 1,700 meals per day. Of these, about 60 or 70 are for ambulatory (non-URI) patients, 230 are for Medical Holding Company patients, and the remainder are for staff and visitors.

The food is prepared in conventional form: that is, WAH purchases food in various stages of "prefabrication". For example, beef is typically purchased in cut-up and packaged form, while lamb may be purchased in carcass form and cut up in the hospital. Meals are placed on trays and taken to the wards in food carts which have refrigeration and heating capability.

The dietary work force is virtually all civilian and consists of 140 civil service people and five military dietitians. It was pointed out that, typically, Army hospitals would have 10% military people. The lowest hourly wage is \$2.48 for a dishwasher, hence labor costs are undoubtedly higher than those that would obtain in the commercial field. Also, the work force is on a peculiar shift basis, whereby they work a short day followed by a long day, so that in a week a worker puts in forty hours, but ten hours of this are overtime which is paid at time and a half. WAH is trying to go to a normal two-shift operation.

To a certain extent, the possibility of a food management firm taking over the responsibility for the preparation of the food was discussed with the WAH staff. This suggestion was not accepted with much enthusiasm. It was pointed out that this would not be a particularly good idea for the following reasons:

1. They might lose control of the feeding operation.
2. Army dietitians receive particularly good training, including that of administration. Although in a civilian hospital a food management firm might, in fact, provide considerably better administration than the dietitian, this is less so in the Army.

3. It was pointed out that one of the major functions is that of training cooks and the like for war situations: for example, when the Vietnam war broke out, they had no hospital cooks with any experience in Vietnam. Currently WAH is not doing any training, but they expect to do so fairly soon. It was desirable to keep a basic civilian work force, however, in order to provide stability and to train the military personnel who rotate and are sent to places like Vietnam.

The budget for subsistence currently is about \$600,000 per year, or about \$1.45 per day's rations per person. The labor costs (obtained from the Management Operations Office) are about \$1.2 million per year. It was pointed out that this two-to-one ratio of preparation costs to food costs is considerably higher than is usually found in hospitals.

Col. Accountius, the Head of the Food Service Division at WAH, provided us with the following data on rations served.

	<u>Rations* Served On Wards</u>	<u>Total Rations Served (Dining Hall and Wards)</u>
August 1969	12,839	32,095
September 1969	13,658	34,501
Monthly Average	13,248	33,298

*1 Ration = 3 meals = Breakfast, Lunch and Supper

8.1.4.5.4 Housekeeping and Maintenance

The housekeeping at Fort Dix is done on a contractual basis with outside suppliers. The current cost is 9.8 cents per square foot per month, which includes floor care, dusting, periodic washing of walls and fixtures, and other normal housekeeping services. Refuse disposal for WAH is also supplied on a contractual basis by outside civilian firms.

Most of the maintenance for WAH, including that for scientific equipment, is done on the Post. Most of this work is done by civilian personnel, though many of these are retired from the Armed Forces. All nonmedical maintenance is by Post Maintenance. Several personnel at WAH expressed dissatisfaction with the service the hospital had been receiving from Post Maintenance. They contend that because the hospital is a special facility caring for sick or injured people, it has special requirements for upkeep and maintenance which are not currently being met by Post Maintenance.

8.1.4.5.5 Communication

The primary communication systems at the WAH consist of the telephone system, a pneumatic tube system, a visual paging system, a pocket paging system and an intercom. There was no consolidated source of information for these communication systems (e.g., a hospital engineer), so comments have been drawn from personnel in the post telephone system, the central supply division, the information desk (responsible for paging), and various users of these systems.

WAH has no switchboard of its own, but merely uses the telephone system on the base. The telephones throughout WAH are not different from any other extension at Fort Dix. We spoke with Mr. W.C. Goldy, Jr., who is in charge of the post telephone system. The post has eight switchboard positions which comprise a 4,800 line exchange. The post has 54 lines tying in to the local Bell system, as well as lines tying in to the DOD network. The equipment is switch-by-switch, and is equivalent to the Western Electric type 701 switching frame. There are 24 line-finder groups with 200 lines per group. There are 20 line-finder switches per line-finder group, which gives a 10% trunking figure. WAH has 251 extensions, and approximately 600 to 700 actual telephones. Of the 251 extensions, 114 are Class A, which means that they have "Dial 9" access to the Bell system, and a corresponding ability to place commercial toll calls (providing they give an intercept operator a valid billing number). The remainder of the extensions in the WAH are Class C, meaning that they have access only to other extensions within Fort Dix. Mr. Goldy estimated that about 50% of all instruments in WAH were of the "key-phone" type, which allows answering of multiple exchange lines and internal intercomming.

A traffic analysis was recently performed for the Fort Dix exchange, headed by a Mr. Hope of the Communications and Electronics Division of the First Army. Since there is no feasible way to distinguish the usage by WAH from the usage of the remainder of Fort Dix, this traffic survey would be of limited usefulness.

In the way of special services, the post switchboards do have facilities to set up conference calls through the post telephone exchange. In addition, the post has TIE lines to New York, Trenton, Philadelphia, Newark, and will soon have one directly to First Army headquarters. Mr. Goldy mentioned the possibility of WATS service being installed in the near future. This would cover Area 1 and perhaps Area 2.

The pneumatic tube system at WAH is rarely used. Several people that we spoke with (secretary for the Medical Department, Head of the Stenography Pool, other potential users) expressed great distrust for the system. They all had stories to relate of important documents (e.g., the physical for the General's wife) being lost in the system. As a result, they hand deliver almost all paper work, especially important items. Since there is no internal mail system at WAH, several departments use "runners" to deliver paper work and correspondence to various portions of the

hospital. The secretary for the Department of Medicine estimated that about 90% of her communication output was in the form of paper work, the remaining 10% being verbal communication via the telephone.

The visual paging system consists of columns (or rows) of flashing numerals (approximately three inches high by two inches wide) mounted on the walls (or ceilings) of the corridors in WAH. There are generally two such displays in each hall at the hospital, but the displays are not visible from many positions in the wards. Members of the staff (doctors, nurses, and perhaps even technicians) have individual paging numbers (which they often forget) and they are supposed to call the information desk when they observe their number being flashed. The visible paging system can display up to three paging numbers flashing -- first one, then another, then another. When the paging number exceeds two digits, the display is quite difficult to read, as the display is ten numerals high (or long) and only the appropriate numbers light up. This means that the paging number 129 would have two numerals at one end of the display and another numeral flashing at the other end of the display. The clerks at the information desk who are responsible for paging have been instructed to attempt to locate the doctor by phone if he does not answer his visible page within 15 minutes. Several of the clerks at the information desk estimated that the average time required for a doctor to response to a page was between 10 and 15 minutes.

WAH does have a pocket page system originally manufactured by Motorola. The system allows a clerk at the information desk to dial a particular number for a particular pocket receiver. This will cause the receiver to emit a beep and then allow the clerk to have one-way communication to the pocket receiver. There is no indication to the operator of the system that the pocket receiver is turned on and working. There are 37 pocket receiver units, of which only 19 have been authorized for issue. These are issued to the heads of departments and other key personnel. We got the impression, however, that even these 19 units are not being used by the doctors. Problems of premature battery run down, poor reception in certain areas of the hospital, and general unreliability were quoted as reasons for not using the pocket page system. No one at WAH had any information on the technical specifications for the page system.

WAH does have one hospital-wide intercom system. It consists of stations at:

Preventive Medicine	Pediatrics
Management Services	Obstetrics
Information Desk	Dental
Food Services	Office of Chief Nurse

Laboratory Supply and Service
Surgery
Neuropsychiatry
Medicine

Office of Commanding Officer
Office of Executive Officer
Registrar
Adjutant
Sergeant Major

Again, we got the impression that this system is not used extensively. For instance, the secretary for the Department of Medicine indicated that her boss did not use the system for his outgoing communications, but that the Commanding Officer and the Executive Officer did use the system to contact him. There are other, smaller intercom systems scattered throughout the various departments. For instance, there is an eight-station intercom set up in the Allergy Clinic, but the clerk on duty said that he did not know anything about it and did not think that it was ever used. Judging by physical appearances, the unit was quite old and perhaps did not offer any convenient features. Again, there is no central source of information about the intercom system.

It is interesting to note that WAH does not have an audible paging system or public address system. No one seems to know exactly why this was the case, except that the visible paging system was originally planned as part of the initial hospital design. Evidently, they felt that the visible paging system would eliminate the need for any audible systems. The lack of operating statistics and the rapid personnel turnover has made it difficult to get any historical perspective on any of these communications systems.

8.1.4.5.6 Transportation

WAH has no transportation facilities of its own. The hospital relies entirely on the transportation facilities of the Post which are provided by a Central Motor Pool. No transfer prices for this service were available. For example, there are twelve ambulances assigned to WAH which are administered and maintained by the Central Motor Pool. The personnel at WAH have little control over the purchase of the equipment or the type and quality of maintenance provided. The ambulances were not equipped with any mobile radio facilities, so that advanced communications with the hospital are impossible.

As was mentioned in the section describing the troop dispensaries, there is a bus service which runs in the morning to transport trainees from the troop dispensaries to the hospital facilities. Personnel in the dispensaries characterize the bus service as slow, inconvenient, and somewhat undependable. The Post Transportation facilities are augmented by a Post Taxi Cab Service which operates within the Base with 25-cent fares.

8.1.4.5.7 Materials Handling

There are no automated materials handling facilities at Fort Dix. There is a normal complement of canvas laundry carts, metal pushcarts, and other manual equipment for materials transportation. In addition, special carts are used to deliver the meals from the kitchen in the basement of WAH to the patients on the wards. These carts have the capacity to heat and refrigerate foods and are powered from the standard hospital electrical system, except during transportation between the basement and the appropriate ward.

All other materials transportation to and from WAH (e.g., dirty laundry to the Post Quartermaster's laundry and clean laundry back) is done by truck or other appropriate vehicle supplied by the Post Motor Pool.

8.1.4.5.8 Data Processing

WAH has no data-processing capability of its own. It relies completely on the Fort Dix Data Processing Service Center for all automated data processing and report generation. The hospital, however, is treated no differently than any other Cost Control Center at Fort Dix. The only reports WAH receives from the Data Processing Service Center are financial in nature and have the same format as, say, those reports received by the Motor Pool.

The Data Processing Service Center operates an IBM 1401 Model G (4K Memory) and a Univac 1005, both units being card-processing equipment. No keypunching is performed at the center as this function is decentralized to several locations around the Post. The center has a staff of 35 (two administrators, eight systems analysts/programmers, 20 operators, and five data-control personnel). By modern data-processing standards, the Service Center is technically obsolete. The Data Processing Service Center is the only data-processing facility for Fort Dix.

8.1.4.6 Other Health Programs

8.1.4.6.1 Preventive Medicine

Fort Dix and Fort Ord are unique in the Army in that they provide residency training in preventive medicine. At each of these two posts there is a need for a Preventive Medicine Officer and Sanitary Engineer with an M.S. to meet the American board residency training requirements. As part of the residency program the Preventive Medicine Officer does some long-term experimental studies relating to infectious diseases. He is concerned with environmental sanitation, supervising the quality control of food (after its purchase and primary storage, which are under the control of the Veterinary Officer) including distribution to, and use in, mess halls, clubs, etc. He is concerned with environmental carbon monoxide, lead

poisoning, etc.; sewage, environmental diseases; and with prevention and control of infectious diseases, particularly in setting and policing standards. This involves constant patient-density checks of all four brigades at the post, layout, etc. Likewise, it requires keeping constant tabs on admissions to the hospital, by the military unit to which a man is assigned, to spot incipient epidemics at their source.

8.1.4.6.2 Mental Health Care Services

The Mental Health Program at Fort Dix is carried out in three different facilities:

- The Neuropsychiatric Ward at WAH. This consists of a total of 54 beds, of which 28 are in a closed unit and 26 are open.
- The Mental Hygiene Clinic about one mile from the hospital. This is an old building badly in need of painting and repair.
- Offices associated with each of the brigades in the field where field personnel, principally social workers, can work with trainees.

The Mental Hygiene Program at Fort Dix is very much oriented toward military personnel. This is due to the fact that the population consists primarily of trainees and that the Head of the Department of Psychiatry and Neurology has established a policy of discouraging the provision of this kind of service to dependents.

On the ward itself there are three kinds of patients:

- Psychotics – these are patients who generally have been recommended for discharge and are awaiting clearance of their papers.
- Transient neuropsychiatric patients – these are patients who have been delivered by Air Evacuation who usually stay only 24 hours.
- Trainees who have been hospitalized for observation and who will either be sent back to duty or discharged.

At times the census on the ward has been as high as 40 or 45 patients. During our visit, the census was 31; this is more typical of the average census. It was pointed out that there was very little therapy associated with the program at WAH, although efforts are now being made to institute some group and supportive therapy. In general, there is no treatment for drug problems or homosexual problems. The policy appears to be that these problems do not exist. Current staffing levels consist of two psychiatrists associated with the inpatient service and four psychiatrists associated with the outpatient service and headquartered in the Mental Hygiene

Center. There appears to be very little interaction between these two sets of psychiatrists.

Staffing at the Mental Hygiene Center consists of the four psychiatrists mentioned above, two psychologists who engage in some psychotherapy and treat some children, and eight enlisted men, most of whom have master's degrees. The service used to be known as the Child Guidance Clinic but now has been extended to receive patients referred from the hospital or from the field. There appears to be pressure from the Head of the Department of Psychiatry and Neurology to become primarily a military counseling service, rather than to provide aid to dependents.

The enlisted men at the Mental Hygiene Clinic take histories and administer and score the objective tests. Several observational facilities (one-way windows, etc.) have been recently obtained to provide observational training for the enlisted men.

The Field Program associated with each of the training brigades is carried out primarily by social workers assigned to the brigades. Patients must be referred by their company commander to the social workers or other counseling staff. It appears that this in itself is perhaps sufficient to deter any trainees from seeking help. In principle, the counselor or social worker is also supposed to indicate to the company commander the nature of the trainees' problem. This lack of confidentiality would also appear to deter free use of the Mental Hygiene facilities.

It was pointed out by several personnel in the Mental Hygiene Program that the Field Program was more of a screening than a therapeutic program. The manpower involved is quite small: there is only one social worker and one psychiatrist for a brigade consisting of approximately 3,000 men. Their main function appears to be history-taking rather than counseling.

8.1.4.6.3 Medical Processing

The Medical Processing Division administers physical examinations to members of all three services for various purposes. The two major physicals which they do not give are pre-induction physicals and flight physicals. The average work load for this unit has been running around three thousand physicals per month.

The standards for all physicals are stated in Army Regulations AR40-501. The typical examination begins with a history-taking session, where the examinees fill out Forms 88 and 89. Sgt. Anderson (The NCOIC) said that it normally requires about an hour-and-a-half to take the history for 150 to 200 examinees. Much of the delay is caused by the typing of the individual's name and other identifying information on the envelope to be used for the X-rays. Sgt. Anderson said that he was supposed to receive a roster of examinees prior to their appearing at the Processing Center so that he could have this information pretyped. He indicated.

however, that he normally did not get this roster and that long delays resulted, while he (and sometimes an assistant) administered the history taking. Lt. Watson, the administrative officer for Medical Processing, pointed out that this was really not a bottleneck as this allowed the examinees to be released to the examining station one at a time. If they were all through simultaneously, there would be a large bottleneck down at the examining station.

The general procedure was: undress, height and weight, blood pressure, urine and blood sample, EKG (if necessary), hearing test, eye test, X-ray, "group examination" by doctor, and then individual examination by doctor (for officers and special cases). The facility, which is in one end of the annex, is quite old, crowded, and inadequate for the physical processing. For example, the building is not equipped with grounded wiring, hence the EKG machine picks up electrical noise and other interference from the centrifuges in the next room. There is a narrow central hallway which becomes crowded as people move from station to station, and the building is not adequately heated.

After the examinees have been processed, those that require further attention are sent to the specialty clinics at the main hospital for consultation. One of the corpsmen estimated that he sent about one hundred persons per week to the hospital for further consultation at the specialty clinics. He also mentioned that because of bad scheduling (i.e., personnel not getting their physicals done far enough in advance) about 20% to 30% of his referrals to the specialty clinics had to be done under "administrative emergency." This means that these people are not scheduled through the hospital specialty clinics on a normal basis but are handled immediately, disrupting the normal scheduled routine at the specialty clinic.

In the laboratory, it appeared that the tests were fairly simple, as the lab was manned by a single technician. Also, the written record that the examinee carries around with him appeared to be a fairly efficient means of maintaining a central record of the patient's examination. Since the great majority of tests are administered by a single corpsman and the examinee is only seen by doctors in a group, direct-labor costs are held to a minimum.

There is, however, a great deal of wasted time on the part of the examinees. We estimate that it takes approximately one half day to be examined at the Processing Center. At their current work load of 3,000 examinations per month, this represents 1,500 man-days per month which are lost from training, active duty, etc.

8.1.5 WORK LOAD STATISTICS

The following tables and figures present some of the basic workload statistics which describe the various activities at Walson Army Hospital. Some of the data were obtained in the "Basic Data Package" on WAH. Other data have been collected during our several visits to Fort Dix.

Caution should be used in interpreting some of the graphs. For example, the chart given to us for Pharmacy is labeled Daily Average Prescriptions Filled, but comparison with other figures given to us makes it evident that the graph represents some other type of work-unit measurement. Similarly, the graph for Laboratory is labeled Daily Average Procedures, but the figures really represent value measures associated with procedures and not the number of procedures. Consequently, these graphs are best thought of as showing trends and fluctuations in workload, rather than actual counts of the specific items. Where only bed counts or body counts are involved, there is no difficulty in interpreting the figures; only where work units are involved are the measures unclear.

The tables and figures are categorized as follows:

General	Tables 8.1.9 – 8.1.12	Figure 8.1.3
Inpatient		Figures 8.1.4 – 8.1.6
Outpatient	Table 8.1.13	Figure 8.1.7
Auxiliary (laboratory, pharmacy, radiology)	Table 8.1.14	Figures 8.1.8 – 8.1.10
Auxiliary (food service)	Table 8.1.15	Figure 8.1.11

8.1.6 COSTS

Tables 8.1.16-8.1.18 show the cost breakdown for the various cost accounts kept for Walson Army Hospital for FY 1968 and FY 1970. These are *not* complete costs for operating the hospital, since some services (e.g., laundry) are obtained from the post at no cost to WAH.

Direct comparisons between the figures for FY 1968 and FY 1969 are not generally valid because a new cost accounting system was initiated for FY 1969. Notice, for example, that "Nursing Administration" appears as a separate account for FY 1969 but was not shown separately for FY 1968.

Table 8.1.19 shows the functional cost distribution which we developed by combining accounting data and staffing data.

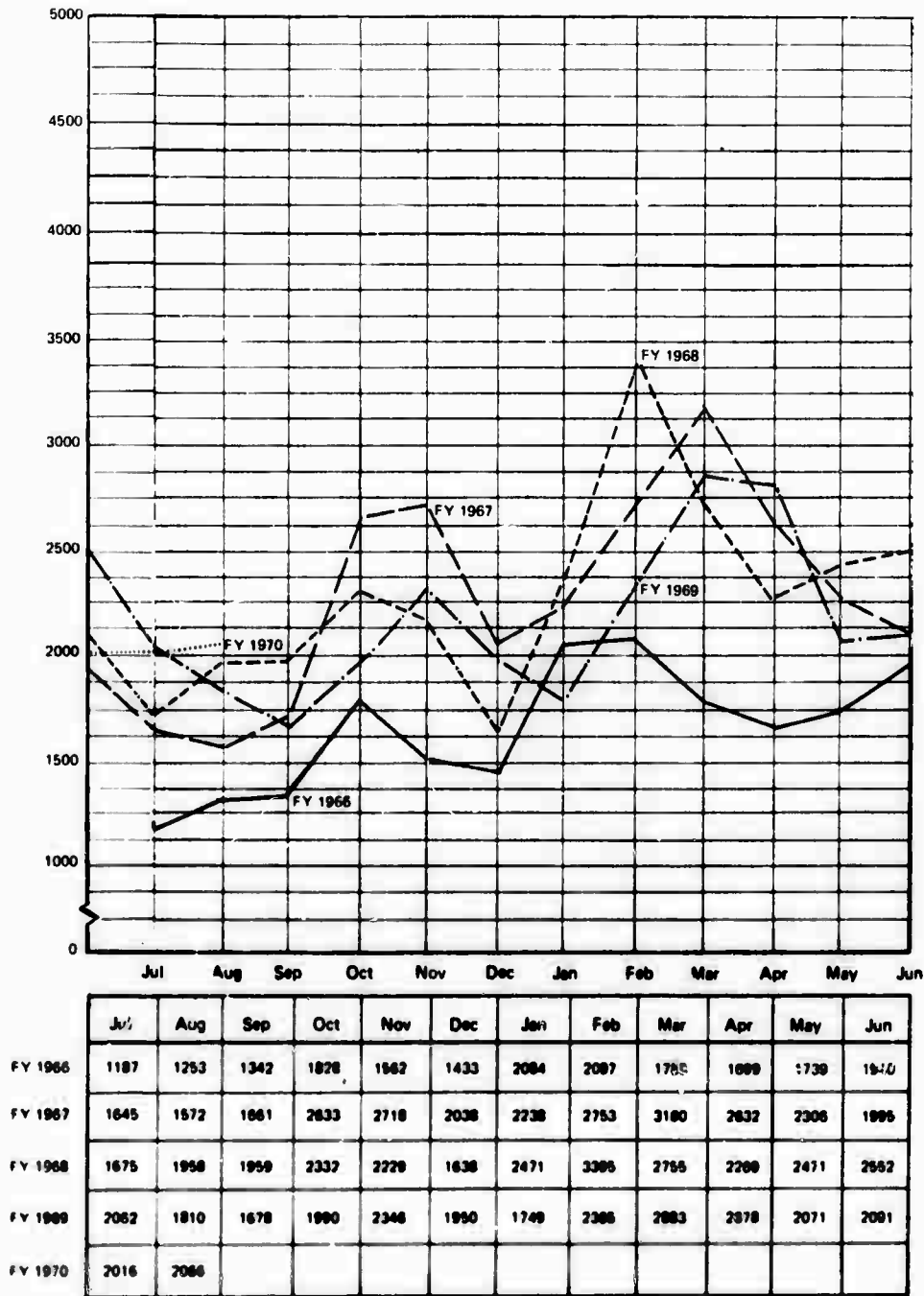


FIGURE B.1.3 MEDICAL COMPOSITE UNITS

TABLE 8.1.9
SUMMARY STATISTICS, WAH

	<u>FY 1964</u>	<u>FY 1965</u>	<u>FY 1966</u>	<u>FY 1967</u>	<u>FY 1968</u>	<u>Cost Account</u>
Dept of Surgery						1202
Average Daily Admissions	16.1	15.1	14.5	17.6	19.2	
Operating Room						1203
Average Monthly Surgery Procedures				364	315	
Neuropsychiatric Service						1204
Average Daily Admissions	.7	.5	.9	1.2	1.8	
Radiological Service						1420
Average Daily Exposures	374	498	532	741	713	
Pathology Service						1410
Average Daily Procedures	1572	1224	1307	1567	4399*	
Physical Therapy						1202
Average Daily Visits			111	101	111	
Occupational Therapy						1202
Average Daily Visits			28	45	29	
Delivery & Nursery						1202
Births	1677	1487	1277	1201	1284	
Outpatient Clinic						1300
Average Daily Visits	129	141	157	282	235	
Medical Clinics						1201
Average Daily Outpatient Visits	118	126	140	225	310	
Surgical Clinics						1202
Average Daily Outpatient Visits	354	385	312	375	447	
Neuropsychiatric Clinic						1204
Average Daily Outpatient Visits	46	52	59	105	132	
Optometry						1202
Average Daily Outpatient Visits	198	188	245	327	308	
Medical Processing						1306
Average Daily Exams (complete)	67	74	66	119	108	
Food Service						1610
Average Daily Rations Served/Ward	794/276	908/288	844/359	1017/397	1061/410	
Laundry						1520
Average Daily Pieces of Linen Issued		6480	6964	6091	6333	
Dental Service						2000
Average Monthly Treatment (in hospital)					1588	
Air Evaluation Facility						8001
Average Daily Patients	27	27	29	24	26	
						BUDGET ACCOUNT 2470

*Workload reporting method changed in accord with AR 40-24

TABLE 8.1.10
WORKLOAD STATISTICS

Fiscal Year	July	August	September	October	November	December	January	February	March	April	May	June
FY 1964	1059	1059	1045	1349	1333	1269	1698	2054	2028	1974	1788	1377
FY 1965	1131	1228	1154	1433	1584	1893	1795	2441	2112	1883	1582	1441
FY 1966	1374	1455	1570	2674	1985	2014	3263	2878	2421	2299	2409	2548
FY 1968	1899	2349	2300	3073	2822	2151	3284	4751	3716	2680	3049	3353
					Average Daily Admissions - Neuropsychiatric Service [Para 6b(1)]*							
FY 1964					1	1	1	1	1	1	1	1
FY 1965					1	1	1	1	1	1	1	1
FY 1966					2	1	1	1	1	1	2	2
FY 1967					2	1	1	1	1	2	2	2
FY 1968					3	1	2	2	1	2	2	2
					Average Daily Admissions - Medical Service [Para 6b(1)]*							
FY 1964							36	68	48	36	32	28
FY 1965							50	86	58	58	56	61
FY 1966							85	110	139	98	76	57
FY 1967							71	83	100	68	75	91
FY 1968												
					Average Daily Admissions - Surgical Service [Para 6b(1)]*							
FY 1964							20	19	20	19	18	19
FY 1965							16	16	19	17	20	22
FY 1966							20	18	20	20	20	21
FY 1967							21	21	19	19	21	19
FY 1968												
					Average Daily Number of Livebirths [Para 6b(1)]*							
FY 1964	4.4	5.3	4.7	5.3	4.7	4.3	4.0	5.2	5.0	3.7	3.9	4.4
FY 1965	3.7	4.5	4.7	4.4	4.1	4.4	4.2	4.2	4.1	3.5	3.2	3.8
FY 1966	3.6	4.6	4.0	3.2	3.8	3.5	2.9	2.8	3.8	3.1	3.4	3.2
FY 1967	3.4	3.2	3.9	3.1	3.4	3.0	2.9	3.0	3.3	3.0	3.6	3.6
FY 1968	3.5	3.7	3.4	3.4	3.4	3.7	3.7	3.9	3.7	3.2	3.4	3.0

*References are to paragraphs in enclosures to Memo, DASH (M&RA), 24 Jan 1969, for The Review Group, "New Generation" of Military Hospitals, Subj: Basic Data Package.

TABLE 8.1.10 (Cont'd)

Fiscal Year	July	August	September	October	November	December	January	February	March	April	May	June
	--Average Daily Census [Para 6b(1)]*--											
FY 1964	360	366	375	444	430	417	460	573	587	623	569	469
FY 1965	426	433	242	450	493	539	489	699	613	517	487	451
FY 1966	431	443	444	596	538	473	661	667	540	519	568	614
FY 1967	607	570	565	815	865	766	687	870	1009	947	875	765
FY 1968	698	758	810	913	893	813	923	1315	1210	1035	1057	1208
	--Neuropsychiatric Service - Beds Occupied, End of Month [Para 6b(1)]*--											
FY 1964	15	13	16	18	9	6	22	19	24	13	12	20
FY 1965	14	14	8	8	18	2	11	20	13	17	21	11
FY 1966	15	24	24	26	19	20	20	16	24	32	40	37
FY 1967	32	36	43	31	27	4	22	30	24	15	28	35
FY 1968	41	56	68	55	47	20	22	32	25	28	27	27
	--Medical Service - Beds Occupied, End of Month [Para 6b(1)]*--											
FY 1964	144	151	200	196	168	87	350	364	336	391	224	211
FY 1965	155	175	198	219	293	87	367	462	294	253	205	172
FY 1966	165	180	271	324	266	274	133	332	263	300	241	331
FY 1967	187	223	296	583	633	91	531	559	610	334	334	216
FY 1968	226	275	212	463	414	86	692	568	488	441	551	372
	--Surgical Service - Beds Occupied, End of Month [Para 6b(1)]*--											
FY 1964	101	116	151	170	141	81	149	178	165	152	162	126
FY 1965	191	205	167	154	174	61	198	165	179	187	166	187
FY 1966	173	197	184	180	145	102	484	166	173	164	174	194
FY 1967	219	200	192	195	196	64	190	218	217	239	236	216
FY 1968	246	236	223	255	273	94	237	258	231	234	234	259

TABLE 8.1.10 (Cont'd)

<u>Fiscal Year</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
	--Number of Visits **To All Clinics & Dispensaries [Para 6a(1)(b) & (c)]*											
FY 1964	36805	38981	38252	32364	29922	25608	34908	36043	38818	38710	35595	36469
FY 1965	38728	36903	36079	37918	34232	30583	35334	36296	38047	32623	30223	31660
FY 1966	31634	32172	34876	36608	35804	34445	38415	35728	44530	38654	39000	47444
FY 1967	44407	50778	47685	53331	53778	41526	54476	54807	66890	62337	61447	55910
FY 1968	52358	59330	55443	59144	54735	40148	66905	63664	60137	60273	69121	54301
	--Number of Visits **To Dispensaries [Para 6a(1)(c)]*											
FY 1964	21268	22419	22671	14881	14063	11582	18536	20772	20506	21339	18578	13958
FY 1965	21575	19819	19193	19526	17726	14266	16740	16778	17871	14479	12508	14990
FY 1966	15043	15962	18658	19738	18311	19603	22471	19785	25429	20966	20396	25919
FY 1967	23952	27863	25039	28697	28632	19863	27964	29736	35230	29828	30564	28069
FY 1968	26621	30290	27941	30987	29378	17902	35410	33408	31832	29607	26790	26768
	--Number of Visits **To General Outpatient Clinic [Para 6a(1)(b)]*											
FY 1964	3679	3512	3097	3768	3500	3476	4064	4174	4359	4537	4668	4223
FY 1965	4370	4325	3850	4202	3781	3702	4552	5114	4652	4301	4626	3899
FY 1966	4390	4515	4445	4482	4598	4571	4801	4837	5061	4909	4609	6014
FY 1967	6381	7310	6922	7671	7751	6514	8720	7907	10608	13522	10806	8852
FY 1968	8705	9141	7322	7877	6106	5975	7830	6401	7050	6392	7093	5983
	--Average Daily Number of Visits **To Medical Clinic [Para 6b(2)]*											
FY 1964	21	27	22	25	21	18	23	21	24	23	22	22
FY 1965	27	21	23	23	22	22	23	26	28	27	22	30
FY 1966	19	18	22	21	22	23	24	25	23	27	32	30
FY 1967	32	32	31	33	37	27	33	28	35	45	40	37
FY 1968	26	32	29	29	36	27	36	78	37	12	40	37
	--Average Daily Number of Visits **To Surgical Clinic [Para 6b(2)]*											
FY 1964	19	28	29	32	32	18	20	22	24	22	27	27
FY 1965	20	26	32	36	24	23	24	28	32	27	25	30
FY 1966	23	26	25	23	26	21	18	21	22	23	25	30
FY 1967	27	28	29	27	26	17	28	26	28	33	51	29
FY 1968	26	29	25	24	26	17	28	23	28	33	51	29

** Exclude visits by hospital inpatients

TABLE 8.1.10 (Cont'd)

<u>Fiscal Year</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
	--Average Daily Number of Visits **To Orthopedic Clinic [Para 6b(2)]*											
FY 1964	72	90	92	89	91	61	96	88	106	102	102	130
FY 1965	133	104	113	115	104	85	112	124	112	92	114	106
FY 1966	98	104	105	104	103	57	40	64	67	61	77	79
FY 1967	91	81	99	110	111	84	140	153	63	143	112	150
FY 1968	128	129	134	125	123	84	140	153	63	143	112	146
	--Average Daily Number of Visits **To Ear, Nose & Throat Clinic [Para 6b(2)]*											
FY 1964	25	24	27	29	24	21	22	11	22	21	16	21
FY 1965	19	18	18	19	17	16	19	22	21	24	19	22
FY 1966	17	18	17	24	17	14	20	20	21	28	31	34
FY 1967	25	29	24	27	36	13	34	31	32	29	39	24
FY 1968	19	20	20	19	18	13	34	31	32	29	39	24
	--Average Daily Number of Visits **To Eye Clinic [Para 6b(2)]*											
FY 1964	24	28	28	23	22	11	24	6	28	25	21	24
FY 1965	22	17	29	4	26	30	27	32	30	22	14	15
FY 1966	19	17	12	16	11	11	12	12	13	13	16	18
FY 1967	23	23	22	20	23	10	23	19	25	25	22	16
FY 1968	17	19	20	19	14	10	23	19	25	25	366	16
	--Average Daily Number of Visits **To Obstetrics Clinic [Para 6b(2)]*											
FY 1964	53	51	53	55	48	45	46	46	45	46	44	46
FY 1965	47	44	51	19	49	53	50	54	54	55	47	53
FY 1966	50	44	45	39	43	39	37	40	51	41	38	44
FY 1967	42	44	43	41	48	27	45	45	45	45	44	44
FY 1968	39	49	44	43	48	27	45	45	45	45	44	44
	--Average Daily Number of Visits **To Gynecology Clinic [Para 6b(2)]*											
FY 1964	18	19	17	19	17	13	16	15	17	18	15	19
FY 1965	22	20	21	52	21	20	22	24	26	26	21	27
FY 1966	21	20	20	16	25	19	21	21	25	20	29	28
FY 1967	22	26	24	25	24	37	41	41	39	42	58	38
FY 1968	33	41	40	36	34	37	41	41	39	42	58	38

** Exclude visits by hospital inpatients.

TABLE 8.1.10 (Cont'd)

Fiscal Year	July	August	September	October	November	December	January	February	March	April	May	June
	--Average Daily Number of Visits **To Pediatric Clinic [Para 6b(2)]*											
FY 1964	50	45	43	54	47	51	54	61	75	55	49	44
FY 1965	46	53	48	53	59	73	66	75	74	69	60	54
FY 1966	48	54	58	61	72	70	81	84	94	76	77	77
FY 1967	55	90	92	113	111	102	144	157	174	134	145	125
FY 1968	96	119	130	142	153	156	233	236	240	256	220	173
	--Average Daily Number of Visits **To Neuropsychiatric Clinic [Para 6b(2)]*											
FY 1964	26	26	26	27	26	23	22	32	21	29	23	30
FY 1965	29	42	28	33	32	25	36	41	33	36	34	26
FY 1966	27	29	33	29	29	34	32	31	54	50	45	57
FY 1967	49	50	76	45	53	50	55	75	65	70	68	82
FY 1968	61	83	91	96	63	61	75	75	65	70	68	82
	--Average Daily Number of Visits **To Physiotherapy Clinic [Para 6b(2)]*											
FY 1964	21	19	20	29	18	16	23	30	28	27	21	26
FY 1965	21	19	14	14	16	11	23	31	15	27	16	23
FY 1966	21	19	14	14	16	11	15	15	15	14	16	23
FY 1967	20	18	18	34	30	18	28	25	22	29	33	22
FY 1968	17	21	23	24	22	18	28	25	22	29	33	22
	--Average Daily Number of Visits **To Allergy Clinic [Para 6b(2)]*											
FY 1964	8	12	6	8	6	5	5	7	6	4	5	8
FY 1965	7	7	7	5	4	3	5	5	5	5	5	6
FY 1966	5	5	6	5	6	5	6	9	8	8	8	8
FY 1967	9	16	10	4	12	13	12	16	21	20	33	42
FY 1968	19	20	17	15	17	13	12	16	21	20	33	42
	--Average Daily Number of Visits **To Dermatology Clinic [Para 6b(2)]*											
FY 1964	12	15	13	16	11	12	11	19	24	25	23	23
FY 1965	23	24	22	21	17	20	23	25	23	22	16	15
FY 1966	10	8	10	24	37	15	30	36	36	32	30	32
FY 1967	34	36	30	36	38	31	47	32	32	38	32	27
FY 1968	37	46	55	42	49	31	30	31	32	38	32	27

** Exclude visits by hospital inpatients

TABLE 8.1.10 (Cont'd)

Fiscal Year	July	August	September	October	November	December	January	February	March	April	May	June
	--Average Daily Number of Visits **To Electroencephalogram Clinic [Para 6b(2)]*											
FY 1964	1	2	2	2	2	1	2	2	2	2	2	2
FY 1965	1	1	2	3	5	2	2	3	3	3	2	1
FY 1966	1	1	1	2	2	2	3	2	3	1	2	2
FY 1967	1	2	2	2	2	2	3	12	4	3	3	2
FY 1968	3	3	3	4	3	2	3	12	4	3	3	2
	--Average Daily Number of Visits **To Genitourinary Clinic [Para 6b(2)]*											
FY 1964	6	6	5	6	6	6	7	8	10	10	10	9
FY 1965	9	10	12	12	14	12	14	14	16	15	13	12
FY 1966	10	10	13	12	13	4	12	10	12	15	15	16
FY 1967	13	18	15	16	19	13	17	25	16	14	16	15
FY 1968	16	20	17	19	18	13	17	25	16	14	16	15
	--Average Daily Number of Visits **To Neurology Clinic [Para 6b(2)]*											
FY 1964	4	6	4	5	5	4	4	4	6	5	4	5
FY 1965	3	4	7	5	5	5	5	8	7	7	5	4
FY 1966	2	3	3	4	3	2	3	3	5	4	5	6
FY 1967	6	9	6	7	8	10	13	5	9	10	14	13
FY 1968	12	12	12	13	10	10	13	5	9	10	14	13
	--Average Daily Number of Visits **To Occupational Therapy Clinic [Para 6b(2)]*											
FY 1964	3	3	3	3	5	4	5	4	3	2	2	2
FY 1965	1	0	1	8	2	1	2	4	8	4	4	4
FY 1966	-	0	7	4	4	6	6	4	4	2	5	5
FY 1967	5	1	3	8	4	5	4	8	6	7	8	6
FY 1968	-	-	3	4	6	5	4	8	6	7	8	6

**Exclude visits by hospital inpatients

TABLE 8.1.11
BLOOD BANK ACTIVITIES
U.S. WALSON ARMY HOSPITAL, FORT DIX

TOTALS FOR 1967													
	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
Units of Blood													
Cross Matched	382	241	316	265	333	305	278	256	226	291	336	233	3464
Drawn	288	251	760	780	475	689	705	681	1171	1564	1546	1344	10322
Infused	90	66	108	71	91	78	34	62	25	85	94	54	858
To Other Hospitals	85	82	159	190	136	98	216	146	203	130	120	164	1735
To ASW6PL*	0	0	282	350	169	231	436	579	903	1306	1145	1042	6435
TOTALS FOR 1968													
Units of Blood													
Cross Matched	258	245	273	261	424	277	266	271	199	277	247	272	3272
Drawn	2283	1852	2335	2490	2871	2488	2421	2832	2660	2243	1855	1326	27424
Infused	57	76	87	64	177	84	66	76	37	87	59	97	951
To Other Hospitals	190	92	105	280	193	260	190	115	166	119	69	337	2118**
To ASW6PL	1903	1383	1969	1854	2264	1997	2103	2517	2361	1922	1631	809	22733
TOTALS FOR 1969													
Units of Blood													
Cross Matched	366	416	366	467	436	372	442	305	315				
Drawn	1709	2032	2182	2142	2239	2195	1631	2161	1323				
Infused	99	97	110	181	137	101	71	62	70				
To Other Hospitals	74	96	132	66	156	216	246	416	205				
To ASW6PL	1382	1734	1774	1729	1852	1613	1126	1456	773				

* Armed Services Whole Blood Plasma Laboratory
 ** Military 960 Other 1158

TABLE 8.1.12

POST SERVICES

Miscellaneous Statistics

Average daily dental procedures	900
Veterinary Activities	
Pounds of food inspected annually	2,000,000
Sentry dog population	12
Pets registered	1,294
Animal Clinic visits (daily)	11
Animal care days (annual)	3,728
Preventive Medicine Activities (annually)	
Inspections and surveys	5,534
Preschool physical examinations	1,885
Prenatal clinic visits	712
Well baby clinic conferences	764
Expectant parent classes	1,824

Source: Table of Distribution and Allowances, Wilson Army Hospital, 20 March 1960

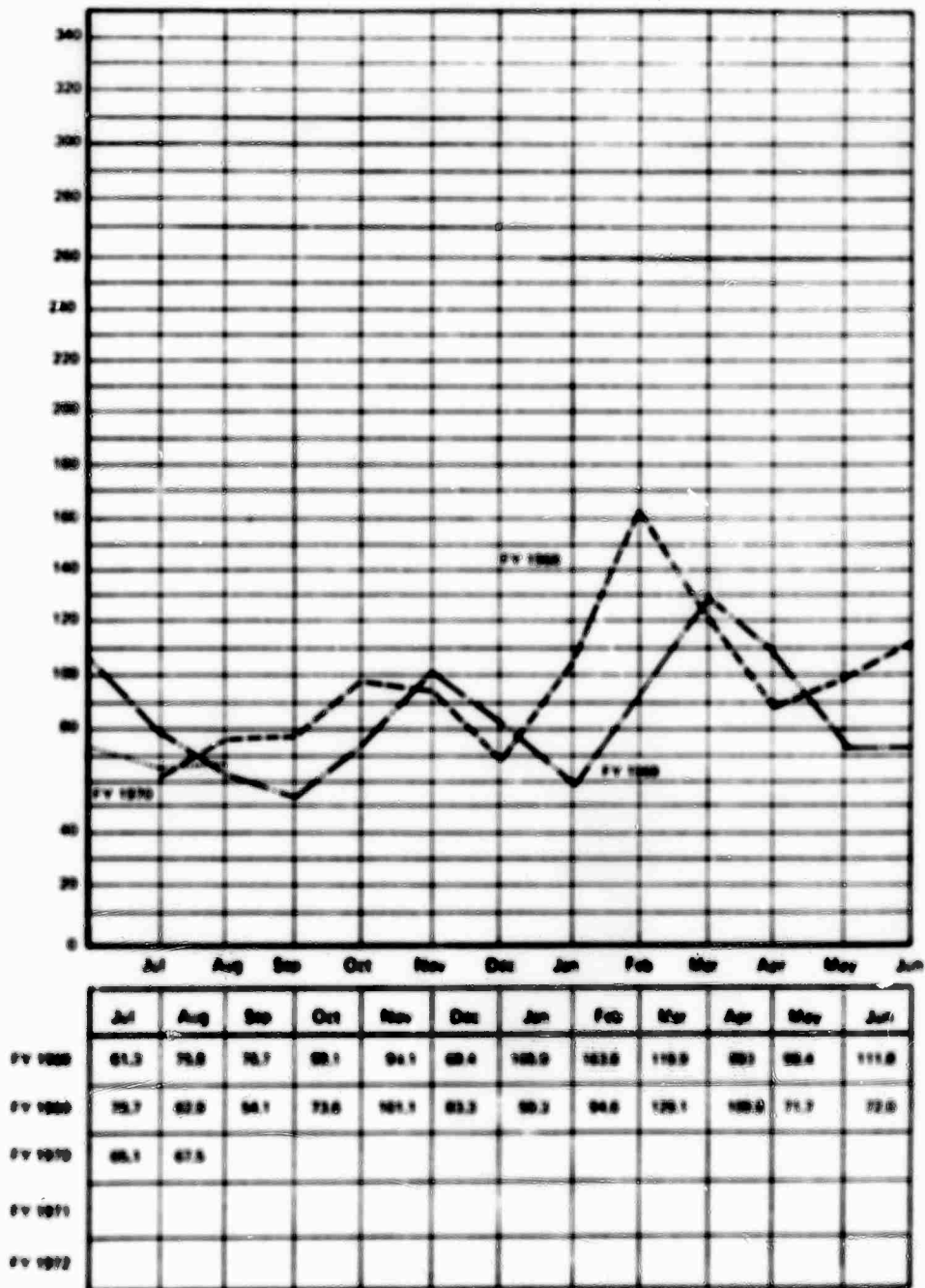


FIGURE 2.1.4 ADMISSIONS (Daily Average)

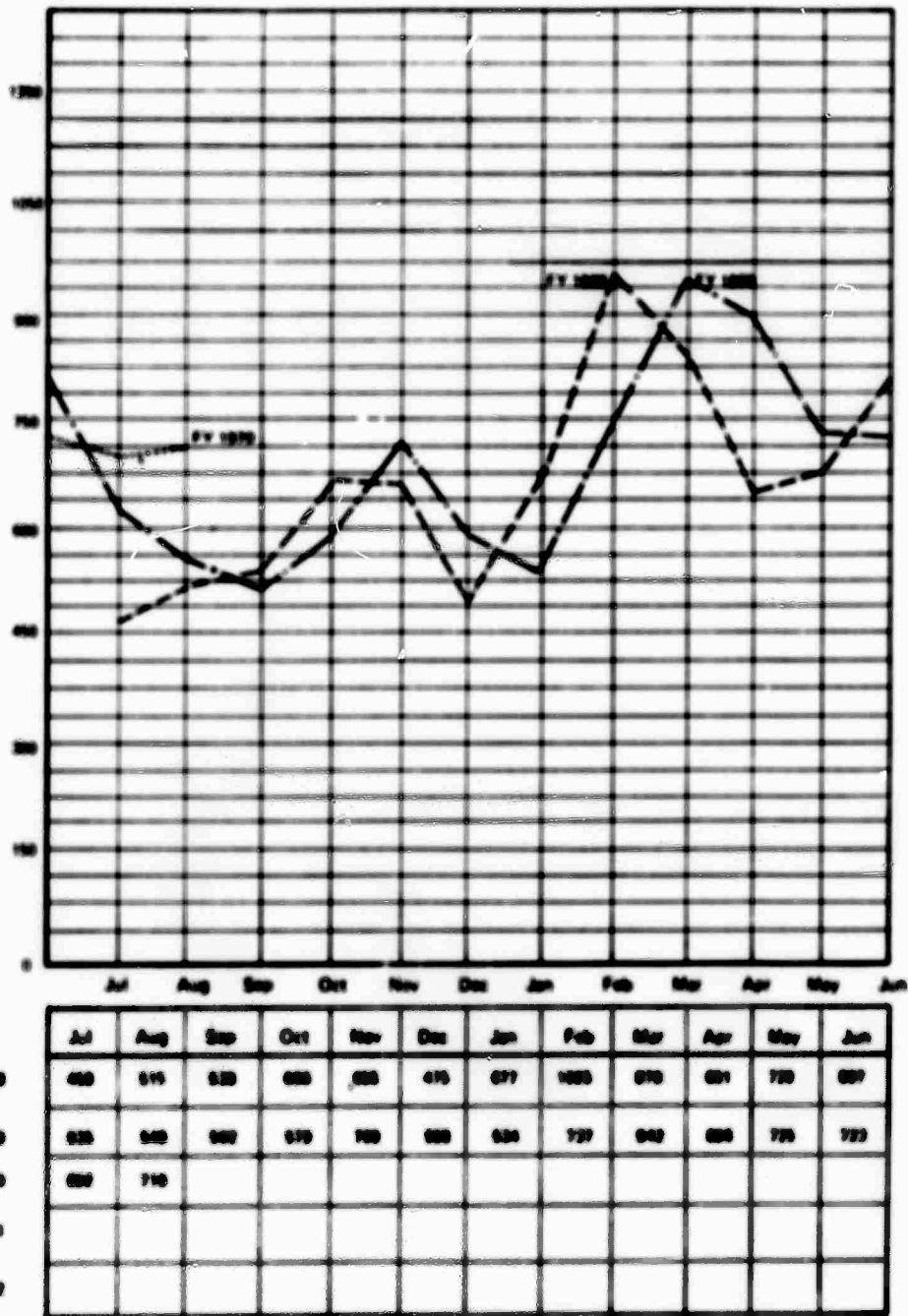


FIGURE 8.1.5 TOTAL BEDS OCCUPIED (Daily Average)

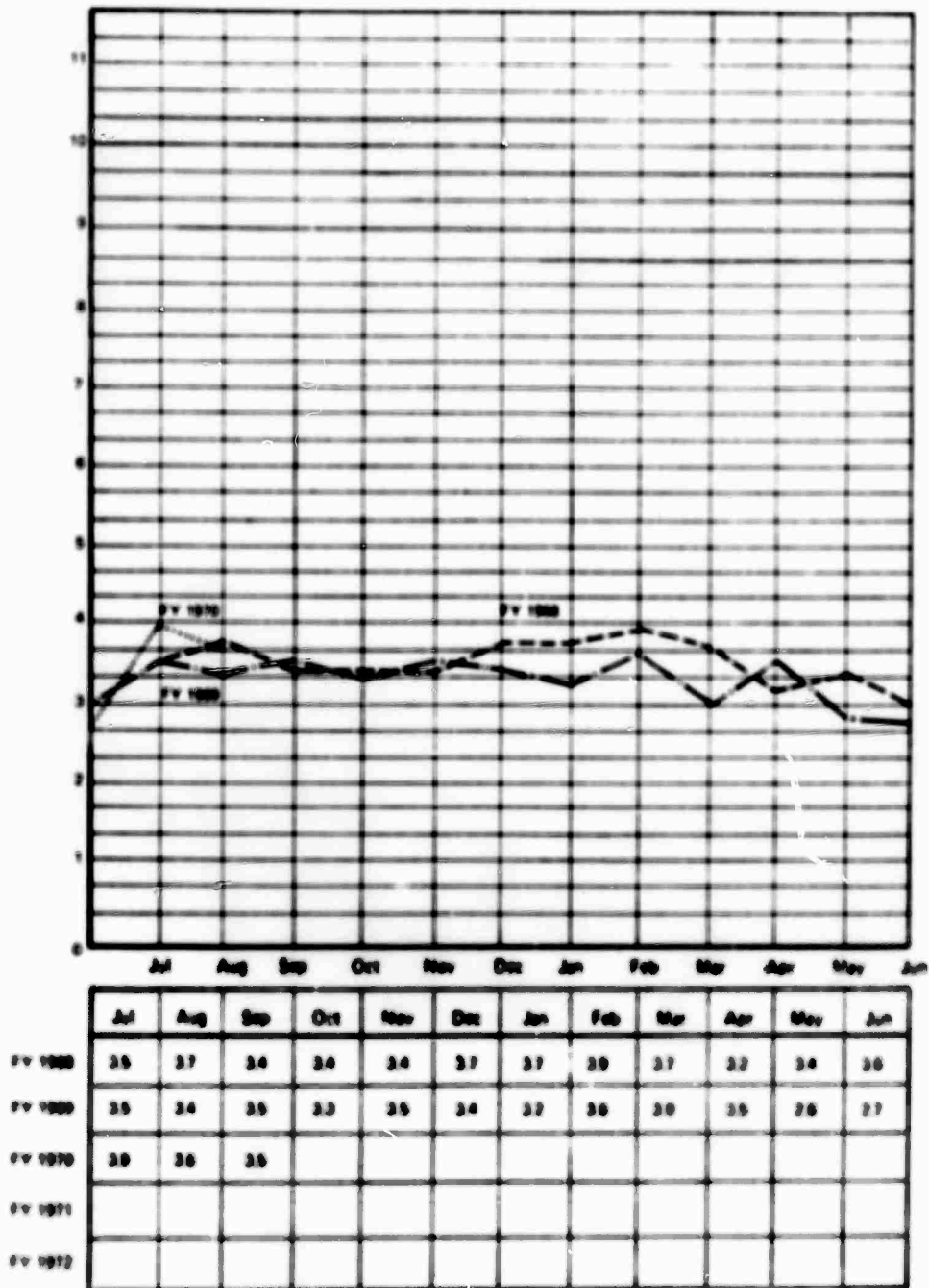
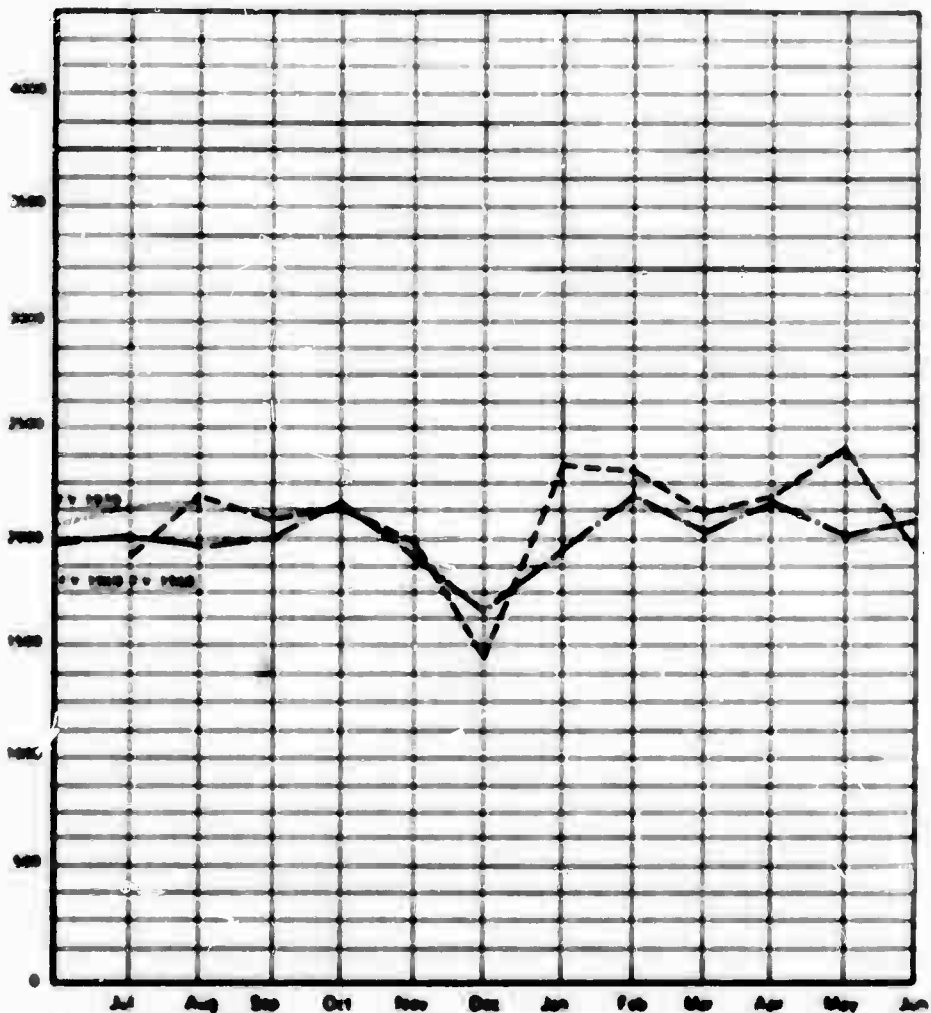


FIGURE B.1.6 LIVE BIRTHS (Daily Average)



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1970	2085	2177	2085	2130	1985	1430	2320	2710	2130	2211	2040	1991
1971	2040	1980	2080	2101	1971	1610	1985	2702	2080	2162	2083	2080
1972	2113	2109	2200									

FIGURE 8.1.7 TOTAL DISPENSARY/CLINIC VISITS (Inpatient and Outpatient)
(Daily Average)

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TABLE 8.1.13
OUTPATIENT VISITS FY 1969, FT. DIX, N.J.

<u>Teeth</u>	<u>Ad. 68</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan. 69</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>
33,970	3107	2484	2403	3087	3247	2642	2816	2180	3485	2375	2547	2807
34,568	2874	2886	2180	2910	3182	2074	2713	3410	3179	3733	2770	2567
16,051	1512	1108	1182	1383	1308	848	1126	1342	1558	1380	1305	1888
30,883	2153	2566	2500	3008	2752	2274	2212	2383	3867	2673	2178	2107
20,814	1370	1484	1427	1465	1050	1042	1174	1151	2277	2503	3087	2644
21,212	2020	2503	1778	2076	1757	1587	1484	1735	2152	2238	883	989
25,474	2540	1929	1478	2080	1853	1733	2678	3088	2229	2380	1365	1811
4000	311	338	405	333	1286	248	383	310	315	272	371	439
2975										125	1383	1467
189,887	16,037	15,288	13,373	17,122	15,455	12,448	14,808	15,888	19,083	17,879	15,889	16,819
435,467	37,477	37,883	38,722	39,833	34,377	29,287	38,223	36,953	35,827	38,155	36,395	34,709
625,384	53,514	52,948	52,101	56,955	48,832	41,736	53,889	52,852	54,710	54,034	52,284	51,528

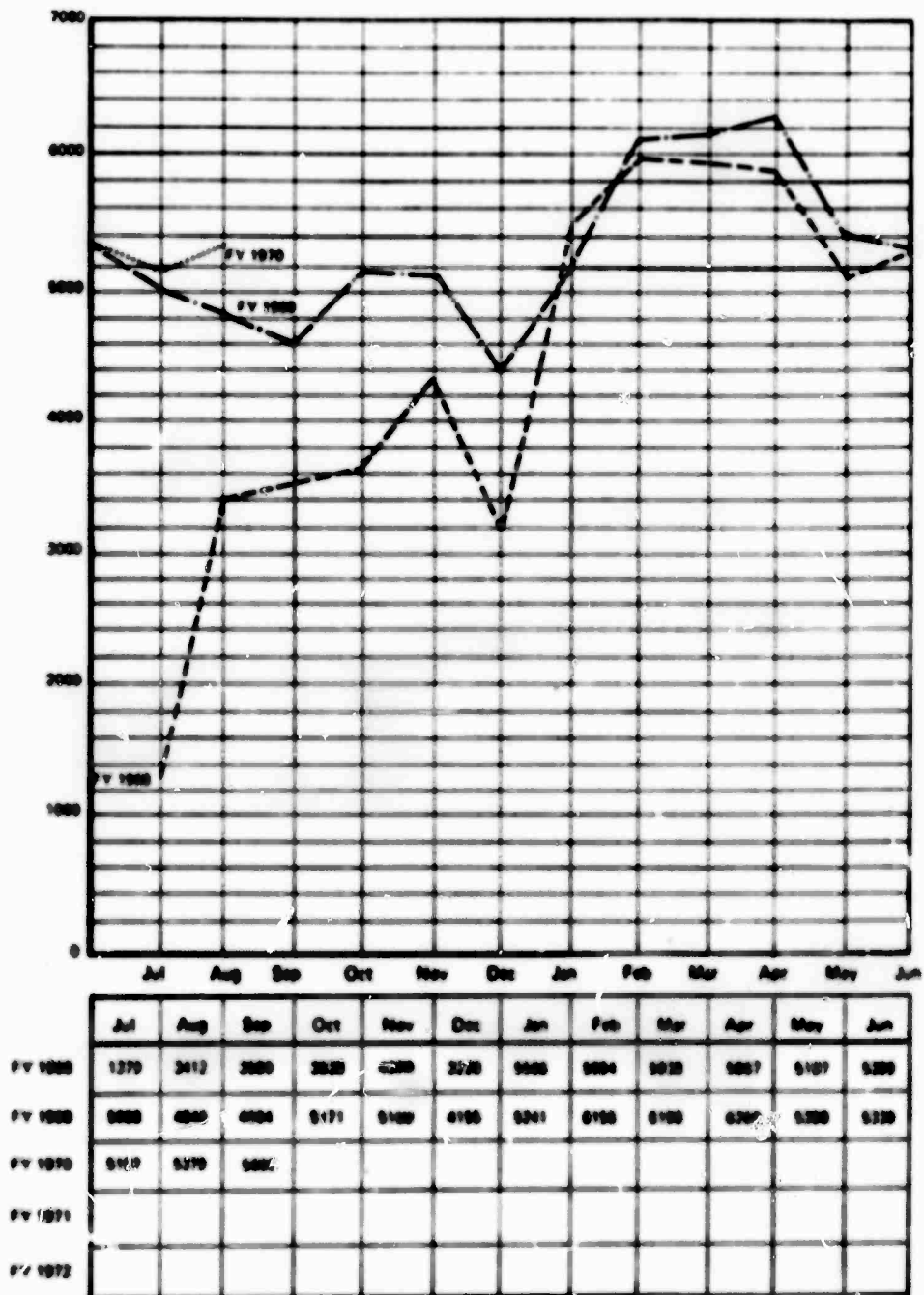


FIGURE 8.1.8 LABORATORY PROCEDURES (Daily Averages)

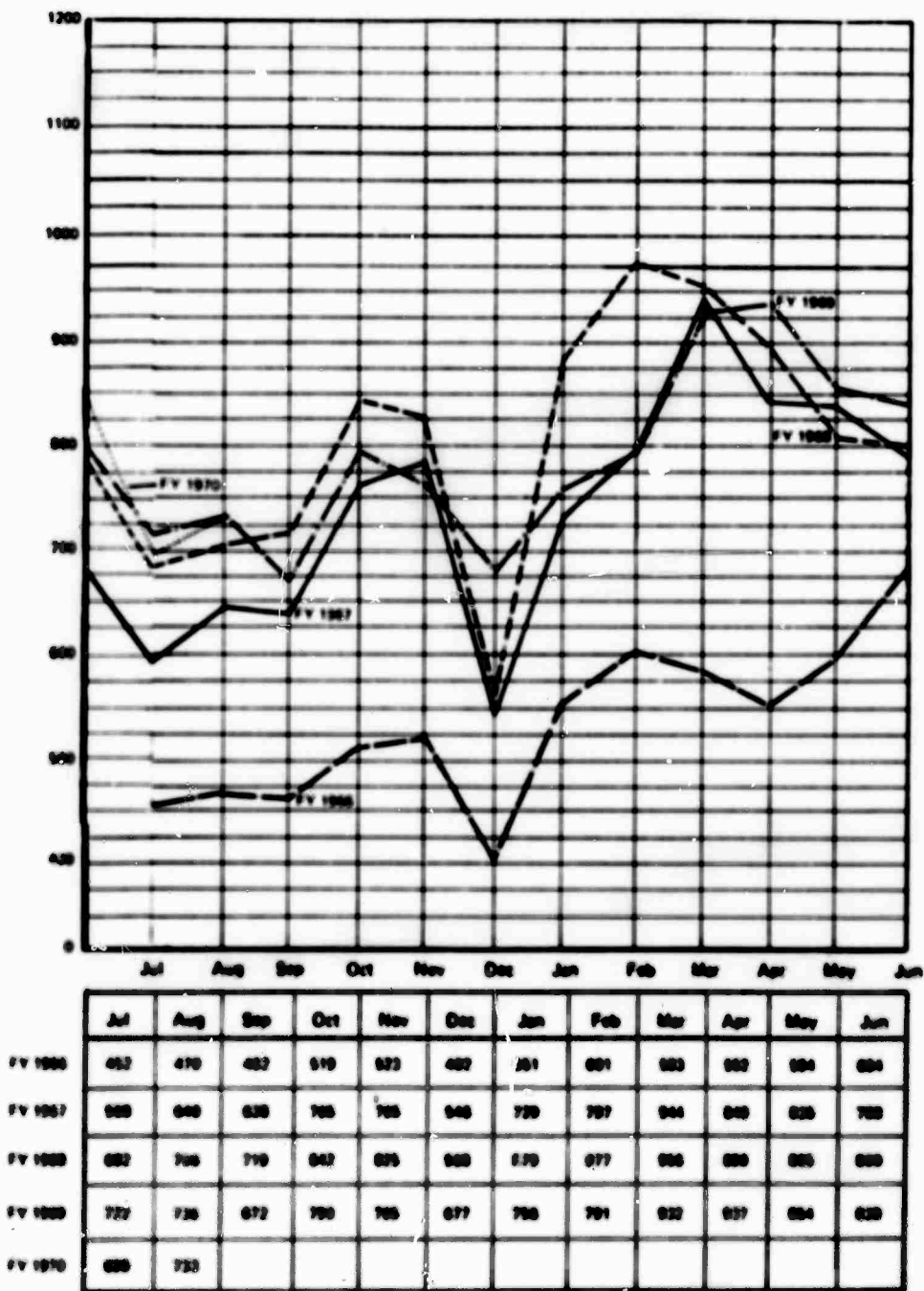
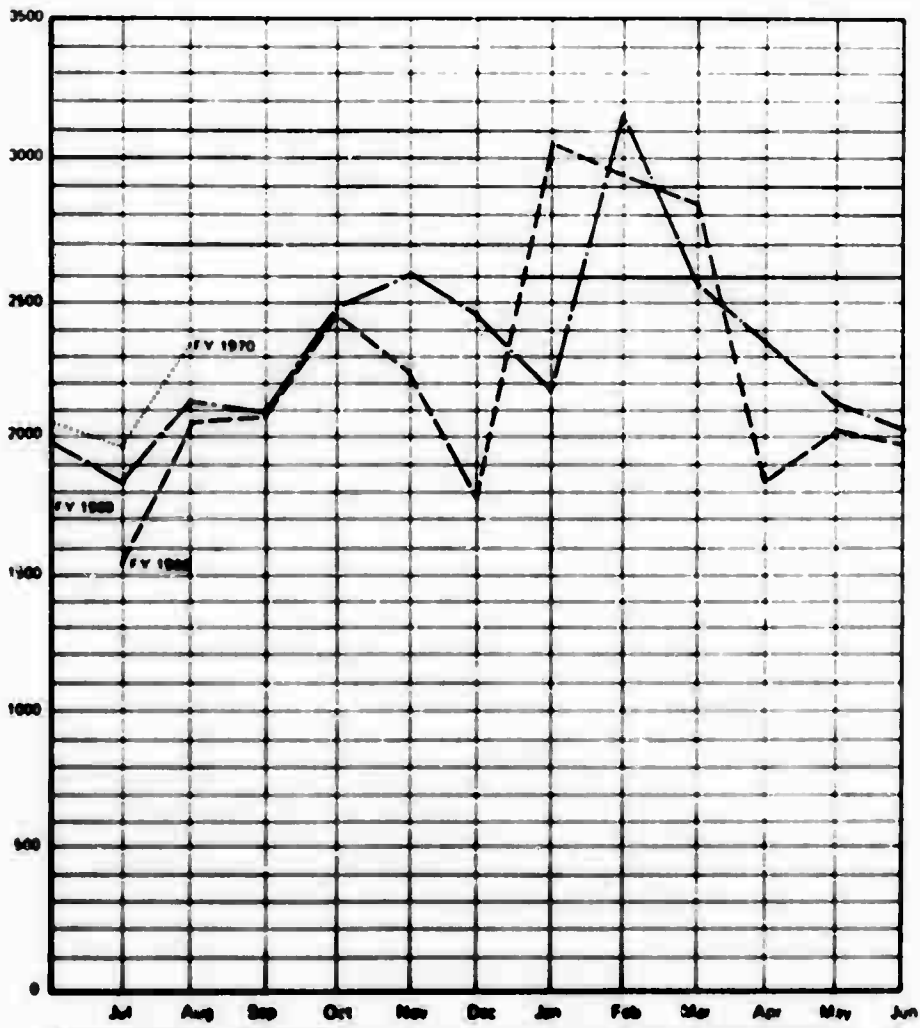


FIGURE B.1.9 RADIOLOGY EXPOSURES (Daily Average)



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 1969	1942	2080	2084	2457	2528	1777	2086	2046	2647	1831	2080	1981
FY 1970	1987	2281	2011				2173	3100	2680	2044	2177	2037
FY 1971												
FY 1972												

FIGURE 8.1.10 PHARMACY PRESCRIPTIONS FILLED (Daily Average)

TABLE 8.1.14

LABORATORY WORKLOAD AT FORT DIX
(Includes Medical Processing)

	July - Sept. 67		Oct. - Dec. 67		Jan. - March 68		April - June 68		July - Sept. 68	
	Procedure	Value	Procedure	Value	Procedure	Value	Procedure	Value	Procedure	Value
01 Chemistry (Automated)	21,624 (14,344)	33,141 (14,344)	23,297 (14,037)	36,273 (14,037)	28,389 (17,015)	50,154 (17,015)	30,853 (15,204)	49,963 (15,204)	27,659 (14,351)	44,193 (14,351)
02 Urinalysis	31,952	39,991	26,872	35,036	30,995	48,570	28,006	44,792	22,282	56,030
03 Radioisotopes										
04 Hematology (Automated)	39,439 (11,362)	51,208 (11,362)	39,027 (13,169)	51,364 (13,169)	50,315 (18,312)	65,610 (18,312)	45,142 (15,337)	58,923 (15,337)	37,215 (11,363)	48,402 (11,363)
05 Microbiology (Bacteriology, Mycology)	40,650	72,335	34,686	88,405	53,971	138,482	45,344	117,471	33,437	82,065
06 Parasitology	1,814	4,948	2,153	5,934	1,869	5,215	1,629	4,531	1,178	3,320
07 Virology (Only packing for shipment)					22	66	20	60	20	60
08 Serology	33,671	40,626	24,048	26,583	19,176	21,761	21,907	24,684	20,981	23,499
09 Blood Bank	34,945	94,982	37,619	101,246	58,950	165,201	68,157	191,236	64,406	184,398
10 Histopathology (Cytology)	10,219 (142)	21,222 (272)	10,257 (166)	18,884 (332)	14,283 (107)	31,884 (321)	12,087 (327)	31,247 (545)	9,677 (128)	22,814 (640)
Total	214,314	358,448	197,959	363,725	257,970	526,943	253,145	522,907	216,855	464,781

TABLE 8.1.14 (Cont'd.)

	Oct. - Dec. 68		Jan. - March 69		April - June 69		July - Sept. 69	
	Procedure	Value	Procedure	Value	Procedure	Value	Procedure	Value
01 Chemistry (Automated)	34,347 (20,485)	49,947 (20,485)	38,085 (25,672)	58,547 (25,672)	41,210 (22,732)	62,963 (22,732)	33,343 (18,271)	53,219 (18,271)
02 Urinalysis	36,063	61,709	32,478	54,321	32,690	55,371	28,998	48,340
03 Radioisotopes								
04 Hematology (Automated)	40,781 (13,613)	54,195 (13,613)	45,009 (14,812)	59,900 (14,812)	47,638 (15,264)	63,779 (15,264)	41,008 (12,610)	54,641 (12,610)
05 Microbiology	38,841	99,935	57,788	115,328	40,988	104,932	35,095	87,541
06 Parasitology	1,228	3,471	1,680	5,338	1,860	5,009	1,973	6,109
07 Virology (Only packing for shipment)	9	27	38	114	21	213	89	267
08 Serology	20,300	22,926	17,699	20,661	21,192	24,394	18,209	20,818
09 Blood Bank	44,693	125,879	65,183	185,334	60,639	175,093	69,375	194,806
10 Histopathology (Cytology)	11,789 (282)	26,070 (705)	12,384 (747)	27,314 (1,494)	10,554 (6,238)	23,000 (9,432)	10,569 (2,994)	20,798 (4,563)
Total	228,051	444,159	270,344	526,857	256,792	514,754	238,659	486,539

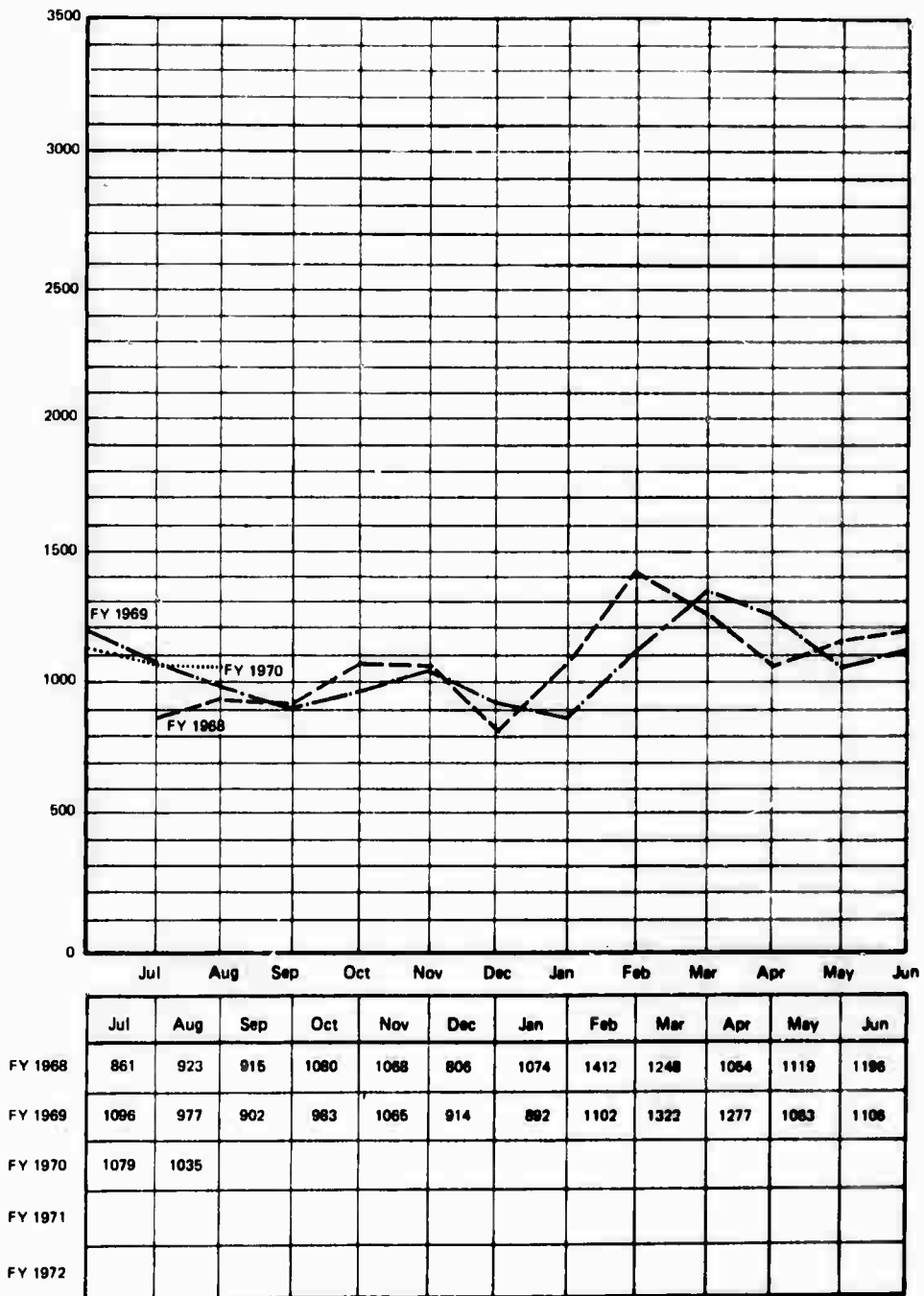


FIGURE 8.1.11 FOOD SERVICE RATIONS SERVED (Daily Average)

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TABLE B.1.15

**FOOD SERVICE STATISTICS
FY 1999**

Average daily meals served (excluding all Reserves) during summer months:

<u>Meal</u>	<u>Wards</u>	<u>Dining Hall</u>	<u>Annex</u>	<u>Total</u>
Breakfast	400	400	30	830
Dinner	400	650	45	1,095
Supper	400	425	50	875
Night Supper	-	70	-	70
Total	1,200	1,495	125	2,820

Average daily meals served (excluding all Reserves) during winter months:

<u>Meal</u>	<u>Wards</u>	<u>Dining Hall</u>	<u>Annex</u>	<u>Total</u>
Breakfast	550	450	250	1,250
Dinner	550	750	250	1,550
Supper	550	500	250	1,300
Night Supper	-	70	-	70
Total	1,650	1,720	750	4,120

Patient Tray Service Activity

- | | |
|--|----|
| 1. Average number of food carts per meal during summer | 18 |
| 2. Average number of food carts per meal during winter | 28 |

TABLE 8.1.16
WALSON ARMY HOSPITAL
COSTS - FY 1968

	Personnel Compensation 110	Personnel Benefits 120	Fuel & Transp. 210	Contractual Services 260	Supplies 261	Supplies 265	Equipment 310	Total	Military Labor FY 1968	Total
2419										
1100 Office of Commanding Officer	41,213.44	3,203.86	426.80	220.00	5,121.72		4.20	50,200.12	1,433,326.40	993,526.52
Management Services Division	40,173.76	5,005.52	749.43	34.40	3,476.62		4.20	47,364.82	19,889.12	67,253.94
Regimental Division	277,948.14	27,549.62		3,797.61			12,830.32	317,101.69	1,692,706.74	646,397.46
Personnel Division	54,791.12	4,069.60	36.70					62,853.62	62,305.84	125,159.46
Medical Company	8,766.80	689.66			31,814.08			40,410.54	116,593.44	157,003.94
Medical Building Company	4,534.80	318.04	791.26		1,823.15			7,377.25	20,237.04	27,614.29
Medical Library	18,483.52	1,373.78	527.27		11,222.49			31,662.26	2,220.80	33,711.06
Environmental Health	10,170.00	680.04	2,219.54	10.36	1.84			13,771.78	53,191.28	66,963.06
	450,021.57	25,863.32	4,681.10	4,877.37	52,676.10		12,838.72	570,161.98	604,178.68	1,174,329.86
1200 Dept. of Medicine	61,131.34	4,483.78	1,127.46	80.00	53,465.42			146,241.62	420,126.40	578,477.90
Dept. of Surgery	90,694.26	7,894.22	687.50	242.80	87,726.28		26,133.63	207,422.21	924,894.12	1,132,276.23
Operating Room	13,716.80	1,899.43			69,427.05		10,866.45	99,004.33	278,479.26	379,474.06
Dept. of Psychiatry & Neurology	27,933.22	2,219.19		25	3,057.16		4,920.00	38,149.72	132,774.16	170,914.88
Nursing Service	639,989.95	43,540.90			146.00			683,667.57	1,297,864.04	2,081,531.61
	823,467.21	58,267.60	2,814.95	323.05	277,827.21		19,881.33	1,177,566.45	3,165,107.56	4,242,674.01
1300 Preventive Medicine	30,498.12	2,429.94	482.90	13.16	2,899.78		490.00	36,465.90	183,658.26	219,623.78
Mental Hygiene Consulting Service	24,633.04	1,950.90			108.25			26,692.19	226,293.94	252,986.13
Dept. of Clinics	105,645.14	7,289.91	8,562.88	34.81	140,342.95		2,180.86	264,876.31	795,695.16	1,070,601.47
	162,176.10	11,641.43	8,815.88	47.97	142,549.12		2,649.89	238,873.38	1,165,672.38	1,404,545.76
1400 Pathology	106,783.80	14,889.71	634.08	1,812.49	119,491.53		18,555.91	262,437.69	191,218.08	453,655.68
Radiology	97,271.71	7,969.52			91,963.03		86,443.80	283,737.26	179,150.96	462,888.22
Pharmacy	19,828.13	1,563.51		10	547,703.37		828.80	610,083.11	74,499.68	684,582.79
Centralized Mater. of Service	968.04	79.61		9.60	77,482.60		15,082.20	93,052.45	68,480.60	161,532.71
Blood Donor Center			171.04		33,724.13			33,895.17	53,632.52	87,527.69
	314,688.98	24,143.36	1,806.10	1,827.19	871,889.14		119,888.11	1,333,539.89	1,648,947.20	1,982,487.09

TABLE 8.1.16 (Cont'd.)

2010	Personnel Compensation	Personnel Benefits	Travel & Training	Contracted Services	Supplies	Supplies	Equipment	Total	Salary	Other	Total
1400 Supply & Services Division	179,844.96	9,945.00	132.10	730,385.00	65,777.81	65,777.81	12,793.55	649,877.96	179,724.60	-	549,613.46
Linen Service	68,883.16	5,373.14	-	-	172,883.00	172,883.00	429.00	248,549.17	-	-	248,549.17
Operational Maintenance	64,113.00	4,476.00	152.20	3,378.00	14,277.00	14,277.00	1,368.00	87,778.20	10,294.87	-	97,997.26
Ambulance Service	704.00	34.50	-	-	1,921.61	1,921.61	-	2,340.11	130,919.04	-	132,669.15
	204,659.02	19,839.04	204.80	733,763.00	774,859.42	774,859.42	16,589.55	807,882.09	291,940.44	-	1,099,822.53
1400 Field Service Operations	1,000,000.04	68,979.76	-	-	20,190.96	20,190.96	73,291.50	1,179,272.16	603,578.24	-	1,205,850.40
Food Procurement	-	-	-	-	529,249.47	529,249.47	-	529,249.47	-	-	529,249.47
	1,000,000.04	68,979.76	-	-	549,090.43	549,090.43	73,291.50	1,654,331.63	603,578.24	-	1,726,109.87
1700 Consultants Lease Travel	-	-	1,913.12	-	-	-	-	1,913.12	-	-	1,913.12
2000 Fuel Control	308,647.87	29,437.63	549.20	2,833.00	131,143.04	131,143.04	54,500.00	628,262.76	140,409.00	-	714,687.26
2400 Computers	13,400.00	-	2,349.00	-	-	-	-	15,749.00	-	-	15,749.00
2470 Control Evaluation & Report	-	-	-	-	64,726.50	64,726.50	1,852.40	66,578.90	64,775.64	-	133,483.24
6000 Fuel Veterinary Services	34,389.00	2,549.20	-	2,896.00	304.10	304.10	-	64,474.40	87,209.12	-	131,717.64
6000 Air Evaluation Facility	61,621.20	3,891.21	-	-	-	-	-	55,432.60	69,929.24	-	125,291.05
	2,638,681.00	261,234.52	21,762.49	249,129.52	2,221,346.39	2,221,346.39	293,274.24	6,063,299.67	6,168,723.10	-	12,222,043.37

TABLE 8.1.7
WALSON ARMY HOSPITAL
COSTS - FY 1969

	Personnel Compensation 110	Personnel Benefits 120	Travel & Transport 210	Contractual Services 250	Supplies		Equipment 310	Total	Military Labor FY 1969	Total
					Medical 201	Other Than Medical 205				
2420										
1100 Office of Commanding Officer	46,738.28	3,677.78	1,070.24	-	867.61	29.95	1,438.77	52,793.56	170,973.74	273,676.87
Management Support Division	48,928.05	3,515.48	576.75	-	200.80	26.15	-	53,650.83	27,005.04	76,655.87
Registration Division	205,177.30	27,233.04	60.90	3,147.50	2,645.97	1,541.19	-	315,291.70	179,621.80	494,913.50
Personnel Division	74,143.18	5,097.97	685.45	-	-	-	-	79,947.60	93,931.16	179,878.76
Medical Company	5,677.98	489.57	107.16	-	6,743.05	11,832.67	-	24,764.93	164,764.77	189,529.65
Medical Publishing Company	5,132.96	304.42	627.96	-	-	-	-	6,365.34	38,624.08	45,009.27
Medical Library	19,655.57	2,112.47	89.47	1,050.45	10,374.88	57.70	-	33,285.54	8,997.46	41,883.02
Environmental Health	6,073.92	697.96	1,534.88	-	23.12	-	-	8,129.46	28,877.68	37,007.16
Nursing Administration	4,281.88	373.07	-	-	15.60	-	-	4,670.35	273,056.87	377,677.27
	494,818.07	38,313.11	4,893.76	4,197.95	20,911.13	13,681.61	1,438.77	578,495.35	936,472.97	1,514,978.27
1200 Dept. of Medicine										
Dept. of Surgery	67,392.72	4,941.08	781.09	133.00	29,885.27	48,338.57	4,277.00	144,367.33	463,360.76	607,668.09
Operating Room	103,676.47	7,487.90	1,577.10	797.07	40,400.15	79,519.33	3,525.40	226,817.42	781,769.08	1,018,571.42
Dept. of Psychiatry & Neurology	18,168.16	1,987.96	342.48	47.80	26,298.99	40,659.21	4,333.05	91,262.17	262,768.37	343,630.49
Nursing Service	38,331.17	2,575.83	124.07	1,464.46	1,560.84	1,532.45	-	37,589.77	138,627.68	176,412.40
	697,488.68	39,957.38	2,968.80	-	2,381.90	147.20	-	665,475.36	1,749,504.34	2,414,979.70
	817,015.55	54,044.75	5,334.61	2,442.33	94,794.15	148,189.76	17,085.45	1,565,495.00	3,495,708.10	4,569,662.10
1300 Preventive Medicine										
Mental Hygiene Consulting Service	45,008.54	3,299.20	1,008.30	10.00	46.47	14,732.50	1,548.00	65,840.09	44,217.16	104,057.25
Crypt. of Chiroc	28,487.20	2,133.03	36.29	2,919.00	-	1,302.60	1,512.10	35,218.19	208,185.56	304,403.75
	137,575.64	8,816.40	8,487.47	1,657.57	4,034.90	124,631.99	249.50	205,463.47	729,303.08	954,756.55
1400 Pathologic										
Pathology	211,159.38	14,247.71	9,611.97	4,585.57	4,081.37	176,495.15	3,329.60	385,511.75	1,074,705.80	1,463,217.55
Radiology	276,300.24	16,816.52	1,012.11	1,144.75	110.00	128,479.56	4,094.78	377,963.96	278,479.50	656,443.46
Pharmacy	118,564.69	9,072.83	103.50	-	178.64	94,688.78	10,278.00	232,946.24	177,760.68	410,706.92
Centralized Material Service	27,279.73	1,744.54	197.80	50.00	150.00	57,073.37	980.00	595,349.39	66,209.57	638,568.91
Blood Donor Center	7,381.95	508.10	-	-	8,546.48	57,952.89	870.00	66,772.54	59,414.37	126,186.91
	374,487.61	28,141.99	1,383.41	1,194.75	9,005.12	861,965.97	18,544.78	1,794,007.98	624,786.54	1,919,094.52

NOTE: New Cost Accounting System utilized for FY 1969, two pay rates plus additional personnel contribute to increased labor costs, direct comparison between FY 1968 and FY 1969 not advised.

TABLE 8.1.17 (Cont'd)

	Personnel Commodities 110	Personnel Benefits 120	Fuel & Transport 210	Contracted Services 220	Supplies (Other than Material) 231	Supplies (Material) 232	Equipment 310	Total	Money Launder FY 1989	Total
2410 Supply Serv. Div. 1600 Loan Service Organizational Maintenance Autobuses Service	164,078.71 56,208.04 61,295.20 -	12,388.37 4,933.37 4,628.84 -	262.00 - 1,273.00 -	377,434.04 - 5,771.46 -	57,083.00 25,388.70 8,481.75 -	17,268.00 84,118.79 11,771.00 2,248.19	1,666.00 - 2,477.50 -	630,843.63 188,271.66 95,868.43 2,248.19	163,947.31 - 19,159.12 108,324.04	793,096.19 188,271.66 116,028.56 111,569.83
1600 Food Service Operations Food Procurement	281,583.63 1,044,267.20 -	21,712.33 79,264.44 -	1,476.79 419.00 -	383,195.50 364.84 -	108,521.41 48,422.56 526,053.48	115,425.94 787.97 -	4,164.10 14,173.50 -	988,419.50 1,178,081.50 538,083.46	282,026.28 66,217.00 -	1,268,495.18 1,244,298.50 538,083.46
1700 Consultant Lease Travel	1,044,267.20 -	79,264.44 -	419.00 -	364.84 -	526,053.48 -	787.97 -	14,173.50 -	1,715,328.08 -	68,217.00 -	1,783,545.08 -
2000 Post Dental 2400 Consultants 8000	304,345.69 14,165.00 -	38,123.24 8.00 -	1,629.00 2,248.61 -	2,814.41 -	48,438.15 -	62,560.82 -	1,485.72 -	543,629.61 18,464.21 -	914,396.26 -	1,478,025.37 18,464.21 -
2410 Optical Fabrication & Repair 2000	-	-	-	-	28,263.95	44,563.03	-	79,826.98	56,724.96	126,551.94
4000 Post Veterinary Services 8000 Air Evacuation Facility	24,162.00 59,617.30 3,719,638.09	2,051.00 4,161.00 268,071.17	412.00 -	-	489.00 -	-	-	27,895.00 63,768.20 6,398,902.60	- 67,206.00 7,428,382.76	27,895.00 128,974.20 14,227,284.36

NOTE: New Cost Accounting System initiated for FY 1989. Two pay rates plus additional personnel contribute to increased labor costs, direct comparison between FY 1988 and FY 1989 not advised.

TABLE 8.1.18

WALSON ARMY HOSPITAL

Miscellaneous Costs

Utilities

Water	\$ 19,123 per year
Sevage	\$ 12,810 per year
Heat	\$109,590 per year
Electric	\$ 75,455 per year
Refuse	\$ 7,200 per year (based on 63 1/2 cents /capita/month)

Ambulance Services

14,000 miles per year per vehicle at 6 cents per mile

Source: Estimates from WAH, Supply and Services Division

TABLE 8.1

FUNCTIONAL COST OF
WALSON ARMY HOSPITAL
FY 1961

	Medicine ^b	Surgery ^c	Obstetrics and Gynecology ^d	Dispensary ^e	Clinics ^f	Dental ^g	Laboratory ^h	Radiology	Pharmacy ⁱ
Staff Totals	229	133	32	47	200	167	87	39	
Dentists						58			
						750,000			
Physicians	10	12	3	7	61		3	5	
	150,000	180,000	45,000	105,000	915,000		45,000	75,000	
Registered Nurses	60	23	12		9				
	600,000	230,000	120,000		90,000				
Other Nursing	159	98	17	34	130				
	1,248,816	874,291	150,000	238,000	1,140,848				
Other Professionals						109	79	28	
						590,866	474,565	199,898	100,000
Nonprofessionals				6			5	6	
				30,000			25,000	30,000	
	1,998,816	1,284,291	315,000	373,000	2,145,848	1,340,866	544,565	304,898	110,000
Linen									
Provisions									
Drugs									52,000
Medical Supply	48,011	120,178			184,058	82,591	184,317	94,659	
General Supply	27,701	66,609			39,345	48,438	8,676	179	
Services	1,597	845			4,587	2,814	1,145		
Housekeeping ^o	71,938	58,465	27,138	30,270	59,710	17,173	10,644	6,492	3,000
Maintenance ^p	34,308	27,882	12,942	14,436	28,476	8,190	5,076	3,096	1,000
Utilities ^q	42,728	34,725	16,118	17,979	35,465	10,200	6,322	3,856	1,000
Minor Equipment	4,237	7,858			3,330	1,487	6,417	10,278	
Totals	2,229,336	1,600,853	371,198	435,685	2,500,819	1,511,759	767,162	423,458	643,000
Percent of Total	14.94	10.73	2.49	2.92	16.76	10.13	5.14	2.84	4.33

See following page for explanatory notes.

TABLE 8.1.19

GENERAL COST DISTRIBUTION^a
 ARMY HOSPITAL, FT. DIX
 FY 1969

Biolog	Pharmacy	Food Services ⁱ	Administration ^j	Records ^k	Sterile	Linens	Other Supply & Support	Totals	Percent Of Total
39	10	148	150	18	11	12	85	1,368	
								58	
								750,000	5.03
5			1					102	
5,000			30,000					1,545,000	10.35
					1			16	
					10,000			1,050,000	7.04
								438	
								3,651,955	24.47
28	9	16	35	4	10	1	13	304	
9,898	105,184	160,000	320,000	28,000	57,384	8,000	104,000	2,045,877	13.71
6	1	132	114	14		11	72	381	
0,000	5,000	1,019,742	806,114	84,000		54,782	430,580	2,485,238	16.65
1,898	110,184	1,179,742	1,156,114	112,000	67,364	60,782	534,580	11,528,070	77.25
						84,111		84,111	0.58
		536,653						536,653	3.60
	525,037							525,037	3.52
1,650			13,883		57,953		31,315	816,965	5.47
179	150	49,211	18,709	2,646		35,389	66,583	382,586	2.43
	50	355	39,073 ^m			176,000 ⁿ	5,721	232,187	1.56
3,492	3,246	24,533	31,893	1,623	3,246	1,623	28,440	377,434	2.53
3,096	1,548	11,700	15,210	774	1,548	774	14,040	180,000	1.21
3,856	1,928	14,572	18,943	964	1,928	964	17,486	224,178	1.50
3,278	980	14,173	1,439		870		4,144	55,213	0.37
3,458	643,123	1,830,939	1,295,264	118,007	132,909	359,633	702,289	14,922,434 ^f	
							4.70		100.00
84	4.31	12.27	8.68	0.79	0.89	2.41	4.70		100.00

B

**Annotations for Functional Cost Distribution at Weldon Army Hospital,
Table B.1.19**

- a. Basic cost data were obtained from special compilations of accounting information prepared by the Management Services Office at our request. Also, the Supply and Services Division supplied estimates of the costs of various services provided without charge to the hospital by other post organizations, such as Engineering, Transportation, and Quartermaster. Personnel distributions were derived from manning lists obtained from the Personnel Division, supplemented by interviews with specific departments on staff utilization. The numbers shown represent full-time equivalents.

Tabular entries for costs of various categories of personnel were estimated on the basis of approximate averages, distributed in such a way as to make the subtotals consistent with available accounting figures. For example, staff physicians were assigned an average annual compensation of \$15,000, registered nurses \$10,000, and clerks \$5,000. Other personnel cost entries absorbed the necessary remainders of the appropriate subtotals.

Thus, the personnel cost allocations that are shown are to be regarded as reasonable approximations rather than as precise accounting figures, since the latter were not directly obtainable on a functional assignment basis. It should be noted that the total costs and their breakdowns represent dollars disbursed or transferred, plus estimates of the costs of certain "free" services, such as laundry and utilities. Also, military labor has been factored in from separate accounting records, since these are not directly included in the hospital budget. Labor costs do not include fringe benefits not directly chargeable to hospital or base accounts, such as military retirement, tax advantages, PX and commissary privileges, etc.

- b. Includes all inpatient wards other than those in the next two columns.
- c. Includes operating rooms, recovery rooms, and surgical inpatient wards.
- d. Includes obstetrics, gynecology, and nursery wards.
- e. Covers services to active-duty outpatients at nine dispensaries.
- f. All general therapy and specialized clinics, other than dispensaries and dental clinics.
- g. Includes in-hospital dental service, plus separate post-dental clinics.
- h. Includes clinical laboratories, pathology, and blood-donor center.
- i. Includes dietitians and kitchen personnel.
- j. Includes general administrative functions plus public health and veterinary services.
- k. Includes direct services involved in inpatient and outpatient record rooms.
- l. Supply and other support functions are provided by one organizational division. Available cost accounts do not provide a means for separating these two functional components.
- m. Includes travel costs.
- n. Estimated cost of laundry service provided by Quartermaster without charge.

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- o. Contractual housekeeping costs allocated in proportion to the areas utilized by various functional groups.**
- p. Part of maintenance service is provided by the post without charge; total cost is an estimated value, and is allocated in proportion to area.**
- q. Most utilities are provided by the post without charge; total cost is an estimated value, and is allocated in proportion to area.**
- r. Gross total operating costs for FY 1969, including direct expenditures, plus military pay and estimated costs of free services provided by the post.**

8.1.7 VIEWS AND COMMENTS

8.1.7.1 Good Features of Facilities and Operations

The following list briefly summarizes the major positive features that we observed during our visits to Walson Army Hospital:

1. The facilities are clean and orderly. With the exception of some of the older World War II cantonment-type buildings, they provided relatively pleasant surroundings.
2. The facilities are well maintained, though complaints were heard about the lack of manpower and funds to do some routine maintenance (for example, clean and repair the venetian blinds, paint the stair wells, and others).
3. The Medical Care System at WAH has made some effort to distinguish between the various levels of patient illness, and adjust the application of health care resources accordingly. Examples of this strategy are evident in the URI Ward, the Convalescent Ward, the use of inpatient labor, etc.
4. The operation of the field dispensaries is quite efficient. The use of corpsmen for screening functions and the dispensing of prepackaged medications contribute to efficient dispensary operation.

8.1.7.2 Major Troubles and Complaints

The following listing briefly describes the major inefficiencies we observed and complaints we heard during our visits to Walson Army Hospital:

1. There were some instances of poor physical arrangement of spaces and facilities within various functional units of WAH and poor location relative to other functional units.
2. Many of the WAH staff voiced complaints over a general lack of adequate manpower. This, in turn, leads to a heavy dependence upon utilizing the personnel assigned to the Medical Holding Company to perform needed functions within the hospital. This problem is discussed further in Section 8.1.7.3.
3. There is a general lack of meaningful data by which to measure either the cost or efficiency of hospital operations. The data which are available are distorted by the established procedures for justifying and obtaining both funds and personnel.

4. There are extensive paper work delays throughout the hospital which are responsible for unnecessary loading of the medical facilities. Examples are delayed paper work which unnecessarily retains people in the Convalescent Ward, and lost or delayed laboratory slips, causing unnecessary repetition of tests.
5. The continual staff turnover in the Military Health Care System leads to very little continuity in either administrative policy or the operation of the health-care system. The uncertainty of not knowing when a replacement will arrive or what qualifications he will possess makes it difficult for the various department heads to administer their health care resources intelligently.
6. The rotation of doctors through the various dispensaries and the brief training cycle for the troops in training combine to produce a very definite lack of continuity in the outpatient care provided for the troops.
7. We observed recurring problems which were related to the lack of an up-to-date, readily accessible patient record which contained both background data and treatment history for the individual patient. This is partially attributable to the paper work delays mentioned earlier and partly to the repeated movement of military personnel from assignment to assignment without an efficient means for forwarding the individuals' health care records.
8. Complaints were voiced regarding the limited level of patient care allowed at the dispensaries and the lack of disposition power by the corpsmen on duty. During the afternoons this results in excessive work loads at the Outpatient Clinic and Emergency Room for relatively minor treatments and dispositions.
9. Medical staff morale is not high. Very little enthusiasm or pride was expressed by the various WAH personnel we interviewed. The atmosphere did not seem to foster professionalism on the part of the doctors, nurses, and other professionals, nor did it foster a sense of responsibility in the nonprofessionals.

8.1.7.3 Use of Inpatient Labor

The Medical Holding Company under the Personnel Division is responsible for all military personnel assigned or attached to WAH. This includes all inpatients and all patients who are on leave or are housed in the Convalescent Ward. The Holding

Company is responsible for records, discipline, pay, and other administrative matters. In addition, the Medical Holding Company administers the allocation of all manpower assigned to the Convalescent Ward. This manpower resource is an important component of the total hospital work force.

At the time of our visit, 24 October 1969, there were approximately 270 men assigned to the Convalescent Ward. Of these 270, about 200 were sleeping in the ward, while the others were with their units or on leave. The Convalescent Ward itself is a separate, barracks-type building located about one mile from the hospital. There are no convenient transportation facilities between WAI and the Convalescent Ward.

The men assigned to the Convalescent Ward are generally either suffering from a prolonged illness, are ambulatory but not ready for reassignment to active duty, are undergoing physical boards for retirement, or are completely well and are merely awaiting separation from the army or awaiting assignment to duty. At the time of our visit, there were 63 such people who were merely waiting for the proper paper work to be completed and be either separated or reassigned. A major problem for the Medical Holding Company is to be able to identify the men who have been discharged from the hospital and can be reassigned, to pull their records together, and to pass the proper records and paper work on to the Personnel Division. Once the Department of Defense has been notified, it apparently takes only three to five days to get a man's orders from DOD. It generally takes about one-and-one-half months for examinations and paper work to be completed so that an individual may retire from the army. About 20% of the men assigned to the Holding Company are in this retirement category. These senior individuals are generally the most dependable and useful workers, providing leadership for the Holding Company.

The men assigned to the Convalescent Ward are generally given one of two kinds of activity: 1) taking care of the barracks (Convalescent Ward) itself, or 2) working in the hospital. At the time of our visit, there were 63 men assigned to duty in the barracks and 148 assigned to various jobs in the main hospital. Throughout their assignment to the Convalescent Ward, however, the men may be receiving treatment from the outpatient clinics, undergoing occupational therapy, or receiving other forms of medical care which interrupt the normal work day. Because of these interruptions, each man is not usually able to perform a full work day. In addition, the loose control system allows individuals to evade work by claiming fictitious appointments with clinics or merely not arriving at their designated work assignments at the beginning of the work day. The bulk of the people from the Convalescent Ward are assigned to the Nursing Service, where they act as runners and drivers, answer the telephone, help take the food carts to the wards, work in the labs, and help with the paper work in the wards.

It appears that the usefulness of these individuals assigned to the Convalescent Ward depends on making proper assignments based on their previous experience and education, and providing adequate supervision. In some instances, it appears that departments would be hard-pressed to operate without these people. Their degree of usefulness would appear to depend upon 1) the type of job – whether it requires a particular skill or education – and 2) the degree of supervision available.

82 USAF REGIONAL HOSPITAL

MARCH AIR FORCE BASE

RIVERSIDE, CALIFORNIA

8.2 USAF REGIONAL HOSPITAL MARCH AIR FORCE BASE RIVERSIDE, CALIFORNIA

8.2.1 MISSION AND ENVIRONMENT

8.2.1.1. Brief History

March Air Force Base was officially designated March Field on 6 March 1918, in honor of Lt. Peyton C. March, Jr., who was killed in an airplane crash in Texas, just 15 days after he had been commissioned a 2nd Lieutenant flying officer. His father, General Peyton C. March, was Chief of Staff of the Army during World War I.

March is one of the oldest military air installations in the country. Due to an economy move, it was closed following World War I for almost four years. It remained inactive until it was reoccupied in 1927 as a primary flying school for Jenny pilots.

The earliest record of a medical facility at March Air Force Base was in June 1927, when its first admission was logged in. During the remainder of that year, there were 411 admissions; only two of these were nonmilitary personnel. The medical inpatient facility was housed in Building 323, a two-story structure, until 1965. The clinics were located in two additional structures.

In 1963, ground was broken for a new hospital/outpatient facility. This hospital, the primary one used today, admitted its first patient in June 1965. The number of nonmilitary admissions in 1969 far exceeded the military admissions, presenting a much different picture than in 1927. The dedication was made by Major General Richard F. Bohamon, USAF Surgeon General, on 22 October 1965. On 2 July 1969, this five-story, 175-bed hospital was designated as a USAF Regional Hospital.

8.2.1.2 Mission

The mission of the March Air Force Base Hospital and its satellite facilities (Dental, Aeromedical, and Veterinary Services are located in separate buildings) is to provide medical care and services for all assigned and other authorized personnel and their dependents. On a space-available basis it also serves as the Consultant Center for all Air Force hospitals and selected military installations in Southern California, Southern Nevada, and Arizona, having been designated by the Surgeon General of the United States Air Force as a "regional" hospital. It also takes referral cases from these other medical facilities as well. This service, in addition to inpatient/outpatient services, includes work-up and processing of medical evaluation boards for persons being considered for medical retirement.

8.2.1.3 Size of Base

March Air Force Base has an active duty military population of approximately 6,300. The base is located on a site of approximately 8,025 acres.

8.2.1.4 Geography and Climate

March Air Force Base is located in Riverside, California, which is in the northwest corner of Riverside County, approximately 50 miles east of Los Angeles and 95 miles north of San Diego. It is 845 feet above sea level.

The climate in Riverside is warm and dry, and considered moderate. The average summer temperature is 73.2 degrees. The annual mean temperature is 64.2 degrees. The average rainfall is 8.51 inches. The greatest amount of precipitation and fog is during the winter period.

8.2.1.5 Population Served

The current population served by the March AFB Hospital is shown in Table 8.2.1.

8.2.1.6 Relation to Other Services and Community

In case highly specialized treatment is needed, Travis Air Force Base in Northern California, which serves as an area hospital, can provide it. If Travis cannot accommodate March's referrals, patients are sent to Wilford Hall Hospital at Lackland Air Force Base, San Antonio, Texas.

Highly specialized health care services can also be procured through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) in Los Angeles.

The following list shows the other military medical facilities in the area that use March AFB Hospital as a referral center. The Norton Dispensary, which is closest to March and makes the greatest use of its services, is described in Section II-H below.

Referral Facilities to March AFB Hospital

Norton AFB, California	- Class A dispensary (12 inpatient beds)
Nellis AFB, Nevada	- 45-60 bed hospital and OPD
George AFB, California	- 50-bed hospital and OPD
Edwards AFB, California	- 65-bed hospital and OPD
Vandenberg AFB, California	- 75-bed hospital and OPD

TABLE 8.2.1

POPULATION SERVED (QUARTERLY)
MARCH AIR FORCE BASE HOSPITAL

FY 1984 through FY 1988

Quarter	FY 1984				FY 1985				FY 1986			
	1	2	3	4	1	2	3	4	1	2	3	4
Active Duty Military	6,067	6,135	6,147	6,226	5,741	5,621	5,810	5,391	5,221	5,585	5,607	6,024
Dependents of Military	10,314	10,430	10,450	10,584	9,760	9,556	9,877	9,165	8,876	9,495	9,532	10,241
Retired Military ^a											9,169	9,398
Dependents of Retired and Deceased ^a												21,069
Other												21,615

TABLE B.2.1 (Continued)

Quarter	FY 1967				FY 1968			
	1	2	3	4	1	2	3	4
Active Duty Military	6,198	6,685	7,210	7,340	7,268	7,183	6,946	7,038
Dependents of Military	10,537	11,365	12,257	12,478	12,352	12,211	11,808	11,965
Retired Military ^a	9,633	9,874	10,121	10,374	10,633	10,669	11,171	11,450
Dependents of Retired and Deceased ^b	22,156	22,710	23,278	23,860	24,456	25,068	25,693	26,335
Other								

2. It is estimated that the retired population within 1-1½ hours of March AFB would exceed 102,000.

Notes:

1. Active duty military strength served was taken from AF Form 235, Report of Patients.
2. A 1.7 ratio was used in computing the dependents of military strength served.
3. The retired military population served was based on an actual count of retired Air Force personnel residing in the area in December 1965. This information was obtained from a listing provided by USAF, Military Personnel Center. A factor of 2.5% per quarter increase was also utilized to account for the 50% increase in Air Force retired personnel during the past five years. Army and Navy retired personnel in the area were computed from information received from their Accounting and Finance Centers on the number of retired checks mailed to this area. The same 2.5% was utilized in computing their increase.
4. The 2.3 ratio developed in the DOD Report, Medical Care for Retired Military Personnel and Their Dependents, 1 June 1964, was used in computing the number of dependents of retired and deceased personnel.

Oxnard AFB, California	- Class A dispensary (to be phased out)
Los Angeles Air Force Station, 6592 Dispensary, California	- Class B dispensary
Naval Air Station Pt. Mugu, California	
U.S. Army Hospital, Fort MacArthur, San Pedro, California	
U.S. Marine Corps Air Station, El Toro, Santa Ana, California	
Mt. Laguna Air Force Station, California	- Class B dispensary
Weed Army Hospital, Fort Irwin, Barstow, California	
U.S. Naval Station, Hawthorne, Nevada	
U.S. Marine Corps Station, 29 Palms, California	
U.S. Marine Corps Station, Barstow, California	
Luke AFB Phoenix, Arizona	

8.2.2 DESCRIPTION OF HEALTH CARE FACILITIES

8.2.2.1 Main Physical Plant

The main physical plant of the March Air Force Base Hospital is a five-story structure. The composite medical facility consists of 200 beds (175 operating beds and 25 inactive beds) and extensive outpatient clinic services. The area of the structure is 130,110 square feet and it was built at a cost of approximately \$4.7 million. Table 8.2.2 provides a listing of costs for the original structure and its added features over the years.

TABLE 8.2.2

REAL PROPERTY WORTH
MAIN PHYSICAL PLANT, BUILDING 2000

<u>Description of Real Property</u>	<u>Estimated Cost</u>
Original Structure (from construction contract DA-0002)	\$4,715,266
Added Features:	
Heating Plant Modifications	41,760
Air Conditioning Plant Modifications	49,450
Electric Emergency Power Station	135,381
Electric Substation Equipment	115,500
Facility Modifications	(est.) 220,000
Total Plant worth as of December 1969	\$5,277,357^a

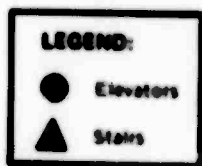
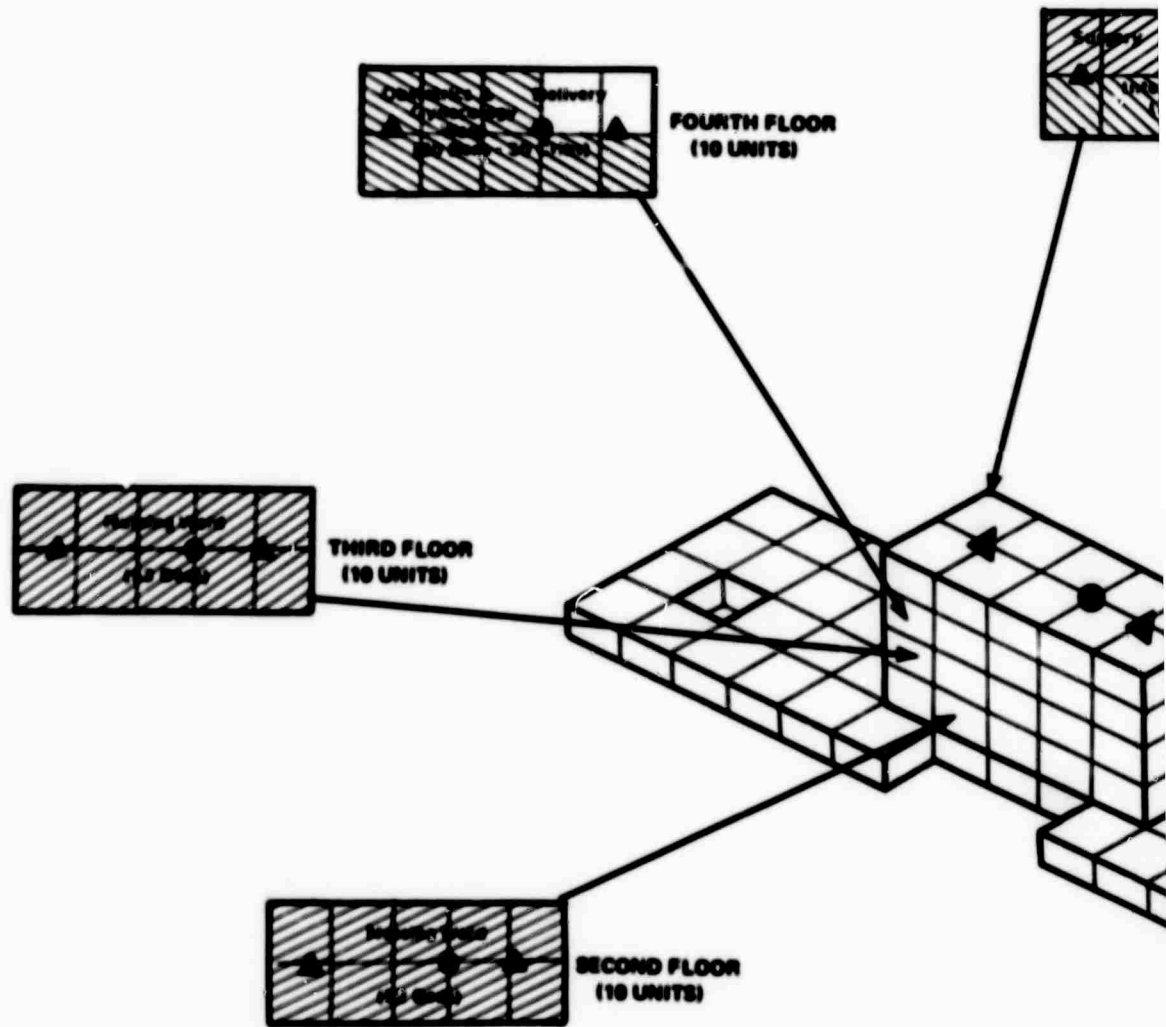
- a. Adjustments in this real property account are not made for factoring original acquisition costs to 1969 values. It should also be noted that in June 1966, \$291,988 in collateral property was transferred to a medical account making the total real property worth \$4,985,369.

Construction of the present March AFB Hospital began on 18 May 1963, and was completed on 28 June 1965. It is estimated that planning for the facility began five years prior to 1963; some of the innovations and technological ideas that were incorporated date back as far as seven years prior to its opening. With nearly five years of operation from 1965 to 1970, the facility's total planning and operational age spans twelve years.

The layout of the Hospital is considered reasonably good. Since it is a relatively new building, both its general appearance and the main lobby are attractive. Especially good layout and equipment in the Physical Therapy, Urology, and Cytology Clinics make these areas superior to others. The Pediatric and Obstetric Clinics are well planned; they are adjacent to a small enclosed patio where children can play during appointment hours.

The tower's reinforced concrete frame structure, represented in Figure 8.2.1 houses the Nursing and Surgical Services. Surgery is located on the fifth floor. The center lobby entrance provides entrance to the tower structure through three service elevators.

The flat one-story structure on the right contains the Outpatient Service, including the General Therapy Clinic, the Emergency Service and a variety of specialty clinics, the Laboratory, X-ray, and Physical Therapy. Outpatient records are placed within the space behind the outpatient information desk.



A

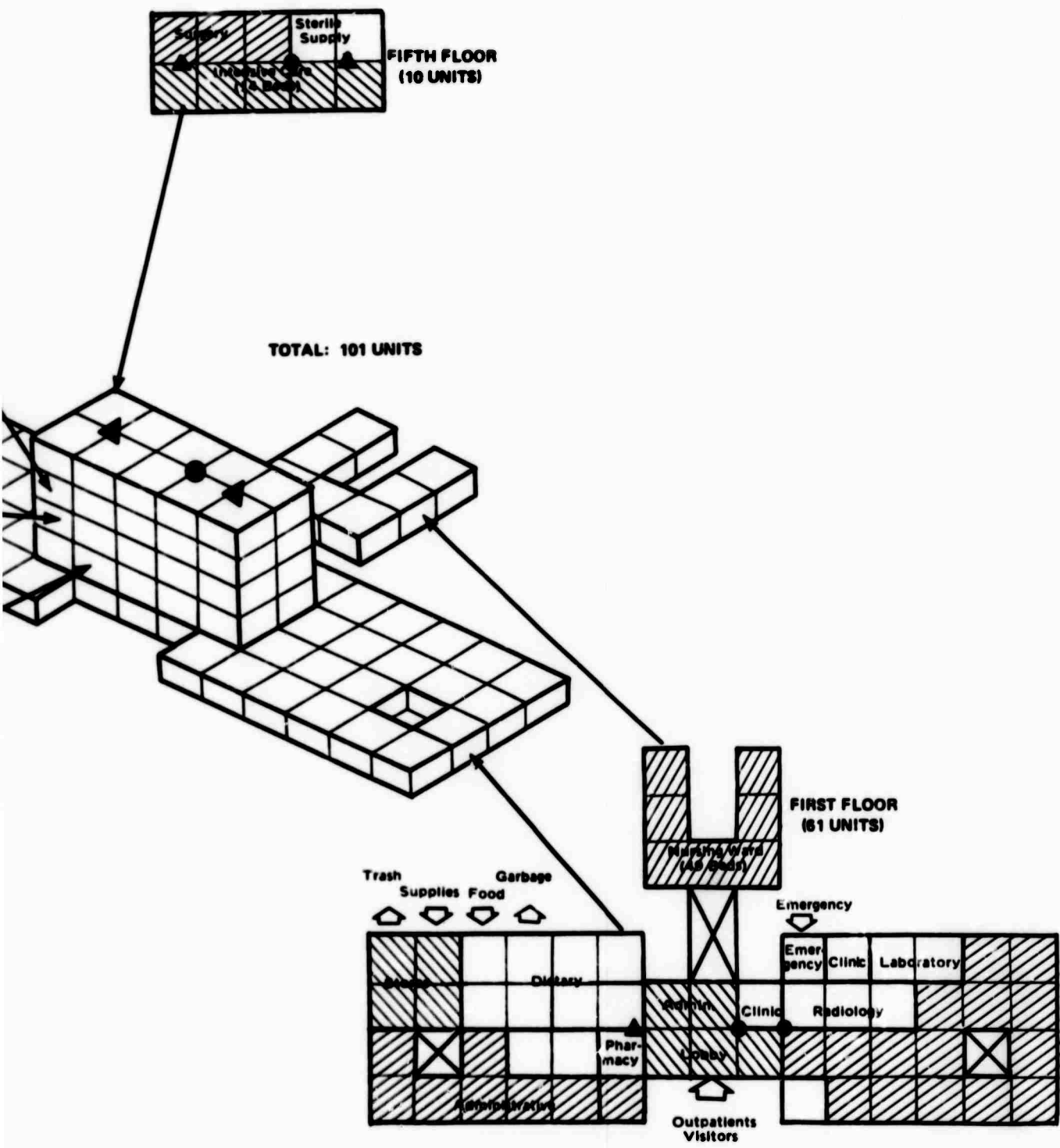


FIGURE 8.2.1 MARCH AFB HOSPITAL - SCHEMATIC DIAGRAM

B

Through the main lobby to the back of the building on the ground floor level is a general bed/nursing ward mostly for orthopedic patients. Originally, this area was designed as an ambulatory convalescent ward. Off to the left of the main lobby is the Pharmacy and beyond this are the Administrative and Logistic Services. An emergency power generator and stored oxygen are located behind the facility. Parking space is provided in front and to the right of the facility.

Figure 8.2.1 also shows the schematic block layout of the hospital.

The current assignment of beds on the various floors is given in Table 8.2.3.

TABLE 8.2.3
BED ASSIGNMENTS

<u>Floor</u>	<u>Service</u>	<u>Number of Beds</u>
1	Orthopedic and Genitourinary	49
2	Medical	40
	Psychiatry	12
3	Surgical	38
	Pediatric	5 + 10 cribs
4	Obstetrics and Gynecology	20
	Nursery	30 bassinets
5	Intensive Care Unit	10
6	Cardiac Care Unit	4
		<u>178 + 10 cribs + 30 bassinets</u>

A major design deficiency in the building is the lack of ramps for wheelchairs. At present, there is no entrance where a wheelchair can be wheeled in without having to be lifted over steps.

Not all the bedrooms have sanitary facilities, and the addition of these would definitely be considered an asset. The Intensive Care Unit and Recovery Unit are both in one large open area but are managed and operated separately. Specially trained nurses and technicians care for patients in the Intensive Care Unit, and the Recovery Care Unit is the responsibility of the Operating Room personnel. It would appear more satisfactory if separate areas were provided.

The hospital also lacks a sufficient number of conference rooms and meeting space. Neither classrooms nor training space are available. The Dining Room is used for large meetings at present. Thus the noise from the dishwashing areas is disturbing and time required for proper cleaning presents problems. New baby training for parents is conducted in the Physical Therapy Section. Other plant deficiencies are listed in Section 8.2.7.

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March AFB Hospital has been fully accredited by the Joint Commission on Accreditation of Hospitals, which comprises representatives of the American Hospital Association, the American Medical Association, the American College of Physicians, and the American College of Surgeons. Accreditation is earned by periodically passing a rigid inspection by a representative of the Commission and meeting highest standards of medical and hospital service. The Hospital is an institutional member of the American Hospital Association and the California Hospital Association.

Near Maximum utilization of the existing main hospital facility, Building 2990, has been reached. Clinical needs have required the use of critical administrative space to handle the patient load. The projected outpatient workload anticipates a 33% increase by FY 1972. Because of this expected increase and other clinical needs, additional doctors' offices, treatment and examination rooms are required.

A request was submitted on 15 July 1969, to provide additional hospital clinical space for outpatient care and to relocate the Flight Surgeon's Clinic to the main plant. Corresponding additions of *ancillary* service and clinic support areas for functional effectiveness are also needed.

The projected outpatient facilities and Flight Surgeon's Office are being planned for approximately 44,000 square feet at an estimated cost of \$2,293,000. This is approximately 45% of the cost of the existing structure; the percentage figure can be reduced by factoring the original plant acquisition costs to a 1970 current worth figure.

A description of the planned facility addition is extracted below from the request:

Project Provides: Additional hospital clinical space for outpatient care and to relocate the existing Flight Surgeon's Clinic. *Why Required:* Needed to support approximately 16,000 military personnel and 30,000 dependents from March and Norton AFB and referrals from other military facilities. Optimum utilization of the existing facility has been reached and the projected outpatient workload reflects a 33% increase by FY 1972. Additional doctors' offices, treatment and examination rooms are needed with a corresponding increase of ancillary services and clinic support areas for functional effectiveness. Alterations of the existing clinical space are required to conform with functional arrangement of the clinic addition. *Current Situation:* Clinical requirements have necessitated the use of critical administrative space to handle the patient load. The Flight Surgeon's Clinic has insufficient space in a building approximately 1 1/4 miles from the hospital. *Impact if*

not Provided: The Air Force will be required to provide medical services to a growing active duty population and retired military and dependents of both. If not obtained, retired and all dependents will probably have to be referred to civilian and other military facilities at increased cost to the government."

8.2.2.2 Satellite Facilities

Two major clinics are located in separate buildings because of lack of space in the hospital. There are no general purpose dispensaries on the base.

- (1) *Aeromedical Service* is located in Building 317 (1¼ miles from the Hospital) for the flying personnel. All medical care for flight personnel is obtained in or through the Office of the Flight Surgeon. Also housed in Building 317 are component activities:

Preventive and Occupational Medicine
Bioenvironmental Engineering
Nonflying Physical Examinations Section
Supportive Units (X-ray, labs, dental examination,
audio and eye testing)

In the request submitted 15 July 1969, for additions and alterations to the Composite Medical Facility, one of the stated needs was to relocate the Office of the Flight Surgeon to the main hospital.

- (2) *Base Dental Clinic* is located in Building 768, the Dental Service is a functional part of the USAF Regional Hospital. It is composed of the Main Dental Clinic and the Area Dental Laboratory, which provides complete prosthetic laboratory services for 22 Air Force installations. The original building (5,322 square feet) that houses these dental services was completed in December 1954, at a cost of \$109,000. The Area Dental Laboratory (3,405 square feet) was added in September 1965, at a cost of \$184,000. Thus, the total plant outlay has been \$293,000. Other support facilities not in the hospital consist of:

- Veterinary Service, which performs primarily medical food inspection, is housed in Building 405 which was built during World War II (1943). It comprises 1,360 square feet and costs \$25,000.

- Medical Storage is in Building 4044 and was completed prior to World War II (1941). It consists of 9,130 square feet and the cost of this structure was \$20,000.

A listing of the March health care facilities, with their acquisition costs and dates, is shown in Table 8.2.4.

TABLE 8.2.4
MEDICAL FACILITIES – MARCH AFB

<u>Building No.</u>	<u>Description</u>	<u>Square Feet</u>	<u>Initial Acquisition Cost</u>	<u>Acquisition Date</u>
405	Medical Food Inspection (veterinary medicine)	1,360	\$ 25,000	1943
768	Dental Clinic (14 offices)	5,322	109,000	Dec. 1954
	Addition of Area Dental Laboratory	3,405	184,000	Sept. 1965
2990	200-Bed Hospital	130,110 ^a	5,277,000 ^b	June 1965
4044	Medical Storage Space	9,180	20,000	1941
317	Office of Flight Surgeon	6,106	48,224 ^c	1934
	Totals	155,483	\$5,663,224	

a. No change in square feet from original acquisition except for an emergency power house estimated at 785 square feet installed and is included in this figure.

b. Includes collateral property estimated at \$292,000. See Table II-A.

c. Cost reflects modification over the years. Original acquisition cost was \$29,824.

8.2.3 ORGANIZATION AND STAFFING

8.2.3.1 Organization

The operating organization for the March Air Force Base Hospital is shown in Figure 8.2.2, and includes the following subdivisions:

Primary Organization
Registrar Service
Hospital Service
Dental Service
Aeromedical Service

Functional organization of the hospital is as described in AFM 168-4. The functional statements which follow were obtained through interviews with the staff and generally follow recognized practice. Section 8.2.4 describes further details and operating parameters. The organizational breakdown is as follows:

- *Hospital Commander* – the hospital commanding officer and senior medical officer and advisor to the Base Commanding Officer. Total responsibility for base medical care falls to the Hospital Commander.
- *Hospital Administrator* – responsible for the functioning of the hospital as a logistic system for the delivery of health care services, maintaining administrative regulations and reports control.
- *Registrar Service* – responsible for the intertransferral and control of patients, outpatient and clinical inpatient records, appointments, referrals, physician requirements, and statistical reporting of patient activity. Support for the registrar's record-keeping is provided by a typing and stenographic pool. The evaluation of patients for medical discharge is rendered by a medical board. In addition, a patient squadron is maintained as an administrative function for military referrals not permanently assigned to the March Air Force Base contingent activities. The Registrar's Office also serves as a contact point for CHAMPUS information.
- *Plant Management* – responsible for the operation and maintenance of the hospital building and the utilities therein. Ordinarily maintenance is carried out by the Base Civil Engineer. The Plant Manager assists in the planning of modifications and additions to all medical buildings. He also supervises internal garbage and trash collection.
- *Materiel Service* – provides and maintains hospital and medical equipment and supplies, manages transportation including ambulances – also manages the laundry service; laundry is done by the base laundry.
- *Business Office* – maintains financial accounting and approves the receipt and payment of invoices. Cash expenditures are carried out by the base comptroller.

- *Food Service* – responsible for ward and cafeteria meal services, including purchase and cooking of food.
- *Hospital Service* – provides the mainline inpatient and outpatient health services. Nursing services are maintained by this group.
- *Dental Service* – provides all dental services for military personnel. Exceptions for dependents and retirees are made for emergency treatment. Also maintains an area prosthetics laboratory for bridge, crown, and denture work.
- *Veterinary Service* – inspects base facilities such as kitchens and cafeterias for disease; also inspects the meat and food supply.
- *Aeromedical Service* – provides outpatient services for flying personnel – also a subelement, military public health section; tests water, sewage swimming pools, barracks, and building space to determine bacterial levels; and carries on a venereal disease and public health program.

8.2.3.2 Staffing

The authorized staffing pattern for the Base Health Care Services is shown in Table 8.2.5. A further breakdown of civilian personnel by function and skill is shown in Table 8.2.6. Also included is a copy of AF Form 201, *Base Medical Service Staffing Report*, which summarizes the allocations of personnel to the various departments.

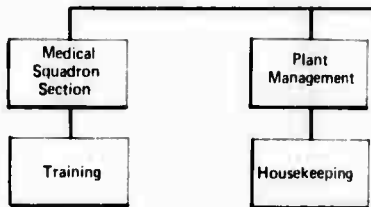
Within the nursing service, the organization and assignment of corpsmen is generally by physical area. The organization for the enlisted men assignments is shown in the lower-right hand corner of Figure 8.2.2.

The noncommissioned officer in charge (NCOIC) of Nursing can place corpsmen (AFSC-902XX) wherever he needs them in the above structure. This offers flexibility of staffing on this level. However, some enlisted men are Medical Specialists and must be assigned to a specific service:

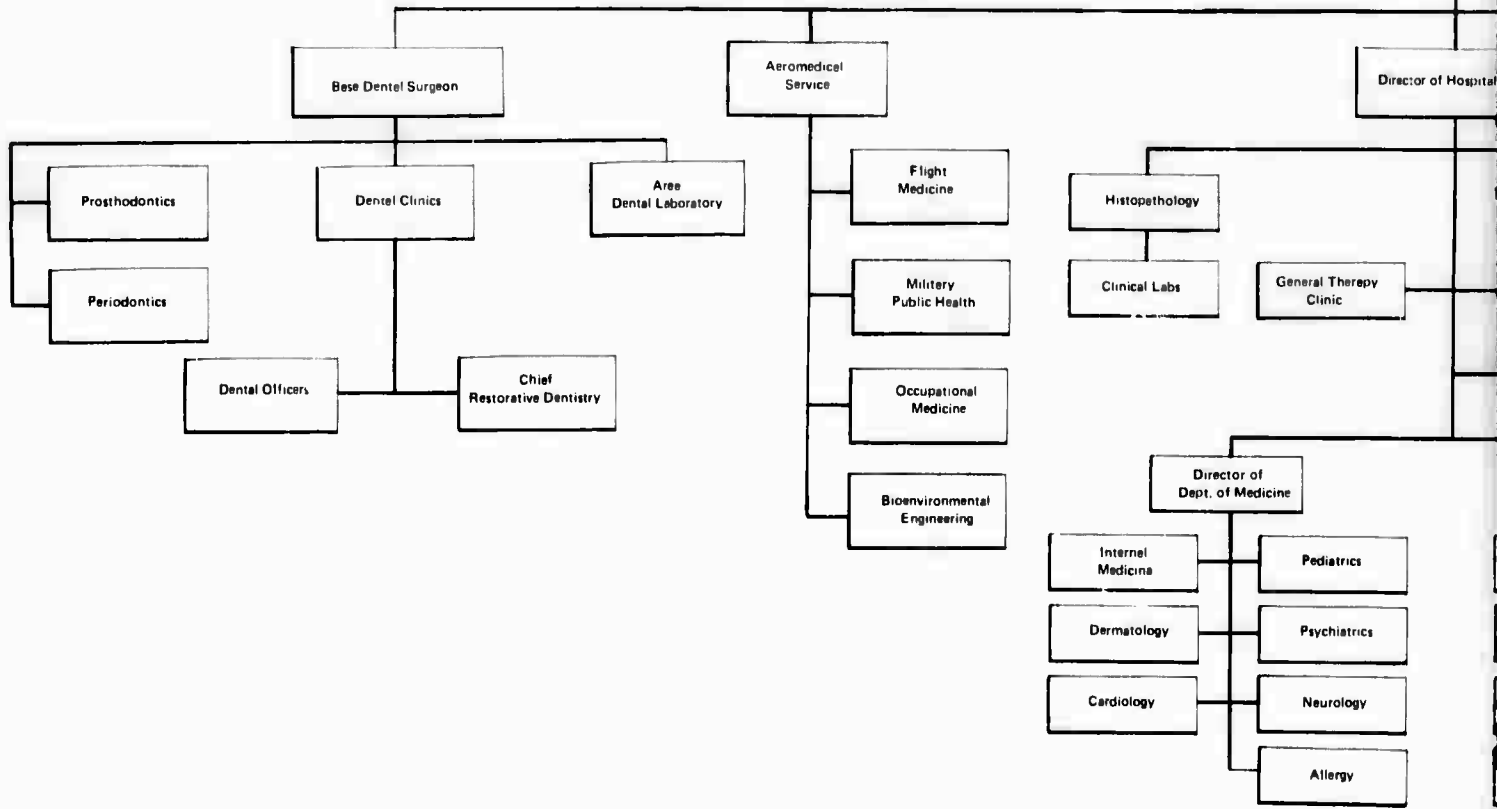
Neurology Technician	(909XX)
Lab Technician	(908XX)
X-ray Technician	
Surgery Technician	
Flight Medicine Technician	(901XX)

The above are not general purpose corpsmen and if present in overabundance can cause problems. They can be assigned to other jobs on a rotational basis, but cannot be assigned out of their specialty for more than 89 days.

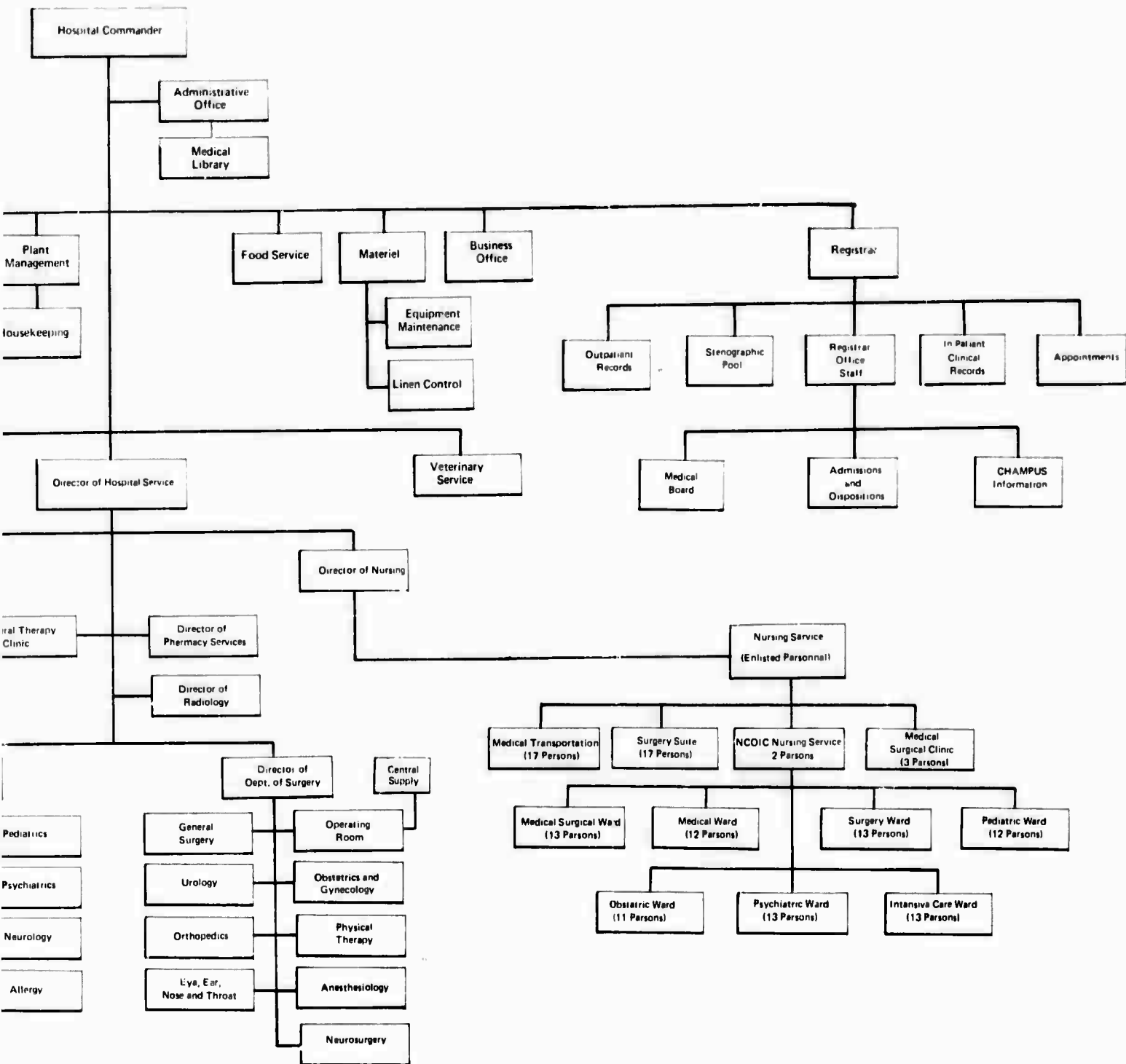
Hospital Comm



Director of Hospital



A



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FIGURE 8.2.2 MARCH AFB HOSPITAL – ORGANIZATION CHART

TABLE 8.2.5

AUTHORIZED STAFFING
(as of 2nd Quarter FY 1970)

AA Command (510000 MEDICAL COMMAND)

Health Service Administrative Staff	9016	COL	0	8CA	1
Commander	9316	COL	5	8CA	1
Health Service Administrative Staff	9016	LTC	0	8CA	1
Stenographic Specialist	70450	JNK	4781	8CA	1
				OFF	3
				CIV	1

AAB Administrative Office 510100 Medical Administrative Office

Health Service Administrator	9025	LT	0	8CA	1
Medical Administrative Superintendent	90690	CMS		8CA	1
Medical Administrative Supervisor	90670	TSG		8CA	1
Medical Administrative Specialist	90650	SSG		8CA	1
Apprentice Medical Administrative Specialist	90630	A1C		8CA	1
Administrative Specialist	70250	JNK	4781	8CA	1
	70450	JNK	4781	8CA	75 1
Stenographic Specialist				OFF	1
				AMN	4
				CIV	2

AABA Medical Library 510101 Medical Library

Administrative Specialist	70250	JNK	4781	8CA	1
				CIV	1

AW Medical Squadron 513000 Medical Squadron Secretary

Commander	A 9025	MAJ	0	8CA	1
Medical Administrative Superintendent	90690	SMS		8CA	1
Medical Administrative Supervisor	90670	TSG		8CA	1
Medical Administrative Specialist	90650	SSG		8CA	1
Medical Administrative Specialist	90650	SGT		8CA	1
Apprentice Medical Administrative Specialist	90630	A1C		8CA	1
				OFF	1
				AMN	5

AWH Training 513000 Medical Squadron Secretary

Medical Administrative Supervisor	90670	TSG		8CA	1
				AMN	1

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TABLE B.2.5 (Continued)

NE Food Services		512000 Medical Food Service				
Dietitian-Nutrition Diet	9216A	MAJ	0	8CA		1
Dietitian-Nutrition Diet	9216A	CPT	0	8CA		1
Food Service Superintendent	62291	CMS		8CA		1
Diet Therapy Supervisor	62271	MSG		8CA		1
Baking Supervisor	62170	TSG		8CA		1
Diet Therapy Supervisor	62271	TSG		8CA		2
Cook	62250	SSG		8CA		7
Diet Therapy Specialist	62251	SSG		8CA		5
Baker	62150	SGT		8CA		1
Cook	62250	SGT		8CA		9
Diet Therapy Specialist	62251	SGT		8CA		5
Apprentice Cook	62230	A1C		8CA		12
Apprentice Cook	62230	JNK	4782	8CA		5
Apprentice Cook	62230	JNK	4782	8CA	H5	2
Administrative Specialist	70250	JNK	4781	8CA		1
				OFF		2
				AMN		44
				CIV		8
NF Materiel		511000 Medical Materiel				
Health Service Administrator	9025	LTC	0	8CA		1
Health Service Administrator	9025	LT	0	8CA		1
Medical Materiel Superintendent	91590	CMS		8CA		1
Medical Materiel Supervisor	91570	MSG		8CA		1
Medical Materiel Supervisor	91570	TSG		8CA		2
Medical Materiel Specialist	91550	SSG		8CA		2
Medical Materiel Specialist	91550	SGT		8CA		2
Materiel		511000 Medical Materiel				
Apprentice Medical Materiel Specialist	91530	A1C		8CA		3
Administrative Specialist	70250	JNK	4781	8CA		1
Apprentice Medical Materiel Specialist	91530	JNK	4782	8CA	H5	1
Medical Materiel Specialist	91550	JNK	4781	8CA		1
				OFF		2
				AMN		11
				CIV		3
Equipment Maintenance		511100 Medical Equipment Maintenance				
Medical Equipment Maintenance Superintendent	40390	CMS		8CA		1
Medical Equipment Repairman	40350	SSG		8CA		1
Medical Equipment Repairman	40350	JNK	4782	8CA	75	1
				AMN		2
				CIV		1

TABLE 8.2.5 (Continued)

NF J Linen Control		511200 Linen Control				
Medical Materiel Specialist	91550	SSG		BCA	1	
Medical Materiel Specialist	91550	SGT		BCA	1	
Apprentice Medical Materiel Specialist	91530	A1C		BCA	1	
Fab Lea/Rub. Pro Repairing	58250	JNK	4782	BCA	1	
				AMN	3	
				CIV	1	
NC Plant Management		515000 Plant Management				
Assistant	9025	JNK	4781	BCA	1	
				CIV	1	
NH Registrar		514000 Registrar				
Health Service Administrator	9025	MAJ	0	BCA	1	
Medical Administrative Superintendent	90690	SM-S		BCA	1	
Medical Administrative Supervisor	90670	TSG		BCA	2	
Medical Administrative Specialist	90650	SSG		BCA	3	
Medical Administrative Specialist	90650	SGT		BCA	2	
Apprentice Medical Administrative Specialist	90630	A1C		BCA	3	
Administrative Specialist	70250	JNK	4781	BCA	15	
				OFF	1	
				AMN	11	
				CIV	1	
NPH Stenographic Pool		514100 Stenographic Pool				
Administrative Specialist	70250	JNK	4781	BCA	3	
Stenographic Specialist	70450	JNK	4781	BCA	5	
Stenographic Technician	70470	JNK	4781	BCA	1	
				CIV	9	
NHI Outpatient Records		514200 Outpatient Records				
Medical Administrative Supervisor	90670	MSG		BCA	1	
Medical Administrative Supervisor	90670	TSG		BCA	1	
Medical Administrative Specialist	90650	SSG		BCA	3	
Medical Administrative Specialist	90650	SGT		BCA	3	
Apprentice Medical Administrative Specialist	90630	A1C		BCA	4	
				AMN	12	
NHJ Clinical Records		514300 Clinical Records				
Medical Administrative Supervisor	90670	ISG		BCA	1	
Medical Administrative Specialist	90650	SSG		BCA	1	
Medical Administrative Specialist	90650	SGT		BCA	2	
Health Service Administrator	9025	JNK	4781	BCA	1	
				AMN	4	
				CIV	1	

TABLE 8.2.5 (Continued)

NHK Central Appointments	514400 Central Appointments				
Clerk Receptionist	70230	JNK	4781	8CA	2
Clerk Receptionist	70250	JNK	4781	8CA	3
				CIV	5
NJ Business Office	516000 Medical Business Office				
Health Service Administrator	9025	MAJ	0	8CA	1
Medical Administrative Supervisor	90670	MSG		8CA	1
Medical Administrative Specialist	90650	SSG		8CA	1
Medical Administrative Specialist	90650	SGT		8CA	4
Apprentice Medical Administrative Specialist	90630	A1C		8CA	1
General Accounting Specialist	67151	JNK	4781	8CA	1
				OFF	1
				AMN	7
				CIV	1
NJ Hospital Services	520000 Hospital/Dispensary Services				
Senior Staff Physician	9316	COL	5	8CA	1
Health Service Administrator	9025	LT	0	8CA	
Stenographic Specialist	70450	JNK	4781	8CA	1
	520100 Physicians				
Pediatrician	9366	COL	0	8CA	1
Internist	9386	COL	5	8CA	1
Surgeon	9416	COL	5	8CA	1
Obstetrician/Gynecologist	9496	COL	0	8CA	1
General Practice Physician	9346	LTC	0	8CA	1
Ophthalmologist	9436	LTC	5	8CA	1
Otorhinolaryngologist	9446	LTC	0	8CA	1
Orthopedic Surgeon	9486	LTC	0	8CA	2
Psychiatrist	9586	LTC	0	8CA	1
NJ Hospital Services	520100 Physicians				
Pediatrician	9366	MAJ	0	8CA	1
Internist	9386	MAJ	0	8CA	2
Internist	9386A	MAJ	0	8CA	1
Surgeon	9416	MAJ	0	8CA	1
Surgeon	9416F	MAJ	0	8CA	1
Urologist	9426	MAJ	0	8CA	2
Orthopedic Surgeon	9486	MAJ	0	8CA	2
Obstetrician/Gynecologist	9496	MAJ	0	8CA	2
Dermatologist	9556	MAJ	0	8CA	1
Neurologist	9576	MAJ	0	8CA	1
Psychiatrist	9586	MAJ	5	8CA	1
General Duty Physician	9326	CPT	0	8CA	10
General Practice Physician	9346	CPT	0	8CA	2
Pediatrician	9366	CPT	0	8CA	1
Surgeon	9416	CPT	0	8CA	1
Ophthalmologist	9436	CPT	0	8CA	1
Otorhinolaryngologist	9446	CPT	0	8CA	1
Obstetrician/Gynecologist	9496	CPT	0	8CA	1
				OFF	43
				CIV	1

TABLE 8.2.5 (Continued)

NJHH Internal Medicine		521100 Internal Medicine Clinic				
Nurse General	9755	CPT	0	8CA	1	
Medical Service Specialist	90250	SSG		8CA	1	
				OFF	1	
				AMN	1	
NJHI Pediatrics		521300 Pediatric Clinic				
Nurse General	9755	LT	0	8CA	1	
Medical Service Specialist	90250	SSG		8CA	1	
Apprentice Medical Service Specialist	90230	A1C		8CA	1	
				OFF	1	
				AMN	2	
NJHJ Neurology		521400 Neurology Clinic				
Neurology Technician	90972	TSG		8CA	1	
Neurology Specialist	90932	SGT		8CA	1	
				AMN	2	
NJHL Internal Medicine		521200 Internal Medicine Subclinic				
Cardiopulmonary Lab Technician	91670	MSG		8CA	2	
Cardiopulmonary Lab Specialist	91630	SGT		8CA	1	
				AMN	3	
NJHM Mental Health		521600 Mental Health Clinic				
Clinical Psychiatrist	9186	CPT	0	8CA	1	
Social Worker	9196	LT	0	8CA	1	
Psychiatry Clinic Technician	91470	TSG		8CA	1	
Stenographic Specialist	70450	JNK	4781	8CA	1	
				OFF	2	
				AMN	1	
				CIV	1	
Physical Therapy		523100 Physical Therapy				
Physical Therapist	9236	MAJ	0	8CA	1	
Physical Therapist	9236	LT	0	8CA	1	
Physical Therapy Technical	91370	MSG		8CA	1	
Physical Therapy Specialist	91350	SGT		8CA	1	
Apprentice Physical Therapy Specialist	91330	A1C		8CA	2	
				OFF	2	
				AMN	4	
Surgical Suite		524000 Surgical Suite				
Anesthesiologist	9566	LTC	0	8CA	1	

TABLE 8.2.5 (Continued)

NJH Surgical Suite		524000 Surgical Suite				
Anesthesiologist	9566	MAJ	0	8CA	1	
Nurse Operating Room	9736	MAJ	0	8CA	1	
Nurse Anesthetist	9746	MAJ	0	8CA	1	
Nurse Operating Room	9736	CPT	0	8CA	1	
Nurse Anesthetist	9746	CPT	0	8CA	1	
Nurse Operating Room	9736	LT	0	8CA	2	
Nurse Anesthetist	9746	LT	0	8CA	2	
Operating Room Technician	90272	MSG		8CA	1	
Operating Room Technician	90272	TSG		8CA	1	
Operating Room Specialist	90252	SSG		8CA	3	
Operating Room Specialist	90252	SGT		8CA	5	
Apprentice Operating Room Specialist	90232	A1C		8CA	5	
524100 Central Sterile Service						
Operating Room Specialist	90252	SSG		8CA	1	
Apprentice Operating Room Specialist	90232	A1C		8CA	1	
				OFF	10	
				AMN	17	
NJIK Urology		523300 Urology Clinic				
Urology Surgical Technician	91272	TSG		8CA	1	
Urology Surgical Specialist	91232	SSG		8CA	1	
				AMN	2	
NJIM General Surgery		523400 Surgical Clinic				
Operating Room Specialist	90252	SSG		8CA	2	
				AMN	2	
NJIP Otolaryngology		523600 Otolaryngological Clinic				
Otolaryngology Surgical Technical	91271	TSG		8CA	1	
				AMN	1	
NJIQ Obstetrics and Gynecology		523900				
Medical Service Specialist	90250	SSG		8CA	1	
Medical Service Specialist	90250	SGT		8CA	1	
Apprentice Medical Service Specialist	90230	A1C		8CA	2	
Nurse General	9755	JNK	4781	8CA	1	
				AMN	4	
				CIV	1	
NJIS Orthopedics		523700 Orthopedic Clinic				
Orthopedic Clinical Technician	91273	TSG		8CA	1	
Orthopedic Clinical Specialist	91233	SSG		8CA	1	
Orthopedic Clinical Specialist	91233	SGT		8CA	1	
				AMN	3	

TABLE 8.2.5 (Continued)

NJJ Radiology		520200 Radiology				
Radiologist	9536	LTC	5	8CA	1	
Radiologist	9536	MAJ	0	8CA	1	
Radiology Superintendent	90390	CMS		8CA	1	
Radiology Technician	90370	MSG		8CA	1	
Radiology Technician	90370	TSG		8CA	2	
Radiology Specialist	90350	SSG		8CA	1	
Radiology Specialist	90350	SGT		8CA	2	
Apprentice Radiology Specialist	90330	A1C		8CA	4	
Administrative Specialist	70250	JNK	4781	8CA	1	
Radiology Specialist	90350	JNK	4781	8CA	1	
				OFF	2	
				AMN	11	
				CIV	2	
NJK Histopathology		520300 Histopathology				
Pathologist	9526	LTC	5	8CA	1	
Pathologist	9526	MAJ	5	8CA	1	
Histopathology Technician	90471	MSG		8CA	2	
Histopathology Specialist	90431	SSG		8CA	2	
				OFF	2	
				AMN	4	
NJKH Laboratory		520400 Clinical Laboratory				
Biomedical Laboratory General Officer	9155A	LTC	0	8CA	1	
Medical Laboratory Superintendent	90491	CMS		8CA	1	
Medical Laboratory Technician	90470	MSG		8CA	1	
Medical Laboratory Technician	90470	TSG		8CA	2	
Medical Laboratory Specialist	90450	SSG		8CA	6	
Medical Laboratory Specialist	90450	SGT		8CA	8	
Apprentice Medical Laboratory Specialist	90430	A1C		8CA	1	
Administrative Specialist	70250	JNK	4781	8CA	1	
Medical Laboratory Specialist	90450	JNK	4781	8CA	2	
				OFF	1	
				AMN	19	
				CIV	3	
NJL Nursing Services		520500 Nursing Services				
Nurse Administrative	9716	COL	0	8CA	1	
Nurse General	9755	CPT	0	8CA	1	
Medical Service Superintendent	90292	CMS		8CA	1	
Medical Service Technician	90270	MSG		8CA	1	
				OFF	2	
				AMN	2	
NJLH Nursing Units		520600 Medical-Surgical Nursing				
Nurse General	9755	MAJ	0	8CA	3	

TABLE 8.2.5 (Continued)

NJLH Nursing Units		520600 Medical-Surgical Nursing				
Nurse Psychiatric	9726	CPT	0	8CA	1	
Nurse General	9755	CPT	0	8CA	13	
Nurse Psychiatric	9726	LT	0	8CA	4	
Nurse General	9755	LT	0	8CA	18	
Medical Service Technician	90270	MSG		8CA	3	
Psychiatric Ward Technican	91471	MSG		8CA	1	
Medical Service Technician	90270	TSG		8CA	4	
Medical Service Specialist	90250	SSG		8CA	16	
Psychiatric Ward Specialist	91451	SSG		8CA	6	
Medical Service Specialist	90250	SGT		8CA	17	
Psychiatric Ward Specialist	91451	SGT		8CA	2	
Apprentice Medical Service Specialist	90230	A1C		8CA	23	
Apprentice Psych	91431	A1C		8CA	3	
Medical Service Specialist	90250	JNK	4781	8CA	75 2	
Medical Service Specialist	90250	JNK	4781	8CA	6	
Nurse General	9755	JNK	4781	8CA	5	
		520700 Obstetrical Nursing				
Nurse General	9755	MAJ	0	8CA	1	
Nurse General	9755	CPT	0	8CA	1	
Nurse General	9755	LT	0	8CA	10	
Medical Service Technician	90270	MSG		8CA	1	
Medical Service Technician	90270	TSG		8CA	1	
Medical Service Specialist	90250	SSG		8CA	2	
Medical Service Specialist	90250	SGT		8CA	1	
Apprentice Medical Service Specialist	90230	A1C		8CA	6	
Medical Service Specialist	90250	JNK	4781	8CA	5	
Nurse General	9755	JNK	4781	8CA	3	
				OFF	51	
				AMN	86	
				CIV	21	
NJMH General Therapy		522100 General Therapy Clinic				
Nurse Administrative	9716	MAJ	0	8CA	1	
Nurse General	9755	MAJ	0	8CA	1	
Nurse General	9755	LT	0	8CA	2	
Clinic Superintendent	91294	SMS		8CA	1	
Medical Service Technician	90270	TSG		8CA	1	
Medical Service Specialist	90250	SSG		8CA	1	
Medical Service Specialist	90250	SGT		8CA	2	
Apprentice Medical Specialist	90230	A1C		8CA	8	
Medical Service Specialist	90250	JNK	4781	8CA	3	
Nurse General	9755	JNK	4781	8CA	1	
				OFF	4	
				AMN	13	
				CIV	4	

TABLE 8.2.5 (Continued)

NJMI Ambulance Service		522200 Emergency Service			
Medical Service Technician	90270	MSG		8CA	1
Medical Service Technician	90270	TSG		8CA	1
Medical Service Specialist	90250	SSG		8CA	3
Medical Service Specialist	90250	SGT		8CA	7
Apprentice Medical Service Specialist	90230	A1C		8CA	5
				AMN	17
NJMJ Optometry		522300 Optometry Clinic			
Optometrist	9256	MAJ	0	8CA	1
Optometrist	9256	LT	0	8CA	1
Medical Service Specialist	90250	SGT		8CA	1
Ophthalmology Surgical Specialist	91230	SGT		8CA	1
				OFF	2
				AMN	2
NJMK Immunizations		522400 Immunizations			
Allergy/Immunology Technician	91274	TSG		8CA	1
Allergy/Immunology Specialist	91234	SGT		8CA	1
				AMN	2
NJMM Physician Examinations		522500 Physical Examination Clinic			
Medical Service Technician	90270	TSG		8CA	1
Medical Service Specialist	90250	SSG		8CA	1
Medical Service Specialist	90250	SGT		8CA	1
Apprentice Medical Service Specialist	90230	A1C		8CA	1
				AMN	4
NJP Pharmacy Services		520800 Pharmacy			
Pharmacist	9246	MAJ	0	8CA	1
Pharmacy Superintendent	90590	CMS		8CA	1
Pharmacy Specialist	90550	SSG		8CA	3
Pharmacy Specialist	90550	SGT		8CA	3
Apprentice Pharmacy Specialist	90530	A1C		8CA	1
Pharmacist	9246	JNK	4781	8CA	1
				OFF	1
				AMN	8
				CIV	1

TABLE 8.2.5 (Continued)

NL Veterinary Services		5241000 Veterinary Services				
Staff Veterinarian	9916	LTC	0	8CA	1	
Veterinarian	9925	MAJ	0	8CA	1	
Veterinary Superintendent	90891	SMS		8CA	1	
Veterinary Technician	90870	TSG		8CA	1	
Veterinary Specialist	90850	SSG		8CA	1	
Veterinary Specialist	90850	SGT		8CA	1	
Apprentice Veterinary Specialist	90830	A1C		8CA	2	
				OFF	2	
				AMN	6	
NM Dental Services		542100 Dental Clinic				
Dental Staff Officer	9816	COL	0	8CA	1	
Oral Surgeon	9836	LTC	0	8CA	1	
Periodontist	9846	LTC	0	8CA	1	
Prosthodontist	9856	LTC	0	8CA	1	
Dental Officer General	9826	MAJ	0	8CA	1	
Oral Surgeon	9836	MAJ	0	8CA	1	
Periodontist	9846	MAJ	0	8CA	1	
Dental Officer General	9826	CPT	0	8CA	7	
Dental Superintendent	98191	SMS		8CA	1	
Preventive Dentistry Technician	98171	MSG		8CA	1	
Dental Technician	98170	TSG		8CA	1	
Preventive Dentistry Technician	98171	TSG		8CA	1	
Preventive Dentistry Specialist	98131	SSG		8CA	2	
Dental Specialist	98150	SSG		8CA	4	
Preventive Dentistry Specialist	98131	SGT		8CA	2	
Dental Specialist	98150	SGT		8CA	3	
Apprentice Dental Specialist	98130	A1C		8CA	8	
Stenographic Specialist	70450	JNK	4781	8CA	75 1	
				OFF	14	
				AMN	23	
				CIV	1	
NMI Dental Laboratory		542200 Base Dental Laboratory				
Dental Laboratory Technician	98270	MSG		8CA	1	
Dental Laboratory Specialist	98250	SSG		8CA	1	
Dental Laboratory Specialist	98250	SGT		8CA	2	
		542300 Area Dental Laboratory				
Prosthodontist	9856	COL	0	8CA	1	
Area Dental Laboratory Superintendent	98290	SMS		8CA	1	
Dental Laboratory Technician	98270	MSG		8CA	1	
Dental Laboratory Technician	98270	TSG		8CA	2	

TABLE 8.2.5 (Continued)

NMI Dental Laboratory		542300 Area Dental Laboratory			
Dental Laboratory Specialist	98250	SSG		8CA	9
Dental Laboratory Specialist	98250	SGT		8CA	2
Apprentice Dental Laboratory Specialist	98230	A1C		8CA	5
Dental Laboratory Specialist	98250	JNK	4781	8CA	1
				OFF	1
				AMN	24
				CIV	1
NOH Flight Medicine Service		531000 Flight Medicine			
Aeromedical Physician	9356	LTC	5	8CA	1
Aeromedical Physician	9356	MAJ	5	8CA	1
Aeromedical Physician	9356	CPT	5	8CA	2
Aeromedical Superintendent	90190	SMS		8CA	1
Aeromedical Technician	90170	TSG		8CA	1
Aeromedical Specialist	90150	SSG		8CA	2
Aeromedical Specialist	90150	SGT		8CA	1
Stenographic Specialist	70450	JNK	4781	8CA	1
				OFF	4
				AMN	5
				CIV	1
NOI Military Public Health		531100 Military Health Medicine			
Bioenvironmental Engineer General	9124A	CPT	0	8CA	1
Preventive Medical Technician	90770	MSG		8CA	1
Preventive Medical Specialist	90750	SSG		8CA	1
Preventive Medical Specialist	90750	SGT		8CA	1
				OFF	1
				AMN	3

TABLE 8.2.5 (Continued)

Authorization Recapitulation	270
Col	10
Ltc	17
Maj	38
Cpt	48
Lt	44
Total Officers	157
Cms	8
Sms	7
Msg	23
Tsg	37
Ssg	98
Sgt	98
A1C	104
Total Airmen	375
4781	62
4782	10
Total Civilians	72

TABLE 8.2.5 (Continued)

BASE MEDICAL SERVICE STAFFING REPORT		HOSPITAL CODE	AS OF DATE	REPORTS CONTROL SYMBOL		
		0558	29 May 69	2AF-M18		
ORGANIZATION AND LOCATION		X HOSPITAL	COMMAND			
807th Med Gp, March AFB, Ca 92508		CLASS "A" DISPENSARY	SAC			
		CLASS "B" DISPENSARY				
I. PATIENT CARE STAFFING DATA						
FC	LINE NO.	FUNCTION	PERSONNEL			
			TOTAL A	OFFICER B	AIRMAN C	CIVILIAN D
	01	TOTAL	465	132	267	66
5100	02	MEDICAL COMMAND	3	2		1
5101	03	MEDICAL ADMINISTRATIVE OFFICE	9	1	5	3
5110	04	MEDICAL MATERIEL	14	1	10	3
5111	05	MEDICAL EQUIPMENT MAINTENANCE	3		2	1
5112	06	LINEN CONTROL	3		2	1
5120	07	MEDICAL FOOD SERVICE	44	3	33	8
51A0	08	REGISTRAR	17	3	13	1
5141	09	STENOGRAPHIC POOL	8			8
51A2	10	OUTPATIENT RECORDS	12		12	
51A3	11	CLINICAL RECORDS	3		2	1
51AA	12	CENTRAL APPOINTMENTS	3			3
5150	13	PLANT MANAGEMENT	2		1	1
5151	14	HOUSEKEEPING				
5160	15	MEDICAL BUSINESS OFFICE	9	1	7	1
5200	16	HOSPITAL DISPENSARY SERVICES	3	2		1
5201	17	PHYSICIANS	42	42		
5202	18	RADIOLOGY	14	2	10	2
5204	19	CLINICAL LABORATORY	17	1	13	3
5205	20	NURSING SERVICES	7	5	2	
5206	1	MEDICAL AND SURGICAL NURSING UNIT	118	37	68	13
5207	22	OBSTETRICAL NURSING UNIT	29	11	10	8
5209	23	PHARMACY	9	1	7	1
5210	24	MEDICAL SERVICE				
5211	25	INTERNAL MEDICINE CLINIC				
5212	26	INTERNAL MEDICINE SUBSPECIALTY CLINIC	4		4	
5213	27	PEDIATRIC CLINIC	2	1	1	
5214	28	NEUROLOGY CLINIC	1		1	
5215	29	DERMATOLOGY CLINIC				
5216	30	MENTAL HEALTH CLINIC	4	2	1	1
5217	31	OCCUPATIONAL THERAPY CLINIC				
5220	32	GENERAL THERAPY SERVICE				
5221	33	GENERAL THERAPY CLINIC	11	1	6	4
5222	34	EMERGENCY SERVICE	20	1	19	
5223	35	OPTOMETRY CLINIC	4	2	2	
5224	36	IMMUNIZATIONS	2		2	
5225	37	PHYSICAL EXAMINATION CLINIC	4		4	
5226	38	CIVILIAN EMPLOYEE HEALTH SERVICE				
5230	39	SURGICAL SERVICE				
5231	A0	PHYSICAL THERAPY	7	3	4	
5233	A1	UROLOGY CLINIC	2		2	
5234	A2	SURGICAL CLINIC	2		2	
5235	A3	OPHTHALMOLOGY CLINIC				
5236	44	OTOLARYNGOLOGY CLINIC	1		1	
5237	A5	ORTHOPEDIC CLINIC	3		3	
5238	A6	ORTHOPEDIC APPLIANCE SHOP				
5239	A7	OBSTETRICS AND GYNECOLOGY CLINIC	2	1		1
5240	A8	SURGICAL SUITE	24	9	15	
5241	A9	CENTRAL STERILE SERVICE	3		3	

AF FORM 201 PREVIOUS EDITION OF THIS FORM IS OBSOLETE.

TABLE 8.2.5 (Continued)

II. BASE/AREA MEDICAL SUPPORT							
FC	LINE NO.	FUNCTION	PERSONNEL				
			TOTAL A	OFFICER B	AIRMAN	CIVILIAN	
	50	TOTAL	34	9	24	1	
5130	51	MEDICAL SQUADRON SECTION	9	1	8		
5203	52	HISTOPATHOLOGY	5	2	3		
5310	53	FLIGHT MEDICINE	9	3	5	1	
5311	54	MILITARY PUBLIC HEALTH AND OCCUPATIONAL MEDICINE	4	1	3		
5312	55	PHYSIOLOGICAL TRAINING					
5410	56	VETERINARY SERVICE	7	2	5		
5450	57	INDEPENDENT MEDICAL SUPPORT					
5510	58	PROFESSIONAL AND TECHNICAL TRAINING (Hospital)					
III. DENTAL SUPPORT							
	60	TOTAL	57	13	42	2	
5421	61	DENTAL CLINIC	31	12	18	1	
5422	62	BASE DENTAL LABORATORIES	3		3		
5423	63	AREA DENTAL LABORATORIES	23	1	21	1	
IV. TOTAL PERSONNEL (Summary)							
LINE NO.	TYPE	AUTH A	ASGN B	LINE NO.	TYPE	AUTH A	ASGN B
70	AGGREGATE TOTAL	602	556	84	CIVILIAN - TOTAL	78	69
71	MILITARY - TOTAL	524	487	85	US PHYSICIANS		
72	OFFICER - TOTAL	154	154	86	US DENTISTS		
73	MEDICAL CORPS	54	57	87	US NURSES	10	10
74	DENTAL CORPS	15	11	88	US OTHER MEDICAL	64	57
75	VETERINARY CORPS	2	2	89	US OTHER DENTAL	4	2
76	MEDICAL SERVICE CORPS	8	9	90	FNDH PHYSICIANS		
77	NURSE CORPS	64	64	91	FNDH DENTISTS		
78	BIOMEDICAL SCIENCES CORPS	11	13	92	FNDH NURSES		
79	OTHER OFFICERS			93	FNDH OTHER MEDICAL		
80	AIRMAN - TOTAL	370	333	94	FNDH OTHER DENTAL		
81	MEDICAL AFSC	279	256	95	FNIM PHYSICIANS		
82	DENTAL AFSC	46	42	96	FNIM DENTISTS		
83	NONMEDICAL/NONDENTAL AFSC	45	35	97	FNIM NURSES		
				98	FNIM OTHER MEDICAL		
				99	FNIM OTHER DENTAL		
REMARKS							
TYPED NAME, GRADE AND TITLE OF AUTHORIZED INDIVIDUAL BERNARD F. BAUMAN, Major, USAF MSC Chief, Business Office						SIGNATURE	

TABLE 8.2.6

CIVILIAN PERSONNEL AT MARCH AIR FORCE BASE HOSPITAL
AS OF 30 NOVEMBER 1969

<u>Line No.</u>	<u>Function</u>	<u>Skill No.</u>	<u>Skill Name</u>	<u>On-Board</u>	<u>Authorized</u>
02	Medical Command	70450	Clerk Steno	1	1
03	Medical Administrative Office	70450	Clerk Steno	1	1
		70250	Clerk Typist	2	2
04	Medical Materiel	70250	Clerk Typist	1	1
		91550	Materiel Specialist	1	2
05	Medical Equipment Maintenance	40350	Medical Equipment Repair	1	1
06	Linen Control	58250	Fabric Repair	1	1
07	Medical Food Service	70250	Clerk Typist	1	1
		62010	Food Handlers	7	7
08	Registrar	70250	Clerk Typist	1	1
09	Stenographic Pool	70250	Clerk Typist	4	7
		70450	Clerk Steno	1	1
		70470	Supervisor-Steno	1	1
11	Clinical Records	9025	Clinical Librarian	1	1
12	Central Appointments	70530	Apprentice Typist	1	1
		70250	Clerk Typist	3	3
13	Plant Management	9025	Medical Service Technician	1	1
15	Medical Business Office	67151	Accounting Specialist	1	1
16	Hospital/Dispensary Services	70450	Clerk/Steno	1	1
18	Radiology	90350	X-ray Technician	1	1
		70250	Clerk Typist	1	1
19	Clinical Laboratory	90450	Lab Specialist	2	2
21	Medical and Surgical Nursing Unit	9755	Registered Nurse	5	5
		90250	Medical Service Specialist	11	8
22	Obstetrical Nursing Unit	9755	Registered Nurse	2	3
		90250	Medical Service Specialist	2	5
23	Pharmacy	9246	Pharmacist	1	1
30	Mental Health Clinic	70450	Clerk Stenographer	1	1
33	General Therapy Clinic	9755	Registered Nurse	1	1
		90250	Medical Service Specialist	3	3
47	Obstetrics and Gynecology Clinic	9755	Registered Nurse	1	1
53	Flight Medicine	70450	Clerk Stenographer	1	1
61	Dental Clinic	70450	Clerk Stenographer	1	1
63	Area Dental Laboratories	98250	Dental Lab Technician	1	1

8.2.4 OPERATIONAL CHARACTERISTICS

8.2.4.1 Inpatient Activities

The March AFB Hospital operates essentially as a general community hospital for its eligible population. It is not highly specialized, but provides general medical care and surgery. Cases requiring highly specialized treatment or skills are usually transferred to the area hospital at Travis, California, or to Wilford Hall at San Antonio, Texas.

The Registrar's Office is administratively responsible for patient affairs, including medical evaluation board functions for active duty personnel, medical evacuation service, admissions and dispositions, biometrics, and patient squadron administration. Also, the Registrar's Office provides information to state employment offices, insurance companies, private practitioners, and others administering medical or legal assistance to military persons, dependents, and retirees. As a point of central information, questions of all types are answered regarding military health programs. These would be CHAMPUS, inpatient and outpatient services, overseas facilities, and transportation. Approximately 30-40 calls per day, by telephone or in person, can be expected for various kinds of information. The services offered through the Registrar's Office are described below.

8.2.4.1.1 Medical Evacuation

The Medical Evacuation Service coordinates the handling of incoming and departing patients. These transferrals average from 2 to 6 per week. When necessary, patient movement orders are cut, clinical records are assembled, and the handling of a man's related baggage is arranged for.

8.2.4.1.2 Admissions and Dispositions

This function is manned 24 hours per day, requiring two persons during the daily period and one during other periods. Functional responsibility is for the preparation of the daily admission and disposition list by name of person and identification, ward location, and other pertinent data. An observation of this function revealed the following procedure: a patient steps to the admission desk and produces an admission slip previously obtained from a physician; the admission clerk prepares an addressograph plate and a plastic identification card; these in turn are used to stamp an inpatient medical record folder and clinical record sheet; these items are forwarded to the ward floor with the patient, are used for assembling the patient's record, and for other record purposes. No one is admitted as an inpatient without a physician's approval.

8.2.4.1.3 Biometrics Reporting

This is a reporting and statistical service of the Registrar's Office. Reports are prepared as follows: Report of Patients, AF Form 235 (see Air Force Manual 168-4, Chapter 6, Section 8), Specialized Bed Availability Report, and Communicable Disease Report (input to this report is the patient's medical status report, AF Form 570, from either the patient's record or clinic or ward floor). Disease code is used as defined under the present AF Manual 160-24/TBMED 15. In 1970, the International Classification of Diseases Code will be substituted for the current AF Disease Code and members of the reporting staff appear to be happy with this change. A daily patient status report, March AFB Form 229, is prepared; data for this report come from the daily admissions and dispositions listing. A copy of the admissions and disposition report is forwarded to the March Legal Office for third-party claim review.

8.2.4.1.4 Patient Squadron

The Patient Squadron is a paper organization and includes military personnel transferred from organizations not under the command of March Air Force Base. Problems such as pay, baggage, and personal business are resolved.

Table 8.2.7 presents some basic statistics on inpatient loads for the past three years. Further data are included in Section 8.2.5 on Workload and in Section 8.2.6 on Costs.

8.2.4.2 Outpatient Activities

March Air Force Base operates no separate dispensaries. All regular medical outpatients, military and civilian, come to the hospital for clinical visits. (The Flight Surgeon, located in a separate building, sees flying personnel on an outpatient basis in his own facilities.) All clinics except Psychiatry, Dental, Emergency, and Flight Surgeon have their appointments made through the Central Appointments (CA) desk. Anyone desiring to be seen in any clinic, except for those mentioned above, must phone CA for an appointment. Appointments for Psychiatry, Dental Clinic, and Flight Surgeon are made directly with clerks in those services because of specialized requirements. No appointment is necessary, of course, to come to the Emergency Room.

The Central Appointments desk is staffed with three to five clerks, each having a telephone; the operators sit around a circular desk to receive calls. Within the center of the circular desk is a "lazy susan" containing appointment notebooks for each clinic in the Outpatient Department. Incoming calls are taken on a first-come-first-served basis. Appointments are then made for individual clinics for not more than 30 days in advance. This service operates daily from 7:30 a.m. to

TABLE 8.2.7
INPATIENT STATISTICS

	<u>FY 1967</u>	<u>FY 1968</u>	<u>FY 1969</u>
Total Beds Occupied	57,401	56,125	52,756
Military Personnel	21,194	25,382	24,474
Military Dependents	18,527	14,540	12,294
Retired Personnel	7,626	7,203	7,558
Dependents, Retired Personnel	9,831	8,701	8,229
Other	223	299	201
Average Daily Patient Load	153	153	145
Military Personnel	58	69	67
Military Dependents	50	39	56
Retired Personnel	20	19	21
Dependents, Retired Personnel	26	23	23
Other	0.6	0.8	0.5
Average Length of Stay (Days)	9.1	9.1	8.6
Military Personnel	12.1	14.4	12.5
Military Dependents	6.1	5.2	5.1
Retired Personnel	12.1	10.4	12.2
Dependents, Retired Personnel	8.1	8.2	7.8
Other	5.3	4.5	4.9
Total Active Beds Authorized	175	175	175
Percentage of Beds Occupied	90%	87%	83%
Total Admissions	6,246	6,046	6,136
Direct	5,810	5,712	5,637
Transfer	436	334	499
Military Personnel	1,656	1,786	1,954
Military Dependents	2,838	2,436	2,412
Retired Personnel	616	678	675
Dependents, Retired Personnel	1,098	1,084	1,054
Other	38	62	41
Births	709	591	695
Deaths	89	96	94

5:00 p.m. Each afternoon, at the close of business, the clinic appointment lists for the next day's appointments are taken to Outpatient Records where patient records are pulled for clinics and distributed to the various clinics during the night. The next morning, each clinic opens with the patient appointment list and the proper records. Daily cancellations are routed by telephone from the appointment desk to the clinic, thus keeping the appointment list current.

Should appointments be made after appointment sheets are sent to Records, a special notice is sent to the clinic along with the appropriate patient records. Determination is made at the time of the call whether or not the records have been brought to the Hospital. Presumably, special requests are handled at that time for records which are elsewhere.

A person appearing at the hospital without an appointment is referred to a "white phone" to call for an appointment. Waiting time for an appointment is about seven days at this time.

People unable to wait for an appointment may go to the Emergency Room where they will be seen. Theoretically, they are seen only on a true-need basis, with the more immediate cases being taken first. In practice, however, it seems that there is no real effort to discourage people from using Emergency unnecessarily.

The appointments are recorded by doctor by day. The doctor informs the Central Appointments desk of his personal schedule for at least thirty days in advance and the appropriate times are blacked out. The standard appointment times are shown in Table 8.2.8.

One hour in each day is reserved for active duty appointments. This allows the officer or airman to obtain immediate attention with the quick treatment necessary to get him back on the job. The individual is, however, still expected to phone for an appointment.

The supervisor of Central Appointments monitors the calls and is able to make an evaluation of clinic need if necessary and to request the patient to come in immediately or advise on other appropriate disposition.

All patients who have not been referred to a special doctor or clinic are sent to the General Therapy Clinic, or to Pediatrics if the patient is age twelve or under.

The system seems to be quite effective in controlling the patient flow and in keeping the doctors busy. There are some problems, of course. As might be

TABLE 8.2.8

STANDARD APPOINTMENT TIMES

<u>Clinic</u>	<u>Standard Visit Time (Contact)</u>	
Surgical	15 minutes	
Internal Medicine	40 minutes	first visit
	20 minutes	return visit
Allergy	30 minutes	first visit
	30 minutes	second visit
Gynecology	10 minutes	PAP smear
	20 minutes	regular visit
Obstetrics	20 minutes	first appointment
	5 minutes	follow-up — several over 9 months
Optometry	30 minutes	complete examination
	10 minutes	vision check
Orthopedic	15 minutes	knee or elbow
	30 minutes	back
Pediatric	10 minutes	(clinic schedules 4 per hour)
Well baby	15 minutes	
General Therapy	10 minutes	(clinic schedules 5 per hour)
Ophthalmology	20 minutes	
Dermatology	15 minutes	
Neurology	40 minutes	first visit
	20 minutes	return visit
Neurosurgery	30 minutes	
Urology	15 minutes	
Eye, ear, nose, and throat	30 minutes	new consultation
	10 minutes	for return visit

expected, the CA desk is understaffed. The ten-minute appointment system for General Therapy is being changed. Female civil service employees operate the CA system.

In addition to telephone appointments, there are referrals from a number of military installations which use the March Hospital as a referral center. The volume of such referrals for 1969 is shown in Figure 8.2.3. Letters of referral lead to an appointment in the appropriate clinic and a copy of the letter is returned to the originating installation.

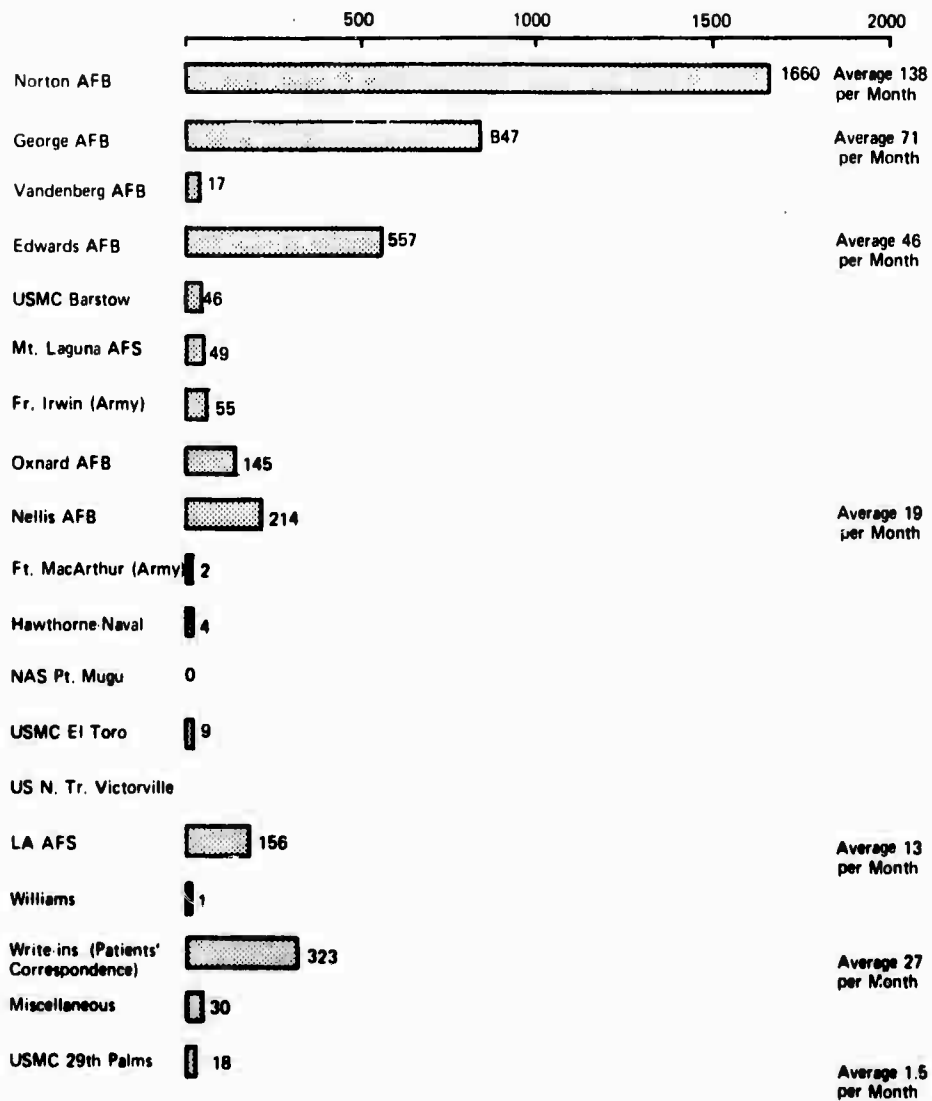
The Outpatient Department at March AFB is located in a single-story wing with its main access directly off the main hospital entrance hall. The departmental areas have been considerably revised since the original design layout was made. The Flight Surgeon's Office was never moved into the Hospital because the activity was too large to house. Only some of the clinics have waiting and reception areas, but even these are probably inadequate judging by the overflow in the corridors. Two major clinics, General Therapy and Internal Medicine, use the main entrance area for their waiting space. Thus, there is a feeling of physical inadequacy about the Department. Radiology and clinical laboratories are placed conveniently among the clinics, although they obviously contribute to the congestion of the area. A plan to considerably expand the size of the wing is awaiting implementation.

The clinics operate from 8 a.m. to 5 p.m. five days a week. The clinics consist of:

General Therapy	Orthopedics
Allergy	Pediatrics
Dermatology	Physical Examination
Eye, Ear, Nose, and Throat	Proctology
Immunization	Psychiatry
Internal Medicine	General Surgery
Neurology	Urology
Neurosurgery	Flight Medicine
Obstetrics and Gynecology	

Typically, as in any small hospital, not every specialist practices in his own field. For instance, gastroenterologists, hemotologists, and cardiologists staff the Internal Medicine clinic on a rotating basis.

The staffing of the General Therapy Clinic was difficult as only four general practitioners were on the hospital roster. It has been suggested that the Berry Plan, which provides for the service medical doctor to go through his specialty training before practicing in the system, is seriously reducing the number of



Note: Approximate Total of Referral Consultations is 4,141 or about 2% of Total Outpatient Visits at March AFB Hospital. Total Outpatient Visits for 1969 Came to 211,525.

FIGURE 8.2.3 REFERRAL CONSULTATIONS TO MARCH AFB HOSPITAL FROM MILITARY INSTALLATIONS FOR 1969

available GP's. At the time of our survey, partially trained neurosurgeons had been assigned to work as General Therapy doctors.

The General Therapy Clinic MD's are supported by "coattail" consultation from all specialty clinics. They can refer a patient to the specialty, can call for an immediate consultation, and generally leave admission to the specialist, although this is not obligatory.

There were indications that the staff of the General Therapy Clinic suffered from the general discomfort of dispensary MD's. The effect of carrying out routine, minor medical care on the morale of the doctors was a matter of active concern to the Director of Medical Services. Improved procedures and relationships to other departments were his aim. He considered that the standard ten minutes per patient may be causing problems. While it was adequate time for most cases, it was possible that inadequate diagnosis, or what patients saw as lack of attention to their needs, caused revisits which enlarged the appointment schedule unnecessarily.

There is no continuous record kept of the category of patients passing through the clinics, but a check of one day's appointments on the Central Appointments records revealed these figures for General Therapy:

<u>Category</u>	<u>Number</u>	<u>Percent</u>
Active Duty	24	25
Dependents of Active Duty	40	41.7
Retired, Dependents of Retired and Deceased	<u>32</u>	<u>33.3</u>
Total	96	100

Drop-in patients are discouraged, except for active duty personnel, but when such patients do appear, they are obliged to use house phones in the main entrance area to get an appointment. Appointments can be made up to at least three weeks in advance. An interesting side effect of this arrangement was observed in the relationship of this hospital to Norton, the closest and most dependent of the dispensaries. Norton will make appointments not more than twenty-four hours in advance, with active-duty callers receiving preference. Therefore, it was suspected that this difference in procedure may be encouraging retirees in the Norton area to try for a guaranteed future appointment at March, especially when they receive any difficulty at all in getting into the one-day schedule at their own dispensary. Dependents of active duty personnel at Norton must be referred on consultation.

A patient, on entering the Hospital, reports either to the main reception or the specialty clinic reception where he is recorded and picks up the outpatient record. His record will have been pulled in advance from the Record Department alerted by the Central Appointments daily clinic schedule. In the waiting area, the clinic registered nurse or corpsman may check temperature and pulse and perform other support roles, but each patient will always see a physician. Diagnostics are usually performed on an unscheduled basis by direct referral of the patient to the department, with the patient bearing a request form. The general patient flow diagram is shown in Figure 8.2.4.

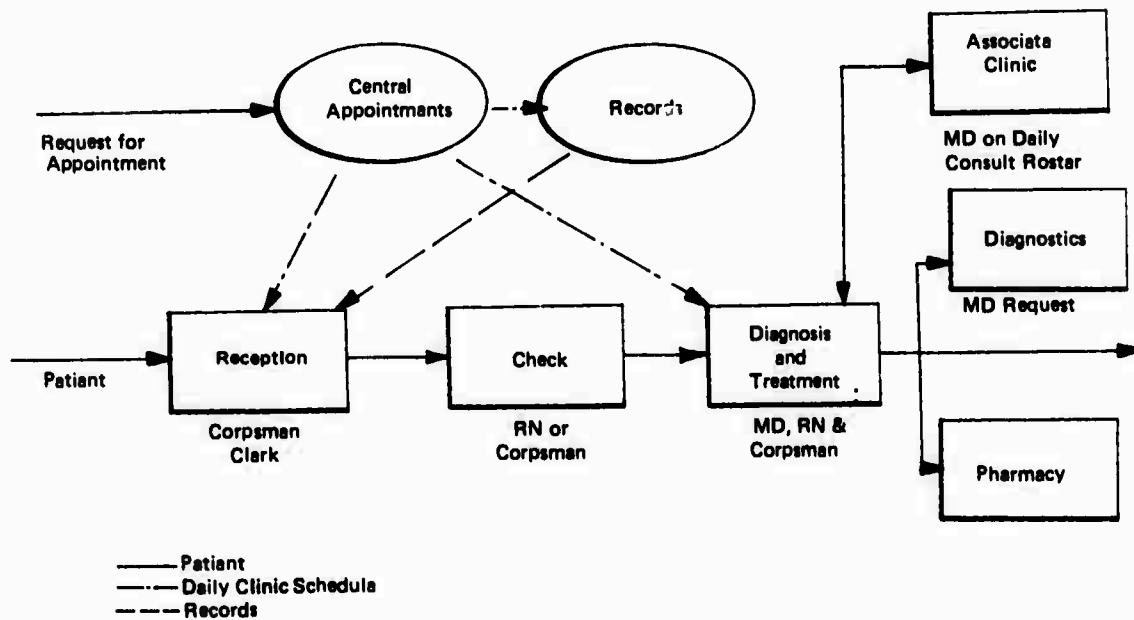


FIGURE 8.2.4 TYPICAL OUTPATIENT CLINIC OPERATION

In common with most hospitals, the Emergency Room at March also serves as a drop-in clinic, taking patients who cannot get immediate appointments at the normal clinics. A typical twenty-four hour load, shown with the normal staffing pattern, was estimated to be as follows.

<u>Shift</u>	<u>Total Patients</u>	<u>True Emergency</u>	<u>MD</u>	<u>RN</u>	<u>Corpsmen</u>
8 a.m. to 5 p.m.	75-100	10	1	1	4 (2 for transportation)
5 p.m. to 8 a.m.	60	8	1	1*	3

The staffing to carry this load was considered low by the Clinic. They were hoping to get two MD's on the day shift to split the ordinary patients from the true emergency.

Referral to other clinics was direct for true emergency. The other outpatient clinics had a daily roster of MD's who were available on demand by the emergency staff. Also, the specialty clinic staff were generally responsible for admissions. The second of the two types of admission, the standard and the short stay (estimated under 72 hours), was predominately used by the emergency cases.

The physical location of the Emergency Room, at the rear entrance of the Hospital, was reasonable for emergency cases. The morgue was located in the adjacent area. The crowds of patients looking for accelerated service and the presence of the Admissions desk close by made the whole area seem generally congested.

Table 8.2.9 presents some basic statistics on outpatient loads for the past three years. In Volume 9 there is a more detailed analysis of the volume of outpatient visits by clinic.

8.2.4.3 Medical Records Handling

8.2.4.3.1 Clinical Records for Inpatients

There are 550-630 inpatient records processed monthly. Records are kept for five years in the Hospital, then retired to record storage in St. Louis, Missouri. The Hospital keeps approximately 30-35,000 inpatient records. Inpatient records on file are normally for those who have had one hospital stay, but some contain several inpatient stays over a five-year period. Three persons (one civilian and two military) are responsible for keeping these records updated, in order, with disease code entries, and retired. Each time an inpatient enters the hospital, a new record is started. Each month, approximately 10% of the records are audited by the Medical Records Committee. Records to be audited are sent to the members one week ahead of a meeting time. A group meeting lasts about 1½ hours, during which 8-10 records are reviewed in detail.

*The second RN works a special shift from 3 p.m. to 11 p.m.

TABLE 8.2.9

OUTPATIENT VISITS

	FY 1967		FY 1968		FY 1969	
	<u>Total</u>	<u>Monthly Average</u>	<u>Total</u>	<u>Monthly Average</u>	<u>Total</u>	<u>Monthly Average</u>
General Practice	62,659	5,221	63,977	5,331	49,344	4,112
Emergency Room	24,999	2,083	26,916	2,243	26,364	2,197
Allergy	1,696	141	3,450	287	18,723	1,560
Dermatology	6,820	568	6,450	537	8,595	716
Internal Medicine	9,257	771	8,806	733	6,629	553
Neurology	2,083	173	1,942	161	1,712	143
Pediatrics	43,062	3,588	34,892	2,907	26,408	2,201
Psychiatry	6,179	514	4,971	414	4,578	382
Other Medical	12,827	1,068	12,775	1,064	13,129	1,094
Gynecology	9,540	795	11,697	974	15,020	1,252
Neurosurgery	1,740	145	1,244	103	0	0
Obstetrics	11,707	975	12,416	1,034	11,214	935
Ophthalmology	2,336	194	4,026	335	3,956	330
Otolaryngology	4,173	347	4,089	340	5,071	423
Orthopedics	13,032	1,086	18,478	1,539	12,639	1,053
Surgery	6,403	533	7,272	606	8,068	672
Urology	7,206	600	4,690	390	5,940	495
Flight Medicine	7,137	594	6,696	558	9,301	775
Physical Therapy	6,441	536	8,147	678	11,250	938
Family Planning	506	42	1,442	120	1,060	88
Cardiology	0	0	2,175	181	1,396	116
Thoracic Surgery	0	0	170	14	328	27

The most interesting report prepared by Clinical Records is AF Form 565-4, the Clinical Record Cover Sheet. The patients' diseases are coded and keypunched onto cards and the information is forwarded to the Surgeon's Office, Hdq. SAC, Offutt AFB, Omaha, Nebraska. Punched cards and consolidated command reports from all hospitals are then forwarded to Hdq. USAF, Office Symbol AFMSHD, Forrestal Building, Washington, D.C., for computer processing. A statistical report for each hospital is published monthly and a cumulative report is published every six months. When the cumulative six-month report is received by Clinical Records, the previous monthly reports are discarded.

8.2.4.3.2 Outpatient Records

This function has 12 authorized personnel but often, fewer are available. From 55,000 to 65,000 records are held in four Remington Automatic Retrieval Files. Each year, approximately 14,000 records are retired to St. Louis, Missouri, and replaced by a like number for personnel assigned to the base or retired in the area. The organization handles about 60,000 pieces of paper (to be filed in records) per month; each day, about 600 records are taken from the files per the clinical appointment lists and distributed during the night to the respective clinics. The flow-through diagram in Figure 8.2.5 shows the procedures of this function.

8.2.4.3.3 Stenographic Pool

The stenographic pool is authorized at nine members but is staffed with six because of a SAC hiring limitation. They prepare smooth copies of physicians' notes and any other medical administration information required for medical records and the Registrar's Office. The stenographic pool operates eight hours a day, five days a week.

In the stenographic office is a bank of three automatic dictating machines which are accessible to physicians by telephone. Physicians dictate their reports and stenographers type information on the proper forms. These are then routed for review and physician's signature to the proper record, file, or person.

8.2.4.4 Medical Support Services

8.2.4.4.1 Pharmacy

The Pharmacy occupies a single room, 18 by 48 feet, next to the main lobby. It is open from 8 a.m. to 6 p.m., five days a week, and there is a technician on call at all other hours. The officer-in-charge is a registered pharmacist. He has one civilian pharmacist and seven enlisted technicians on his staff. The technicians are permitted to fill prescriptions.

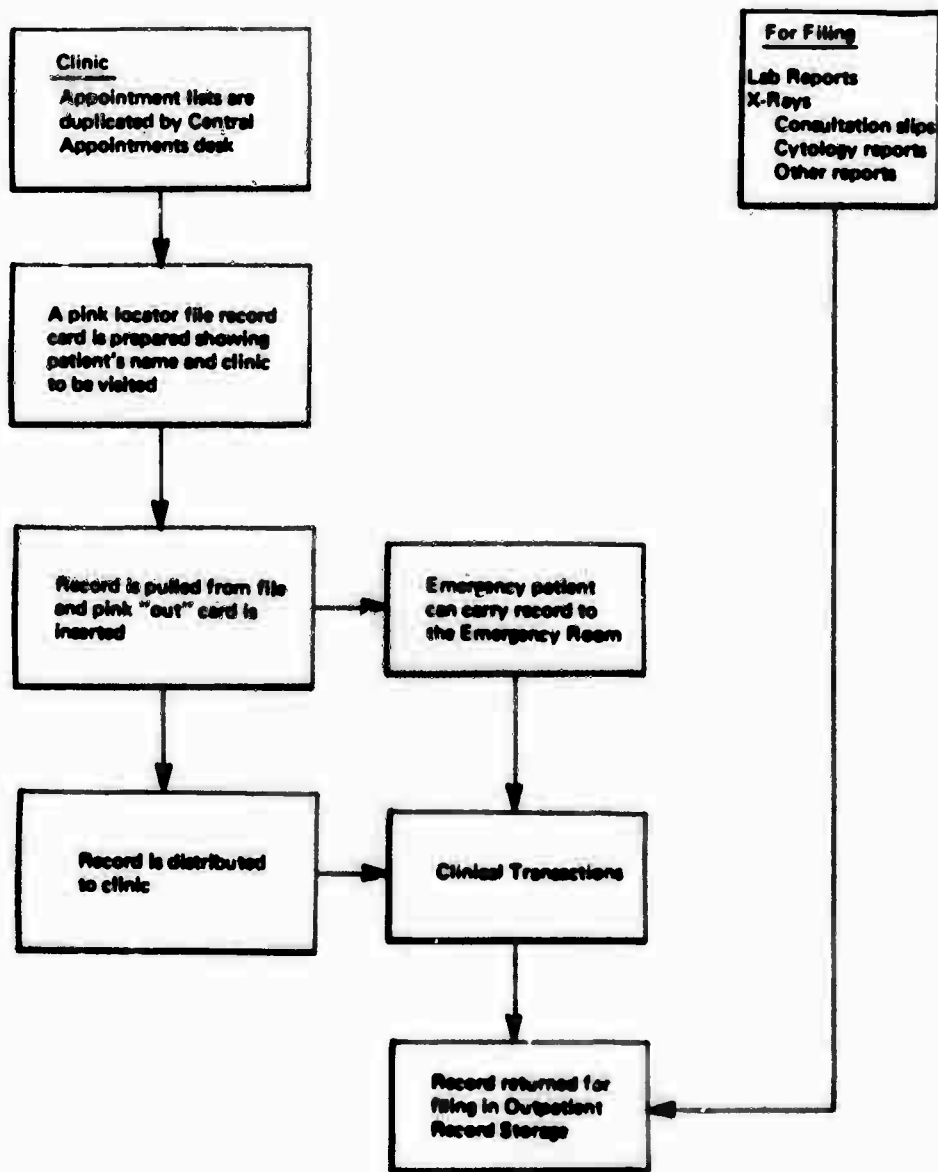


FIGURE 8.2.5 OUTPATIENT RECORD FLOW

The total space is adequate but laid out very poorly. The only door to the room is right next to the dispensing window, and traffic interferes seriously with work operations. All pharmaceutical storage is on shelves and in closets in this room, and all compounding, mixing, and prescription filling take place here. Office space for files and records seemed rather tight. Some pipeline storage exists in the Supply Department.

All inventory records have been maintained by hand in Kardex files, but they are now in the process of switching to a new set of machine records which will be maintained by the base computer service on the new B3500. Until they see how well this works out, they will maintain their own duplicate records in the Kardex file. They try to maintain a two-week stock level on hand, based on records of six months prior usage. However, much of the ordering is simply based on visual observation of when the shelf supply is getting low.

The daily workload is not excessively variable. Normally, they fill from 1,000 to 1,500 prescriptions daily during the week and from 100 to 200 per day on weekends. Each morning a messenger from the Pharmacy visits each ward to pick up its daily order for drugs. These orders are then filled and delivered before noon. The inpatient orders from a ward are in bulk; all orders for the same drug on one prescription, so the number of prescriptions is not indicative of the volume. Also, the cost per prescription becomes rather meaningless. To develop manpower and budget requirements, the number of prescriptions and cost figures are used, but the officer-in-charge believes these are poor measures. Nevertheless, he does not know of any good way to measure their workload by mechanically applied statistics.

The daily records were examined to see how the prescriptions turned in at the window might be categorized. If we call the number of new prescriptions issued to clinic patients at the Hospital N, then the number of refills is about $\frac{1}{2}$ N, and the number of prescriptions from civilian doctors off base is about .05 N.

Copies of prescriptions are kept on file for six months, then they go to what is called record staging on base, and finally, they are retired to archives. Records are also kept in the Pharmacy on their personnel, training, workload statistics, and on all batch and lot numbers for ingredients used in the syrups and ointments that they make up in bulk. Judgment is used to decide what to make up in advance.

At least 10% of total staff time in the Pharmacy is absorbed by non-pharmacy duties, such as military training, meetings, etc. Some help, to the extent of about two man-days per week, is obtained through use of ambulatory inpatients in counting pills, prepackaging, and similar chores. By and large, the officer-in-charge felt that he had a good crew; their morale was high, they worked hard, and they took pride in their work. He thought they were generally overworked, but that there were no other critical problems.

8.2.4.4.2 Radiology

The Central X-ray service is manned by two physician radiologists (officers), ten enlisted technicians, one civilian technician, and one civilian medical secretary. The technicians do the exposures and developing and the radiologists read all the films. The radiologists dictate their findings on tape and the medical secretary types the reports onto the work order forms. X-rays are filed in a central depository here.

There are four exposure rooms, six dressing rooms, and one dark room for film development. The X-ray equipment consists of two General Electric X-ray machines (300 MA) and two Continentals (300 MA). The Continentals are disliked because they are hard to maintain. In addition, there is also an X-ray machine (300 MA) in the Flight Surgeon's Office (a different building) that is used in connection with physical exams for flight personnel. Each morning, a technician from the Hospital goes over to do X-rays for physicals and brings the plates back for development and reading. He is finished in the Flight Surgeon's Office usually by 10 a.m. There is also an X-ray machine in the Urology Clinic, which is operated by its own technicians. These plates are brought to Central X-ray for development, sent back to Urology for reading by the physicians there, and then brought back to Central X-ray for filing.

Central X-ray handles, on the average, about 150 patients per day, but sometimes as many as 180. Mondays and Wednesdays are its busiest days, because of Orthopedic Clinic scheduling. There are approximately 20 to 25 cases from the Emergency Room every Saturday and Sunday. Routine X-rays are carried out on a first come, first served basis, but special procedures are scheduled in advance. Sometimes a waiting line builds up, but generally the waiting time is not very long (about ten minutes). Inpatients are called to Central X-ray during lulls, and they arrange this scheduling by being in continuous communication.

If films are taken on one day, the X-rays are read and reports are typed and distributed by the next day. For urgent needs, the radiologist reads the film immediately and telephones his diagnosis to the requesting physician; then the report is dictated and typed in normal fashion. The work requests come in on two copies and the report is typed on each with carbon paper. One copy is returned to the patient's doctor and then into the patient's record, and the other copy stays with the film and is filed with it.

All films are filed in Central X-ray in numerical sequence, each patient having a number assigned so all his films go into one envelope. Filing is also done alphabetically on cards by patient name to reference the file number. Storage space for films is very crowded and filing overflows into basement storage. Films are kept for three years and then they go to Base Records for two years. After

that, films are sent away for melting down and silver recovery. At the end of each year, there is a major sorting and shifting operation, a very unpopular chore that staff personnel would prefer to avoid if possible. An alternative to the present filing system could be a microfiche or microfilm type record. This system would require study to determine whether the quality would be adequate. At this time, one man is kept busy, essentially full time, responding to requests for old films and shipping them around to other bases to which people are transferred. Unless requested elsewhere, films stay at the base where they were first taken.

The NCO in charge of X-ray felt that the physical layout was rather poor. The four exposure rooms are in a row and the darkroom is between the third and fourth rooms. The adjacent rooms have direct pass-through windows to the darkroom, which is convenient, but the two more remote exposure rooms have a sliding tunnel arrangement which works so poorly (films get stuck part way through) that it is not used anymore. Consequently, film plates and their holders are wheeled around in grocery carts, in a confined space. The NCO would like the darkroom to be central, with all exposure rooms arranged around it circularly so that each would have a direct pass-through window.

The film developing is done on two Kodak X-O-Mat machines and these seem to be excellent. Developing takes only 90 seconds to produce a finished film ready for reading. Maintenance of these machines is by civilian contract, and the service is exemplary. The X-ray machines, on the other hand, are supposed to be maintained by hospital and base personnel, and this is much less satisfactory. This could be done better by contract also.

In their workload measurement, each film counts as one unit, no matter how many exposures are on it or how complicated the patient handling problem is. Statistics on film usage are given in Section 8.2.5.

8.2.4.3 Laboratory

The Laboratory Service at March AFB Hospital performs tests to aid in the diagnosis and treatment of disease and provides human blood and its derivatives for therapeutic use. The Chief of Clinical Laboratory Services is responsible to the Chief of Histopathology Service for accomplishing the mission.

All routine laboratory requests for bed patients are normally delivered to the laboratory by ward personnel prior to 5:30 a.m. each day. Routine reports are not given over the phone, but are picked up in the laboratory by authorized ward personnel. The standard laboratory examinations for inpatient admissions are as follows:

- Hematology: White blood count, hematocrit, hemoglobin, and differential.
- Urinalysis: Color, reaction, specific gravity, albumin, sugar, acetone, and microscopic
- Serology: Qualitative cardiolipin micro-flocculation.

Regular hours of operation are from 8 a.m. to 5 p.m., Monday through Friday, but limited staffing is maintained around the clock. Outpatients are processed between 7 a.m. and 4 p.m. Elective surgery patients report to the laboratory at least twenty-four hours prior to surgery to have specimens taken.

At March AFB, very few inpatients come to the labs to give samples. They find it easier for the technician to collect the samples on the ward floor. This is better than having inpatients straggling down to the labs at all hours. Specimens for outpatients are collected at the lab.

The laboratory does not assign weighted values to lab tests. This was abolished on 1 July 1969. They do not separate the tests by type but count them basically as procedures. The procedures are somewhat vague in their definition, as for example in the urinalysis test; they might classify it as 1, 2, or 8 procedures.

The laboratory does record automated and nonautomated tests. A tabulation of these tests for the last eight months is shown below. (This table does not include blood bank or hematology.)

Automated and Nonautomated Tests for February-September 1969

	<u>Automated</u>	<u>Nonautomated</u>
February	5,484	18,693
March	8,348	13,100
April	8,750	14,372
May	8,815	13,734
June	6,860	14,206
July	7,274	13,987
August	7,780	15,121
September	5,468	13,867

It should be noted that urinalysis is included in these and this amounted to approximately 25% of all procedures. Automated tests are as follows:

Chloride	Potassium	Albumin
CO ₂	Calcium	Creatine
BUN	Phosphorus	SGOT
Glucose	Uric Acid	Alkaline Phosphatase
Na	Total Protein	

The Chief Laboratory Superintendent said there is no way of getting information on individual tests performed for inpatients or outpatients as to the department or service that requests them. Each day, a figure is obtained for how many chemistry tests are performed, for example, with a split between inpatient and outpatient. This does not allow tests to be identified by inpatient and outpatient against specific services. Actually, the record is destroyed and only the figures required for the report are kept.

The number of control samples used each day for the various types of tests are as follows:

<u>Test</u>	<u>Control</u>	<u>Test</u>	<u>Control</u>
Cholesterol	2	CO ₂	1
Amylase	2	Blood Urea Nitrogen (BUN)	5
Cerebrospinal Fluid (CSF)	1	Glucose	5
Bromsulphalein (BSP)	1	Na	3
Thymol Turbidity	2	Potassium	3
Creatine Phosphokinase (CPK)	1	Calcium	5
Lactic Dehydrogenase (LDH)	2	Phosphorus	5
Serum Glutamic Pyruvic Transaminase (SGPT)	2	Uric Acid	5
Acid Phosphatases	1	Total Protein	5
Bilirubin	1	Albumin	5
Bilirubin Total	3	Creatine	5
Lipase		Serum Glutamic Oxalacetic Transaminase (SGOT)	2
Ammonia		Alkaline Phosphatase	2
Chloride	3		

Tests that are sent out are as follows:

Protein Bound Iodine	Carotene Levels	Vitamin Studies
Lipid Profiler	Toxicology-Lackland	Growth Hormones
Electrophoresis	Lactic Acid	Chromosome Studies
Anti-Thyroid Antibodies	Serology	17 Ketogenic Steroids
Total Iron and Iron Binding Colloidal Gold	All Fungus Studies	17 Ketosteroids
	Plasma Cholesterol	

March has no record of how many STAT (immediate) procedures are performed but they estimate that it is about 10%. Action is taken if it is found to be in excess of 10%. An ASAP classification is also used for tests that physicians require "as soon as possible" without applying emergency procedures.

Sample copies of the order form for clinical lab tests were obtained. One copy of the duplicate form stays with the clinical lab and the other is filed in the medical record. Some problem has arisen from loss of these slips when they get in the hands of the doctor rather than going directly to the medical record at the Record Room or at the Nursing Station.

Few tests come from the Flight Physical Department, which is away from the Hospital. When they have special requirements, they come to the Hospital and then are counted by the lab as outpatients.

Giving information about lab tests on the telephone to wards and to clinical doctors is not a problem. It is felt that one hour a day can handle this. A rule is established that if anybody wants to look back into old tests they can come to the lab and look in the file cabinet.

The lab has a two-channel auto-analyzer which they would like to replace with a multichannel. Having only two channels limits the number of tests that can be done on the auto-analyzer since setup and breakdown time for each pair of tests is such that with the present loads they are running the machine for over six hours a day.

The Pathology Service performs autopsies normally at the rate of 70 per calendar year. However, by October 1969, over 70 autopsies had been performed.

Other pathology work includes laboratory work in cytology, PAP smears, and tissue examination. All pathology work is carried on in house, and for check, slides may be sent out for second opinions on difficult questions. For example, slides of malignant tumors are sent to the Armed Forces Institute of Pathology, in Washington, D.C., for checking. A cytology screener is available at the March hospital. It is estimated that most samples are analyzed and results are produced within twenty-four hours, with the exception of those that have to be sent out.

Normal delivery of results for PAP smears is two days. Surgical samples received up to 3:30 p.m. on the first day are processed during the night, cut and read on the second day, and the results are usually typed by the third day. All specimens are delivered to the laboratory.

The present pathology staffing includes two pathologists and three technicians. A secretary is needed.

8.2.4.4 Central Sterile Supply

This service is provided as an adjunct to the Surgical Suite. It is responsible for the handling of Operating Room linens, a variety of surgical kits, and sterile solutions. It is also the source of sterile supplies for the rest of the hospital. It receives contaminated articles, cleans them, sterilizes them, and stores them for future use. It is staffed by five personnel. No particular comments or complaints were offered by the medical staff regarding the performance of this service, so it can be inferred that the needs were being adequately served. It was not studied in detail during our visits.

8.2.4.5 Other Support Services

8.2.4.5.1 Materiel

The following categories of materiel are stocked: drugs, equipment, office supplies, housekeeping, linens, and consumables. At the present time the manual order inventory system is being transferred to the B3500 computer. The system had not been debugged as of September 1969 and complete reports are not available. Approximately 35 different reports can be produced from the B3500 reporting system. However, only three reports are used most of the time. Forty-five individual sections in the Hospital receive supplies from the hospital stock.

Approximately 6,500 transactions are made each month. The current inventory system (one permanent place for each stock item) is very inefficient, utilizing two to three times the space required. This inefficiency creates additional transportation and personnel needs. Some thought is being given to studying the system. A flow diagram, Figure 8.2.6, is presented on the following page showing the materiel system; other available materiel data for 1969 are shown in Table 8.2.10.

The officer in charge of supply tries to keep a 60-day stock level of all basic supplies plus a 30-day safety stock. The size of units of issue was not a problem. The normal inventory level is about \$113,000, less the war reserve stock. The war reserve stock is not segregated and is rotated with the other stock. Items are charged to the department when issued.

Hospital stock is delivered to the using sections by a manual handling system consisting of shopping baskets, hand carrying, dolly carts, wheelchairs, or any other means of transportation passing by the stock issue office. Delivery traffic is heavy at times, and it is obvious that a great deal of personnel time is spent in moving things around in the hospital, but they have no figures on the amount of such time. There is no pneumatic tube system, and no mail delivery, except to patients. All paper work is distributed via racks of pigeonholes in a central

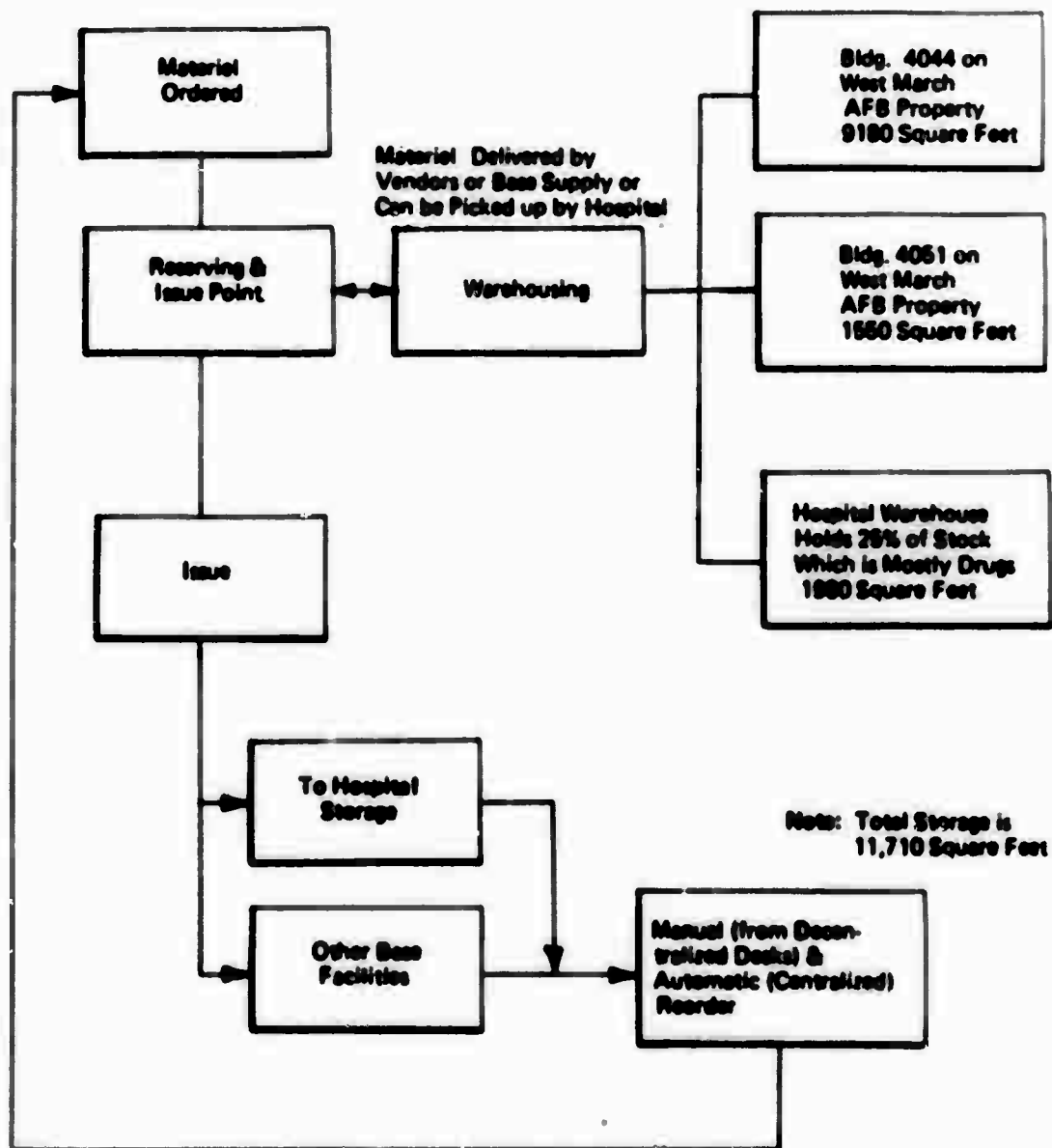


FIGURE 8.2.6 SIMPLIFIED FLOW DIAGRAM OF MARCH AFB MATERIEL/INVENTORY PROCEDURE

**TABLE 8.2.10
MATERIEL SERVICE DATA CY 1969**

	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>1st Qtr</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>2nd Qtr</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>3rd Qtr</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>4th Qtr</u>	<u>Year</u>
292.5	300.0	269.1	269.1	269.4	315.0	302.8	302.8	302.8	329.7	319.6	311.3	311.3	333.2	301.5	301.0	361.0	Supplies on Hand \$1000s
74.9	84.0	71.7	71.7	109.3	95.5	113.5	113.5	105.2	95.5	103.2	105.2	105.2	61.9	65.7	60.5	60.5	Supplies on Order \$1000s
		1.9	1.9	1.4	2.6	1.7	1.7	1.7	2.3	2.1	1.5	1.8	1.9	2.1	1.8	1.8	Months of Stock on Hand \$1000s
3.1	40.1	43.1	86.3	43.6	51.7	38.0	133.3	42.3	58.3	32.5	42.3	133.3	53.5	34.5	43.0	131.0	Months of Stock on Order \$1000s
5.4	13.0	18.8	37.2	23.9	11.5	13.5	49.8	27.4	22.1	23.9	27.4	73.4	33.0	26.6	19.0	78.0	Receipts - Defense Procurement Supply \$1000s
																	Receipts Local Purchases \$1000s
						51.5	183.1	206.5	80.4	56.4	69.7	206.5	86.5	61.1	62.0	209.0	Total Receipts \$1000s
24.1	63.3	75.1	148.5	62.7	57.7	64.3	182.8	78.0	54.4	62.7	78.0	195.1	66.7	56.1	78.2	201.0	Total Issued \$1000s
94.2	95.7	95.3	95.0	95.8	94.7	95.1	95.2	96.9	96.3	96.4	96.9	96.5	98.5	97.3	99.4	98.4	Fill Rate Percent
2,865	8,112	4,317	15,364	6,127	4,437	5,362	15,926	5,345	4,847	4,903	5,345	15,095	5,608	6,128	5,481	17,217	Total Transactions (number of)

location on the first floor where someone from each department can collect its messages. Although the supply system seems efficient in some ways, it responds much too slowly to variable demands. Consequently people tend to hoard and this compounds storage problems.

The Base orders materiel through Philadelphia and the materiel is actually delivered through a depot at Tracy, California, with a normal 20-25 day delivery. Norton AFB says they get materiel on an average of 10-15 days, but this may be due to smaller batches or the types of materiel being ordered.

The storage area in the Hospital is quite inadequate, so they store part of their stock at other locations (two out-buildings). The other locations cannot be used for drugs since they are not air-conditioned and building temperatures rise to 110 degrees. They do have their own transportation between these depots.

There is a physical inventory taken each year and the statement was that the normal variation was 3.5% between the physical inventory and the computer inventory. If it is over 5% they will have to go to a six-month basis for physical inventory. This is variation in numbers of items, not in cost.

There is a 601B Form for justification of equipment and this is sent to the materiel group and reviewed by a board and then sent to the Commander for approval. Equipment is purchased through the materiel system. There is a Table of Allowances for equipment and it normally covers all items to be purchased through the year, though some changes can be made in this list. Equipment up to \$1,000 is expensed (this appears to be a fairly high figure, though this may relate to some specific point in government financing).

All materiel is ordered through the Medical Supply Group except food. The Materiel Supply Group needs to have a more stable staff because of maintenance of stock records; and they would like to use civilians. There are presently about 22 people working there.

8.2.4.5.2 Linen

Virtually all of the linens used at March Air Force Base Hospital are launderable. However, they do use some disposable washcloths and some disposable diapers in the nursery. Regular diapers are used in the pediatric ward. The disposable washcloths are thin, paper-like squares and it is easy to see why they are not very popular. They are inferior in feel to the standard cotton terry cloth. They are trying to get people to use the disposable washcloths because they are so much cheaper (\$6.50 per 500), whereas under the standardized laundry price list every item costs 10 cents, whether it is a bedsheet or a washcloth.

All laundry is done at the base laundry, which is run under military management with civil service employees. The Hospital also pays for the laundering of all doctors' coats, nurses' uniforms, corpsmen's shirts and trousers, etc. Prices on these range from 25 cents to 40 cents each. Most of the linens are changed daily, and the laundry service takes three or four days. Separate hampers are kept in the wards for sheets, pillowcases, towels, gowns, etc., and are wheeled down and replaced daily by the ward or clinic corpsmen. Approximately 88 baskets per week are collected. Each basket is equal to 35 cubic feet. Folded, clean laundry takes up two-thirds the space used by collected dirty laundry.

Sixty percent of a 1½ ton truck is assigned for laundry use. Personal clothing is carried to central linen control by individuals and dropped off on the way in or out. Fresh clothing is stored in racks alphabetically, using sewn-in name tabs, and people pick up their own uniforms as needed. Final sorting and counting are done at the laundry and total charges are rendered monthly. There is no charging to separate cost centers within the hospital.

8.2.4.5.3 Food Service

The Food Service Department is run by two officers and a trainee, headed by a Chief Dietitian. It is staffed by 33 enlisted men and 8 civilians. Enlisted men do all the cooking and serving, and the civilians do the cleaning. All hospital staff members, including civilians, can eat at the cafeteria, as can outpatients and any other visitors. All except those enlisted military assigned to the hospital for subsistence (not authorized separate rations) pay cash for their meals at the cafeteria. Officer and civilian charges are 35 cents for breakfast, 70 cents for lunch, and 40 cents for supper; charges for enlisted personnel were slightly lower.

In the opinion of the Chief Dietitian, the kitchen layout was poorly utilized, having too many walls. It is preferable to have a single large room, so all areas can be seen and easily supervised. There is too much equipment, including three main stoves; only two are being used. There is a Flex-O-Seal pressure cooker system which they like very much. The cooking area is split by a wall. On one side there is an oven; on the other side are the stoves but no work table space. Fixed islands are not acceptable; racks and tables on wheels are preferred to promote flexibility and make cleaning easier. The dietitian would like more tile and porcelain finishes on equipment instead of stainless steel, because stainless is hard to clean.

The Chief Dietitian is against contract food service. She is familiar with some hospitals that have tried it and found it usually unsatisfactory. She believes service personnel are more responsive to needs of patients, can be controlled better, and actually seem to be better motivated. During our observation people seemed to be working hard; the atmosphere was cheerful and things seemed to be running smoothly. Everything seemed clean and well maintained. Storage space was rather

light and more is desired, but they are getting by adequately with what they have. Most of the men work twelve-hour shifts, two days on and two days off. Only one person is kept on duty at night to serve the night meal and do food preparation for breakfast. Only ten to twenty night meals are served; for some reason the night staff members seem to prefer bringing their own snacks and eating at their duty station. The night meals served are counted in with the breakfast of the next morning.

We discussed the question of convenience foods at some length. The officer-in-charge is rather open-minded on the issue, interested but not fully convinced as yet. She thinks there is some future in it and that there need to be exploratory moves in this direction; but she is not sure all the problems are fully understood. She thinks a basic kitchen may always be needed. Moreover, even with expanded use of convenience foods she would like to keep the service centralized rather than distributed into the wards, as better control and management are possible this way.

On the average, about 250 rations (1 ration = 3 meals) are served daily. Most of the inpatients eat in the wards. In September 1969, out of all meals served to inpatients there were 4,985 regular meals and 3,470 special diet meals served in the wards; only 194 regular meals and 112 special diet meals were served in the cafeteria. A selective menu is used, and patients make their choices on a printed form for the next day's meals. These forms are then used to guide the loading of the individual trays in the kitchen. Transportation of trays is on special carts by kitchen personnel, but ward compmen distribute the trays on each floor. Table 8.2.11 shows the number of rations served per month in FY 1969 and the first quarter of FY 1970.

8.2.4.5.4 Housekeeping and Maintenance

Housekeeping. Some of the custodial services are carried out by contract and others are accomplished by the hospital staff. The custodial contract cost for 1969 was \$82,000. This cost has decreased from approximately \$125,000 before 1968. In 1968 the custodial contract cost was \$85,300. The difference is due to the fact that ward masters are now responsible for patient bedrooms, emptying trash, and miscellaneous clean-up details. Office trash is also the responsibility of occupants, who are required to empty baskets at central pickup points which are, in turn, collected by the custodial contractor. There is virtually no dusting and little sweeping within each office space. In general, public space is taken care of by the custodial contract, and individual hospital services are responsible for their own custodial well-being.

TABLE 8.2.11
TOTAL RATIONS SERVED^a

	<u>Total Rations</u>	<u>FY 1989</u>	<u>Total Patients</u>	<u>Total Other</u>
July	8,753		4,324	4,429
August	8,774		4,397	4,377
September	8,043		4,438	3,605
October	8,803		4,942	3,861
November	8,475		4,717	3,758
December	7,583		4,167	3,416
January	8,790		4,792	3,998
February	7,905		4,330	3,576
March	8,332		4,487	3,845
April	8,261		4,310	3,951
May	8,116		4,319	3,797
June	<u>7,028</u>		<u>3,533</u>	<u>3,495</u>
	98,884		52,756	46,108
		<u>FY 1979</u>		
July	7,758		4,019	3,739
August	8,421		4,010	4,411
September	7,905		4,028	3,877

a. 3 meals per ration.

The Schedule of Items under Custodial Contract is listed below:

PART 1

Furnish all labor, equipment, and required material to perform Custodial Services as outlined in Sections A and B (W.O. 2002-0) in strict accordance with the specifications, less items in Part 2. Buildings 317, 405, 768, 2990, and Annex A and B.

PART 2

Custodial service for Building 405 in accordance with TP 1-01 through TP 4-25.

Light fixture cleaning in public areas (654 fixtures) in Buildings 317, 768, and 2990 in accordance with TP 4-14.

Window screen cleaning (140 screens) on Building 317 and 768 in accordance with TP 3-01.

Drapery cleaning in Buildings 317, 768, and 2990 in strict accordance with TP 4-07.

Furniture and counter cleaning in public areas (other than dusting) in Buildings 317, 768, and 2990 in accordance with TP 4-12.

Venetian blind cleaning in Buildings 317, 768, and 2990 in accordance with TP 4-24.

Waste receptacle cleaning in public areas, Buildings 317, 768, and 2990 in accordance with TP 4-15.

Complete custodial service for patients' areas as outlined in floor plans 11-16 through 15-16 in Building 2990. Work to be in accordance with TP 1-01 through TP 5-02.

Custodial service for Annex A and B in accordance with TP 1-01 through TP 4-25. (Two mobile office units totaling 1,060 square feet, located behind Building 2990.) Outlined on floor plan 16-16.

Trash and Garbage Removal. For biological parts and pathology, an incinerator has been installed on the roof. Burning takes place on calm days when necessary. On windy days, smoke from the stack may become intake air for the ventilation system.

For general trash removal, 20 heavy galvanized metal trash cans are placed at 11 central locations. Boxes are not placed in trash cans if they are too large; they are taken out separately by each service. The Hospital Food Service removes its own trash to the Dempster Dumpster. Medical Supply empties its own trash. The PX empties its own trash, as does the Emergency Room. The trash cans are awkward to handle, being made out of heavy metal; few plastic bag inserts are used except in special cases where the liquid content becomes a problem; this is usually in operating rooms. The Dempster Dumpster fills up rather rapidly and requires persons to get up into it and stamp on the trash until it is compacted by the weight of the man. Approximately three Dempster Dumpsters, 6½ by 6½ by 6½ feet, are emptied once a day Monday through Friday. Buildup of trash over the weekend is excessive.

Kitchen garbage is ground up in a disposal and flushed into the sanitary sewer along with sanitary waste. Noticeable deposits of grease build up in the sewers and require frequent cleaning. Clean-out plugs are inconvenient; a grease trap from the kitchen is being planned for installation.

Maintenance. Plant management has two people assigned, one military technical sergeant and one civilian. The civilian is the authorized manager. The Plant Manager's Office acts as a coordination point for maintenance work orders within the hospital. Very light maintenance, such as bulb changing, tightening of screws, and minor repairs, is carried out by this office. Otherwise a job order is written for the Base Civil Engineer. There is a considerable backlog of maintenance work orders, but it is not considered excessive. There is often an unreasonable delay between request for maintenance or repair service and actual performance of the work. The problem of service is between the Hospital and the Base Civil Engineer and is a matter of priority basewide for maintenance services. The Base Civil Engineer has a maximum of 17% of his budget for new work. The Hospital is not authorized to contract externally for maintenance services.

There are approximately 15 maintenance inquiries per day coming into the Maintenance Office. Approximately 1 of the 15 inquiries can be taken care of internally. The remaining 14 are taken care of in the Base Civil Engineer's shop. In FY 1968, the inquiries were averaging ten per day. Thus, there has been an increase of five per day over 1968.

Work orders for modifications are:

- Minor work – carried out on the base
- Medium size jobs – through the civil engineering group A & E to Contract Officer on the base to a civil firm

- Major projects -- require Congressional approval as a line item on the budget.

The civil engineers charge the hospital, not the departments, for service calls. Their work orders are not itemized and priced properly, so it is difficult for the plant manager to find what specific work costs. For emergency purposes a 350 kilowatt generator is available. This system is maintained on a regular schedule by the Base Civil Engineer.

The Plant Manager was asked to develop a list of deficiencies in the plant, which he considers to be major items. These are included in Section 8.2.7. This list of deficiencies can serve as major input for future designs. Many mistakes, he said, had been built into the hospital.

8.2.4.5.5 Communications

The forms of communication throughout the March AFB Hospital and its on-base satellite facilities are many. Standard forms of communication transmission include the following:

Telephone. This is primarily a voice system; no use is made at present for data transmission. It is conceivable that in the future this could be used for data, but no formal studies are planned. There are three types of telephone connections: Class A for off-base/on-base; Class B commercial telephone which is billed separately; and Class C, used on base only, point to point. At the present time, the hospital has 148 telephone numbers in the building, but they are trying to reduce this by 25 numbers. The current cost is \$333 per month plus long distance phone calls. The average monthly bill is \$420. There is very little telephone breakdown in the hospital. There is no method whereby patients can have individual phones in their rooms for personal calls and be billed for them. At the present time, ward patients use a rolling pay telephone. Incoming calls are taken at the nurses' station for the patient. The rolling pay phone is plugged into the patient's room wall and the patient can answer or make pay calls.

Central Paging System. This system is used for the purpose of paging and background music. It is a maintenance problem.

Central Dictating Equipment. This equipment is used for medical reports, and consists of three automatic machines, interconnected to all hospital phones.

Written Communication. This consists of memoranda, regulations, manuals, letters, and reports. Central Appointments takes telephone, referral, and verbal appointment requests and records them on daily appointment sheets. As a medium of communication, this serves outpatient records, file clerks, and clinic visits. Laboratory and X-ray requests and results are transmitted via forms designed for the purpose.

Meetings. A weekly staff meeting is held, as well as numerous planning and critique meetings, i.e., a daily meeting to discuss patient health and what transpired during the night.

Closed Circuit TV. This is used for medical training purposes.

8.2.4.5.6 Transportation

The Hospital utilizes the services of the base motor pool for transportation. It does not have trucks or drivers of its own. One truck is used full time for picking up and delivering supplies between the outlying storage houses and the hospital proper. A second truck is used a little over half time for laundry pick up and delivery. There was no available information on the weight or volume of materials transported. Ambulances are assigned to the hospital but maintained by the base. The list of vehicles at the hospital's disposal is as follows:

- 2 Metropolitan Ambulances (Pontiacs)
- 3 Field Ambulances (Crackerbox)
- 1 Stationwagon Ambulance
- 1 Stationwagon Staff Car
- 1 Pickup Truck (for veterinary service)
- 1 ½ Ton Truck (supply work)
- 60% of another 1½ Ton Truck (charged to laundry)

8.2.4.5.7 Materials Handling

The materials handling system within the hospital is partially inadequate, thoroughly inefficient, but socially acceptable. There is no standard containerization of the rolling pieces. Transportation vehicles range from people walking on foot to a wide variety of wheeled vehicles such as shopping carts, dollies, laundry carts, and wheelchairs, having a variety of shapes and wheel sizes. Materials that enter the materials handling system include mail, records, reports, drugs, food, linen, medical material, trash, equipment, and maintenance items. Data are available on some of the material entering the transportation system, i.e., meals per day and amount of laundry and trash. Data on manhours and pieces of mail are not included. An origin/destination survey would be necessary to understand total goods moved and the manhours necessary to do it.

The layout of the hospital, having an extended first story, causes a long-haul transportation burden. The only mechanized transportation system within the hospital is the vertical lift (three) elevators. Although one elevator is designated as a freight elevator, all elevators are used for freight and passengers.

8.2.4.5.8 Data Processing

March AFB is now in the process of converting all of its base accounting to a new system built around the B3500 computer. Consequently, many of the old formats are being changed. The Hospital is not quite sure yet what their new reports will look like, but they have hopes that they will soon be able to get more detailed cost information with less labor. The Hospital itself has no computing equipment but does have one card punch machine that is used by the Registrar and Business Office for preparing input data to be sent to base data services.

The B3500 is also beginning to be utilized in connection with ordering and inventory of materiel, and in maintaining records of drug stock. At present, dual records are being kept manually until they find out how well the new computer service will work out. At this stage it is too early to make an assessment of the performance of the centralized computer service from the hospital's viewpoint.

8.2.4.6 Other Health Programs

8.2.4.6.1 Aeromedical Service

The sections of the Aeromedical Service are located in facilities remote from the hospital, near the flight line. Although space had been programmed for Flight Medicine in the Hospital, it was not included because of the demands of the Orthopedic Clinic for added space. The old facility is quite inconvenient to the hospital services, particularly when a patient must get a special type of X-ray, lab test, or consultation. It is convenient to the flight line, however, where the Flight Surgeon has his primary responsibility. This location also provides for faster response to flight line emergencies. Another advantage of its present location is the decentralization of patient flow, though the extreme distance is quite unnecessary.

The Aeromedical Service facility houses Flight Medicine Service (Flight Surgeon's Office), Military Public Health, Occupational Medical Service, Bio-environmental Engineering Service, and the Immunization Clinic, though the last is not part of Aeromedical Services. All physical exams are performed in this facility, even including those for which the Flight Medical Officer is not responsible.

By regulation, the Flight Surgeon is responsible for medical care for all flying personnel. He is also responsible for answering flight line emergency calls, training in flight safety, and other flight-related duties. At March AFB, there are approximately 1,000 flying personnel for whom the Flight Surgeon provides service. Until now, all dependents have been cared for by the hospital, due to understaffing in the FSO. However, it is planned for these dependents to be assigned to the FSO for care. This will add about 2,000 outpatients to the current load. The reasons for the Flight Surgeon caring for dependents are apparently traditional in nature. The Air Force has always given preferential treatment to flying personnel. The Chief of Flight Medicine at March gives another reason. He feels he can give better total care to the individual when he is aware of and treating the health of the man's family.

The FSO operates on a walk-in basis. In addition, one physician goes to the alert facilities to hold sick call once each day. This has been a difficult situation until recently when the medical staff was increased from one to three (four authorized). Most lab tests and X-rays are performed at the main hospital, but some routine X-rays are performed on site with their own equipment.

The Flight Surgeon's Office is also responsible for commissioning physicals (OTS, ROTC, Academies, etc.). This accounts for the largest proportion of physicals on the base. Other physicals are performed in the FSO simultaneously. Physicals are given on a scheduled basis each day beginning at about 8 a.m. To support this activity, the hospital sends three corpsmen, a lab technician, an X-ray technician, a physician, and occasionally an ophthalmologist. A dentist is assigned from the Dental Clinic when certain types of exams are being conducted; otherwise, the personnel will go to the Dental Clinic. The FSO provides three of its specialists to assist the corpsmen. When the lab tests, EKG's, X-rays, etc., are carried out, those personnel return to the hospital. The amount performed by the physician in this process apparently depends upon the load but it is usually minimal, as the enlisted men can do everything but the eye exam and interview.

The Flight Surgeon's Office has three physicians, five aeromedical technicians, and one civilian secretary. There are no nurses. The technicians are also responsible for ambulance duty.

8.2.4.6.2 Dental Service

Dental Service is divided into two parts, the dental clinic system and the area dental laboratory. In this study, more attention was given to the clinic services than to the laboratory, which services more than the regional area. The officer-in-charge of the Dental Service reports to the March AFB Hospital Commander, and is the Dental Surgeon for the 15th Air Force. He is also a practicing dental surgeon, performing services.

As of 1969, there were 13 to 15 dental officers assigned and distributed as follows: endodontics - ½ dental officer; periodontics - 1 dental officer; prosthodontics - 1 dental officer; oral surgery - 1 dental officer; crown and bridge - 1 dental officer; dental laboratory - 1 dental officer; the remainder do general dentistry.

There are 17 dental chairs available on March Air Force Base and distributed as follows: in the Base Dental Clinic - 14 chairs with 11 dental officers assigned; Hospital Dental Clinic - 2 chairs with 2 dental officers assigned; and Flight Surgeon's Office - 1 chair utilized 25% of the time by 1 dental officer and 1 dental technician. Each dental officer is assigned one chair and normally one dental technician.

Dental officers are assigned on the basis of military population. At March, the military population is approximately 6,400 active duty personnel. Approximately 13 dental officers, excluding the laboratory dental officer, are assigned. The patient ratio is thus about 500:1 and compares with civilian practice of 1,000-2,000:1.

There are very few orthodontists in the Air Force. They are located at two or three bases and specific cases are referred to them. The Air Force usually does not admit people having orthodontic appliances.

The Clinic does surgery when necessary and admits to the hospital after surgery if the patient is unmarried, so as not to have him in the barracks with no one to take care of him. In addition to the surgery in the Dental Clinic, the Hospital also carries out major surgery as an extension service. The Clinic has three hygienists though they are authorized to have six. The bulk of the dental officers spend only two years in the service, and, like the medical group at the Hospital, they have a problem during July because their new officers are involved in basic training during this period. Dental appointments are normally forty-five minutes each for restorative dentistry and are taken not more than ten working days in advance. However, other dental specialties, such as oral surgery, and periodontics, have appointments tailored for individual needs varying from 15 to 60 minutes.

Dental care, according to AFM 162-1, is principally limited to active military personnel. It is an Air Force requirement that all military personnel have a dental examination each year, including X-rays. There are eight or nine Air Force dental labs in the country serving the dental needs of all the services, though little work is done for the Army.

AFM 162-1 defines dental work for dependents and retired personnel. For dependents it is limited to emergency children's work and fluoride treatment. For

retired personnel, it becomes routine fillings, dentures, and plates. Normally, retired personnel have more dental care than dependents. The Dental Service Report Form 477 provides a breakdown by patient category. The March Dental Clinic receives referrals from local military installations because of several specialties mentioned above.

Supplies are ordered through the Hospital Central Service. Central Materiel Service delivers supplies by truck to the Dental Laboratory and the Dental Clinic. If additional supplies are required, the Dental Service and the Hospital negotiate Delivery Service. If the Hospital does not deliver, the Dental Service picks it up. Approximately \$10-15,000 in supplies are stored within the dental facility. A tour of the facility was conducted by the officer-in-charge. The facility is pleasant and the morale appeared to be good.

The laboratory is an area facility with only part of its work coming from March AFB. Laboratory work can be expected from Hawaii, Southern California, Nevada, and Arizona – from any military service.

The Air Force Manual, AFM 162-1, Dental Administration and Technical Procedure Manual, governs dental practice in the Air Force. The Dental Service Report DD Form 477a, published monthly, provides a statistical summary of staff assignments and categories of dental work. A copy of this is included in Section 8.2.5.

8.2.4.6.3 Training

March Air Force Base Hospital has an extensive training program as outlined in Table 8.2.12.

8.2.5 WORKLOAD STATISTICS

Various workload summaries are prepared periodically at March AFB Hospital. In this section we reproduce a recent set of reports and charts (Table 8.2.13 and Figures 8.2.7-8.2.14).

Additional data on workloads as related to costs will be found in Section 8.2.6, where we include a copy of March's Hospital Management Summary Cost Analysis and Financial Management for FY 1969.

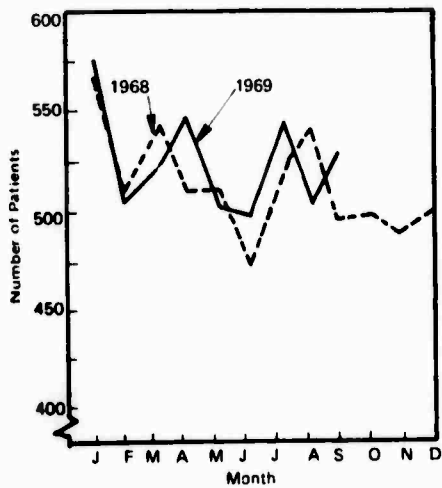


FIGURE 8.2.7 USAF REGIONAL HOSPITAL MARCH AFB, ADMISSIONS

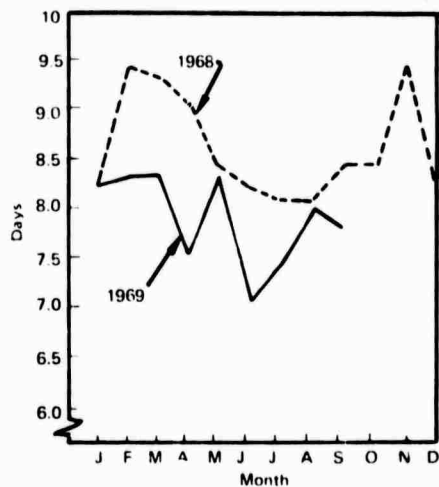


FIGURE 8.2.8 USAF REGIONAL HOSPITAL MARCH AFB AVERAGE LENGTH OF STAY

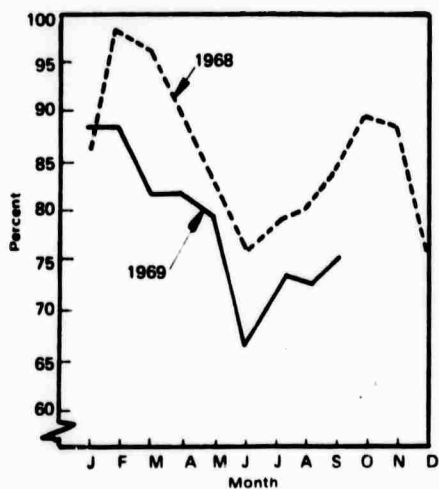


FIGURE 8.2.9 USAF REGIONAL HOSPITAL MARCH AFB OCCUPANCY RATE (Based on Capacity of 175)

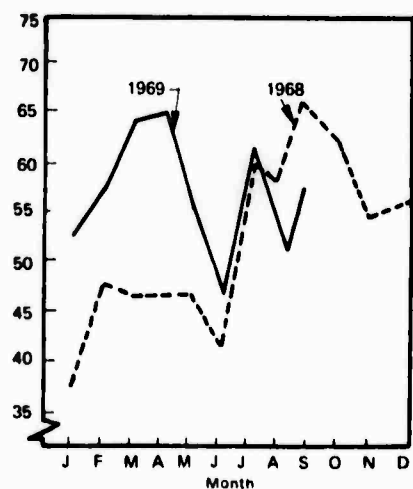


FIGURE 8.2.10 USAF REGIONAL HOSPITAL MARCH AFB BIRTHS PER MONTH

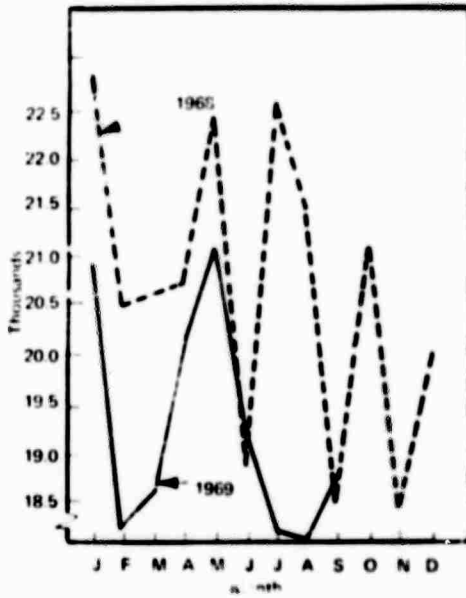


FIGURE 8.2.11 USAF REGIONAL HOSPITAL MARCH AFB

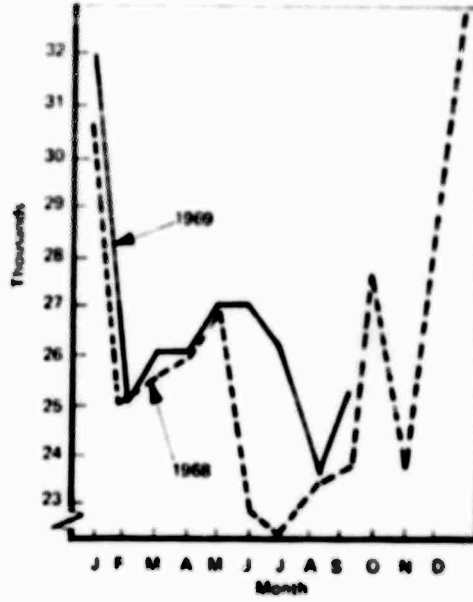


FIGURE 8.2.12 USAF REGIONAL HOSPITAL MARCH AFB Prescriptions per Month

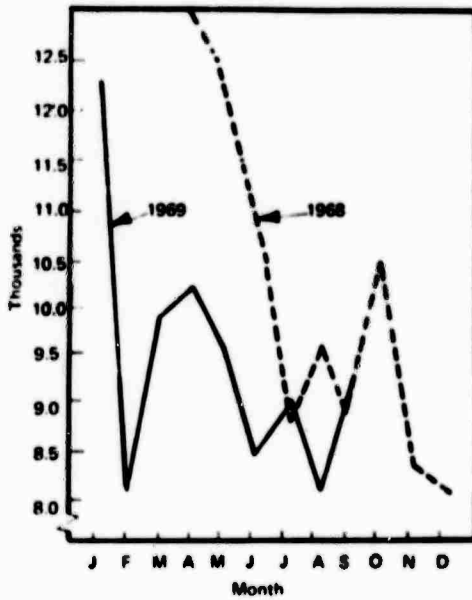


FIGURE 8.2.13 USAF REGIONAL HOSPITAL MARCH AFB X-ray Films per Month

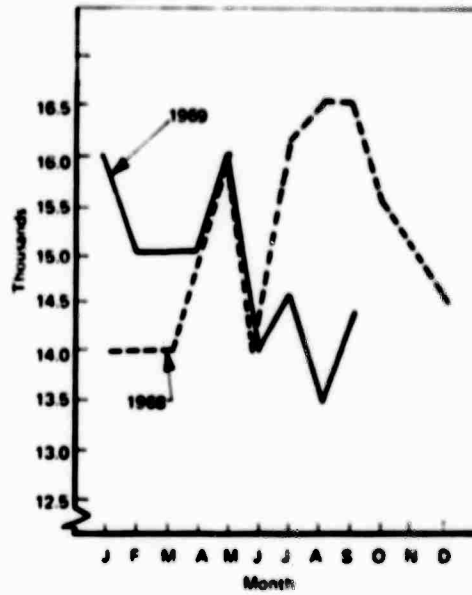


FIGURE 8.2.14 USAF REGIONAL HOSPITAL MARCH AFB Specimens Processed by Laboratory per Month

TABLE B.2.12

TRAINING PROGRAMS, MARCH AIR FORCE BASE HOSPITAL

<u>Training Category</u>	<u>Quantitative Information</u>	<u>Total Hours in Training</u>
Nurses	64 nurses plus 9 civilian nurses times 12 hours per month. This is mandatory in-service nurses training.	876 per month
Medical Technicians (Corpsmen)	26 persons attend classes for approximately 2 hours per week. These classes are mandatory for medical technicians.	208
	Weekly classes are held on general medical subjects. These classes are taught by March AFB hospital physicians. They are open to any and all hospital staff. The average attendance is approximately 20 persons per class per week for one hour.	80
Psychiatric	Classes meet once per month for an 8 hour session. These classes are held for psychiatric personnel but other hospital staff can attend. There are approximately 18 persons average in attendance.	144
	There are approximately two closed TV lectures per month. They are held every other Tuesday and last for about 40 minutes. The attendance is small, from 8 to 10 persons.	13
Hospital Physicians	Physicians receive the most training of any of the above categories. The following types of programs prevail:	
	1. They have closed TV meetings each week at 8 a.m. Classes last about 40 minutes. The attendance is strong at about 50 physicians.	133
	2. Physicians hold a weekly professional meeting each Wednesday at 4 p.m. The meeting lasts on the average of three hours, but it has been known to last much longer. Most hospital physicians attend. The number of doctors in March AFB is 57.	684
	3. Physicians hold miscellaneous medical professional meetings. Approximately 6 per year. Each meeting lasts about 1-1/2 hours. The make-up of the meeting is a lecture. Approximately 50 persons attend.	36 hours per month

TABLE 8.2.12 (Continued)

<u>Training Category</u>	<u>Quantitative Information</u>	<u>Total Hours in Training</u>
	Physicians are also given professional time off to attend conferences. Each physician attends approximately one conference a year. Each conference lasts one week. Physicians are given temporary duty orders and some must finance the trip themselves since their retainability does not qualify them for paid TDY or there is insufficient monies available for conferences.	44
Medical Technicians	Usually March AFB is permitted to send one senior Medical Technician per year to a special ten week course at Sheppard AFB.	34
Medical Technicians	Each Medical Technician is required to take correspondence courses. He spends approximately two hours per week studying on his own time. There are 158 Medical Technicians at March AFB.	1,284
		----- 3,815 hours per month

Note: The total amount of scheduled formal training per year at March AFB Hospital is 5,277 man-hours.

TABLE 8.2.13
REPORT OF PATIENTS
OVERALL BASE REPORT

REPORT OF PATIENTS				FORM 0558	REPORTS CONTROL SYMBOL HAF-M26				
REPORTING FACILITY AND LOCATION USAF REGIONAL HOSPITAL, MARCH AFB CA(SAC)				PERIOD COVERED 30 DAYS	DATE ENDING 30 Sept 69				
I. DAILY AVERAGE STRENGTH SERVED FOR MEDICAL CARE, EAD MILITARY PERSONNEL				IV. DEATHS					
	AIR FORCE	ARMY	NAVY - MARINE	STATUS AT TIME OF DEATH	EXTENDED ACTIVE DUTY			OTHER	
	A	B	C		AT	AWD	NAVY - MARINE		
1	TOTAL	6300		61	TOTAL			6	
2	ATTN FOR OUTPAT CARE	6300		62	PATIENT, NONBATTLE			5	
3	IN BASE	6300		63	PATIENT, BATTLE CASUALTY				
4	OFF BASE			64	CRU, NONBATTLE			1	
5	NEEDED			65	CRU, BATTLE CASUALTY				
6	OTHER			V. MIA, ROT-EPTS, VD CASES TREATED, EAD MILITARY PATIENTS					
7	ATTN THROUGH STP				MINOR	SYPHILIS	OTHER VD		
8				67	AIR FORCE		C		
9				68	NEEDED				
10				69	OTHER				
11				70	ARMY				
12				71	NEEDED				
13				72	OTHER				
14				73	NAVY - MARINE				
15				74	NEEDED				
16				75	OTHER				
17				VI. DIAGNOSTIC TESTS AND EXAMINATIONS, AND PRESCRIPTIONS					
II. OUTPATIENT AND QUARTERS PATIENT VISITS FOR OBSERVATION, DIAGNOSIS, TREATMENT, FLIGHT OR OTHER COMPLETE PHYSICAL EXAM					TOTAL	TO PATIENT	CLINIC AND STD ONLY		
PERSONNEL CATEGORY				NO. OF VISITS					
18	TOTAL			18742	66	X-RAY FILMS EXPOSED	9269	1738	7531
19	EXTENDED TO MIL			6284	67	FLUOROSCOPIC EXAMS	249	54	195
20	AIR FORCE			4006	68	ROUTINE 12 LEAD ECG'S	573	186	387
21	ARMY			191	69	OTHER SPEC CARDIAC STUDIES	2		2
22	NAVY - MARINE			87	70	ECG'S	40	10	30
23	OTHER ACTIVE MIL SVC			21	71	ENT'S			
24	AD MEMBERS MEMIL UNIT SVC			10	72	VENTILOMETRY	21	4	17
25	RETIRED MEMBERS UNIT SVC			1724	73	OTHER SPEC PULM FUNCT TESTS	126	47	79
26	SERV AD MEMBERS UNIT SVC			8675	74	AUDIOMETRY	597		597
27	AIR FORCE			7840	75	REFRACTIONS	779		779
28	ARMY			357	76	GASTROSCOPIES			
29	NAVY - MARINE			478	77	PROCTOSIGMOIDOSCOPIES	19		19
30	OTHER				78	OTHER ENDOSCOPIES	65		65
31	SERV RET AND SERV MEMBERS UNIT SVC			3922	79	PSYCHOLOGICAL TESTS	77		77
32	SP, S, CIVIL OR EMPLOYEES			26	80	LABORATORY SPEC PAHS	14258	4723	9535
33	ALL OTHER			80	81	PRESCRIPTIONS	25269	1356	23913
III. OTHER VISIT AND PHYSICAL EXAM DATA					VII. EAD MIL PATIENTS EXCUSED FROM DUTY				
			NUMBER		DIAGNOSIS CATEGORY	AIR FORCE	ARMY	NAVY - MARINE	
34	FLIGHT PHYSICAL EXAMS			135	82	TOTAL	126	5	7
35	OTHER COMPLETE PHYSICAL EXAMS			245	83	DISEASE			5
36	IMMUNIZATIONS			2372	84	NONBATTLE INJURY			2
37	TOTAL VISITS FOR TREATMENT			18362	85	AT/CRASH			
38	VISITS BY INDIVIDUAL APPOINTMENT			15155	86	MOTOR VEHICLE			1
					87	OTHER			3
					88	BATTLE CASUALTY			1

AF FORM 235 REPLACES DD FORM 444, DEC 55, WHICH IS OBSOLETE IN THE USAF, AND AF FORM 491, FEB 61, 235 JUN 57, AF FORM 571, FEB 58, AND AF FORM 577, FEB 58, WHICH ARE OBSOLETE.

TABLE 8.2.13 (Continued)

OVERALL BASE REPORT

REPORT OF PATIENTS		FORM 0558		REPORTS CONTROL SYMBOL HAF-M26				
REPORTING FACILITY AND LOCATION		PERIOD COVERED		DATE ENDING				
USAF REGIONAL HOSPITAL, MARCH AFB CA(SAC)		30 DAYS		30 Sept 69				
VIII. SELECTED DATA, ACCORDING TO CLINICAL SPECIALTY OR ANCILLARY SERVICE INVOLVED								
LINE	SPECIALTY OR SERVICE	VISITS		MED SVC PROV BY CIV DR	REFERRALS TO OTHER US GOVT FACILITIES (not incl transfers)	LABORATORY SPECIMENS PROCESSED	PHYSIOLOGIC EXAMINATIONS	
		INPATIENT	OUTPATIENT AND OTHER PATIENT				RADIO-GRAPHIC	FLUOROSCOPIC
		A	B	C	D	E	F	G
78	TOTAL	1085	18742	420	7	14654	3119	249
80	CLINIC SERVICES							
81	GENERAL PRACTICE		2792			3238	507	
82	EMERGENCY ROOM		3207			1422	484	
89	MEDICAL CLINICS							
89	ALLERGY		1765			27	12	
89	CARDIOLOGY		111					
89	DERMATOLOGY	11	839			139	9	
87	GASTROENTEROLOGY							
89	HEMATOLOGY							
89	MEDICINE		593		2	1397	299	117
89	NEUROLOGY	87	161			44	27	3
91	PEDIATRICS		1733	16		1137	273	23
87	PSYCHIATRY	27	318			16	18	
89	PULMONARY							
94	OTHER MEDICAL CLINICS	13	869					
95	SURGICAL CLINICS							
99	GYNECOLOGY		1118			1244	42	8
97	NEUROSURGERY		67				40	9
95	OBSTETRICS		858			2135	19	
99	OPHTHALMOLOGY	85	287			55		
100	ORTHOPEDICS	170	982			544	373	3
101	OTOLOGY	68	569			55	84	1
103	PLASTIC SURGERY				4			
103	SURGERY		764			1395	319	65
102	THORACIC SURGERY				1			
105	UROLOGY	37	619			662	93	4
106	FAMILY PLANNING		443					
107	OTHER SURGICAL CLINICS							
108	FLIGHT MEDICINE SERVICE		317			748	262	12
108	INDUSTRIAL MEDICINE SERVICE						258	4
110	ANCILLARY SERVICES							
111	RADIATION THERAPY							
112	OCCUPATIONAL THERAPY							
112	PHYSICAL THERAPY	587	773					
113	PODIATRY			404				
119	OTHER BASE MEDICAL SERVICE					39		
118	OTHER HOSPITAL OR DISPENSARY					357		
IX. MISCELLANEOUS								
		TOTAL A	SIG FORCE B	ARMY C	NAVY - MARINE D	OTHER E		
117	TOTAL SICK DAYS	5667	4543	1061	63			
118	TRANSIENTS RECEIVED							
119	BED OCCUPANCY DAYS, TRANSIENTS							
120	TRANSIENT BEDS OCCUPIED, MAXIMUM DAY							
121	BED OCCUPANCY DAYS IN NONPEO HOSP							
DATE REPORT PREPARED		TYPED OR PRINTED NAME AND GRADE			SIGNATURE			
3 Oct 69		L.F. JAROSZEWSKI, CAPT, USAF, MSC						

AF FORM 295a REPLACES DD FORM 998, DEC 58, WHICH IS OBSOLETE IN THE USAF, AND AF FORM 401, FEB 61, WHICH IS OBSOLETE IN THE AIR FORCE. THIS FORM IS OBSOLETE IN THE ARMY AND NAVY. THIS FORM IS OBSOLETE IN THE MARINE CORPS.

TABLE 8.2.13 (Continued)
OVERALL BASE REPORT

REPORT OF PATIENTS - HOSPITAL SUPPLEMENT		FORM 855B		REPORTS CONTROL SYMBOL				
REPORTING FACILITY AND LOCATION		USAF REGIONAL HOSPITAL, MARCH AFB CA(SAC)		PERIOD COVERED		DATE ENDING		
				30 DAYS		30 Sept 69		
I. IMPATIENT ADMISSIONS AND IMPATIENT DAYS								
LINE	CATEGORY OF PATIENT	IMPATIENT ADMISSIONS			DAYS OCCUPYING BEDS			
		TOTAL	BY TRANSFER	DAYS SURVIVING OUT	TOTAL	PATIENT WAIT FOR BEDS		
1	ALL PATIENTS - TOTAL	525	60	3553	4028	2135	108	
2	EXTENDED MIL	189	52	3553	1698	151		
3	AIR FORCE	144	19	2667	1473	119	108	
4	ARMY	37	32	861	191	32		
5	NAVY - MARINE	8	1	25	34			
6	OTHER ACTIVE MIL SVC	1		30	7			
7	AIR FORCE	1		30	7			
8	ARMY							
9	NAVY - MARINE							
10	MEMBERS, MOBIL UNIT SERVICE							
11	COAST GUARD							
12	PUBLIC HEALTH SERVICE							
13	COAST AND GEODETIC SURVEY							
14	RETIRED MEMBERS	47			470	131		
15	AIR FORCE	23			220	79		
16	ARMY	13			137	37		
17	NAVY - MARINE	9			104	15		
18	COAST GUARD	2			9			
19	PUBLIC HEALTH SERVICE							
20	COAST AND GEODETIC SURVEY							
21	DEPENDENTS, UNIT SERVICE	287	8		1844	1844		
22	ACTIVE DUTY, AIR FORCE	171	4		856	856		
23	ACTIVE DUTY, ARMY	17			57	57		
24	ACTIVE DUTY, NAVY - MARINE	17	2		161	161		
25	RETIRED AND DECEASED AIR FORCE	52	1		461	461		
26	RETIRED AND DECEASED ARMY	13	1		152	152		
27	RETIRED AND DECEASED NAVY - MARINE	17			157	157		
28	COAST GUARD							
29	PUBLIC HEALTH SERVICE							
30	COAST AND GEODETIC SURVEY							
31	SPECIAL CATEGORIES	1			9	9		
32	ALLIED AND NEUTRAL MILITARY							
33	DEPN OF ALLIED AND NEUTRAL MILITARY							
34	DEPN OF AUTH CIVILIAN EMPLOYEES							
35	SEC BENEFICIARIES							
36	OTHER US EMPLOYEES	1			9	9		
37	VA BENEFICIARIES							
38	PRISONERS OF WAR							
39	ALL OTHER							
III. DISPOSITION OF IMPATIENS				IV. SOURCE OF EAD MIL PNT OCE BEDS, END OF MONTH				
TYPE OF DISPOSITION	DISPOSITION				ORIGINALLY ADMITTED FROM UNITS	SOURCE OF BEDS		
	AF	ARMY	NAVY-MARINE	OTHER		AF	ARMY	NAVY-MARINE
40	135	23	8	313	TOTAL	53	4	2
41	6			3	47 ATTACHED FOR OUTPATIENT CARE	19		
42		13			48 ATTACHED THROUGH DISPENSARY			
43			1		49 NOT SERVED BY THIS HOSPITAL	34	4	2
44					IIII. DEATHS			
45	129	10	7	310	50 LIVE BIRTHS			56
46					51 TOTAL DEATHS (20 Count as 2)			1
IV. BED CAPACITY DATA				V. OPERATING BED DATA				
47	200	215			54 OPERATING BEDS			175
48	34				55 TRANS PNT BEDS			
49					56 OPERATING BASSINETS			34

AF FORM 235b REPLACES DD FORM 443, FEB 51, WHICH IS OBSOLETE IN THE USAF.

TABLE B.2.13 (Continued)

ALL OTHER SOUTH EAST ASIA PATIENTS

REPORT OF PATIENTS - HOSPITAL SUPPLEMENT		FORM 0558		REPORTING PERIOD NUMBER		
OPERATING FACILITY AND LOCATION		PERIOD COVERED		DATE ENDING		
USAF REGIONAL HOSPITAL, MARCH AFB CA(SAC)		30 DAYS		30 Sept 69		
I. HOSPITAL ADMISSIONS AND HOSPITAL DAYS						
2	CATEGORY OF PATIENT	HOSPITAL ADMISSIONS		DAYS SUBSTITUTED OUT	DAYS OCCUPANCY RATE	
		TOTAL	BY TRANSFER		TOTAL	PATIENT DAYS PER BED
1	ALL PATIENTS - TOTAL	21	21	1	188	
2	EXTRACTED BY DR	21	21		188	
3	AIR FORCE	5	5		44	
4	AFSP	16	16		144	
5	AFSP - CASUAL					
6	OTHER METHOD DR BY DR					
7	AIR FORCE					
8	AFSP					
9	AFSP - CASUAL					
10	ARMED, WOUND, ILL, INJURED					
11	WOUND					
12	PUBLIC HEALTH SERVICE					
13	WOUND AND SURGICAL DRESSING					
14	WOUND INJURED					
15	AIR FORCE					
16	AFSP					
17	AFSP - CASUAL					
18	WOUND					
19	PUBLIC HEALTH SERVICE					
20	WOUND AND SURGICAL DRESSING					
21	EXTRACTED BY DR					
22	AIR FORCE					
23	AFSP					
24	AFSP - CASUAL					
25	ARMED AND DISEASED AIR FORCE					
26	ARMED AND DISEASED AFSP					
27	ARMED AND DISEASED AFSP - CASUAL					
28	WOUND					
29	PUBLIC HEALTH SERVICE					
30	WOUND AND SURGICAL DRESSING					
31	OTHER EXPENSES					
32	ARMED AND DISEASED AIR FORCE					
33	ARMED AND DISEASED AFSP					
34	ARMED AND DISEASED AFSP - CASUAL					
35	WOUND					
36	PUBLIC HEALTH SERVICE					
37	WOUND AND SURGICAL DRESSING					
38	OTHER EXPENSES					
39	ARMED AND DISEASED AIR FORCE					
40	ARMED AND DISEASED AFSP					
41	ARMED AND DISEASED AFSP - CASUAL					
42	WOUND					
43	PUBLIC HEALTH SERVICE					
44	WOUND AND SURGICAL DRESSING					
45	OTHER EXPENSES					
46	ARMED AND DISEASED AIR FORCE					
47	ARMED AND DISEASED AFSP					
48	ARMED AND DISEASED AFSP - CASUAL					
49	WOUND					
50	PUBLIC HEALTH SERVICE					
51	WOUND AND SURGICAL DRESSING					
52	OTHER EXPENSES					
53	ARMED AND DISEASED AIR FORCE					
54	ARMED AND DISEASED AFSP					
55	ARMED AND DISEASED AFSP - CASUAL					
56	WOUND					
57	PUBLIC HEALTH SERVICE					
58	WOUND AND SURGICAL DRESSING					
59	OTHER EXPENSES					
60	ARMED AND DISEASED AIR FORCE					
61	ARMED AND DISEASED AFSP					
62	ARMED AND DISEASED AFSP - CASUAL					
63	WOUND					
64	PUBLIC HEALTH SERVICE					
65	WOUND AND SURGICAL DRESSING					
66	OTHER EXPENSES					
67	ARMED AND DISEASED AIR FORCE					
68	ARMED AND DISEASED AFSP					
69	ARMED AND DISEASED AFSP - CASUAL					
70	WOUND					
71	PUBLIC HEALTH SERVICE					
72	WOUND AND SURGICAL DRESSING					
73	OTHER EXPENSES					
74	ARMED AND DISEASED AIR FORCE					
75	ARMED AND DISEASED AFSP					
76	ARMED AND DISEASED AFSP - CASUAL					
77	WOUND					
78	PUBLIC HEALTH SERVICE					
79	WOUND AND SURGICAL DRESSING					
80	OTHER EXPENSES					
81	ARMED AND DISEASED AIR FORCE					
82	ARMED AND DISEASED AFSP					
83	ARMED AND DISEASED AFSP - CASUAL					
84	WOUND					
85	PUBLIC HEALTH SERVICE					
86	WOUND AND SURGICAL DRESSING					
87	OTHER EXPENSES					
88	ARMED AND DISEASED AIR FORCE					
89	ARMED AND DISEASED AFSP					
90	ARMED AND DISEASED AFSP - CASUAL					
91	WOUND					
92	PUBLIC HEALTH SERVICE					
93	WOUND AND SURGICAL DRESSING					
94	OTHER EXPENSES					
95	ARMED AND DISEASED AIR FORCE					
96	ARMED AND DISEASED AFSP					
97	ARMED AND DISEASED AFSP - CASUAL					
98	WOUND					
99	PUBLIC HEALTH SERVICE					
100	WOUND AND SURGICAL DRESSING					
101	OTHER EXPENSES					

TABLE B.2.13 (Continued)

SUPPLEMENT TO REPORT OF PATIENTS (RCS: NAP-826)		
TO: HQ USAF (AFPMAB) Bldg T-8 WASH DC 20333	REPORTING ACTIVITY/ADDRESS USAF REGIONAL HOSP March AFB CA 92508	PERIOD ENDING: 30 Sep 1968
Work center	Workload factor	Quantity
1. Medical Food Service	Meals served	<u>10,324</u>
2. Plant Management	Sq ft floor space utilized	<u>142,826</u>
3. Housekeeping	Sq ft floor space cleaned	<u>54,739</u>
4. Histopathology	Paraffin blocks prepared	<u>2,388</u>
5. Clinics/ Laboratory	Automated clinical chemistry procedures accomplished	<u>3,458</u>
6. Clinical Laboratory	Other procedures accomplished	<u>12,867</u>
7. Medical/Surgical Nursing Unit (encl obstetrical)	Patient days, encl obstetrical	<u>2,595</u>
8. Internal Medicine Sub-specialty Clinics	Tests conducted	_____
9. Occupational Therapy	Treatments accomplished	_____
10. Physical Therapy	Treatments and diagnostic tests	<u>3,893</u>
11. Surgical Clinic	Operations performed	<u>281</u>
12. Orthopedic Clinic	Operations performed	<u>57</u>
13. Orthopedic Appliance Shop	Total of inpatient and outpatient visits	_____
14. Military Public Health	Film badges collected	<u>194</u>
15. Military Public Health	Sanitary surveys inspections conducted	<u>8</u>
16. Flight Medicine	Medical records maintained	<u>1,100</u>
17. Physiological Training	Chamber flights	_____
18. Veterinary Services	Pounds of food inspected	<u>3,286,458</u>
19. Veterinary Services	Number of Government-owned animals	<u>26</u>

TABLE 8.2.14

NONAVAILABILITY STATEMENT REPORT

September 1989

USAF Regional Hospital March AFB CA(SAC)

I. Total Nonavailability Statements Issued:	12
A. Maternity	3
B. Other	9
II. Reasons for issuance:	
A. No uniform services medical facility within reasonable distance	3
B. Type of care required is not provided by this facility.	6
C. Type of care is normally provided, but the patient cannot be accepted because this facility doesn't have the necessary staff	1
D. Although the necessary staff is available, the patient cannot be accepted because this facility is handling the maximum load in the type of care required	3
E. Other.	

TABLE 8.2.15

DISCHARGE ANALYSIS 1-30 SEPTEMBER 1969

Total Number of Patients Discharged (exclusive of Newborn and Quarters)	463
Newborn Discharges	55
Quarters	30
Total Discharges	548
Total Number of Bed Occupied Days (exclusive of Newborn)	4154
Newborn Bed Occupied Days	289

<u>Service</u>	<u>No. of Patients</u>	<u>Bed Occupied Days</u>	<u>Average Length of Stay</u>
General Medicine (subtotal)	174	1433	8.2
Allergy	3	53	17.7
Dermatology	1	14	14
Medicine	74	851	11.5
Neurology	9	40	4.4
Pediatrics	22	75	3.4
Pediatric Newborn	55	289	5.3
Psychiatry	10	111	11.1
General Surgery (subtotal)	344	3010	8.8
Gynecology	32	116	3.6
Neurosurgery	16	101	6.3
Obstetric	58	273	4.7
Ophthalmology	14	96	6.8
Oral Surgery	13	65	5
Orthopedic	75	1535	20.5
Otolaryngology	17	108	6.4
Surgery	75	505	6.8
Urology	44	210	4.8

		<u>Deaths</u>		<u>Autopsies</u>	
Total Number of Operations	294	Pediatric	1	Pediatric	1
Post-operative Infections	0	Surgery	1	Surgery	0
Surgical Complications	0	Neurosurgery	1	Neurosurgery	1
		Newborn	2	Newborn	1
		Total	5	Total	3
		Gross Death Rate	.9%	Percentage of Autopsies	60%
Transfers In	60	Fetal Deaths	1		
Transfers Out	19	CRO	1		

TABLE 8.2.16

DISCHARGE ANALYSIS OF MILITARY PATIENTS
September 1969

<u>Service</u>	<u>Number</u>	<u>Bed Occupied Days</u>	<u>Average Length</u>	<u>Ineffective Days</u>	<u>Average Ineffective</u>
General Medicine (subtotal)	47	585	12.4	2011	42.8
Allergy	1	4	4	4	4
Medicine	33	467	14.1	1738	52.7
Neurology	3	3	3	66	22
Psychiatry	10	111	11.1	203	20.3
General Surgery (subtotal)	102	1545	15.1	4610	45.2
Neurosurgery	8	58	7.3	72	9
Ophthalmology	2	18	9	18	9
Orthopedic	43	1186	27.6	3899	90.6
Otolaryngology	11	98	8.9	134	12.2
Surgery	30	167	5.6	469	15.6
Urology	8	18	2.3	18	2.3
Quarters	30			146	4.9

TABLE 8.2.17

DENTAL SERVICE REPORT

DENTAL SERVICE REPORT		REPORT CONTROL SYMBOL 1-MAF-M5					
<input type="checkbox"/> ARMY <input checked="" type="checkbox"/> NAVY <input type="checkbox"/> AIR FORCE	REPORTING FACILITY AND LOCATION 807 MED GP MARCH AFB CA 92508 (15 Air Force) (SAC)	PERIOD COVERED APR-MAY-JUN 1969					
PART I - DENTAL PROCEDURES							
	ARMY	NAVY-MARINE	AIR FORCE	DEPENDENTS	ALL OTHER	TOTAL	TEV
	A	B	C	D	E	F	G
A. OPERATIVE AND CROWN AND BRIDGE							
1. AMALAM (One surface)	4	2	660	2	118	786	450
2. AMALAM (Two or more surfaces)	1	1	899	1	109	1011	1183
3. BASE INTERMEDIATE	5	4	1942	5	265	2221	489
4. RESIN		1	104	1	28	134	130
5. ROOT CANAL FILLING (Tooth)		1	39	1	4	45	145
6. SILICATE			333	2	45	380	389
7. TEMPORARY OR SEDATIVE FILLING	2		274	35	70	381	294
8. FILLING POLISHED			325		22	347	200
9. GOLD (Inlay, full)			16			16	57
10. ERIDEE			16		1	17	173
11. GOLD CROWN (All types)			7		4	11	60
12. RESIN CROWN			25		6	31	168
13. RESIN CROWN WITH METAL			7			7	38
14. OTHER CROWNS			1			1	5
15. CROWN OR ERIDEE REPAIR			14	2	14	30	27
16. CASTS		2	189	2	89	282	231
B. PROSTHODONTICS							
17. DENTURE, RECONST., RELINE, REPAIR			42		23	107	424
18. FULL DENTURE			12		29	41	356
19. PARTIAL DENTURE			44		23	67	488
20. OTHER MAXILLOFACIAL APPLIANCES			2	3		5	11
21. ORTHODONTIC APPLIANCE			2			2	12
C. ORAL SURGERY							
22. ABSCESS, INCISION AND DRAINAGE			4	4	1	9	7
23. ALVEOLECTOMY			20		15	35	37
24. APICECTOMY		1	5			6	8
25. EIDPSY			7	3	3	13	13
26. CYSTECTOMY							
27. FRACTURE MANDIBLE REDUCTION			1			1	10
28. FRACTURE MAXILLA REDUCTION	1			2		3	26
29. FRACTURE (Other) REDUCTION							
30. ROOT RESIDUAL - REMOVAL			2			2	2
31. TOOTH REMOVAL		4	588	90	187	869	1017
32. TUMORS (All types) EXCISION					1	1	1
33.							
34.							
35.							
D. PERIODONTICS AND ORAL HYGIENE							
37. EQUILIBRATION			8	1	4	13	72
38. GINGIVECTOMY			130	4	25	159	407
39. GINGIVITIS OR STOMATITIS TREATMENT			34	1		35	28
40. PROPHYLAXIS	2	1	716	115	18	852	835
41. SCALING (Periodontal)	1	1	318	7	32	359	386
42. CARIES PREVENTION TREATMENT	3	1	1127	117	19	1267	320
43. PREVENTIVE DENT. COUNSELING	3	2	1848	124	164	2141	351

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PREVIOUS EDITIONS ARE OBSOLETE.

TABLE 8.2.17 (Continued)

PART I - DENTAL PROCEDURES (Continued)								
	ARMY	NAVY-MARINE	AIR FORCE	DEPENDENTS	ALL OTHERS	TOTAL	TEV	
	A	B	C	D	E	F	G	
E. RADIOGRAPHICS								
46. INTRA-ORAL ROENTGENOGRAM	52	15	5767	1822	2233	9689	1318	
48. EXTRA-ORAL ROENTGENOGRAM								
F. OTHER								
49. EXAMINATIONS (Types 1, 2, and 3)	24	16	4331	418	1377	6166	2818	
47. ORTHODONTIC TREATMENT			2			2	2	
48. POST OPERATIVE TREATMENT	8	3	669	53	248	981	505	
49. PERIO SCREENING EXAMINATION			97			97	106	
50.								
51. TOTAL PROCEDURES LINES 1 - 50	136	55	20927	2616	4919	28623	13731	
52. TOTAL PATIENTS TREATED	28	15	5745	540	1283	7820		
PART II - LABORATORY DATA							NUMBER	
A. TEETH REPLACED IN ITEMS 18 AND 19, PART I							613	
B. PROSTHETIC APPLIANCES PROCESSED (Same as under Part I, Section B)								
1. ENTIRELY IN REPORTING FACILITY							146	
2. PARTLY IN OTHER FACILITY (Name)							74	
3. ENTIRELY IN OTHER FACILITY (Name)								
C. CHROME-COBALT OR OTHER NON-PRECIOUS METAL APPLIANCES								
1. CAST LOCALLY DURING REPORTING PERIOD							1077	
2. MAXIMUM MONTHLY POTENTIAL OUTPUT							450	
PART III - CLASSIFICATION OF ACTIVE DUTY PERSONNEL (At end of month)								
	MILITARY STRENGTH SERVED		NUMBER CLASSIFIED	CL. 1	CL. 2	CL. 3	CL. 4	CL. 5 Unknown
	REPORTING FACILITY	OTHER						
1. ARMY	8		8	3	5			
2. NAVY-MARINE	8		8	5	2		1	
3. AIR FORCE	5850		5654	2611	1720	42	7	127%
4. TOTAL	5866		5670	2619	1727	42	8	127%
5. GRAND TOTAL	5866							
PART IV - REMARKS								
<p>LABORATORY PROCEDURES: 52578 - TEV 10048</p> <p>Area Dental Laboratory: 42678 - TEV 8156</p> <p>Base Dental Laboratory: 9900 - TEV 1892</p> <p>Classification of Flying Personnel:</p> <p>Class 1 <u>562</u>; Class 2 <u>79</u>; Class 3 <u>2</u>; Class 4 <u>2</u>; Class 5 <u>114</u></p> <p>Dependent School Program: <u>107</u> children participated during this period.</p>								
DATE	TYPED OR PRINTED NAME AND GRADE			SIGNATURE				
3 Jul 1969	JULIUS G.R. STAERKEL, Colonel, USAF, DC							

TABLE 8.2.17 (Continued)

DENTAL SERVICE REPORT											REPORT CONTROL SYMBOL 2-HAF-M5											
REPORTING FACILITY AND LOCATION 307 MED GP MARCH AFB CA 92508 (15 Air Force) (SAC)											PERIOD COVERED JUNE 1969											
PART V - PROFESSIONAL ASSIGNMENT AND UTILIZATION																						
DENTAL OFFICERS			OTHER COMMISSIONED			WARRANT OFFICERS			ENLISTED				981X1		CIVILIAN							
GRADE	AUTH	PRES	GRADE	AUTH	PRES	GRADE	AUTH	PRES	GRADE	AUTH	PRES	GENERAL	PROSTHETIC	OTHER	AUTH	PRES	AUTH	PRES				
O-8			O-8			W-4			E-7				2		1				DENTISTS			
O-7			O-8			W-3			E-8	1	2	2	6	1	1				ASSISTANTS			
O-8	2	2	O-8			EB-G		1	E-9	4	3	10	8	2	1				CLERKS	1	1	
O-8	3	1	O-8			EB-G	1		E-9	3	2	4		2	1				HYGIENISTS			
O-8	3		O-8			EB-P	1	2	E-9	8	8	5	6						LAB. TECHS	1	1	
O-8	7	10	O-8						E-2		1								OTHERS			
O-2			O-2						E-1													
TOTAL	15	13	TOTAL			TOTAL	2	3	TOTAL	16	16	23	20	6	3	TOTAL			TOTAL	2	2	
FULL TIME PERSONNEL EQUIVALENT																						
INDIVIDUAL ASSIGNMENTS AND CHANGES																						
NAME		GRADE	MOS, NJC OR AFSC	DUTY ASSIGNMENT OR CODE		COMP	DOS	ODSD														
A	B	C	D	E	F	G																
1. Staerkel, Julius G. R.	Col	9816B	50-1, 50-2	RegAF		21Nov67																
2. Seamanis, Charles W.	Col	9856C	50-1, 50-5	RegAF		9Aug66																
3. Seamons, Dick C.	LtCol	9826C	100-2	RegAF		15Feb66																
4. Benkel, Bernard H.	Capt	9826	100-2	RegAF		24Dec58																
5. Johnson, James D.	Capt	9826	100-2	AFRes	30Mar71	31Mar69																
6. Keenan, Robert M.	Capt	9826	100-2	AFRes	13Aug69	14Aug67																
7. Kimberle, Jack M.	Capt	9826	100-2	AFRes	14Sep69	15Sep67																
8. Longanecker, Ronald M.	Capt	9826	100-2	AFRes	19Aug69	20Aug67																
9. Osburn, Richard C.	Capt	9826D	100-2	RegAF		17Apr67																
10. Siegel, Lawrence R.	Capt	9826	100-5	AFRes	1Aug69	2Aug67																
11. Slone, Jeffrey A.	Capt	9846	100-4	AFRes	17Jun70	18Jun68																
12. Smith, Jared H.	Capt	9826D	100-3	AFRes	28Jun96	29Jun66																
13. Watson, Jay F.	Capt	9826	100-2	AFRes	3Aug69	4Aug67																

AEROSPACE MEDICINE REPORT

REPORTS CONTROL SYMBOL: RCS 1-AF-M7
AIR FORCE BASE: March AFB, CA
COMMAND: Strategic Air Command
REPORT PERIOD ENDING: 30 September 1969 (covering August-September)

SECTION I. FLIGHT MEDICINE

1. PHYSICAL AND MENTAL HEALTH OF FLYING PERSONNEL

a. The overall physical and mental health at March AFB continues to be excellent. This was undoubtedly a factor in the satisfactory rating received by March AFB in the Operational Readiness Inspection which was held from 10 September to 14 September 1969.

b. Flight/missile medicine workload factors.

- (1) Total outpatient visits 668
 - a. Number of flying personnel visits 503
 - b. Number of missile personnel visits 0
 - c. Number of dependents of flying personnel 0
 - d. Number of other visits 165

- (2) Total number of physical examinations 392
 - a. Number of flying Class I 60
 - b. Number of flying Class II 95
 - c. Number of flying Class III 51
 - d. Number of missile duty 0
 - e. Number of service academy 23
 - f. Number of ROTC 130
 - g. Number of other physical examinations. 33

c. No cases of special interest during this reporting period.

d. Combat Crew Man-Days Lost: August September

486th & 2BS	66	65
22ARS & 909 ARS	39	38

Total Number of Combat Crew Members : August September

486th & 2BS	270	256
22ARS & 909 ARS	171	189

Days in Reporting Period: 31 30

Combat Crew Noneffectiveness Rating:

486th & 2BS	7.8	8.4
22ARS & 909ARS	7.4	6.7

2. FLYING SAFETY AND EQUIPMENT

a. There were 17 crash calls answered during this reporting period.

b. On 22 August 1969 at 1 p.m. the Flight Surgeon was called to the flightline to meet an incoming T-39 aircraft. This aircraft had suffered a depressurization at 33,000 feet. There were two crew members and four passengers on board. The depressurization apparently was rapid but not explosive, and the pilot noted that the cabin altitude never exceeded 18,000 feet. The emergency oxygen equipment in the T-39 aircraft functioned properly. All passengers and crew used oxygen. The crew members and passengers were all examined at the flightline and the careful history taken as to possible symptoms of hypoxia. No history of hypoxia or decompression sickness could be obtained from any of the passengers or crew. They were all cautioned to present themselves to the Hospital Emergency Room or to the Flight Surgeon's Office within the next 24 hours if any symptoms developed.

3. TRAINING, ADMINISTRATION AND RESEARCH

a. The Disaster Preparedness Exercise or "Buckskin Rider" was held at March AFB on 4 August 1969. This was a basewide operation. The personnel from the Flight Surgeon's Office assisted the Hospital by providing crews for emergency ambulance service. This also afforded an opportunity for extra training in first aid and crash rescue technique for the corpsmen of the Flight Surgeon's Office and the Hospital Emergency Room.

b. There has been a considerable change in the personnel of the hospital and Flight Surgeon's Office during this reporting period. During August, Dr. E. P. Smith, Director of Hospital Services, retired. During September 1969, Dr. Frederic F. Doppelt arrived to become the new Director of Hospital Services and Director of Aerospace Medicine. Also during September, two more flight medical officers were added to the full-time staff of Flight Surgeon's Office, Dr. David Zarek, who just returned from Vietnam in August, and Dr. John Fox who just completed the primary course at the School of Aerospace Medicine, July-September. These added personnel should markedly increase the quality and quantity of the flight medical practice at March AFB.

4. OTHER AEROMEDICAL PROBLEMS

a. As mentioned previously in this report an Operational Readiness Inspection was held at March AFB from 10 September to 14 September 1969. The flight medicine branch received an overall satisfactory rating. Discrepancies that were noted in the records keeping section are being corrected. The flight medical portion of the "Broken Arrow" exercise received a satisfactory rating also. The Bio-environmental Health section of the Disaster Preparedness Exercise, "Broken Arrow" was unsatisfactory and emphasis is being placed in this area of operation to correct the discrepancies.

SECTION II. MILITARY PUBLIC HEALTH AND OCCUPATIONAL MEDICINE

1. MILITARY PUBLIC HEALTH

a. For active duty military personnel assigned to March AFB, there was one case of venereal disease in August 1969 and five cases in September 1969. The incidence rate for August 1969 and September 1969 respectively was 1.9 and 9.5 cases per 1,000 per annum. A total of six cases of venereal disease were interviewed for contact information and treated during this reporting period. All cases were gonorrhoea.

b. A total of 2,953 immunizations were given in August 1969 and 2,428 in September 1969 to military and dependent personnel.

c. Report of Tine Test and Mantoux Test (PPD-S) Intermediate Strength.

		Military		Nonmilitary	
		Flying	Other	Adult	Child
Tine Tests	August 1969	0	81	53	97
	September 1969	2	79	52	160
Mantoux Tests	August 1969	0	1	3	1
	September 1969	0	0	4	0

There were no positive Tine or Mantoux Tests during this reporting period.

d. The average fluoride content of the base water distribution system for August 1969 was 1.1 ppm and September 1969 was 1.1 ppm.

e. A total of 22 water samples in August 1969 and 28 samples in September 1969 were collected from the base distribution system. All samples were tested by membrane filter technique and found to be free of coliform contamination. All samples were also tested for chlorine residual and pH.

f. Pool sampling for August 1969 and September 1969 was still in progress until pool operations were stopped on 28 September 1969. Water samples, 28 in August 1969 and 9 in September 1969, were collected from the pools when they were still in operation. These samples were tested by membrane filter technique and found to be free of coliform contamination. Chlorine residual and pH were also measured for each pool water sample.

g. The noneffectiveness rate (NER) for August 1969 was 2.4 and for September 1969 was 4.9.

2. OCCUPATIONAL MEDICINE

a. Report on Hearing Conservation Program

Class	Occupational Health Audiograms	
	August 1969	September 1969
A	38	51
B	8	14
C	0	0
Total	46	65

Number referred to EENT Clinic, USAF Regional Hospital March AFB: 3

Number referred to diagnostic hearing center: 0

Number referred to noise safe area: 0

b. A total of eight military and civilian personnel were scheduled and given periodic health examinations during this reporting period under our occupational health program.

8.2.6 COSTS

The Business Office at March AFB Hospital is responsible for handling all financial and budgetary matters pertaining to the Hospital and its activities. Copies of current and recent accounting reports were obtained and the most pertinent ones are included in this section. Military pay is included as part of the accounting procedure. March Air Force Base Hospital, following Air Force practice, develops average costs per outpatient visit, per X-ray, per prescription, per dental visit, per inpatient day, etc. There are still many activities that cannot be costed out, such as the cost of delivering a baby or an operation, but March expects to be able to do this eventually by successive refinements to the new accounting system.

By way of gross summary of costs, the total expense of running March Air Force Base Hospital for a year is about \$6 million, including about \$530,000 for civilian salaries, \$4.3 million for military pay, \$700,000 for supplies, \$140,000 for food, and the rest for various other services.

Cost reports in this section include the following:

- Table 8.2.18 Functional Cost Distribution, FY 1969, which we developed by combining accounting data and staffing data.
- Hospital Management Summary Cost Analysis and Financial Management (including Tables 8.2.19-8.2.31).

8.2.7 VIEWS AND COMMENTS

Although March Air Force Base Hospital has a number of minor deficiencies and operating problems, it appears to be a first-class facility rendering very competent health care. The building is modern and attractive, and staff morale seems good. One measure of successful administration of military health care services is the number of congressional inquiries received. At March, the current rate is about one per month, which is a relatively low figure.

The bed capacity for inpatients is ample and the staffing levels are relatively generous (the common complaint of being shorthanded notwithstanding). Clinic areas noted as being especially well laid out are Physical Therapy and Urology. Also, the Pediatric and Obstetric Clinics were wisely located adjacent to an enclosed patio where children can play while waiting. However, the Outpatient Department in general is quite crowded, and the most serious physical inadequacy of the facility at present is a shortage of space for expansion of the Outpatient Clinics to handle their heavy load. Authorization has been requested to build an addition to the Hospital for this purpose.

TABLE 8.2.18

FUNCTIONAL COST DISTRIBUTION^a
MARCH AFB HOSPITAL
FY 1969

	Medicine ^b	Surgery ^c	Obstetrics and Gynecology ^d	Flight Surgeon ^e	Clinics ^f	Dental ^g	Laboratory ^h	Radiology	Pharmacy	Food Ser ⁱ
Staff Totals	90	73	31	9	99	57	22	14	9	44
Dentists						13				
						195,000				
Physicians	8	4	2	3	30		3	2		
	135,000	60,000	30,000	45,000	483,633		45,000	30,000		
Registered Nurses	28	24	14		8					
	280,000	240,000	140,000		80,000					
Other Nursing	51	43	15	5	55					
	360,000	305,632	105,000	37,959	506,023					
Other Professionals	2	2			5	43	19	11	9	
	20,000	20,000			40,000	327,118	213,923	57,941	74,133	30,000
Nonprofessionals	1			1	1	1		1		4
	5,000			5,000	5,000	5,000		5,000		253,596
	800,000	625,632	275,000	87,959	1,114,656	527,118	258,923	92,941	74,133	283,596
Linen										
Provisions										137,000
Drugs									310,541	
Medical Supplies						35,492	66,091	51,229		
General Supplies										
Services										
Housekeeping ^o	16,093	10,200	8,000	3,200	12,800	6,200	3,200	2,400	800	6,400
Maintenance ^p	11,365	7,200	5,625	2,250	9,000	4,370	2,250	1,690	565	4,500
Utilities ^q	7,134	4,500	3,520	1,410	5,630	2,735	1,410	1,055	350	2,815
Minor Equipment										
Totals	834,592	647,532	292,145	94,819	1,142,086	575,915	331,874	149,315	386,389	434,311
Percent of Total	14.06	10.91	4.92	1.60	19.24	9.70	5.59	2.52	6.51	7.32

See following page for explanatory notes

A

TABLE 8.2.18

ANNUAL COST DISTRIBUTION^a
 WRIGHT PATTENSON HOSPITAL
 FY 1969

Radiology	Pharmacy	Food Service ⁱ	Administration ^j	Records ^k	Central Sterile	Linens	Other Supply	Other Support ^l	Totals	Percent of Total
14	9	44	69	15	3	3	14	4	556	
									13	
									195,000	3.29
2			1						53	
30,000			30,000						858,633	14.47
									74	
									740,000	12.47
									169	
									1,314,614	22.15
11	9	3	23	2	3		3	1	126	
57,941	74,133	30,000	230,000	15,000	20,000		30,000	10,000	1,088,115	18.33
1		41	45	13		3	11	3	121	
5,000		253,596	212,409	65,000		13,000	55,111	24,000	648,116	10.92
92,941	74,133	283,596	472,409	80,000	20,000	13,000	85,111	34,000	4,844,478	81.63
						7,890			7,890	0.13
		137,000							137,000	2.31
	310,541								310,541	5.23
51,229					84,897				237,709	4.01
							34,552		34,552	0.58
			26,155 ^m			78,073 ⁿ		49,149	153,377	2.58
2,400	800	6,400	10,400	800	1,600	800	2,400	1,600	86,893	1.46
1,690	565	4,500	7,320	565	1,125	565	1,690	1,125	61,205	1.03
1,055	350	2,815	4,580	350	700	350	1,050	700	38,289	0.65
								23,034	23,034	0.39
149,315	386,389	434,311	520,864	81,715	108,322	100,678	124,803	109,608 ^r	5,934,968	100.00
2.52	6.51	7.32	8.78	1.38	1.82	1.70	2.10	1.85		

B

**Annotations for Functional Cost Distribution at March AFB Hospital,
Table B.2.18**

- a. Basic cost data were obtained from documents provided by the Business Office, including annual "Hospital Management Summary Cost Analysis and Financial Management" and quarterly computer printouts of accounting records. Personnel distributions were derived from authorized manning tables and from Form 201, Base Medical Staffing Report, supplemented by interviews with specific departments on staff utilization. The numbers shown represent full-time equivalents.

Tabular entries for costs of various categories of personnel were estimated on the basis of approximate averages, distributed in such a way as to make the subtotals consistent with available accounting figures. For example, except where constraints dictated otherwise, staff physicians and dentists were assigned an average annual compensation of \$15,000, registered nurses \$10,000, and clerks \$5,000. Other personnel cost entries absorbed the necessary remainders of the appropriate subtotals.

Thus, the personnel cost allocations that are shown are to be regarded as reasonable approximations rather than as precise accounting figures, since the latter were not directly available on a functional assignment basis. It should be noted that the total costs and their breakdowns represent dollars disbursed or transferred and do *not* include fringe benefits that are not chargeable to hospital accounts, such as military retirement, tax advantages, PX and commissary privileges, etc.

- b. Includes all inpatient wards other than those in the next two columns.
- c. Includes operating rooms, recovery rooms, and surgical inpatient wards.
- d. Includes obstetrics, gynecology, and nursery wards.
- e. Covers separate Flight Medicine Office.
- f. All general therapy and specialized clinics other than dental.
- g. Includes Base Dental Clinic, Base Dental Lab, and Area Dental Lab.
- h. Includes Clinical Laboratories and Histopathology.
- i. Includes dietitians and kitchen personnel.
- j. Includes general administrative functions plus public health and veterinary activities.
- k. Includes direct services involved in inpatient and outpatient record rooms.
- l. Includes plant management and equipment maintenance.
- m. Includes travel costs.
- n. Purchased laundry and dry cleaning services.
- o. Contractual housekeeping costs allocated in proportion to the areas utilized by various functional groups.
- p. Allocated in proportion to area.
- q. Allocated in proportion to area.
- r. Gross total operating expenditure for FY 1960.

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TABLE 8.2.19

**MANNING
(As of 30 June 1989)**

	Authorized	Assigned
Officers	154	155
Airmen	370	338
Civilians	73	65

Persons Eligible for Medical Treatment

Military Assigned (Actual)	6,387
Military Dependents (Estimated)	15,958
Retired Military (All Services) (Estimated)	40,605
Retired Military Dependents (Estimated)	56,847
Total	119,807

TABLE 8.2.20

OFFICERS BY AIR FORCE SPECIALTY CODE GRADE & CORPS

AF Specialty Code	Authorized	Assigned	AF Specialty Code	Authorized	Assigned
9016	2	1	9486	4	3
9025	5	7	9496	4	4
9035	2	1	9556	1	1
9124	1	1	9566	1	1
9146	0	1	9576	1	2
9155A	1	0	9586	1	3
9186	1	0	9626	2	2
9196	1	1	9636	2	2
9216	2	3	9656	2	2
9236	2	3	9716	2	2
9246	1	1	9725	5	5
9256	2	2	9735	4	4
9316	2	2	9745	4	4
9326	13	9	9754	49	49
9356	4	2	9816	1	1
9366	3	4	9826	8	13
9386	3	5	9836	2	0
9416	3	7	9846	2	1
9426	2	2	9856	2	1
9436	2	1	9916	1	1
9446	2	1	9925	1	1
9456	1	0	TOTAL	154	155
				<u>Corps</u>	
COL	10	5	MC	54	53
LTC	17	14	DC	15	16
MAJ	38	21	VC	2	2
CPT	49	87	MSC	8	9
LT	40	17	NC	64	64
2LT	0	11	BSC	11	11
TOTAL	154	155		154	155

TABLE 8.2.21

AIRMEN

<u>AF Specialty Code</u>	<u>Authorized</u>	<u>Assigned</u>	<u>AF Specialty Code</u>	<u>Authorized</u>	<u>Assigned</u>
403X0	2	2	909X2	2	1
621X0	2	1	912X0	1	0
622X0	25	24	912X2	2	2
622X1	14	11	912X3	3	3
901X0	5	4	912X4	3	3
902X0	118	99	913X0	4	4
902X2	20	19	914X0	1	1
903X0	10	10	914X1	12	15
904X0	16	13	915X0	16	12
904X1	5	4	916X0	3	5
905X0	8	8	981X0	15	17
906X0	46	46	981X1	6	2
907X0	3	3	982X0	25	23
908X0	5	1	TOTAL	374	338
908X1	1	1			

Grade

CMS	8	3
SMS	7	8
MSG	23	18
TSG	35	43
SSG	100	70
SGT	99	65
A1C	102	101
AMN	0	29
AB	0	1
TOTAL	374	338

TABLE 8.2.22

INPATIENT STATISTICS

	<u>FY 1967</u>	<u>FY 1968</u>	<u>FY 1969</u>
TOTAL BEDS OCCUPIED	57,401	56,125	52,756
Military Personnel	21,194	25,382	24,474
Military Dependents	18,527	14,540	12,294
Retired Personnel	7,626	7,203	7,558
Dependents, Retired Personnel	9,831	8,701	8,229
Other	223	299	201
AVERAGE DAILY PATIENT LOAD	158	153	145
Military Personnel	58	69	67
Military Dependents	50	39	56
Retired Personnel	20	19	21
Dependents, Retired Personnel	26	23	23
Other	.6	.8	.5
AVERAGE LENGTH OF STAY (DAYS)	9.1	9.1	8.6
Military Personnel	12.1	14.4	12.5
Military Dependents	6.1	5.2	5.1
Retired Personnel	12.2	10.4	11.2
Dependents, Retired Personnel	8.1	8.2	7.8
Other	5.3	4.5	4.9
TOTAL ACTIVE BEDS AUTHORIZED	175	175	175
PERCENTAGE OF BEDS OCCUPIED	90%	87%	83%
TOTAL ADMISSIONS	6,246	6,046	6,136
Direct	5,810	5,712	5,637
Transfer	436	334	499
Military Personnel	1,656	1,786	1,954
Military Dependents	2,838	2,436	2,412
Retired Personnel	616	678	675
Dependents, Retired Personnel	1,098	1,084	1,054
Other	38	62	41
BIRTHS	709	591	695
DEATHS	89	96	94

TABLE 8.2.23

OUTPATIENT VISITS

	FY 1967		FY 1968		FY 1969	
	Total	Monthly Average	Total	Monthly Average	Total	Monthly Average
General Practice	62,659	5,221	63,977	5,331	49,344	4,112
Emergency Room	24,999	2,083	26,916	2,243	26,364	2,197
Allergy	1,696	141	3,450	287	18,723	1,560
Dermatology	6,820	568	6,450	537	8,595	713
Internal Medicine	9,257	771	8,806	733	6,629	553
Neurology	2,083	173	1,942	161	1,712	143
Pediatrics	43,062	3,588	34,892	2,907	26,408	2,201
Psychiatry	6,179	514	4,971	414	4,578	382
Other Medical	12,827	1,068	12,775	1,064	13,129	1,094
Gynecology	9,540	795	11,697	974	15,020	1,252
Neurosurgery	1,740	145	1,244	103	-0-	-0-
Obstetrics	11,707	975	12,416	1,034	11,214	935
Ophthalmology	2,336	194	4,026	335	3,956	330
Otolaryngology	4,173	347	4,089	340	5,071	423
Orthopedics	13,032	1,086	18,478	1,539	12,639	1,053
Surgery	6,403	533	7,272	606	8,068	672
Urology	7,206	600	4,690	390	5,940	495
Flight Medicine	7,137	534	6,696	558	9,301	775
Physical Therapy	6,441	536	8,147	678	11,250	938
Family Planning	506	42	1,442	120	1,060	88
Cardiology	-0-	-0-	2,175	181	1,396	116
Thoracic Surgery	-0-	-0-	170	14	328	27

TABLE 8.2.24

MEDICAL STATISTICS

	FY 1967		FY 1968		FY 1969	
	Total	Monthly Average	Total	Monthly Average	Total	Monthly Average
TOTAL ADMISSIONS	6,246	520	6,046	503	6,136	511
Military Personnel	1,656	138	1,786	148	1,954	163
All Other	4,590	382	4,260	355	4,182	349
OUTPATIENT VISITS	236,293	19,691	245,574	20,464	240,016	20,001
X-RAY FILM EXPOSED	118,554	9,879	163,866	13,655	113,110	9,425
LAB SPECIMENS PROCESSED	124,219	10,351	141,786	11,815	177,868	14,822
PRESCRIPTIONS FILLED	232,949	19,421	289,472	24,122	317,830	26,486
FLIGHT PHYSICAL EXAMS	2,293	191	1,810	150	2,031	169
OTHER PHYSICAL EXAMS	3,745	312	3,579	298	3,104	259
DENTAL CLINIC PROCEDURES	112,502	9,375	119,467	9,955	110,464	9,205
BASE DENTAL LAB PROCEDURES	18,849	1,570	27,922	2,326	36,428	3,036
AREA DENTAL LAB PROCEDURES	173,354	14,446	194,329	16,194	116,011	13,834
IMMUNIZATIONS	57,689	4,807	33,480	2,790	44,830	3,736

TABLE 8.2.25

HOSPITAL EXPENSE DISTRIBUTION FY 1969

RC/CC Account Number	Expenses per RCS-C169	Expenses				Other
		Inpatient	Outpatient	Dental		
5110	\$ 678,633	\$ 177,802	\$ 479,794		\$ 21,037	
5120	1,445,632	1,343,038	20,249		82,345	
5130	631,023	90,093	463,024		69,906	
5140	104,897	62,938	34,931		7,028	
5150	384,674	23,465	361,209			
5160	144,170	25,518	118,652			
5170	280,014	100,805	179,209			
5180	241,907	113,454	127,001		1,452	
5220	98,956	79,165	9,897	7,916	1,978	
5230	86,893	56,480	24,330	3,476	2,607	
5250-5280	99,494	56,754	16,693	4,172	21,875	
5290	51,657				51,657	
5310	350,931			350,931		
5320	30,889			30,889		
5330	180,790				180,790	
5400	212,959	2,130	93,702		117,127	
5240	490,853	251,808	118,786	47,122	73,137	
5210	420,596	324,700	47,527	18,927	29,442	
TOTALS	\$5,934,968	\$2,716,150	\$2,095,004	463,433	\$660,381	

TABLE 8.2.26

WORKLOAD UNIT COSTS

INPATIENT

	<u>Day</u>	<u>Prescriptions</u>	<u>X-ray Film Exposed</u>	<u>Laboratory Procedures Processed</u>
Costs	\$2,716,150	\$ 23,465	\$ 25,518	\$100,805
No. of Work Units	52,756	19,274	20,004	64,087
Average Cost Per Work Unit	\$51.49	\$1.21	\$1.27	\$1.57

OUTPATIENT

	<u>Visit</u>			
Costs	\$2,095,004	\$361,209	\$118,652	\$179,209
No. of Work Units	240,016	298,556	93,066	113,781
Average Cost Per Work Unit	\$8.73	\$1.21	\$1.27	\$1.57

DENTAL

	<u>Dental Clinic</u>	<u>Base Dental Lab</u>	<u>Area Dental Lab</u>
Costs	\$432,544	\$30,889	\$180,790
No. of Work Units	110,464	36,428	166,011
Average Cost Per Work Unit	\$3.92	\$.85	\$1.09

TABLE 8.2.27

MEDICAL SUPPLY UNIT COSTS (FY 1969)

	<u>Cost</u>	<u>Work Units</u>	<u>Average Cost Per Work Unit</u>
Inpatient	\$193,109	52,756	\$3.66
Outpatient	455,160	240,016	1.90
*Pharmacy	310,541	317,830	.98
*Radiology	51,229	113,110	.45
*Laboratory	66,091	177,868	.37
Dental Clinic	13,429	110,464	.12
Base Dental Laboratory	6,101	36,428	.02
Area Dental Laboratory	15,962	166,011	.10
Nonpatient Activities	11,042 (1.6% of total cost)		

*Cost included in In/Outpatient Cost

TABLE 8.2.28
ANALYSIS OF UNIT COST

<u>Average Unit Cost Per</u>	<u>FY 1967</u>	<u>FY 1968</u>	<u>FY 1969</u>	<u>SAC Standard</u>
Inpatient Day	\$36.12	\$46.00	\$51.49	\$61.58
Outpatient Visit	6.34	7.80	8.73	7.80
Laboratory Procedure	1.48	1.70	1.57	1.22
X-Ray Film Exposed	1.14	.89	1.27	1.47
Prescription Filled	1.36	1.19	1.21	1.00
Dental Clinic Visit	3.16	3.20	3.92	2.93
Base Dental Lab Procedure	.97*	.63	.85	.94
Area Dental Lab Procedure	.97*	.98	1.09	1.32

*Base and Area Dental Lab Costs Consolidated

TABLE 8.2.29
ANALYSIS OF SUPPLY COSTS

<u>Average Unit Cost Per</u>	<u>FY 1967</u>	<u>FY 1968</u>	<u>FY 1969</u>	<u>SAC Standard</u>
Inpatient Day	\$3.02	\$3.68	\$3.66	\$3.94
Outpatient Visit	1.49	1.67	1.90	1.40
Prescription Filled	--	.96	.98	.77
X-Ray Film Exposed	--	.32	.45	.40
Laboratory Procedure	--	.37	.37	.21
Dental Procedure	.12	.12	.12	.11
Dental Lab Procedure	.02	.07	.02	.10
Area Dental Lab Procedure	--	.14	.10	.14

TABLE 8.2.30

MAJOR FORCE PROGRAM – 8 FUNDS (HOSPITAL)

<u>EEIC</u>	<u>Title</u>	<u>FY 1968</u>	<u>FY 1969</u>	<u>FY 1970 AD</u>
3XX	Civilian Personnel Compensation	\$ 557,864	\$ 533,909	\$ 407,700
40X	Travel-Temporary Duty	22,589	21,108	24,600
	Administrative	1,715	2,776	3,300
	Training	7,359	6,617	8,100
	Operation (Includes Patient Travel)	13,515	11,715	13,200
463	Transportation	817	1,030	1,900
473	Equipment Rental	-0-	95	-0-
49X	Communications	9,087	9,222	8,800
480	Utilities	40,138	38,289	38,800
502	Commercial Printing	445	372	1,100
52X	Projects	8,638	16,875	-0-
531	Custodial Services	73,400	85,230	84,100
533	Systems & Equipment Repair	3,636	5,818	5,600
59X	Laundry & Dry Cleaning	69,077	76,073	84,600
569	Contract Maintenance	14,311	22,573	29,700
5923	Contractual Services	12,048	17,354	12,900
5929	Miscellaneous Medical Contracts	4,049	3,550	3,000
596	Civil Engineer Transfers	49,000	38,512	40,000
604	Supplies, Medical	619,600	694,803	606,600
609	Supplies, Nonmedical	41,400	34,552	46,900
624	Equipment, Medical	35,100	18,564	5,500
628	Equipment, Nonmedical	16,800	4,470	5,000
	Total Annual Expense Authorization	\$1,577,999	\$1,624,359	\$ 1,407,000

TABLE 8.2.31**CIVILIANS**

<u>AF Specialty Code</u>	<u>Title</u>	<u>Authorized</u>	<u>Assigned</u>
9025	Medical Administrative Officer	3	2
9035	Medical Supply Officer	0	0
9246	Pharmacy Officer	1	1
9754	Nurse General	10	9
40350	Medical Equipment Repairman	1	1
58251	Lea/Rub Repairman	1	1
62010	Food Service Halper	7	7
67151	Accounting Specialist	1	1
702X0	Administrative Specialist	14	13
704X0	Stenographic Specialist	11	9
902X0	Medical Service Specialist	16	16
903X0	Radiology Specialist	1	0
904X0	Medical Laboratory Specialist	2	2
906X0	Medical Administrative Specialist	3	0
915X0	Medical Material Specialist	2	2
981X0	Dental Specialist	0	0
982X0	Dental Laboratory Specialist	<u>1</u>	<u>1</u>
	TOTAL	73	65

**HOSPITAL MANAGEMENT SUMMARY
COST ANALYSIS AND FINANCIAL MANAGEMENT
MARCH AIR FORCE BASE, CALIFORNIA**

This is a five-story, 175-bed hospital, redesignated on 2 July 1969, as the USAF Regional Hospital, March with the mission of providing: medical and dental care for personnel authorized to receive such care; specialized clinical and consultative support for medical facilities as listed below, and physical evaluation board referral service.

Supplementing the Hospital is the Dental Service comprised of 14 Dental Treatment Rooms in the main clinic, 2 Dental Treatment Rooms in the Hospital, and 1 Dental Treatment Room in the Flight Medicine Section.

Specialized clinical and consultant support is rendered by the USAF Regional Hospital March to:

Nellis AFB, Nv
Norton AFB, Ca
George AFB, Ca
Edwards AFB, Ca
Vandenberg AFB, Ca
Oxnard AFB, Ca
Los Angeles AFS, Ca
March AFB, Ca

This pamphlet contains current manning and selected comparative work unit data covering the period 1 July 1966 through 30 June 1969. All information is on a fiscal year basis.

The purpose of the comparative work unit data is to help Cost Center Managers gain insight into their operations. When significant variations occur, action must be taken to isolate causative factors, document reasons and take corrective action where indicated. For example, salaries of military and civilian personnel constitute 79% of the total operating expenses of our hospital. Personnel costs can be controlled only when staffing is aligned with workloads. Often, there are uncontrollable factors which account for variations but do not dictate staffing realignments, such as seasonal fluctuations in patient workload and/or the availability of medical specialties which affect ancillary services output effort.

There was a significant increase in cost during FY 1969 as compared to FY 1968 as follows:

<u>Cost Per</u>	<u>FY 1968</u>	<u>FY 1969</u>	<u>In/Decrease</u>
Inpatient Day	\$46.00	\$51.49	\$5.49
Outpatient Visit	7.80	8.73	.93
Prescription Filled	1.19	1.21	.02
X-ray	.89	1.27	.38
Laboratory Procedure	1.70	1.57	(.13)
Dental Procedure	3.20	3.92	.72
Dental Lab Procedure	.63	.85	.22
Area Dental Lab Procedure	.98	1.09	.11

The key to effective analysis of operations is accurate workload reporting by Cost Center Managers who must insure that their reports reflect actual experience and that every facet of operation is included. It is vital to the success of our fiscal program that our materiel issues and unit cost indicate an explainable trend. A favorable trend can only be attained if purchase costs, whether they are manpower or materiel, are directly related to our patient workload.

The Hospital is also very short on conference rooms, meeting space, classrooms, and training rooms. For future designs, the Hospital Commander recommends that all patient rooms have their own toilet and shower. He does not like light care units as an integral part of a hospital; in his opinion, all beds should be capable of handling acute care patients because there is more flexibility that way and the added cost is minor. Interestingly, he objected to having an open Intensive Care Unit like the one at March because this gives management survey teams an excuse to reduce the size of the authorized nursing staff. He believes ample staffing is most vital here, so he would cut the ICU into more segregated areas to help justify adequate personnel.

The Hospital Commander feels that there are serious handicaps in running the Hospital as an administrative part of the base command, because in the competition for funds and services he is at a disadvantage as to the flight line and other primary missions of base operations. Hospital maintenance service is generally slow and they are powerless to seek alternative help from other than the Base Engineer.

March Air Force Base Hospital has the usual problems with medical records, X-ray film filing, and laboratory request forms, since all their information handling is strictly manual. Under the circumstances, these functions seem to be carried out with at least average efficiency. There are no immediate expectations of switching over to sophisticated, automated systems, since no proven alternatives are available.

Cost accounting follows standard Air Force practice, and within those limits the records are satisfactory. However, much detail is lost in the way costs are aggregated, so that fiscal accountability by function, department, or case is not really feasible. Actually, there is no great incentive to develop more detailed cost accounting, since operating control is exerted largely through other mechanisms than budgets. Knowing what each activity costs would be of little operational value without changing the whole system of responsibilities and controls, so there is no great interest in going through the academic exercise of developing a fine cost structure.

All registrar statistics are accumulated and compiled manually, following prescribed reporting formats. Here again there is a possibility for eventual automation of patient and service statistics, but no early switchover is in prospect.

In an interview with the Plant Engineer, the following design deficiencies were cited:

- The loading dock is small and stationary. Varying height is provided at only one back-up area. In most cases the height of the loading dock relative to a truck bed differs by 15 inches or more – either down or up. The size of the loading dock allowed for only three trucks initially and had to be expanded to include three more. In making this addition, space was also provided for a trash disposal unit. There is no roof over the loading dock to protect medical supplies from inclement weather.
- The loading dock has no ramps from the street level to the back level. In certain cases, deliveries are made from trucks without backing up to the dock. In these cases, supplies have to be carried up stairs or lifted from the ground level to the dock level.
- No specific location was designated for trash containers. The inconvenience of trash containers sitting on a blacktop pavement away from the loading dock created additional work. Consequently, the loading dock was extended to include space for trash containers at the dock.
- Medical gas, such as oxygen, is stored in an area adjacent to the Hospital within safety regulations. Steel bottles must be brought from this area to the interior of the Hospital. There is no continuous ramp from the gas storage area into the Hospital.
- The present pathology incinerator for burning contaminated parts is located on the roof in such a position that gusts of wind often blow the smoke from the incinerator to the intake of the air conditioning system. It is recommended that incinerators and intake locations be separated by a greater distance.
- It is recommended that waste clean-ups for plumbing lines be located in exterior places rather than in interior corridors. Then, when a clean-up is needed, motor-driven equipment can be used outside with less noise extending to the interior of the building and without fumes in the interior hallways. A current problem is the lack of a grease trap from the kitchen area. Consequently, grease builds up within the waste system and requires periodic cleaning. This requires that clean-up equipment be brought into the Hospital, creating considerable interference.

- It is recommended that more durable walls be installed around service elevator entrances. At the present time, plaster walls are covered with vinyl cloth material which is easily torn. In addition, the service elevator should provide service to both the roof area penthouse and the basement areas. The current elevator travels only between the five main floors of the March AFB Hospital. Service men with their repair equipment must use stairways to arrive at equipment areas. This discourages proper maintenance. The current elevators provide some problem of door opening and there is no key system on the outside of the elevator in the event the doors get stuck. This has happened on occasion. An incident described was an OB case; the woman and her nurse were caught within the elevator and remained there for approximately one hour before the doors could be pried open. This built up fear within the OB patient. Elevators are in constant use by all kinds of traffic; however, cardiac patients and similar emergency cases require express service. Current elevators do not have express service and stop at each floor. It should be noted that a cardiac team has approximately three minutes to get from its present location to the Surgery Clinic. With elevators stopping at each floor, if you can even get an elevator, a great deal of anxiety is caused to the cardiac.
- There are only two area heating and air conditioning controls on each ward floor. Individual rooms do not have controls. The variation of temperature from one end of the building to the other is as much as 20 degrees. Some rooms are too hot and other rooms are much too cold. One side of the building is hot and the other side is cold.
- One function of the Plant Manager is to monitor equipment, control the music and paging equipment, and keep a fire watch on a reporting panel. The question of the location of these devices in the Plant Manager's Office should be carefully considered. It is our opinion that equipment monitoring devices should be duplicated in a location where there is a 24-hour watch.
- At March AFB, it is recommended that the color scheme be limited to four or five colors. At the present time, there are ten to twelve different colors but many are so similar that the number could easily be reduced. The storage of paint for each color requires three different types – latex, semi-gloss, and gloss enamel.

- All corners should have metal or stainless steel corner guards on traffic lanes. This is supposed to be standard but apparently was eliminated from March AFB.
- Communications within the Hospital now require additional equipment. Current space is limited.
- It is recommended that hard surfaces be placed in telephone booths or around telephones to eliminate writing on walls.
- A central chiller for drinking fountains has been installed and appears to be quite useful. Individual chillers should be eliminated from hospitals because of the individual maintenance problem. It is very annoying to have a noisy chiller unit in a nursing ward.
- March AFB Hospital has no ramps for wheelchair patients outside the building. There is no possible way to get from the parking lot to the inside of the building by wheelchair without lifting it up steps.
- Custodial cleaning requires duplicating of storage closets. Custodial contractors who store polishes, mops, buckets, and cleaning materials desire to have these things under lock and key to prevent hospital forces from using them. Present custodial closet space is extremely limited.
- At March AFB, windows of the facilities were not cleaned for at least one year as cleaning hooks were missing from the windows, creating a safety hazard for contract companies.
- Ceiling returns for air conditioning are extremely poor, resulting in dust fallout from where it collects on the sides of return ducts.
- Larger conduits are needed for telephone cables today because phone cables come prefabricated with plug-in ends which cannot be pulled through small conduits. This is generally a technological compatibility error.
- The current building construction in hospital corridors is plaster walls to the base meeting the floor. At the cove level, a rubber-based cove has been installed. One problem that is expected to cost over \$100,000 to repair is damage caused by heavy-duty custodial polishers banging into the sides of the walls and crushing the plaster wall under the base cove. Many hundreds of feet of

corridor base must be replaced. It is recommended that a poured concrete base be installed in the Hospital in lieu of plaster or other material.

- Major access doors should be covered with a very hard surface such as stainless steel so that supply carts banging through them will not damage doorways and doors.
- Floor drains are generally a construction problem. Many drains are not lower than the floor level. The result is that water puddles in the room. It is recommended that public restrooms have drains installed so that custodial forces will have an easier time scrubbing rooms.
- Communication to all equipment rooms, i.e., mechanical, telephone, air handling, and similar spaces is a problem. Present equipment rooms are unable to communicate with the Plant Manager's Office or Fire Control for emergency purposes.
- Hose faucets should be provided on the outside of the building to allow supplemental lawn watering and cleaning when necessary. Generally, this is a standard item for building facilities.
- At the present time valves have been installed under sinks but are key valves with no handles. In the event a sink floods, there is no possible way to shut it off without the assistance of a key which may be in the Plant Maintenance Office or not available at all.

Other suggestions for physical improvements that have already been mentioned were: sliding doors for dental offices rather than swinging doors; more open space in the kitchen, with tables and racks on wheels rather than fixed; rearrangement of X-ray exposure rooms around a central darkroom and better X-ray maintenance; rearrangement of pharmacy work space; and more storage room in the Hospital.

8.2.8 NORTON AIR FORCE BASE DISPENSARY

8.2.8.1 Mission

The mission of the 1601st USAF Dispensary is to provide the medical support necessary to maintain the highest possible degree of combat readiness and effectiveness of all personnel of all satellite, tenant, and assigned units at Norton Air Force Base. The major workload has consisted of providing outpatient

medical services to the local military community. Care of active duty military personnel is obligatory, while care is provided to dependents and retired military personnel on a space-available basis. The Dispensary Services include a small Inpatient Ward, Dental Clinic, General Practice, Military, Pediatric Clinics, and a Physical Examination Unit. Flight Medicine Clinic, Military Public Health Section (including Occupational Medicine), X-ray Department, Class "C" Laboratory, Veterinary Service, and Bio-environmental Engineering are also provided.

8.2.8.2 Population

Statistics on the population served are shown in Table 8.2.32. The present population is projected to be made up of 10% active duty, 18% dependents, and 72% retired and their dependents. Estimates on population which do not match these percentages are exactly as follows:

Fiscal Year 1969

Active Duty	7,135
Active Duty Dependents	12,130
Retired	14,605
Retired Dependents	<u>35,298</u>
Total	69,168

8.2.8.3 Facilities

The 1601st USAF Dispensary facilities include a main dispensary, housing a 12-unit, 72-hour holding bed inpatient ward, an 18-chair Dental Clinic, General Practice, Military and Pediatric Clinics, and a Physical Examination Unit. The floor plan is shown in Figure 8.2.15. Flight Medicine, Military Public Health, Veterinary Service, and Bio-environmental Engineering are housed in separate facilities. These facilities comprise approximately 43,000 square feet. In addition, the dispensary operates an airmen's barracks for unmarried enlisted men.

The original main dispensary building which opened on 12 June 1968, was planned for a military population of under 3,000 and primarily for 12,000 civilians operating the base. During the planning phase the base was changed to a Military Air Command facility with a new mission and new personnel. At that time the original concept of the Norton dispensary had to be changed. It was determined that the dispensary could provide medical services jointly with the hospital at March AFB for all beneficiaries in the Riverside and San Bernardino area. Nevertheless, the change in mission was abrupt and the dispensary bears vestiges of the original mission concept. The facility is of traditional design, having fixed walls and partitions with room and hallways designed in a tailored way with continuous space. Modularity does not exist and there is little if any flexibility. Partition change or space alteration is a major operation when it takes place.

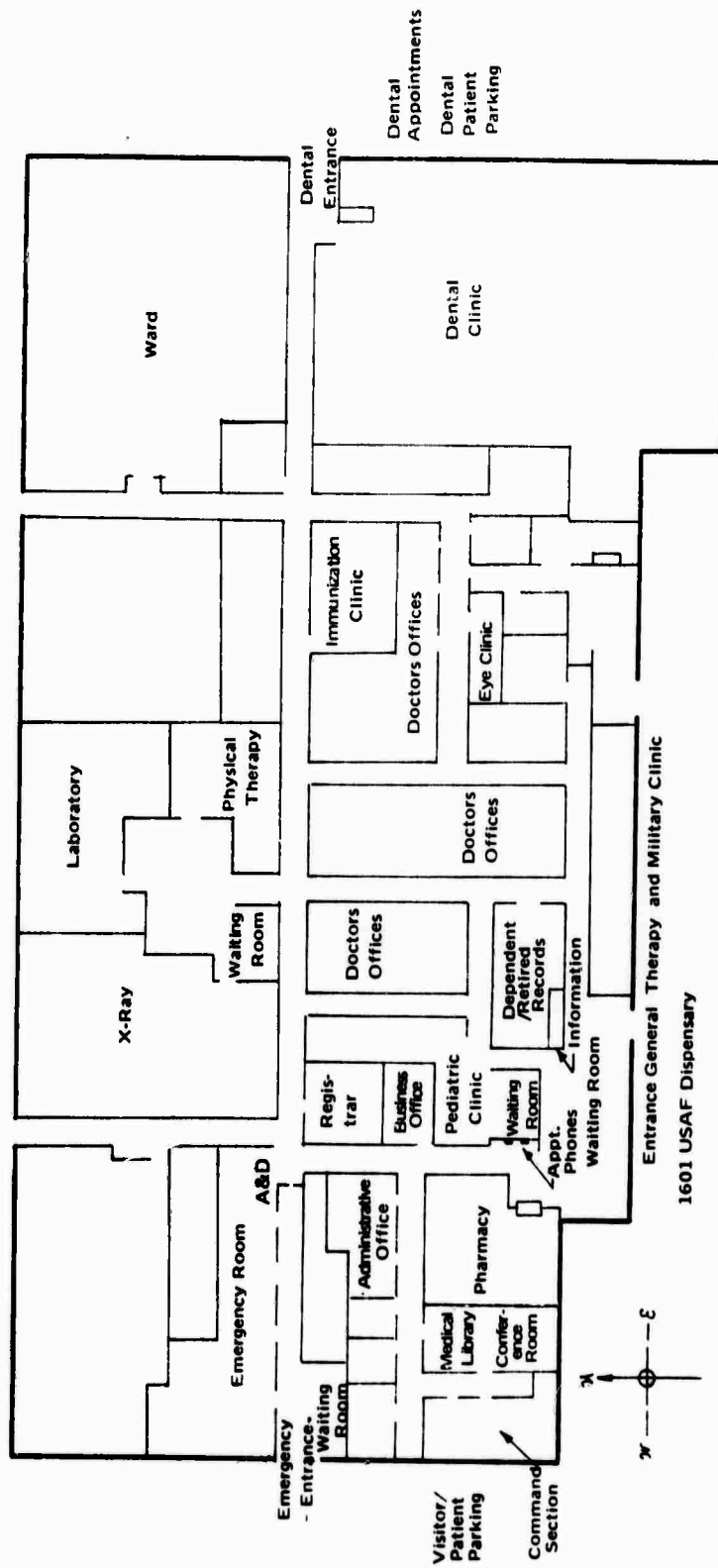


FIGURE 8.2.15 FLOOR PLAN OF THE MAIN DISPENSARY AT NORTON AFB

The 1601st USAF Dispensary has occupied the dispensary building since its opening in 1968. Prior to moving into the structure, space was found to be a problem because of an expanding military population. Consequently, certain functions planned for consolidation into the new facility were required to continue operating in other buildings – Medical Materiel in Building S-658, the Flight Medicine Section in Building S-609, the Military Public Health Office in Building S-271, and the Veterinary Service in Building 474.

8.2.8.4 Organization and Staffing

The organization structure for the Dispensary as of October 1969, is shown in Figure 8.2.16. Major functions include the Commander/Administrator, the Medical Squadron, Registrar, Plant Manager, Materiel/Supply, Business Office, Dispensary Services, Aeromedical Services, Veterinary Services, and Dental Services.

Staffing for the Dispensary as of 25 September 1969 was at a level of 204 persons: 42 officers, 119 airmen, and 43 civilians.

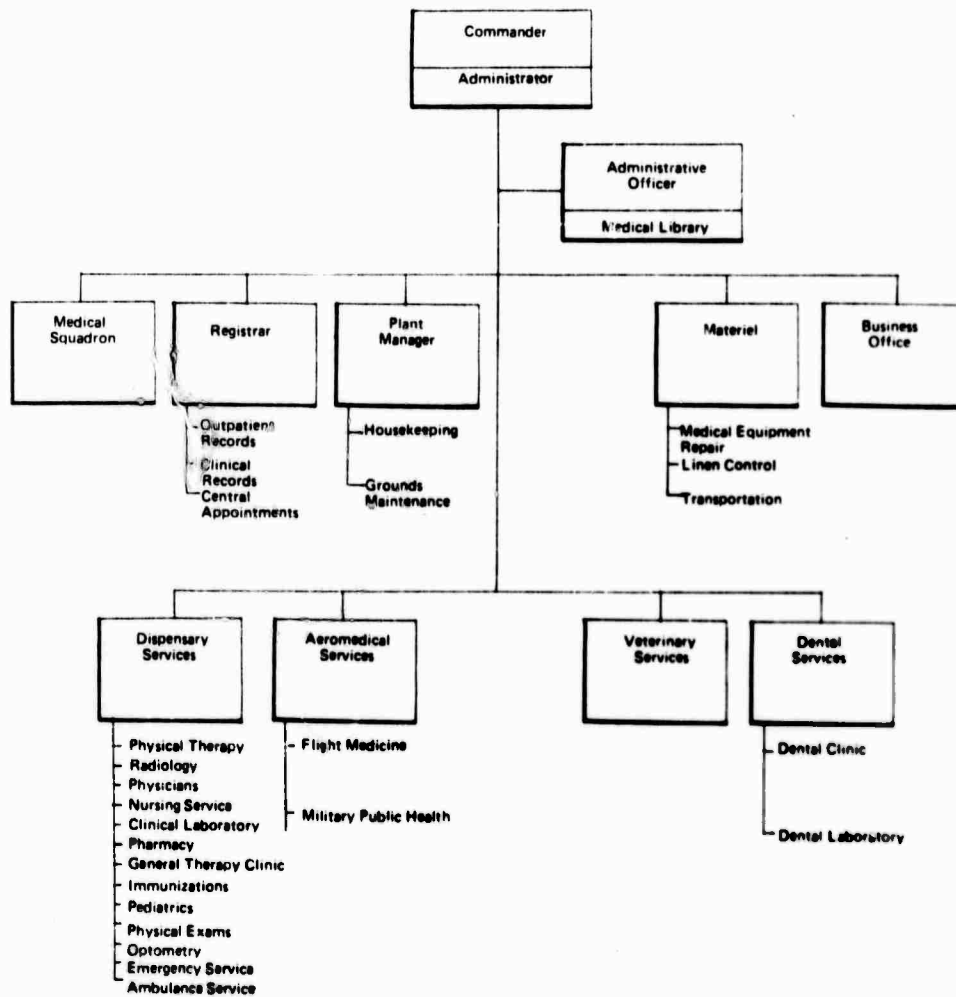
8.2.8.5 Operational Characteristics

Because Norton dispensary is intended to provide care jointly with the hospital at March AFB, the facilities are of insufficient size and capacity to house and deliver all medical care required for the active duty personnel. Consequently, the Dispensary is required to refer consultations, surgery, and inpatient services to military medical installations allied to Norton and to the local medical community.

A close professional relationship is maintained with the civilian medical community. Use of the community health care system is made through the CHAMPUS program, principally for obstetric cases. The retired military community is also apprised of the limited capability of the Norton Dispensary and therefore their care is mostly limited to emergencies. The CHAMPUS program is unpopular with the retired because they are on a reduced income and must pay a portion of the cost. At a military hospital, there are no outpatient charges and inpatient charges are minimal, as prescribed by Air Force directives.

The 126,656 outpatient visits in FY 1969 can be broken down as follows:

Active Duty	30%
Active Duty Dependents	47%
Retirees and their Dependents	21%
Others (Civil Service and Reservists)	2%



**FIGURE 8.2.16 DEPARTMENT OF THE AIR FORCE 1601ST USAF DISPENSARY
(MAC) NORTON AFB, CALIFORNIA
(Organization Structure – October, 1969)**

The physicians for that same period were assigned as follows:

Radiology	1
Pediatrics	1
Flight Surgeon's Office	1
Military Clinic	3
General Therapy Clinic	5

The Emergency Room is open 24 hours a day, 7 days a week, and is essentially a first-aid station. It has X-ray and lab facilities available and is staffed by one physician with another being on call. Other staffing comprises one RN and two technicians during the day and two technicians on evenings and nights.

The regular clinic appointments are made one day in advance, with active duty and active duty dependents receiving absolute priority for the slots available. These are always seen the next day. Retirees generally have to wait as long as a month for an appointment and 30 retirees are being told every day that appointments are not available for them the next day. They are then asked to call back within a few days. In April 1969, sick call was replaced by a regular appointment system for active duty personnel and these are seen in the Military Clinic or in the Emergency Room. Military Clinics can often see patients the same day. When the sick call was replaced by an appointment system, the number of active duty personnel reporting at sick call fell drastically. The following table illustrates this point:

March (weeks)				April				May				
1	2	3	4	5	6	7	8	9	10	11	12	13
Average Daily Active Duty												
46	43	39	41	38	40	32	37	30	6	3	6	4

At present, registered nurses at Norton in the Pediatric Clinic scan patients, make simple diagnoses, swab throats, prepare the paper work for diagnostic tests, and write renewal prescriptions. The physician, however, signs everything. It is possible, nonetheless, for patients to come in and be seen by the nurse only. There is only one pediatrician available and he could only accomplish his job because nurse scanning has been mandatory. The nurses are instructed that patients who present the following problems must be seen by the pediatrician:

- High Fever
- Asthmatic Conditions
- Abdominal Pain
- Stiff Neck with Associated Symptoms of Meningitis

Children who present preliminary mental health and orthopedic problems are not seen but referred directly outside. Since March would not see referrals who have not been seen before by a physician at Norton, all such cases are automatically referred out on CHAMPUS.

The inpatient facilities at Norton consist of 12 beds in a rather nice arrangement. The dispensary inpatient discharges for one year are as follows:

<u>Date</u>	<u>Total Patient Discharges</u>	<u>To March</u>	<u>To Other</u>
October 1968	44	2	2 (1 Army, 1 Civilian)
November 1968	33	2	None
December 1968	35	4	None
January 1969	35	8	None
February 1969	33	3	None
March 1969	40	5	None
April 1969	8	None	None
May 1969	22	1	None
June 1969	16	2	None
July 1969	19	1	1 (Army)
August 1969	21	1	1 (Navy)
September 1969	21	2	1 (Army)
October 1969	24	3	None

The infirmary is provided for the purpose of 72-hour observation and the policy is that at the end of that time the patient will be either discharged or sent to a hospital. The staffing of the infirmary is as follows:

Registered Nurses	5 (4 civil service, 1 Air Force)
Staff Sergeant	1
Airmen	3
Physicians	None

All food is brought from the base dining hall and active duty and nonactive duty officer patients pay \$1.32 a day for meals. Dependents of hospitalized pay \$1.75 per day.

The costs of the infirmary are calculated on the basis of regulation AFM 168-45 which calls for some costs to be allocated on the basis of man months and others on directed overhead (e.g., linen service 55%, house-keeping 40%, maintenance 40%, etc.). This means that these costs are comparable only to other Class A dispensaries and are in themselves meaningless since the

ratio of OPD service to beds varies in each Class A dispensary while the overhead costs are directed in all of them.

Immunizations are offered without appointment as personnel come in, and are administered by a technician. The base computer lists active duty personnel to go for immunization and the list of immunized personnel is fed back into the computer, resulting in a second and third notice.

Lab tests for dependents ordered by civilian physicians are provided when personnel are available.

The limits of dispensary services are covered under regulation AFM 168-9, Section 5, paragraph 14c, but because of political and other pressures, these regulations have been observed mostly in the breach.

The Flight Surgeon is responsible for providing all general medical care to flight personnel and their dependents. The rationale is that flight personnel must be handled as a "whole person" which includes dependents. The present flight surgeon staffing is as follows:

Medical Doctors	4
Medical Technicians	1
Air Medical Specialists	3
Air Medical Apprentices	4
Civilian Medical Specialists	1

Statistics on the Flight Surgeon services were not available. The Flight Surgeon's Office presents a typical general private practice situation.

8.2.8.6 Costs and Performance Data

Operating costs for the Norton Air Force Base Dispensary are shown in several reports. Two are included here: Dispensary Expense Distribution, First Quarter FY 1970 (Table 8.2.33), and Workload Unit Costs, First Quarter FY 1970 (Table 8.2.34).

The following reports present various statistics on workload and expenses:

Report of Patients, AF Form 235, and supplemental sheets
Management Data Summary, FY 1969
Selected Workload Items, by Quarter, FY 1964-1968.

TABLE B.2.33

1001ST USAF DISPENSARY (MIAC)
Norton AFB, CA 94509

DISPENSARY EXPENSE DISTRIBUTION

Period: 1 July - 30 September 1968, FY 1970

RC/CC Account Number	Expense per RCE: C100	Reference	Independent	Organizational	Dental	Other
5110	\$ 41,755	Step 1	\$ 2,797	\$ 35,492	\$ -	\$ 3,466
5120	19,077	Step 2	12,129	2,413	-	4,535
5130	75,166	Step 3	3,278	66,026	-	5,862
5140	1,004	Step 4	207	817	-	310
5150	48,167	Step 5	145	48,042	-	-
5160	21,687	Step 6	239	21,448	-	-
5170	14,829	Step 7	343	14,506	-	-
5180	28,154	Step 8	2,984	25,001	-	169
5220	4,783	Step 9	2,630	1,674	383	96
5230	9,700	Step 10	3,881	5,046	486	201
5240	67,775	Step 16	5,083	25,822	19,304	17,486
5250	5,167	Step 11	2,067	2,480	258	362
5260	3,885	Step 11	1,546	1,855	193	271
5270	-	Step 11	-	-	-	-
5280	1,548	Step 11	619	743	78	108
5310	78,192	Step 13	-	-	78,192	-
5320	8,807	Step 13	-	-	8,807	-
5400	67,764	Step 15	-	6,232	-	59,532
TOTAL	\$407,803		\$37,948	\$259,377	\$107,880	92,488

TABLE B.2.34

**1601ST USAF DISPENSARY (MAC)
Norton AFB, CA 92400**

WORKLOAD UNIT COSTS

Period: 1 July - 30 September 1969

	<u>Inpatient Day</u>	<u>Outpatient Visit</u>	<u>Dental</u>
Total (Direct and Indirect) Costs	37,948	250,377	107,880
Number of Work Units	198	31,344	•
Average Cost Per Work Unit	191.66	8.78	•

**OTHER SERVICES
(Direct Cost Only)**

	<u>Pharmacy Prescription (RC/CC 816)</u>	<u>X-ray Film Exposed (RC/CC 818)</u>	<u>Laboratory Procedures Processed (RC/CC 817)</u>	<u>Base Dental Clinic Procedure (RC/CC 832)</u>
Total Direct Costs	48,187	21,887	14,929	78,192
Number of Work Units	38,718	9,818	13,069	67,230
Average Cost Per Work Unit	1.35	2.21	1.14	2.10

	<u>Base Dental Laboratory Procedure (RC/CC 832)</u>
Total Direct Costs	8,907
Number of Work Units	8,526
Average Cost Per Work Unit	1.05

TABLE 8.235 (Continued)

REPORT OF PATIENTS		0362		REPORT PERIOD FROM		THRU	
3001st USAF DISPENSARY (CLASS "A") WORTON AFB CA (MAC)				30 days		30 Sep 69	
SELECTED DATA, ACCORDING TO CLINICAL SPECIALTY OR MEDICAL SERVICE PROVIDED							
CLINICAL SPECIALTY OR MEDICAL SERVICE PROVIDED	PATIENTS		NO. OF VISITS	NO. OF CONSULTATIONS	NO. OF REFERRALS	PATIENTS	
	ADMITTED	DISCHARGED				ADMITTED	DISCHARGED
TOTAL	29	3000	28	136	3408	1300	66
Internal Medicine		5046			2113	596	40
Obstetrics and Gynecology		2462			697	400	
Family Planning		100					
Other		3083			664	88	1
ENT							
Orthopedics							
Neurology							
Neurosurgery							
Ophthalmology							
Otolaryngology							
Pathology							
Pharmacy							
Physiology							
Psychiatry							
Psychology							
Radiology							
Respiratory							
Surgery							
Urology							
Cardiology							
Endocrinology							
Geriatrics							
Hematology							
Infectious Disease							
Intensive Care							
Medical Oncology							
Nephrology							
Nuclear Medicine							
Plastic Surgery							
Preventive Medicine							
Public Health							
Rehabilitation							
Thoracic Surgery							
Vascular Medicine							
Vascular Surgery							
Wound Care							
Other							
ADMITTED	292	285					
DISCHARGED							
TOTAL							
30 October 1969		ROBERT L. GRACE, MD-6, USAF					

TABLE 8.2.35 (Continued)

REPORT OF PATIENTS - HOSPITAL SUPPLEMENT		FORM 0562		REPORTS CONTROL FORMS			
REPORTING FACILITY AND LOCATION		PERIOD COVERED		DATE ENDING			
1601st USAF DISPENSARY (CLASS "A") HOFFTON AFB CA (MAC)		30 days		30 Sep 69			
I. INPATIENT ADMISSIONS AND INPATIENT DAYS							
LINE	CATEGORY OF PATIENT	PATIENT ADMISSIONS		DAYS SURVIVING OUT	DAYS OCCUPYING BEDS	PATIENT FEES FOR MEALS	
		A	B				
1	ALL PATIENTS - TOTAL	20	1	10	93	64	
2	EXTENDED BY MIL	9	1	10	42	2	
3	AIR FORCE	8		10	39		
4	ARMY	1	1		3		
5	NAVY - MARINE						
6	OTHER ACTIVE MIL ETC						
7	AIR FORCE						
8	ARMY						
9	NAVY - MARINE						
10	MEMBERS, RESERVE, UNIT SERVICE						
11	COAST GUARD						
12	PUBLIC HEALTH SERVICE						
13	COAST AND GEODETIC SURVEY						
14	RETIRED MEMBERS	1	1		9		
15	AIR FORCE	1			9		
16	ARMY						
17	NAVY - MARINE						
18	COAST GUARD						
19	PUBLIC HEALTH SERVICE						
20	COAST AND GEODETIC SURVEY						
21	DEPENDENTS, UNIT SERVICE	10			42	42	
22	ACTIVE DUTY, AIR FORCE	9			39	39	
23	ACTIVE DUTY, ARMY						
24	ACTIVE DUTY, NAVY - MARINE				1	1	
25	RETIRED AND DECEASED AIR FORCE				1	1	
26	RETIRED AND DECEASED ARMY						
27	RETIRED AND DECEASED NAVY - MARINE	1			1	1	
28	COAST GUARD						
29	PUBLIC HEALTH SERVICE						
30	COAST AND GEODETIC SURVEY						
31	SPECIAL CATEGORIES						
32	ALLIED AND AUXILIARY MILITARY						
33	COPIES OF ALLIED AND AUXILIARY MILITARY						
34	COPIES OF AUTH CIVILIAN EMPLOYEES						
35	NO EMPLOYEES						
36	OTHER US EMPLOYEES						
37	NO EMPLOYEES						
38	PRISONERS OF WAR						
39	NO OTHER						
II. DISPOSITION OF INPATIENTS				III. SOURCE OF CAS MIL, CIV, ORC, DEP, END OF ADTS			
TYPE OF DISPOSITION		OF	ADTS	ORIGINALLY ADMITTED FOR ADTS		OF	ADTS
TOTAL		0	2	TOTAL		2	0
ADTS TO END ADTS		1		ATTACHED FOR DEPENDENT CARE			
ADTS TO DEP			1	ATTACHED THROUGH DEPENDENT			
ADTS TO NAVY				ADTS COVERED BY THIS REPORT			
ADTS TO US				OTHER			
ADTS TO		1	1	FROM			
IV. NO CAPACITY DAYS				V. OPERATING BED DAYS			
NO CAPACITY		12	23	OPERATING BEDS		12	
NO OPERATING				NO OPERATING			

FORM 0562 2350 OFFICE OF THE ADJUTANT GENERAL, WASHINGTON, D.C. 20315

TABLE 8.2.36

1601ST USAF DISPENSARY (MAC)
MANAGEMENT DATA SUMMARY

I WORKLOADS

A. INPATIENTS	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY		
													Total	Average	
1. Admissions:															
FY 1970	17	23	20	22	36										
FY 1969	44	54	50	45	37	35	33	32	38	10	19	17	414	34.5	
2. Discharges:															
FY 1970	19	21	21	24	34										
FY 1969	41	54	51	52	33	35	35	33	40	8	22	16	470	35.0	
3. Patient Days:															
FY 1970	53	52	50	65	92										
FY 1969	177	212	212	200	196	172	181	150	169	17	55	73	1,794	149.3	
4. Average Daily Census:															
FY 1970	1.7	1.7	3.1	2.1	3.1										
FY 1969	5.6	6.8	7.1	6.5	6.5	5.5	5.8	4.6	5.5	.5	1.8	2.4		4.9	
5. Percent Occupancy:															
FY 1970	14.2	14.2	25.8	17.5	25.8										
FY 1969	47.5	56.7	59.1	54.1	54.1	45.8	48.3	38.3	45.8	.05	15.0	20.0		40.8	
6. Average Length of Stay:															
FY 1970	2.1	2.3	4.6	3.0	2.6										
FY 1969	4.0	3.9	4.2	4.4	5.3	5.4	5.5	4.1	3.1	1.7	2.9	4.3		4.3	
7. Cost Per Inpatient Day:															
FY 1970															
FY 1969			191.66			97.65			85.87					85.60	
			87.64												

TABLE 8.2.36 (Continued)

B. OUTPATIENTS	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY		
													Total	Average	
1. Total Visits:															
FY 1970	11039	10102	10203	10685	9060										
FY 1969	11087	9757	9619	11833	10390	11241	10367	9421	11120	11404	10761	9656	126656	10555	
2. Active Duty - Military:															
FY 1970	3735	3227	3263	3754	3077										
Percent of Total	33.8	31.9	32.0	35.1	34.0										
3. Dependent Active Duty - Military:															
FY 1970	4886	4525	4654	4799	4162										
Percent of Total	44.3	44.8	46.0	44.9	45.9										
4. Retired Military:															
FY 1970	743	667	705	761	598										
Percent of Total	6.7	6.6	6.9	7.1	6.6										
5. Dependent Retired Military:															
FY 1970	1467	1442	1389	1319	1205										
Percent of Total	13.3	14.3	13.6	12.4	13.3										
6. Civilian Employee & Other:															
FY 1970	208	241	147	52	18										
Percent of Total	1.9	2.4	1.5	.5	.2										
7. Cost per Outpatient Visit: (Cumulative)															
FY 1970			8.28												
FY 1969			7.55		8.34			8.18						8.45	

TABLE 8.2.36 (Continued)

<u>C. CLINIC WORKLOADS</u>		<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>FY Total</u>	<u>Average</u>
1.	General Therapy Clinic														
	FY 1970	1765	1980	1768	1736	1928									
2.	Military Clinic:														
	FY 1970	1126	1180	914	1053	1013									
3.	Emergency Room:														
	FY 1970	2511	2338	2462	2335	1905									
	FY 1969	1210	1174	2497	2389	2604	3623	2363	1694	2115	2206	2388	2361	26624	2219
4.	Pediatrics:														
	FY 1970	935	924	1083	1244	1025									
	FY 1969	1731	1248	1140	1573	1361	1586	1519	1282	1494	1568	1298	1012	16812	1401
5.	Flight Medicine:														
	FY 1970	1452	964	934	1244	826									
	FY 1969	947	868	843	1168	1249	1452	1402	1287	1607	1511	1570	1321	15225	1269
6.	Physical Therapy:														
	FY 1970	753	652	696	763	622									
	FY 1969	1212	873	679	1083	948	331	1019	1027	1055	1007	887	776	11397	948

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TABLE 8.2.37

1601ST USAF DISPENSARY (MAC)
MANAGEMENT DATA SUMMARY

II ANCILLARY SERVICES

A. RADIOLOGY	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY Total	Average
1. X-ray Film Expenses:														
FY 1970	3389	3316	3113	3145	2643									
FY 1969	3043	3870	3220	4229	3491	3374	4112	3502	3884	3767	3665	3397	43564	3630.3
2. X-ray Film Expenses per Outpatient Visit														
FY 1970	.30	.33	.30	.29	.29									
FY 1969	.26	.37	.32	.35	.33	.29	.39	.37	.34	.33	.33	.35		.33
3. Productivity: (AF Median FY 1968: 15.8/MAC Median FY 1968: 16.8)														
Exposures per Assigned Man per Day														
FY 1970	12.2	15.3	17.3	14.5	12.6									
FY 1969	10.9	13.9	13.5	19.5	16.6	13.6	14.7	15.6	15.7	17.9	16.9	14.2		15.1
4. Mammography														
Authorized FY 1970	7	7	7	7	7	7								
Assigned FY 1970	9	7	6	7	7									
5. Unit Costs: (By Fiscal Qtr)														
A. Per Exposure (AF Median FY 1968 - 1.63/MAC Median FY 1968 - 1.61)														
FY 1970	2.21													
FY 1968	1.77	2.35	2.22	2.08	2.08	2.08								
B. Supplies Only (AF Median FY 1968 - .48/MAC Median FY 1968 - .48)														
FY 1970	37					50			48			45		45
FY 1968	25													

TABLE B.2.37 (Continued)

B. LABORATORY	FY												Total	Average	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June			
1. Specimens Processed:															
FY 1976	4762	4579	3088	4418	3787										
FY 1988	4825	4731	5885	5513	5105	5463	6279	4987	5173	5441	4940	4991	62373	5186	
2. Procedures per Consultant Visit:															
FY 1976	42	44	38	48	35										
FY 1988	42	48	48	64	47	47	58	50	45	47	45	51		48	
3. Productivity IAF Median FY 1988 - 17.8MAC Median FY 1988 - 17.28															
Specimens per Assigned Man per Day:															
FY 1976	25.6	24.4	21.2	28.5	22.8										
FY 1988	15.2	15.3	16.8	19.8	16.9	17.6	25.3	21.9	20.9	22.7	22.8	23.8		19.5	
4. Missing Patterns															
A. Authorized	7	7	7	7	7	7									
B. Assigned	6	6	6	5	5										
5. Unit Costs (By Fiscal Day)															
A. Cost per Specimen Processed IAF Median FY 1988 - 1.28/MAC Median FY 1988 - 1.43)															
FY 1976	1.14														
FY 1988	1.65		1.80	1.60	1.60	1.50			1.50						
B. Specimen Only IAF Median FY 1988 - .33/MAC Median FY 1988 - .27)															
FY 1976			.38												
FY 1988			.13		.26				.25					.22	

TABLE 8.2.37 (Continued)

C. PHARMACY	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY		
													Total	Average	
1. Prescriptions Filled															
FY 1970	13120	11542	11056	12702	10800										
FY 1968	11948	11401	11105	14822	11852	17000	14468	12711	13613	12913	12498	12785	149658	12301	
2. Prescriptions per Outpatient Visit															
FY 1970	1.10	1.14	1.08	1.19	1.20										
FY 1968	1.07	1.16	1.15	1.24	1.13	1.90	1.39	1.29	1.22	1.27	1.25	1.32	1.60	1.25	
3. Productivity: IAP Median FY 1968: 76.8/MAC Median FY 1968: 88.8															
A. Prescriptions Filled per Assigned Man per Day															
FY 1970	70.5	62.1	61.4	68.6	68.8										
FY 1968	66.3	61.3	74.1	116.5	65.6	98.7	77.8	67.2	67.6	63.6	67.1	71.0	83.3	63.3	
4. Manning Pattern															
A. Authorized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B. Assigned	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Unit Costs (By Filled Qty)															
A. Per Prescription (IAP Median FY 1968 - 1.08/MAC Median FY 1968 - 1.07)															
FY 1970			1.29												
FY 1968			95		1.31		1.25		1.26			1.26		1.26	
B. Supplies Only (IAP Median FY 1968 - 82/MAC Median FY 1968 - 80)															
FY 1970			1.11												
FY 1968			.71		1.12		1.05		1.05			1.05		1.05	

TABLE B.2.37 (Continued)

D. OTHER		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY Total	Average
1. Vehicle Runs															
Day Ambulance		7	10	12	17	25									
Staff Car		15	2	0	34	54									
Even Ambulance		6	5	5	8	14									
Staff Car		1	0	0	31	30									
Night Ambulance		3	1	0	0	3									
2. Referrals to Other Government Facilities															
FY 1970		213	277	138	189	147									
FY 1969		248	219	155	191	171	142	186	191	202	315	241	213	2493	208
3. Number of Referrals per 1,000 Outpatient Visits															
FY 1970		19.4	27.5	13.3	17.7	16.1									
FY 1969		14.5	22.3	16.0	16.7	16.4	14.5	17.8	20.3	18.2	27.6	22.3	21.9	219.0	19.0
4. Nonphysician Payments															
FY 1970		271	304	215	268	270									
FY 1969		334	348	266	312	327	251	648	353	264	308	256	278	4012	334
5. Single Physical Examinations															
FY 1970		178	171	157	154	178									
FY 1969		162	183	178	152	163	143	297	221	281	212	182	177	2292	199
6. Immunizations															
FY 1970		3241	2464	1681	2282	2827									
FY 1969		5911	6527	4579	3098	4145	2513	2965	2920	3126	4929	3267	3158	48126	4011
7. Daily Average Strength Served for Outpatient Care															
FY 1970		7198	7216	7171	7268	7302									
FY 1969		6095	6825	6986	6914	6994	6793	7004	6788	6487	6490	7025	7017	82034	6826
8. Ratio Outpatient Visits to Strength (8a vs 7)															
FY 1970		1.5	1.4	1.4	1.5	1.2									
FY 1969		1.8	1.4	1.4	1.7	1.5	1.7	1.5	1.4	1.7	1.7	1.5	1.4	1.5	1.5

TABLE B.2.38

1001ST USAF DISPENSARY (MAC)
MANAGEMENT DATA SUMMARY

HS DENTAL SERVICES

A. DENTAL CLINIC		July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	FY Total	Average
1. Workload																
A	Active Duty	7117	7600	9110	10080	9165										
	Percent of Total	63%	67%	81%	87%	71%	77%									
B	Dependents	1687	2045	2137	2764	1675										
	Percent of Total	15%	17%	16%	16%	15%	17%									
C	Retired	1487	1454	1419	1466	1671										
	Percent of Total	13%	13%	11%	11%	11%	6%									
D	Children's															
	Prescribed Dentistry	1117	1188	889	847	745										
	Percent of Total	16%	16%	7%	6%	6%	6%									
E	Total FY 1978	11204	12283	13633	14313	12846										
F	Total FY 1988	7108	8176	7770	7973	10607	5479	12885	12386	12389	14657	12998	12646	129737	10811	
2. Productivity																
A	Procedure per Assigned Staff per Day															
	FY 1978	18.5	11.7	12.6	12.2	11.4										
	FY 1988	7.2	7.5	6.6	6.6	9.1	7.6	11.2	12.6	11.0	12.0	12.1	9.9		8.5	9.6
	AP Station FY 1988														10.7	
	MAC Station FY 1988															
3. Unit Costs																
A	Per Procedure - All Expenses															
	FY 1978					2.10										
	FY 1988					2.07										
	AP Station FY 1988															
	MAC Station FY 1988															

TABLE B.2.38 (Continued)

A. DENTAL CLINIC (Continued)		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	FY Total	Average
3.	Unit Costs (Continued)														
	B. Per Procedure - Supplies														
	FY 1970			.11											.15
	FY 1969			.15											.13
	AF Median FY 1968														
	MAC Median FY 1968														
4.	Manning Pattern														
	A. Authorized, FY 1970	40	40	40	40	40	40	40	40	40	40	40	40	40	
	B. Assigned, FY 1970	35	34	36	36	36	36	36	36	36	36	37	37		

TABLE 8.2.38 (Continued)

<u>B. DENTAL LABORATORY</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>FY Total</u>	<u>Average</u>
1. Workload:														
A. Procedures FY 1970	3780	2322	2424	2872	2750									
B. Procedures FY 1969	2546	1737	2599	3644	2804	2609	3076	3304	3005	3517	3148	2709	34787	2857
2. Productivity:														
A. Procedure per Assigned Man per Day														
FY 1970	24.4	18.7	20.2	23.2	22.9									
FY 1969	20.8	14.0	21.6	23.5	18.7	16.8	19.5	23.6	19.4	24.1	20.3	14.7		19.8
3. Unit Costs:														
A. Per Procedure All Expenses (Cumulative)														
FY 1970				.18		.54								
FY 1969		.08						.68						
B. Per Procedure Supplies Only (Cumulative)														
FY 1970				.14		.15								
FY 1969		.08						.15						
4. Manning Pattern:														
A. Authorized, FY 1970	3	3	3	3	3									
B. Assigned, FY 1970	5	4	4	4	4									

U.S. NAVAL HOSPITAL
JACKSONVILLE, FLORIDA

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8.3 U.S. NAVAL HOSPITAL JACKSONVILLE, FLORIDA

8.3.1 MISSION AND ENVIRONMENT

8.3.1.1 Brief History

The naval installation at Jacksonville was opened in 1941, and shortly thereafter a cantonment-type hospital was placed in operation. Through the years this increased in size as the base population grew. In 1967 the cantonment hospital was replaced with the present modern structure. One of the newest naval hospitals now in operation, it serves as the focal point of a hospital and dispensary network which extends 100 miles north (Glynco, Georgia), 12 miles west (Cecil Field, Florida), and 20 miles northeast (Mayport Naval Station, Florida).

8.3.1.2 Mission

Jacksonville is a major naval base with primary emphasis on aviation. It includes a Naval Air Station (Jacksonville), a Naval Air Technical Training Center (NATTC located on the main base in Jacksonville), a subsidiary Air Station (Cecil Field), and a Naval Station (Mayport) servicing the Atlantic Fleet. The activities of the complex as a whole and the medical demands placed on Jacksonville Naval Hospital (JNH) reflect this emphasis on aviation and seagoing medicine.

JNH's mission has been described as follows (from BUMED 5450.21A, 12 March 1965, page 1):

To provide general clinical and hospitalization services for active duty Navy and Marine Corps personnel, active duty members of the other armed services, dependents of active duty personnel, and other authorized persons as outlined in current directives. To cooperate with military and civil authorities in matters pertaining to health, sanitation, local disasters, and other emergencies.

8.3.1.3 Size of Base

The Jacksonville Naval Air Station (Jacksonville NAS) has a permanent active-duty military population of approximately three thousand. The main base (exclusive of outlying installations) occupies approximately 6 square miles. The area of nearby Cecil Field is several times as large, while Mayport is slightly smaller in area.

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8.3.1.4 Geography and Climate

The Jacksonville NAS is located in northeast Florida, about 10 miles south of the city of Jacksonville. The area is only about 20 feet above sea level, and the surrounding terrain is primarily flat. The climate is relatively warm year round and quite hot in the summer.

8.3.1.5 Population Served

The command at Jacksonville estimates the total active-duty military population in the area at present to be approximately thirty thousand. It works with estimates because Cecil Field has air squadrons coming and going continually and Mayport has ships going in and out, making the population very flexible. The fixed active-duty military population at Mayport is about six hundred, at Cecil Field about four hundred, and at Jacksonville about three thousand.

Since the nearest other naval hospitals are located in Pensacola, Orlando, and Charleston, JNH serves a large area. It is also a larger installation than these others. There are no naval hospitals in Georgia, so JNH also serves a large section of southern Georgia.

Table 8.3.1. is a recent tabulation prepared by JNH showing the estimated components of the population in its area of responsibility in September 1969.

TABLE 8.3.1
POPULATION SERVED BY JACKSONVILLE NAVAL HOSPITAL
(Average figures for September 1969)

	<u>On Base</u>	<u>Local</u>	<u>Regional</u>	<u>Total</u>
Navy and Marine Corps (active Duty)	358	8,066	12,634	21,058
Army (Active Duty)		30	70	100
Air Force (Active Duty)		125	12	137
Dependents of Active Duty Navy and Marine Corps	447	17,700	68,759	86,906
Dependents of Active Duty Army		75	1,175	1,250
Dependents of Active Duty Air Force		425	44	469
Retired Military				24,659
Dependents of Retired and Deceased Military				61,637
All Others	171	1,941	570	<u>2,682</u>
				198,898

8.3.1.6 Relation to Other Services and Community

Though JNH is the main referral point for active-duty, retired, and dependent personnel, there is a new Veterans Administration Hospital in Jacksonville. In addition, there is a well-developed complex of civilian hospital and medical services in the area. Consequently, JNH does not have to support the entire congeries of medical needs of the population it serves as does, for instance, the Walson Army Hospital at Fort Dix.

Medical care services can be purchased from the civilian sector through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The purchase of medical supplies through CHAMPUS is fairly extensive in Jacksonville, especially with respect to particular services, such as Obstetrics and Gynecology.

8.3.2 DESCRIPTION OF HEALTH CARE FACILITIES

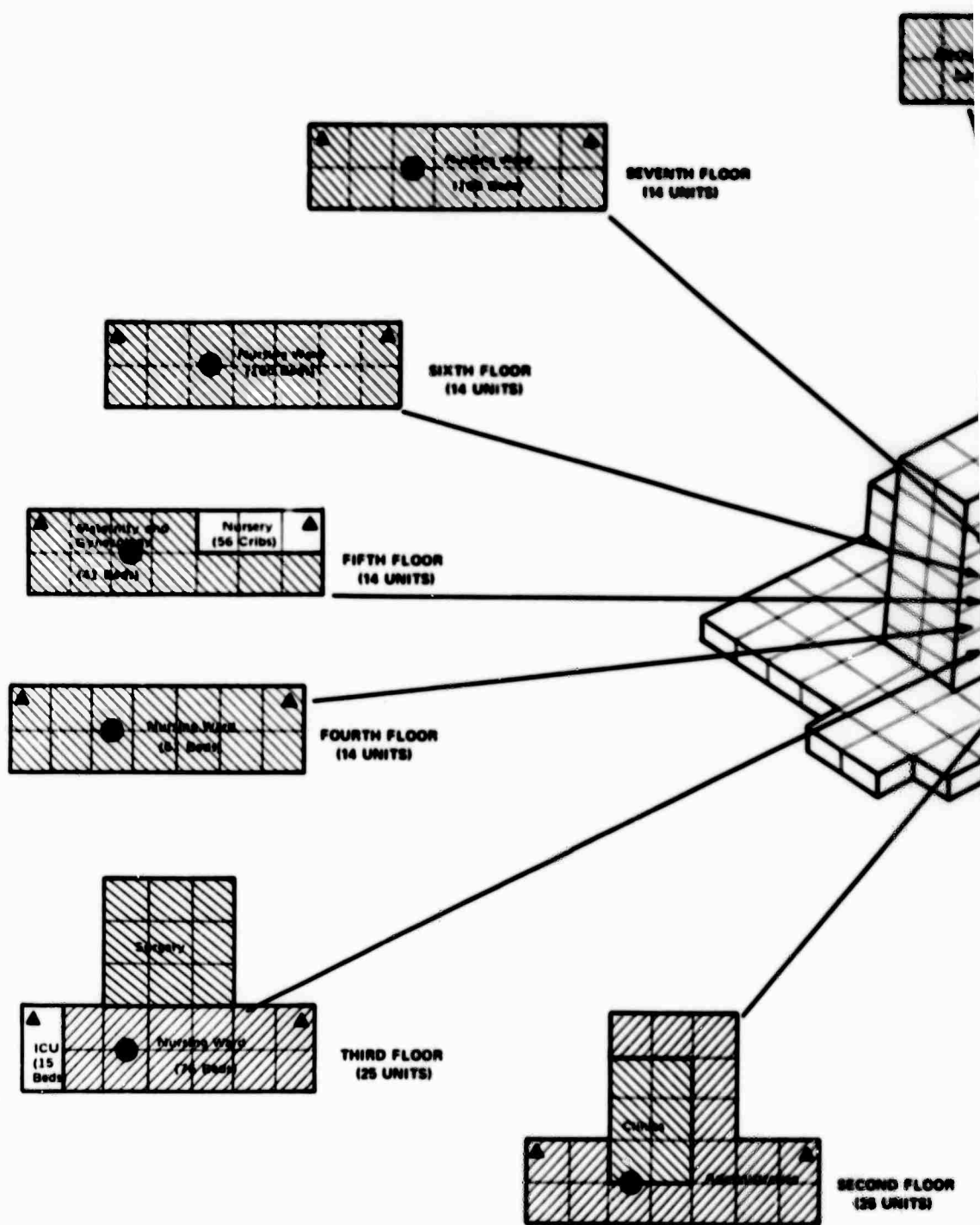
8.3.2.1 Main Physical Plant

The main physical plant for Jacksonville Naval Hospital is an eight-story structure with one major wing extending from the lower four floors. Its major characteristics are as follows:

- Age – primary structure completed in 1967
- Structure cost – \$8,922,167 (including all buildings at main hospital)
- Equipment costs – \$939,747
- Area of main structure – 233,288 square feet (hospital only)
- Nominal bed capacity – 400
- Actual bed capacity during visit period – 520

Schematic floor plans, are shown in Figure 8.3.1.

The accompanying Tables 8.3.2. and 8.3.3. describe the *planned* allocation of beds at JNH by service, type of room, and patient category. Table 8.3.4 shows the current allocation of beds by ward location.



A

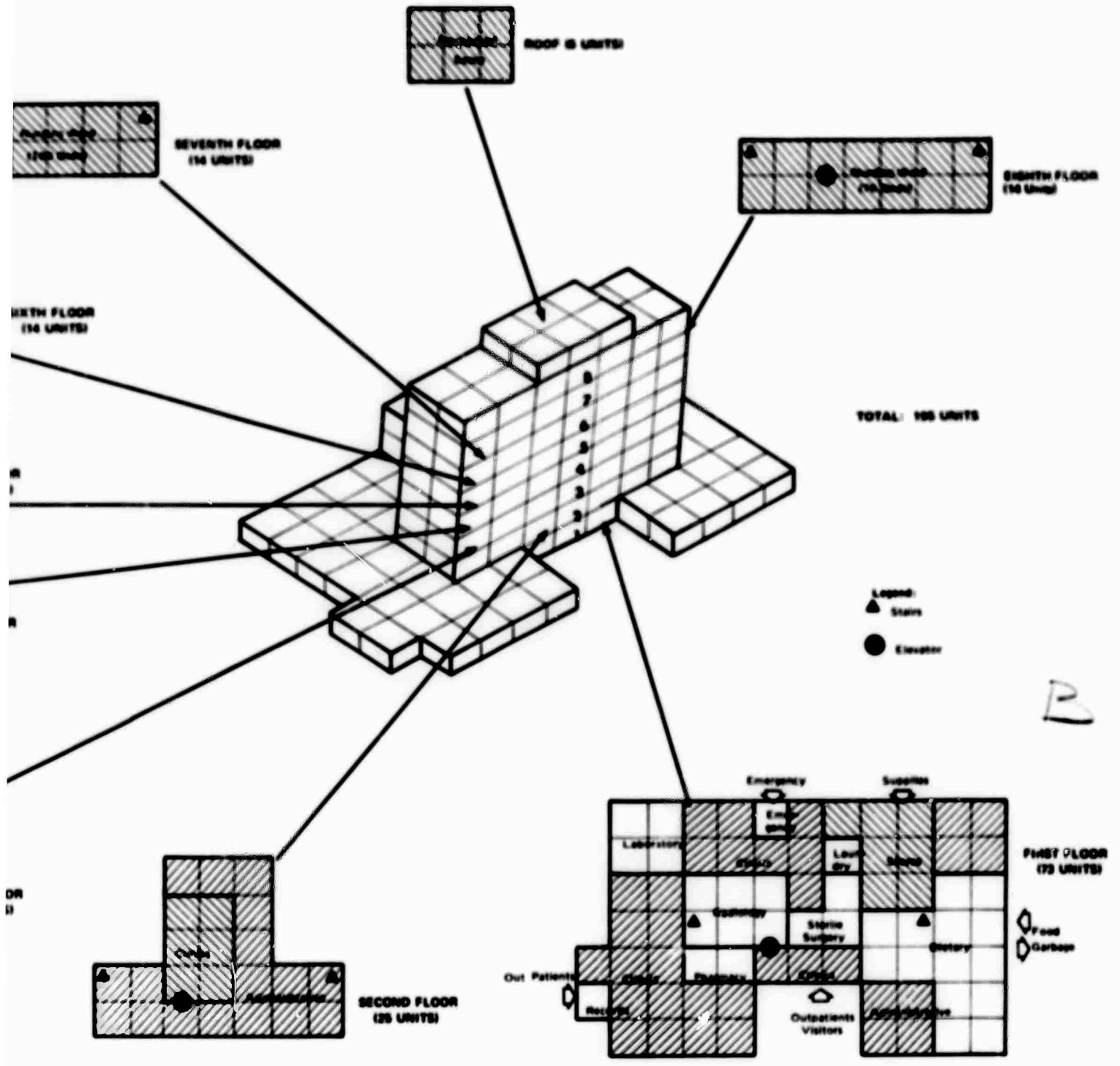


FIGURE B.3.1 JACKSONVILLE NAVAL HOSPITAL - SCHEMATIC DIAGRAM

TABLE B.3.2
PLANNED ALLOCATION OF BEDS BY SERVICE
AND TYPE OF ROOM

	<u>Bed Allocations</u>	
Active Duty		
44 4-bed rooms	176	
32 2-bed rooms	64	
32 1-bed rooms	<u>32</u>	
Subtotal		272
Dependents		
Obstetric		
4 4-bed rooms	16	
3 2-bed rooms	6	
3 1-bed rooms	<u>3</u>	
Subtotal		25
Medical, Surgical, and Gynecology		
6 4-bed rooms	24	
4 2-bed rooms	8	
2 1-bed rooms	<u>2</u>	
Subtotal		34
Pediatric		
3 4-bed rooms	12	
2 2-bed rooms	4	
1 1-bed room	<u>1</u>	
Subtotal		17
Neuropsychiatric		
Medium-Disturbed Ward		
Active Duty, Male		
1 12-bed open ward	12	
2 2-bed rooms	4	
2 1-bed maximum security rooms	<u>2</u>	
Subtotal	18	
Active Duty, Female, and Dependents		
1 2-bed room	2	
2 1-bed rooms	<u>2</u>	
Subtotal	4	22
Intensive Therapy		
Medical	15	
Surgical	<u>15</u>	
Subtotal		<u>30</u>
Total Beds		400

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TABLE 8.3.3

**PLANNED ALLOCATION OF BEDS
AND PATIENT CATEGORY SUMMARY**

<u>Service</u>	<u>Beds</u>	<u>Patient Category</u>	
		<u>Active Duty</u>	<u>Dependents</u>
Medical (Including 15 beds for intensive therapy)	136	124	12
Surgical (Including 15 beds for intensive therapy)	200	178	22
Obstetric	25		25
Pediatric	17		17
Neuropsychiatric (medium disturbed)	<u>22</u>	<u>17</u>	<u>4</u>
Total	400	320	80

TABLE 8.3.4

CURRENT ALLOCATION OF BEDS BY WARD

		<u>Number of Beds</u>
3NE	Medical ICU	15
3SE	Surgical ICU	15
3W	Convalescent Patients	76
4NE	Contagion	18
	Neurology	4
	Dermatology	<u>2</u>
		22
4SW	Neuropsychiatric	21
4SE	Pediatric	18
5NW	Obstetric	23
5NE	Gynecology	18
6E	Orthopedic	50
6NW	Orthopedic	20
6SW	Dental, EENT, Urology	30
7E	General Surgery	50
7W	Medicine	38
	Surgery	<u>12</u>
		50
8E	Sick Officer Quarters	38
8W	Female	
	Medicine	19
	General Surgery	7
	Orthopedic	5
	Urology	3
	EENT	<u>4</u>
		38
Total		484
5SW	Nursery	36 Bassinets

8.3.2.2 Dispensaries and Satellite Facilities

Although it does not have direct administrative responsibility, JNH is affected by the activities of the following four principal dispensary operations:

- (1) Naval Air Technical Training Command (NATTC), main base
- (2) Naval Air Station, main base
- (3) Cecil Field Naval Air Station
- (4) Mayport Naval Station

Cecil Field and Mayport are geographically removed from the main base by approximately 14 and 30 miles, respectively. Each dispensary was designed primarily as an outpatient activity for active-duty military personnel, and the dispensaries at NATTC and NAS function almost exclusively this way. However, Mayport sees dependents of active-duty military personnel and retirees and their dependents on an outpatient basis, and these groups account for over 85% of the dispensary visits there. At the Cecil Field dispensary the ratio of active-duty personnel to dependents is about 1:1.

Patient disposition from each of these dispensary locations falls under one of the following categories:

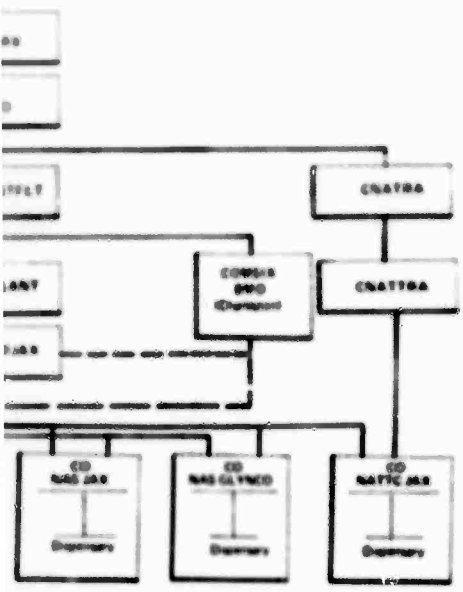
- (1) Return to active duty (or home)
- (2) Limited duty
- (3) Referral to the JNH for either clinic examination or admission
- (4) CHAMPUS referral

Each dispensary is staffed and equipped for basic screening of patients and for routine physical examinations.

A fifth dispensary operation is maintained at Glynco, Georgia, but was omitted from our study of the Jacksonville Naval Hospital because it has relatively minor impact. The operations of each of the dispensaries are discussed in Section 8.3.4.2.

8.3.3 ORGANIZATION AND STAFFING

The relationships among the Hospital, the satellite facilities, the Office of the Secretary, BUMED, and intermediate commands are shown in Figure 8.3.2. This figure also displays a series of organization charts showing the major functional relationships at the Jacksonville Naval Hospital. Following the figures are Tables 8.3.5-8.3.7, which show staffing levels by function and category.



* Supports Sites or Locations of Dispensary Locations

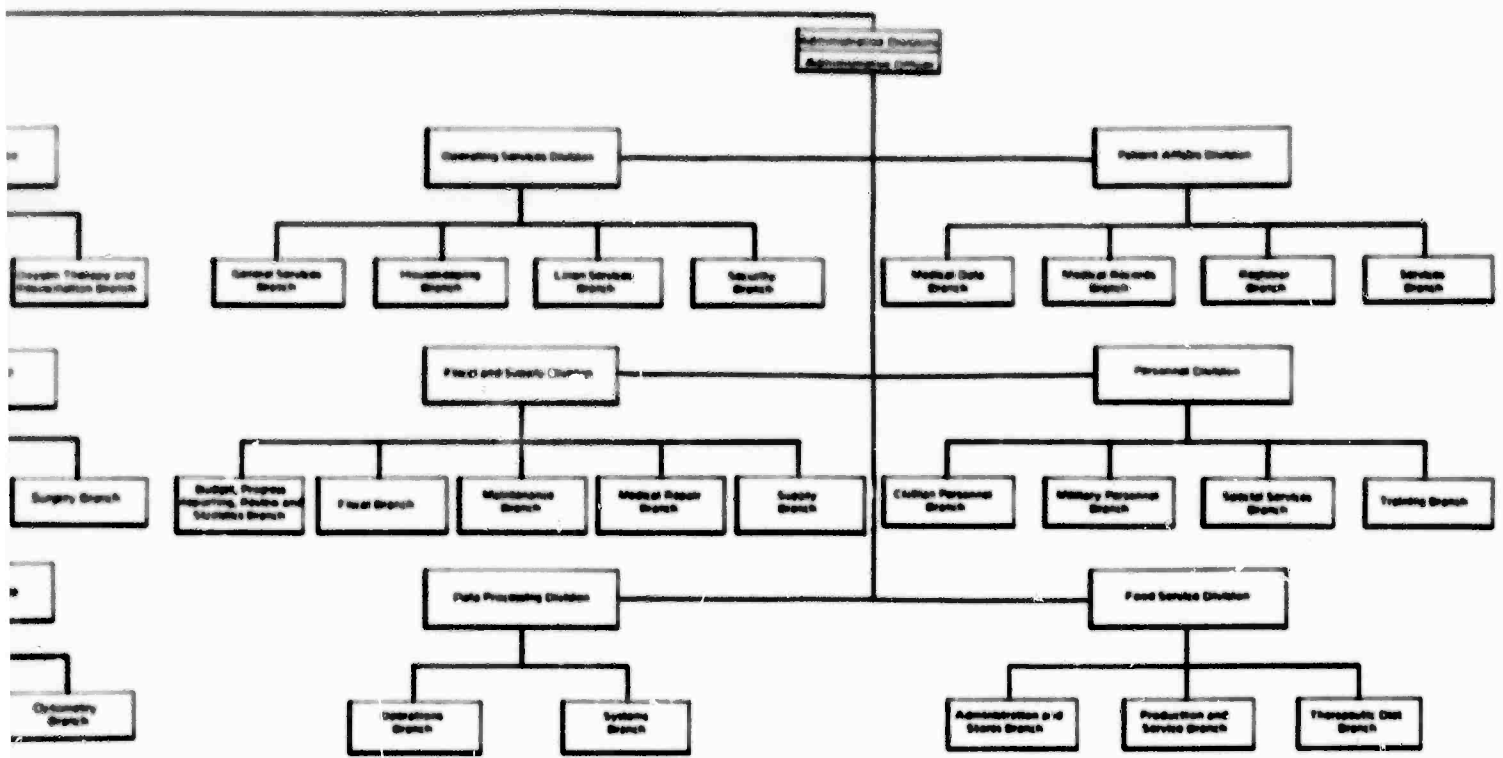


FIGURE 8.3.2 JACKSONVILLE NAVAL HOSPITAL AND RELATED DISPENSARIES – ORGANIZATION CHART

- Notes:**
1. Executive Officer also serves as chief of a clinical service.
 2. Navy Finance Officer, Navy Exchange, Public Works Center, and Civilian Personnel Department, Naval Air Station, Jacksonville, furnish necessary support.

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TABLE 8.2.5

AVERAGE STAFFING

A. DISTRIBUTION BY SERVICE	FY	FY 1989			
	1988	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Medical Corps Officers					
Residents	4	4	9	9	9
Interns	10	10	8	10	12
Other	57	57	58	59	55
Total	71	71	75	78	76
Dental Officers	2	2	2	2	2
Nurse Corps Officers	68	67	67	58	54
Medical Service Corps Officers	21	21	21	20	20
Total Officers	162	161	165	158	152
Enlisted	238	218	234	240	240
Total Military	400	379	399	398	392
Civilian					
Graded	115	132	133	134	138
Ungraded	105	94	90	97	100
Total Civilian	220	226	223	231	238
Total all personnel	620	605	622	629	630
B. DISTRIBUTION BY DUTY	1st Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
		FY 1989	FY 1989	FY 1989	FY 1989
Administration		66	69	68	71
Professional Care					
Administration		26	29	31	38
Inpatient Care		333	332	325	317
Dietetic Service		62	63	60	64
Laundry Operations		10	10	10	11
Outpatient		58	74	77	76
Janitorial		26	21	24	23
Other Miscellaneous		27	24	34	30
Total		606	622	629	630

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TABLE 8.3.6

STAFFING, DECEMBER 1999

<u>Officers</u>	<u>Allowance</u>	<u>On Board</u>	<u>Ordered In</u>	<u>Ordered Out</u>
MC	61	79	1	2
DC	2	3	0	0
MSC	16	16	3	1
NC	74	60	10	2
CHC	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>
Total	154	158	15	5

Enlisted

HM	230	221	37	22
DT	4	2	0	0
PN	1	1	0	0
SD	1	1	0	0
BM	1	1	0	0
SKSN	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	237	230	37	22

Includes 1 HM for Training, Miscellaneous

<u>Classification</u>	<u>Allowance</u>	<u>Augmented</u>	<u>On Board</u>
Graded	130	48	125
Upgraded	<u>91</u>	<u>4</u>	<u>90</u>
Total	230	52	215

Neighborhood Youth Corps (2)

Total Allowance: 621

Actual: 603

TABLE 8.2.7

NURSING STAFF ASSIGNMENTS, 20 JULY - 3 AUGUST 1999

	<u>Nurse Corps</u>	<u>Civilian Nurses</u>	<u>Nurses' Aides</u>	<u>Military Technicians</u>	<u>Total</u>
Pediatrics	5			6	11
Gynecology		4	4		8
Obstetrics		4	5		9
Delivery		5	5		10
Nursery		6	8		14
Medical ICU	6			8	14
Surgical ICU	5			7	12
Operating Room	4			14	18
Outpatient Dept.	3	3	5	7	18
Dependent Medical and Surgical	2	5	1	6	14
General Surgery	3			5	8
General Medical	2			5	7
Orthopedics	1	1		6	8
Orthopedics, Surgery and Urology	2			6	8
Neuropsychiatry	1			7	8
General Surgery, Eye, Ear, Nose, and Throat	1			6	7
Emergency Room	<u>1</u>	—	—	<u>8</u>	<u>9</u>
	36	28	28	91	183

8.3.4 OPERATIONAL CHARACTERISTICS

8.3.4.1 Inpatient Activities

The bulk of admissions for inpatient treatment at JNH are made through one of two mechanisms:

- (1) Referral from one of the four dispensaries;
- (2) Referral by a doctor in a general outpatient clinic or specialty clinic

Data on inpatient activities are contained in Tables 8.3.8 and 8.3.9. The average daily patient census was composed of 65% active-duty personnel in FY 1968 and 71% in FY 1969. Active-duty personnel made up 31% of admissions in FY 1968 and 29% in FY 1969. The significantly lower proportion of active-duty personnel among admissions than among average daily patient census would appear to indicate that active-duty personnel, on the average, remain on the patient census considerably longer than dependents and retired personnel.

Data on inpatient activities are also contained in the Medical Services Report (NAVMED 1454), prepared monthly. These reports were collected for the period January-September 1969; the September 1969 report is shown for reference (Table 8.3.10).

Although data are included in the Medical Services Report on the number of visits to outpatient departments made by inpatients, no data were directly available on the number of referrals to inpatient status made by each outpatient department, nor were data available on inpatient referrals from the dispensaries.

TABLE 8.3.8

AVERAGE DAILY PATIENT CENSUS

	<u>FY 1968</u>	<u>FY 1969</u>
Uniformed Services Total	241	287
Army	5	9
Air Force	1	2
Navy/Marine Corps	235	276
Dependents of Active Duty Uniformed Services	51	44
Retired Personnel	30	29
Dependents of Retired and Deceased	24	23
Other Authorized Treatment ^a	25	19

a. Includes Coast Guard, newborn with mother, and other supernumeraries.

TABLE 8.3.9**ADMISSIONS**

	<u>FY 1968</u>	<u>FY 1969</u>
Uniformed Services Total	3,086	2,811
Army	110	102
Air Force	38	31
Navy/Marine Corps	2,924	2,664
Other Uniformed Services	14	14
Dependents of Active-Duty Uniformed Services	3,581	3,385
Retired Personnel	785	779
Dependents of Retired and Deceased	1,127	1,092
Other Authorized Treatment	1,507 ^a	1,644 ^b

a. Includes 1,250 newborn

b. Includes 1,518 newborn

8.3.4.2 Outpatient Activities

The following ambulatory-care functions (clinics) are maintained at JNH:

- General Practice
- Allergy
- Neurology
- Neuropsychiatry
- Psychology
- Physiotherapy
- Urology
- Ophthalmology and Optometry
- Otorhinolaryngology
- General Medicine
- Dermatology
- General Surgery
- Obstetrics
- Gynecology
- Pediatric
- Orthopedic
- Dental

Other ambulatory-care functions that are maintained include screening, emergency room, and military sick call. The locations of the clinics are shown on the floor plans of the Hospital included in Section 8.3.2.

TABLE 8.3.10

SAMPLE MEDICAL SERVICES REPORT

MEDICAL SERVICES REPORT FORMED (M-1) (6-64)		NAVAL HOSPITAL, JACKSONVILLE, FLORIDA 32214		FACILITY CODE 000232 - 06		REPORT PERIOD (MM/YY AND YEAR) SEPTEMBER 1969		REPORT SYMBOL 6300-1													
SECTION I - GENERAL MEDICAL SERVICES																					
LINE NO.	ITEM	ACTIVE DUTY PERSONNEL					DEPENDENT'S					SPECIAL CATEGORIES									
		NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER MILITARY SERV.	NAVY	MARINE CORPS	ARMY AND AIR FORCE	OTHER MILITARY SERV.	RETIRED DEC	RETIRED SEP	U.S. CIV POP	OTHER POP							
01	OUTPATIENTS	19378	1781	537	87	108	17	8944	1053	1150	57	3356	2030	65	184						
02	INPATIENTS	1885	918	796	53	9		21	7			81									
03	TOTAL	21263	2699	1333	140	117	17	8965	1060	1159	57	3356	2111	65	184						
04	ADMISSION REFERRALS	21						14	6	1											
05	FLIGHT PHYSICAL EXAM	110	62																		
06	OTHER COMPLETE PHYSICAL EXAM	1540												43	5						
07	LIMITED SERVICES	2954																			
08	VACCINATIONS																				
SECTION II - OPTOMETRIC REFRACTIONS AND FABRICATIONS																					
LINE NO.	ITEM	ACTIVE DUTY					RETIRED					DEPENDENTS					SPEC CAT				
		NAVY	MARINE CORPS	OTHER MILITARY SERV.	AIR FORCE	OTHER	NAVY	MARINE CORPS	OTHER MILITARY SERV.	AIR FORCE	OTHER	NAVY	MARINE CORPS	OTHER MILITARY SERV.	AIR FORCE	OTHER	U.S. CIV POP	OTHER POP			
09	BY MC	162	17	2	2	34					47	11	48	3							
10	BY MSC	526	53	2	4	100	16				162	11	153	25							
11	SCHEDULED	620	77	8	6	142	9	25			162	11	153	25	2						
12	NOT SCREENED																				
13	REFRACTIONS																				
14	HALT PERIOD (DAY)			None																	
15	ORDERED SINGLE VISION	60	31	4																	
16	BIFOCAL																				
17	FABRICATED SINGLE VISION	116	5																		
SECTION III - ADJUNCT SERVICES																					
LINE NO.	ITEM	TOTAL					OUTPATIENT					CLIENT									
		NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER	NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER	NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER					
17	PRESCRIPTIONS	27304	24269	3035			24269	3035													
18	LABORATORY TESTS	60692	30821	23871			30821	23871													
19	X-RAY FILMS EXPOSED	8740	5904	2836			5904	2836													
20	FLUOROSCOPIC EXAMS	196	131	65			131	65													
21	RADIOISOTOPE STUDIES	59	32	27			32	27													
22	RADIUM & RADIOISOTOPE THERAPY																				
23	COLLECTESTIM																				
24	OTHER DEEP THERAPY																				
25	ARTIFICIAL KIDNEY PROCEDURES																				
26	LEG'S	84	64	20			64	20													
27	LEG'S	240	206	34			206	34													
28																					
SECTION IV - AVERAGE STRENGTH																					
LINE NO.	ITEM	TOTAL					E-PRIMARY					SECONDARY									
		NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER	NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER	NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER					
	NAVY																				
	MARINE CORPS																				
	ARMY																				
	AIR FORCE																				
	OTHERS																				

TABLE 8.3.10 (Continued)

SECTION V - INDIVIDUAL CLINIC AND/OR SERVICE WORKLOAD			
ITEM	LIMITED SERVICES	VISITS	
		OUTPATIENT	INPATIENT
36 ANESTHESIOLOGY			
37 CRITICAL CARE	1308	842	
37 CYTOTOXIC ADMINISTRATION		484	
38 ALLERGY	232		
39 LAW OFFICE			
40 HEALTH CARE			
41 DERMATOLOGY		811	
41 ENDORHINOLOGY			
41 APPLIED ENTOMOLOGY			
44 GENERAL MEDICINE		1008	
45 HEMATOLOGY			
46 NEPHROLOGY		254	15
47 POST ANESTHESIA		449	
48 RADIOLOGY		192	10
49 LUNG SURGERY		1625	
50 GYN SURGERY		1280	
51 PEDIATRICS		2245	
52 GENERAL SURGERY		787	
53 NEUROLOGICAL			
54 ORTHOPEDIC		1328	704
55 PLASTIC SURGERY			
56 PROCTOLOGY			
57 THORACIC SURGERY			
58 UROLOGY		1391	
59 OCCUPATIONAL THERAPY			
60 PHYSICAL THERAPY		412	1147
61 PODIATRY			
62 EMERGENCY ROOM		1865	
63 GENERAL PRACTICE		4405	
64			
65			
66			
67			
68	TOTALS	1540	19378 1885

SECTION VI - SELECTED DATA						
TOTAL	BIRTHS			BASSINETS		PEAK PATIENT CENSUS
	LIVE	DEAD	TOTAL	TOTAL	AVERAGE OCCUPANCY	
69 131	131			15		449

SECTION VII - INPATIENT DATA							
REMAINING LAST REPORT	ADMISSIONS			DISPOSITIONS			REMAINING THIS REPORT
	A	WA	FT	DEATHS	TRANSFER	OTHER	
70 405	703		77	7	35	744	399

Line 17 on Report for August 1969 should read as follows: Total 27672

NAME: C. W. LEWIS, Jr., CAPTAIN MC USN	DATE SUBMITTED:	ATTACHED: <input type="checkbox"/> NAMEID 1458A <input type="checkbox"/> NAMEID 1458B
NAMEID 1454 (6-64) BACK		C-48774

Generally, military personnel visiting the clinics are referred by the Medical Officers from the two dispensaries at the base or from the dispensaries at Mayport and Cecil Field. Exceptions are active military patients at night from Cecil Field (since they do not have an MD on duty at night there) or serious emergencies. At the Jacksonville base, a dispensary is always open at night.

Retirees and dependents in the Jacksonville area go directly to the hospital Outpatient Department. There they are first seen by GP's, with the following exceptions:

- All children are automatically referred to pediatricians.
- Women are referred to gynecologists when such care is required.

Data on outpatient activity at the Hospital are available from the following sources:

- (1) Medical Services Reports, NAVMED 1454. (See sample, Table 8.3.10.)
- (2) Monthly worksheets for each outpatient clinic. (The worksheet for the General Practice Clinic for October 1969 is included here as a sample; see Table 8.3.11.)

Data on the operational characteristics and workload of the dispensaries associated with the JNH are presented below. Other outpatient clinic statistics for the Hospital are contained in Section 8.3.5, Workload.

8.3.4.2.1 Naval Air Technical Training Command (NATTC), Main Base

This dispensary functions as an outpatient activity for active-duty naval air training personnel only. It maintains an observation bed for possible drug reaction, with a maximum occupancy limit of eight hours.

The dispensary is authorized 2 medical officers and 16 enlisted men. It is currently operating satisfactorily with 11 of the authorized enlisted men. Dispensary ministrations depend on the estimated severity of illness or injury, the limitations of subsequent patient activity, and the nature of the medical attention necessary for the patient. The options for disposition of the patients, therefore, include (1) return to active duty, (2) limited duty, and (3) referral to a clinic or admission at JNH.

TABLE 8.3.11

SAMPLE MONTHLY WORKSHEET FOR GENERAL PRACTICE CLINIC

OUTPATIENT DEPARTMENT
NAVAL HOSPITAL
JACKSONVILLE, FLORIDA

WORK SHEET

GENERAL PRACTICE
CLINIC

OCTOBER 1969
DATE

ACTIVE DUTY

NAVY	MARINE CORPS	ARMY	AIR FORCE	OTHER UNIFORM SERVICES
10				

DEPENDENTS

NAVY	MARINE CORPS	ARMY AIR FORCE	OTHER UNIFORM SERVICES	RETIRED OR DECEASED
2034	195	435	17	1207

SPECIAL CATEGORIES

RETIRED UNIFORM SERVICES	U.S. CIVIL SERVICE	OTHER
658	4	6

The primary function of this dispensary is to deal with exceptions to the normally healthy active military personnel. The activities of the dispensary in 1968 and 1969 are summarized in Tables 8.3.12 and 8.3.13. In addition to treating routine respiratory and other diseases and injuries, the dispensary attempts to identify medical problems which might have been overlooked at the induction physical.

The services of Pharmacy, Laboratory, and X-ray are available for routine purposes and are supplied and staffed satisfactorily for these needs. Referrals to clinics in the Hospital experience periodic delays of several weeks (except emergencies). The Orthopedic Clinic generally has the most frequent and longest delays. A patient's medical record is carried by him to the Hospital when referral occurs.

8.3.4.2.2 Naval Air Station, Main Base

This dispensary functions on an outpatient basis for active-duty military personnel other than those seen at NATTC. Some dependents are seen on a selected basis, although no extra budget is provided. The dependent load is about two hundred per month, compared with about two hundred active-duty military personnel per day.

A satellite dispensary is also maintained in the industrial complex on the base for 3700 naval air rework facility (NARF) civil employees.

The main dispensary operates under a \$52,000 annual budget, not including military pay. Supplies are maintained at a three-month operating level, and replacements are drawn from NAS base supplies.

Because of the distance from the Hospital, it has been suggested that it would be desirable to have a few beds at the dispensary for patients requiring medical attention who are too sick for duty but who do not really require hospitalization. There are none now. The dispensary handles a large number of routine annual physical examinations for officers, reenlistments, and special-project personnel.

8.3.4.2.3 Cecil Field Naval Air Station

This dispensary in general sees about as many dependents as active-duty personnel. (See Tables 8.3.12 and 8.3.13.) Of the military, approximately 80% are treated and returned to duty, while the remaining 20% are referred to the hospital clinics or for admission. The dispensary handles routine physicals and immunizations.

TABLE 8.3.12

DISPENSARY VISITS AT
NATTC, MAYPORT, AND CECIL FIELD IN 1958

	NATTC		Mayport		Cecil Field	
	Total	Mo. Avg.	Total	Mo. Avg.	Total	Mo. Avg.
Total Active-Duty	22,948	1,912	9,586	799	20,671	1,771
Navy	14,505	1,209	9,144	762	20,078	1,673
Marine	8,394	699	107	9	577	96
Air Force	1		48	4	4	
Other	48	4	287	24	12	2
Total Dependents			48,168	4,014	26,757	2,230
Navy			45,393	3,783	26,739	2,228
Marine			448	37		
Army			1,524	127	9	
Other			803	67	9	
Special Categories			10,545	879	970	81
Admission Referrals	287	24			50	8
Navy	180	15			32	8
Marine	107	9			2	
Other						
Flight Physicals					689	56
Nonflight Physicals	538	47			1,772	162
Navy	372	31			1,750	159
Marine	161	14			20	3
Other	5	2			2	
Limited Service	20,313	1,693			12,092	1,008
Immunizations	4,554	379			17,375	1,448
No. of Rx's	23,870	1,990			48,382	4,032
No. of Lab. Tests	12,512	1,043			26,585	2,215
No. of X-rays	1,960	169			13,995	1,166
No. of EKG's	62	8			383	35
Diagnoses						
Bronchitis	104	21				
G.C.	50	4				
Influenza	603	55				
URI	2,844	237				
Streptococcus	631	53				
Other	580	48				
Total Referrals	525	43				
Orthopedics	192	16				
Neurology	29	2				
Urology	24	2				
Ophthalmology	17	1				
Surgery	61	5				
Neuropsychiatry	58	5				
Internal Medicine	33	3				
Ear, Nose, and Throat	38	3				
Dermatology	49	4				
Medicine	24	2				

TABLE 8.3.13

DISPENSARY VISITS AT
NATTC, MAYPORT, AND CECIL FIELD IN 1969*

	NATTC		Mayport		Cecil Field	
	Total	Mo. Avg.	Total	Mo. Avg.	Total	Mo. Avg.
Total Active-Duty	13,873	1,737	8,955	997	17,732	1,971
Navy	10,370	1,296	8,763	974	17,300	1,922
Marine	3,359	420	27	4	399	44
Air Force			13	2		
Other	144	21	152	17	33	5
Total Dependents			38,179	4,242	17,908	2,013
Navy			36,289	4,032	17,340	1,927
Marine			221	25	345	49
Army			885	98		
Other			784	87	223	37
Special Categories			6,247	694	618	69
Admission Referrals	191	24			47	6
Navy	135	17			47	6
Marine	56	7				
Other						
Flight Physicals					471	52
Nonflight Physicals	303	37			1,791	200
Navy	210	26			1,767	196
Marine	93	11			24	4
Other						
Limited Service	14,026	1,753			15,736	1,967
Immunizations	7,426	928			14,332	1,791
No. of Rx's	16,282	2,035	62,875	6,986	33,744	4,218
No. of Lab. Tests	1,989	249	13,911	1,546	18,592	2,324
No. of X-rays	1,357	170	15,511	1,723	11,805	1,312
No. of EKG's	69	8			376	47
Diagnoses						
Bronchitis	39	13				
G.C.	12	2				
Influenza	564	81				
URI	2,157	280				
Streptococcus	87	14				
Other	306	38				
Total Referrals	515	57				
Orthopedics	176	18				
Neurology	19	3				
Urology	35	4				
Ophthalmology	19	2				
Surgery	68	7				
Neuropsychiatry	76	8				
Internal Medicine	19	3				
Ear, Nose, and Throat	39	5				
Dermatology	28	3				
Medicine	36	4				

*Data cover roughly the first 8-10 months of 1969.

The dispensary is staffed with 6 medical officers assigned to the Air Station plus an average of 13 squadron medical officers. In addition, there are 98 enlisted personnel, of whom 33 are permanent-station and the remainder from the fleet. The fleet personnel turn over about every six to nine months.

Many dependents live between Cecil Field and the Naval Hospital and often go directly to the Hospital for attention; in some instances, however, dependents prefer the Cecil Field dispensary because they do not have to wait for attention and treatment. As a result, it was pointed out that some dependents have separate medical records at more than one location, each of which does not contain full information about the patient, prior visits, and treatment or tests. Because of this situation, duplication sometimes occurs when a patient requires tests (laboratory, X-ray, EKG).

The dispensary was designed mainly for active-duty Navy personnel and "aviation" medicine. Because of the total daily demand for space in the dispensary, aviation medicine involving medical histories is difficult to practice. The professional atmosphere is impaired by the cramped and crowded quarters. Offices are indistinguishable from examining rooms, since they are used interchangeably.

8.3.4.2.4 Mayport Naval Station

Although this dispensary was described as serving primarily active-duty military personnel and secondarily dependents and retirees, the greatest demand on the dispensary is from the dependents of the active-duty personnel. (See Tables 8.3.12 and 8.3.13.) Current estimates place the dependent workload at close to 90% of the total. This is due in large measure to the substantial number of Navy families that live near the beach and to the extended absences at sea of many active-duty personnel.

The Mayport Dispensary operates on a \$200,000 annual budget, of which \$92,000 is for supplies. This does not include military pay. Staffing is shown in Table 8.3.14.

TABLE 8.3.14

STAFFING OF MAYPORT DISPENSARY,
DECEMBER 1969

Commander - Psychiatrist	1
General Medical Officers	6
Medical Service Corps Officer	1
RN's (3 civilian, 1 military)	4
Optometrist	1
Corpsmen	21
Secretaries (civilian)	2
Sanitarian (civilian)	1

In addition to the above staffing, an OB man and an orthopedist come in once a month from Jacksonville when enough cases have accumulated. On an irregular basis, two to four MD's from various ships also come and work in the dispensary when they are in port.

The dispensary serves primarily as an outpatient facility but maintains seven observation beds. These beds are used on a 72-hour admission basis, and patients are discharged from these beds either to the Hospital, to the Medical Holding Company, or to active duty. The census has been averaging five to six, and these are mostly psychiatric problems. In fact, the amount of psychiatry being practiced at Mayport is impressive; it is not clear whether this is a local problem or is due to the particular interest of the commanding officer, who is a psychiatrist. There seems to be a feeling that this is a Navy problem having to do with men at sea, lonely wives and children, and the like.

Mayport also maintains a transient barracks for limited-duty medical cases who still require medical attention and cannot be returned to active duty. Medical services include limited Diagnostic Services, General Medicine, Psychiatry, and Optometry.

A desirable addition would be a pediatrician to deal with dependent children of active-duty military personnel. The need for the additional medical staff can be justified because of the long distance to JNH (over 30 miles by road). A whole day is consumed on clinic referrals. Because of this distance and the lost time involved in visiting the Hospital, it might be desirable to make the facilities at Mayport more self-sufficient to insure maximum medical attention for the population it serves.

Table 8.3.15 and the notes following it are based on one day's observation of activities at the Mayport Dispensary and the sick bay of the USS Luce, which was in port.

TABLE 8.3.15

**OBSERVATIONS AT THE MAYPORT DISPENSARY
AND SICK BAY OF THE USS LUCE -
28 JANUARY 1970**

	<u>Dependents</u>	<u>Military</u>	<u>USS Luce</u>
Population	35,000	2,500	294
Medical Officer Time (hr)	30	34	0
Corpsman Time (hr)	8	8	17
No. of Patient Visits	191	41	6
No. Seen by Medical Officer Only	191	41	0
No. Seen by Corpsman Only	0	0	6
Corpsman Time in X-ray (hr)	21	•	•
No. of X-rays	17	13	•
Corpsman Time in Lab (hr)	21	•	•
No. of Lab Tests	59	17	•
Corpsman Time in Pharmacy (hr)	14	•	•
No. of Prescriptions	439	•	•
Medical Officer Time per Patient (min)	9.5	49.0	0
Corpsman Time per Patient (min)	0	0	170
Corpsman Time per X-ray (min)	42.0	42.0	0
Corpsman Time per Lab Test (min)	16.6	16.6	0
Corpsman Time per Prescription (min)	1.9	1.9	0

The dependents' clinic is open from 8 a.m. to 12 noon and from 1 p.m. to 4 p.m. The military clinic is open continuously, and the sick bay on the USS Luce is open from 7:30 a.m. to 4 p.m.

* Not applicable. All three outpatient clinics shared the same diagnostic services and pharmacy.

The day of observation at Mayport provided the following miscellaneous facts about the operation of an outpatient clinic which are not easily incorporated in a table:

- (1) The day of observation was scheduled during a vacation week for the public schools, so the number of children brought to the dispensary was above normal. The average patient load in the dependents' clinic is about 150 per day.
- (2) Every person who enters the dispensary sees a medical officer; none are treated by corpsmen.
- (3) Mayport appears to be generously staffed with medical officers. In addition to the 12 assigned to the dispensary, all medical officers assigned to ships visiting the port are available to the dispensary. These doctors are called TAD (Temporary Additional Duty).
- (4) Women who suspect pregnancy may be examined at Mayport, but once pregnancy is determined, neither the dispensary nor JNH is permitted to treat them. By order of BUMED, pregnancy (and certain other conditions) is cared for by a private physician, and the patient's expenses are paid by CHAMPUS.
- (5) The billets are not well distributed. There is enough manpower at the dispensary, but there are too many workers in one area and not enough in another. According to the NCOIC, the three technicians are an extravagance for the X-ray requirements of the Mayport area. However, the dependents' Outpatient Clinic needs additional manpower to handle the sign-in procedure and the processing of patients.
- (6) The sign-in procedure for a military dependent at this outpatient clinic is a time-consuming and labor-intensive job. In the first two hours of operation on the day of observation at Mayport, 84 people came to see a doctor, and it took 8 people working full speed to check in these patients. The average rate was one sign-in every twelve minutes. The dispensary was so busy that the telephone, which sat on the sign-in counter and rang constantly, went unanswered until after 10 a.m.

Manpower at the check-in counter on 28 January was as follows: two nurses, one secretary (the commanding officer's, drafted for the day as an emergency measure), three Red Cross volunteers, and one corpsman. During the early morning rush, our

observer also worked signing in the visitors. Normally, a WAVE and two more nurses are on duty, but all three were absent on this day. Furthermore, the two absent nurses were due to leave Mayport within the month, and the NCOIC feared that, with the national reduction in defense spending and reduction in forces (RIF), they would not be replaced.

The sign-in procedure is as follows: When the patient asks to see a doctor, he is first required to show his military identification card. Next, the patient's medical record is pulled from the files (directly behind the counter); if none exists, one is made up for the patient. The medical file is stamped three separate times with the date and treating facility, and the patient's arrival time is noted on the record. The next step is to fill out a chit with the patient's name, arrival time, doctor requested (though not always seen), and brief description of his ailment (e.g., upper respiratory infection, stomach ache). The file with the chit attached is then placed on a shelf near the doctors' offices. Return appointments are made for patients as they leave the clinic, and this job is worked in around the sign-in process.

The nurses – the only regular employees and the only ones who know how to run the clinic for the doctors – spend much time herding patients from one waiting room to another (at 9:50 a.m. there were 61 people sitting in the waiting room area and along four corridors), calling them in to see doctors, and serving as "Grey Ladies" (a doctor's stand-by during a female examination). The nurses' time is not directly attributable to the sign-in procedure, but these tasks are a part of preparing the patient for the medical officers and so are included as a part of the process.

- (7) Although there are enough medical officers to service the Mayport area, there is only space for twelve to practice at one time at the dispensary, and only six of them at once on the dependents' side. The problem seems to be that the dispensary lacks office space for the extra doctors which are really needed and which are available.
- (8) The pace of activity at Mayport varied with the time of day. After the early morning rush, arrivals slowed considerably, and the doctors were able to catch up. By 11:15 a.m., only 20 people were still waiting to be seen, and none were left by 12:10. Between the hours of 12 noon and 1 p.m., the dependents' clinic was closed. (Arrivals during that hour were asked to wait until after the 1st

hour or, if their condition warranted it, were referred to the Emergency Room.) By 12:30 p.m., people started arriving for the afternoon session. Though the clinic became crowded again, the doctors were never as far behind as during their morning session, and by 3:30 p.m., the clinic was empty again.

Table 8.3.16 shows one month's referral pattern from Mayport.

TABLE 8.3.16

**REFERRALS, MAYPORT DISPENSARY,
SEPTEMBER 1969**

Gynecology	17 to Jacksonville
Cardiology	1 to Jacksonville
Ear, Nose, and Throat	4 CHAMPUS
Urology	8 CHAMPUS
Surgery	14 to Jacksonville
Neurology	5 to Jacksonville
Orthopedics	6 CHAMPUS
Internal Medicine	8 to Jacksonville
Pediatrics	9 to Jacksonville
Radioisotopes	3 to Jacksonville
Ophthalmology	5 to Jacksonville
Dermatology	10 to Jacksonville

All obstetrics are sent out on CHAMPUS to the Jacksonville Beach Hospital.

Referrals to Jacksonville must go with a referral request form and a chart. Jacksonville in turn may open another ambulatory chart if the patient will be sent there more than once. There is much complaining about the cumbersome record keeping system, and it is felt that some form of automatic mechanical transfer of records by television or some other means would be of great assistance. It is also felt that television consultation could greatly assist Mayport's work.

8.3.4.3 Medical Records Handling

Records for outpatients and inpatients are separately maintained. The Medical Records Section handles the outpatient files, and the Patient Affairs Section handles the inpatient files.

Every outpatient reports first to the Medical Records Section so that his file can be pulled and handed to the physician who will treat the case. The same applies when laboratory or X-ray work is to be done. All outpatient records are returned to the Records Section after each visit with the exception of a few special clinics such as Obstetrics, where the doctors prefer to keep the records handy for the follow-up of pregnant women.

The Patient Affairs Office at Jacksonville corresponds to a registrar's office. Its functions include admission and disposition of patients, handling of inpatient records, medical boards, CHAMPUS, certifications, etc. The inpatient medical records are kept for two years plus the current year and are then retired to archives. About 10,000 new inpatient records are created each year, so there are 20,000 to 30,000 active inpatient records at any one time.

Each new admission is assigned a separate number, and the old patient record is inserted into the new file. A separate file is kept to cross-reference alphabetic admission records with admission numbers.

8.3.4.4 Medical Support Services

8.3.4.4.1 Pharmacy

The Pharmacy at JNH is authorized two pharmacy officers and ten men. The Pharmacy is currently operating with one pharmacy officer, six technicians and three on-the-job trainees.

The physical layout is rectangular, with an office and a storage room along one side. Two-thirds of the area is allocated to storage and manufacturing operations; the remainder is used to fill and issue prescriptions. The space seems cramped for the current workload of the pharmacy. Most of the activities relate to filling outpatient prescriptions. Daily inventories are taken by the enlisted men for all items except narcotics, which are the responsibility of the pharmacy officer himself. Inventories are on a visual inspection basis. Items that are low are listed in one of four categories:

- (1) Standard Stock received from hospital medical supply room
- (2) Standard Stock insufficient demand to warrant inventorying in the hospital supply room
- (3) Double L Items nonstandard stock acquired by open purchase through the medical supply room
- (4) Nonstandard Stock open purchased directly from the manufacturer.

No systematic inventory control is being used. The Pharmacy is not equipped to determine what is moving, the turnover rate, and when to order, which complicates the requisition procedure. Because supplies may take three or four weeks to be received, some stocks which turn over exceedingly rapidly may be depleted before the new supplies arrive. On the other hand, slow-moving stocks may be ordered while the existing stock could serve another six to nine months.

The manufacturing area is concerned mainly with the prepackaging from bulk containers of cough remedies and heavily used tablets such as analgesics or cold tablets. Additionally, there is equipment for preparing ointments to obviate buying prepackaged products from the manufacturer. One man spends full time in manufacturing within the Pharmacy. Where possible, volunteer patients are used in the prepackaging operation, with no direct labor cost to the Pharmacy.

Inpatient medications are either dispensed at the outpatient window for ambulatory patients (who are allowed to move to the head of the line) or are delivered daily to the wards. Preparation and delivery of drugs to the wards consumes approximately one and one-half hours per day. Once every two weeks, ward stocks are checked and replenished with the more actively prescribed medications. Once a month the ward inventories are checked to remove older drugs that are either not being used, past expiration date, or contaminated. There is no system to control the actual use of drugs on the wards to prevent misdosage or pilferage.

The outpatient prescription area is systematized to the extent that a prescription is checked when handed in to one technician at one window, checked and label-typed during preparation of the dispensing package by a second technician, checked and filled by a third technician, and checked and dispensed at a second window by a fourth technician. The details of the care taken to dispense the correct medication to the correct patient are listed below.

WINDOW MAN

- (1) Checks identification card to determine eligibility for care.
- (2) Checks name and prints the name of the prescription clearly.
- (3) Checks prescription to determine amount and whether it is a refill and establish whether existing inventory can satisfy the prescription need. If not, the physician is notified and the amount is modified or the specifications changed to another similar drug.

TYPIST

Prepares label for the package to be dispensed to the patient which includes the product name and classification (N=narcotic, DA=drug abuse, X= narcotic exempt); strength is included and number of tablets in the bottle, so that the total quantity would be known in case of accidental ingestion of the whole bottle. The typist's initials go on the label.

FILLER

- (1) Checks the label against the prescription to see that the specifications are identical.
- (2) Fills the prescription from existing stock unless compounding is required. The prescription is initialed by the filler and passed on to a final checker.

WINDOW MAN

- (1) Checks the prescription against the label and appearance of the product and approximate amount of contents to minimize error.
- (2) Stamps a number on the label and on the prescription for identification (except narcotics).
- (3) Checks patient identification card against the name on the prescription and the label, and dispenses medication to the patient.

A recently instituted system of records shows that the Pharmacy fills over 27,000 prescriptions and drug orders per month for both inpatients and outpatients. Of this, outpatient prescriptions account for over 24,000 (88%). The calculated monthly drug cost averages about \$25,000 divided between outpatient (\$19,000) and inpatient (\$6,000). For further data, see Table 8.3.17.

8.3.4.4.2 Central Surgical Supply Room (CSSR)

The CSSR handles OR linens (drapes), a variety of OR kits, and sterile solutions. This activity receives contaminated articles, cleans them, sterilizes them, and stores them for future use. It is also responsible for storing specialty equipment.

The layout of the CSSR was poorly conceived. The office has no door to the corridor, requiring foot traffic to go through the workrooms. Because of space limitations, not all of the supplies can be maintained in this location, requiring that local supply areas be maintained for each service.

The linen area is not separated from other supplies, allowing lint to circulate freely. This area should be separate and enclosed. There are no illuminated inspection tables or sewing facilities to facilitate rapid detection and repair of tears or holes in the linen.

TABLE 8.3.17
JNH PHARMACY RECORD
(Third quarter, 1969)

	<u>July</u>	<u>August</u>	<u>September</u>
Total Inpatient Rx Cost	\$ 6,192	\$ 6,386	\$ 6,021
Controlled Drugs	617	557	416
Narcotics	186	210	287
Alcohol	21	19	23
Regular Ward Orders	5,367	5,600	5,295
Total Outpatient Drug Cost	18,730	20,320	18,810
Outpatient: cost/Rx	0.76	0.83	0.77
Inpatient: cost/Rx	1.86	1.86	1.98
Total Monthly Drug Cost	24,922	26,706	24,831
Total Rx's (Outpatient and Inpatient)	27,811	27,672	27,304
Total Outpatient Rx	24,496	24,228	24,269
Regular Rx	12,567	14,979	15,854
Refills	5,913	5,357	5,603
Clinic Orders	3,920	3,687	2,812
Narcotic	177	205	171
Controlled	1,702	1,712	1,790
Exempt Narcotics	217	183	243
Total Inpatient Rx	3,315	3,444	3,035
Regular Ward	2,778	2,847	2,485
Narcotic	115	156	147
Alcohol	15	15	22
Controlled	421	426	381

The decontamination area, where used articles are received, is not separated from the rest of the department. The autoclave is set up with two sides, but no door or partition separates them to insure the sterility of the autoclaved articles. A combined washer and sterilizer could be utilized to reduce handling.

A central distilled water unit could be installed to serve the Pharmacy, Laboratory, and decontamination rooms; this would reduce the need for separate stills in each area.

In the area where intravenous solutions are stored, heavy mobile shelves should be installed to hold the solutions and facilitate inventory rotation and area cleaning.

No space is allowed for change of clothing or for a relaxation area. Currently, a very small bathroom is used to change clothes.

There is no storage space for such items as suction machines, circular frame beds, iron lungs, or respirators; such specialized equipment is squeezed into any space that can be found. The iron lungs and respirators are actually in the repair storage area, which is not even in the hospital building.

Service to the hospital wards follows a requisition by the ward nurse, who either comes down to the CSSR and waits for the supplies or receives them through a dumbwaiter (Traveyor System), which does not appear satisfactory. The head of CSSR claims that this dumbwaiter system is open to all wards and is a source of contamination. Furthermore, it is virtually impossible to clean by a person of normal size.

The storage areas for the most part should be open shelves. It was stated that shelves with doors were difficult to stock and were often left open, causing harm either to personnel or equipment. Furthermore, the storage area should be designed to include provisions for handling cases of supplies in addition to individual units.

Currently, CSSR is staffed with four enlisted men; therefore, OR, Delivery, and Nursery must send their own personnel to make up the necessary packs. This system is less than satisfactory, because closer supervision is required than would be necessary with an adequate staff.

8.3.4.4.3 Radiology

The Radiology Section is staffed by two radiologists and eight technicians. The chief radiologist expressed a need for at least two more technicians because of the service they must render to outlying dispensaries. There are four exposure rooms but no facilities for radiation therapy or isotope storage. Also, there are no pass-throughs between the exposure rooms and the dark rooms. They would like to have another exposure room for special studies but have no space to expand into.

The X-ray equipment consists of two General Electric machines, a Picker, and a Keleket. The Keleket machine has been unsatisfactory because of poor reliability and poor maintenance service from the vendor. Three of the machines have fluoroscopic capability, and one room has special study capability, such as arteriography, myelography, and skulls. Patients for radiation therapy (who number about 200 per year) must be sent elsewhere.

Patients are generally served on a first-come, first-served basis, with some account taken of special requirements. IVP's are done only on certain mornings. About one third of the load is inpatient and two thirds outpatient. The heaviest part of the day is from 10 to 11 a.m., when the outpatient load has built up and the staff is also attempting to service inpatients. Some statistics on radiology workload are given in Section 8.3.5.

8.3.4.4.4 Laboratory

Area and Dispensaries Served. The laboratory facilities at JNH service the Clinical Department and Outpatient Department of the Hospital as well as the dispensaries at Cecil Field, Mayport, the Naval Air Station, the Naval Air Technical Training Center, Glynco, Georgia, and Albany, Georgia. In addition, the Clinical Laboratory receives some specimens from the Armed Forces Examination Center (AFEES) and a VA clinic in Jacksonville. Other incidental specimens result from the CHAMPUS operation. When laboratory tests are needed, the CHAMPUS patient is generally sent to JNH for tests at no cost to him.

It is estimated that 80% of the outpatient tests come from the Outpatient Clinic in the Hospital and the remaining 20% come from the outlying dispensaries named above.

Request Forms. Laboratory Request forms are filled out by a doctor or by a nurse at the doctor's request. All request forms are signed by a doctor. (There is some difficulty with illegible and incomplete slips, but it does not seem to be regarded as serious by the laboratory personnel.) The forms reach the laboratory in a number of ways:

- (1) Slips for inpatients are filled out by a doctor or nurse and are picked up by a nurse in the morning. Those requesting routine specimens, such as urine, are sent to the laboratory together with the specimen which has been collected by the nurse. A runner (corpsman) brings the slips and specimens from the wards to the laboratory. Those slips which request that blood be drawn are sent to the laboratory, and two laboratory technicians come to the wards once a day beginning about 6 a.m. to draw the blood. (Note: Terms specimen and sample are used interchangeably.)
- (2) Ambulatory patients in the hospital carry their slips with them when they go to the laboratory to have their specimen taken.
- (3) An outpatient who has come into the hospital's clinic is sent to the laboratory with his slip. If the outpatient is not ambulatory, he is brought to the laboratory in a wheelchair, or his specimen is taken by the physician, nurse, or corpsman in the clinic's Emergency Room.
- (4) A request form and corresponding specimen from a dispensary may be brought in by driver, or a patient from the dispensary may bring in his slip and his specimen will be taken in the Hospital.
- (5) A request slip may also be sent to the Laboratory in the pneumatic tube system, but, this system is frequently out of service.
- (6) Request slips and specimens are brought in daily from Cecil Field, Mayport, and the Naval Air Station by runner. Request forms and specimens from Glynco and Albany are either sent by U.S. mail or brought by drivers who are coming in for another reason.

Transmission of Specimens to the Laboratory. Inpatients and patients from the hospital's Outpatient Clinic who are ambulatory visit the laboratory and have their specimens taken in the drawing room area of the laboratory. The staff felt that ambulatory patients in the laboratory did not cause undue confusion. Blood is drawn by two laboratory personnel in the morning. Other specimens from

nonambulatory patients are taken by ward personnel and carried to the laboratory by a nurse or corpsman.

STAT Tests. A "STAT" is defined as a test which is urgently needed to make a therapeutic decision. It is estimated that up to 15% of all tests are so classified. A doctor can request a STAT test by telephone, and the pathologist or technician will go to the ward and draw the sample. "STAT" should be written on the request form together with the telephone number to which the report is to be transmitted. Such tests are conducted immediately upon receipt. Usually, a STAT will be completed within one hour. There do not appear to be an unusually large number of STAT's on Fridays, unlike the situation reported elsewhere (e.g., at Walson Army Hospital).

Turnaround Time. The turnaround time for tests is eight hours, provided the request slips are received early in the morning. An exception is microbiology, where the turnaround time is 24 hours (or more, if longer incubation is required).

Transmission of Test Results. Once test results have been recorded on the request slip, the request slip is sent to the front desk of the laboratory where it is pulled apart. The original copy is placed in files which correspond to the various wards, dispensaries, and clinics. The hard carbon copy is retained and filed by the laboratory. The original copies of the test results are picked up at regular intervals during the day by personnel from the wards, dispensaries, and clinics. All test results, normal and abnormal, are turned over to the doctor for his information and then sent on to the Medical Records.

Work Schedule. The laboratory's regular hours are 7 a.m. to 4:30 p.m. Monday through Friday and 7 a.m. to 12 noon on Saturdays, but STAT's are accepted and run at any time. Monday, Tuesday, and Wednesday tend to be quite busy. The workload on Monday is heaviest, because test requests have accumulated over the weekend. Hematology, chemistry, microbiology, and urinalysis tend to be more peaked than other types of tests.

Growth Rate. Table 8.3.18 indicates that tests for outpatients increased at almost twice the rate as those for inpatients between 1965 and 1969. Chemistry, urinalysis, serology, and cytology increased between 23% and 35% per year. Surprisingly, hematology decreased by 2.3% per year.

Manpower. According to the indices we have, the JNH Laboratory is considerably understaffed. Table 8.3.19 indicates that as of November 1969, 21 persons were assigned to the laboratory – 12 military personnel and 9 civilians. This was a decrease of one from the 1968 total, ignoring on-the-job trainees (see Table 8.3.20). While the number of personnel dropped, the number of procedures done in the laboratory increased by 43% from 1968 to 1969. (The data for 1969

TABLE 8.3.18

ANNUAL GROWTH RATE FOR JACKSONVILLE NAVAL HOSPITAL LABORATORY
BY TYPE OF PROCEDURE, 1965-1969*

	<u>FY 1965</u>	<u>FY 1969</u>	<u>Yearly Growth (%)</u>
Total Tests	313,053	581,472	16.7
Inpatient	165,691	266,808	12.7
Outpatient	147,362	314,644	20.9
Chemistry	23,662	55,775	23.9
Urinalysis	23,331	71,710	32.4
Hematology	100,007	91,176	- 2.3
Microbiology	31,602	50,593	12.5
Parasitology	5,040	3,780	- 6.9
Serology	11,653	37,744	34.2
Blood Bank	17,488	21,264	5.0
Cytology	11,470	37,815	34.7
Histology	10,227	35,771	36.8

*Fourth quarter of 1969 estimated to be an average quarter of

TABLE 8.3.19

PERSONNEL ASSIGNED TO JNH LABORATORY AS OF NOVEMBER 1969

<u>Department</u>	<u>Military</u>	<u>Civilian</u>
Histopathology	0	2
Cytology	1	1
Hematology	0	2
Chemistry	3	1
Urinalysis	1	0
Blood Bank and Serology	1	1
Microbiology	2	2
Radiolotope	1	0
Blood Collecting	1	0
Night Duty	1	0
Night Duty (Administrative)	<u>1</u>	<u>0</u>
Total	12	9

TABLE 6.3.20

ACTUAL AND REQUIRED PERSONNEL IN JACKSONVILLE HOSPITAL LABORATORY

1968

<u>Department</u>	<u>Actual Complement</u>		<u>Required Complement</u>	
	<u>Military</u>	<u>Civilian</u>	<u>Military</u>	<u>Civilian</u>
Hematology	0	2	2	2
Blood Bank	0	1	1	1
Serology	1 (+ 2 OJT) *	0	1	1
Chemistry	3	1	4	2
Microbiology	2	2	2	2
Histopathology	0	2	3	1
Cytology	1	1	1	2
Radioisotopes	1	0	1	1
Blood Collecting	1	0	2	0
Urinalysis	1	0	2	1
Administrative	0	0	2	2
Pathologist	3	0	3	0
Donor Center	0	0	1	0
Total	13 (+ 2 OJT)	9	25	15

*On-the-job trainee

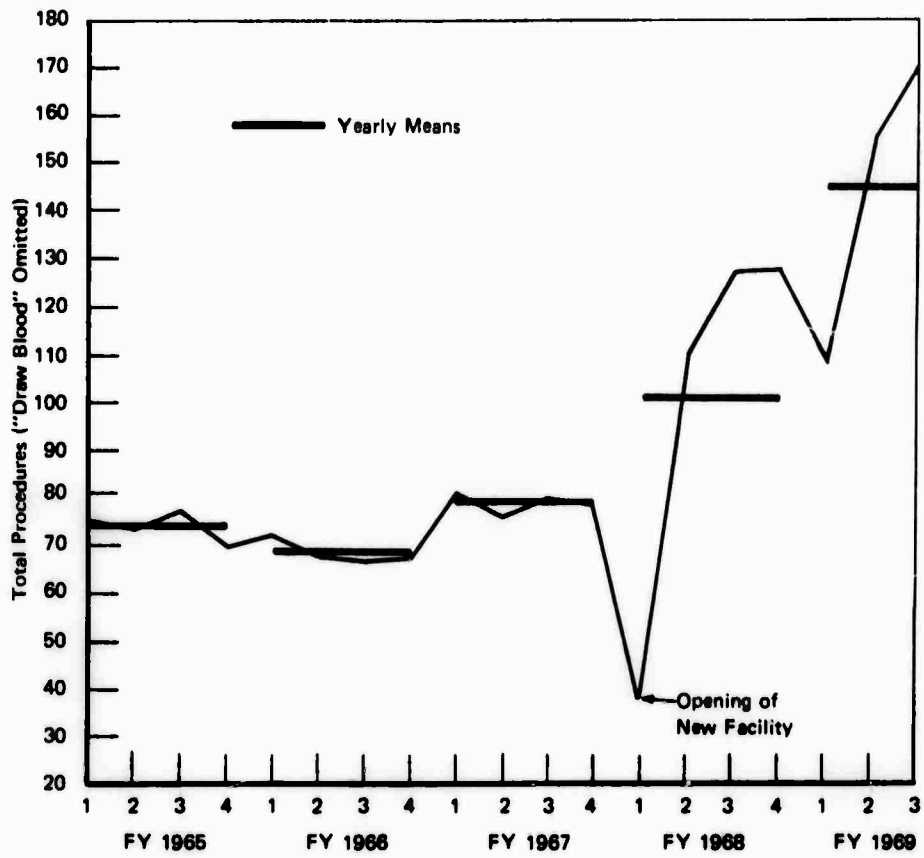
Source: Memo of 23 September 1968, from Chief, Lab Service, USNH, Jacksonville, to Chief, Bureau of Naval Personnel.

assume that the fourth quarter was an average of the first three quarters, for which quantitative data were available.) During this time major growth occurred in the number of chemistry procedures, but the percent of tests automated increased markedly only in the last year (Table 8.3.21). About 20% of the hematology procedures have been automated for the past five years, and the number of hematology procedures has decreased.

Procedures per Staff Member. Table 8.3.22 indicates the drastic general increase in the number of procedures per staff member from 1968 to 1969. Table 8.3.23 shows the numbers of each class of procedure done per staff member in the third quarter of 1968 and 1969. (The number of persons assigned to the various categories was taken from Tables 8.3.19 and 8.3.20.) The number of procedures per person increased substantially in areas of high growth, particularly in chemistry, microbiology, and cytology. This was a result of the decrease in the number of personnel and an accompanying increase in the number of procedures.

There are two possible explanations for the large increase in the number of procedures, according to personnel in the JNH Laboratory:

- A new facility was opened early in 1968, and as a result more patients could be handled. (See Figure 8.3.3.)



**FIGURE 8.3.3 PROCEDURES VS. TIME—
JACKSONVILLE NAVAL HOSPITAL**

TABLE 8.3.21

NUMBER AND PERCENT OF CHEMISTRY AND HEMATOLOGY PROCEDURES THAT HAVE BEEN AUTOMATED

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>CHEMISTRY PROCEDURES</u>					
Total Number	36,062	33,245	41,216	60,557	112,620
Number Automated	10,237	10,374	12,030	15,806	50,573
Percent Automated	23.39	31.20	29.19	26.10	44.91
<u>HEMATOLOGY PROCEDURES</u>					
Total Number	100,007	96,110	92,645	77,363	91,176
Number Automated	19,705	19,487	17,267	15,351	19,127
Percent Automated	19.70	20.28	18.64	19.84	20.98

TABLE 8.3.22

**OVERALL NUMBER OF PROCEDURES PER STAFF MEMBER
IN THE JNH LABORATORY BY QUARTERS FOR 1968-1969**

<u>Quarter</u>	<u>FY 1968</u>	<u>FY 1969</u>
I	1,476	4,779
II	4,269	6,778
III	4,925	7,400
IV	4,946	6,319

TABLE 8.3.23

**NUMBER OF PROCEDURES CONDUCTED PER STAFF MEMBER
IN THE THIRD QUARTERS OF 1968 AND 1969 BY CLASS OF TEST**

<u>Test</u>	<u>FY 1968</u>	<u>FY 1969</u>
Hematology	11,851	12,418
Blood Bank	4,837	6,758
Serology	4,652	7,870
Chemistry	3,889	6,887
Microbiology	2,820	5,133
Histopathology	4,558	3,748
Cytology	1,985	151
Radioisotope	168	NA
Blood Collecting	*	67,897
Urinalysis	49,270	

*One person assigned. Number of tests not recorded.

TABLE 8.3.24

**MILITARY RANK, CIVILIAN GS RATING, AND
ESTIMATED ANNUAL SALARY OF LABORATORY PERSONNEL, 1969**

<u>Department</u>	<u>Military</u>	<u>Annual Salary</u>	<u>Civilian</u>	<u>Annual Salary</u>
Histopathology	E-6	\$ 7,751	GS-9	\$10,564
			GS-6	7,798
Cytology	E-4	4,993	GS-7	8,659
Hematology	E-4	4,993	GS-7	8,659
			GS-7	8,659
Chemistry	E-6	7,751	GS-8	9,577
	E-5	6,299		
Urinalysis	E-4	4,993		
Blood Bank and Serology	E-6	7,751	GS-7	8,659
Bacteriology and Microbiology	E-7	8,944	GS-9	10,564
	E-5	6,299	GS-6	7,798
Blood Collection	E-5	6,299		
Radioisotopes	E-4	4,993		
Night Duty	E-5	<u>6,299</u>		
Total	12	\$77,365	9	\$80,937

- It was suggested that the area around Jacksonville is attracting greater numbers of retired Navy personnel and the base is becoming larger. However, data from *Statistics of Navy Medicine* (Vol. 24 No. 3, Vol. 24 No. 4, Vol. 25 No. 1), summarized below, indicate no trends toward increasing admissions of retired personnel of the uniformed services. In fact, outpatient visits by retired personnel dropped significantly during three quarters of 1968 and 1969. Consequently, the first explanation, coupled with a growing tendency by doctors to request more lab tests, is the more likely basis for the increase.

<u>Quarter</u>	<u>Admissions of Retired Uniformed Personnel</u>	<u>Outpatient Visits of Retired Uniformed Personnel</u>
III-1968	214	5,525
IV-1968	219	5,155
I-1969	207	4,571

Manpower Costs. Table 8.3.24 lists the number of persons retained by the JNH Laboratory by military rank, civilian GS rating, and annual salary. Since all civilians were assumed to be in the fifth step of their grade, the annual salary is an estimate. As of September 1969 the labor costs per procedure at the laboratory were:

<u>Average Number of Procedures Monthly*</u>	<u>Average Salary Monthly</u>	<u>Average Labor Cost per Procedure</u>
56,732	\$13,192	\$0.233

*Obtained by dividing the third quarter of 1969 by 3.

Personnel Turnover. Dr. Karnei indicated that some military personnel may be with the laboratory for as long as two years, but that one and one-half years was a reasonable average. On-the-job trainees, of course, are with the laboratory for a much shorter period of time. No estimate was obtained of the average length of stay of civilian personnel.

Cecil Field Laboratory Tests. The only test done at the Cecil Field laboratory for which there are data available is Pap Smear. As can be seen from the following table, there has been an increase in the number of Pap Smear tests performed every year since 1966.

<u>Year</u>	<u>Number of Pap Smear Tests</u>
1966	596
1967	919
1968	1,040
1969	1,099*

*Estimated from a 10-month total of 916.

Chemistry Tests Sent from Cecil Field to JNH. Data available for the period between 22 October 1968 and 15 November 1968 indicate that 110 chemistry tests, for 43 patients, were requested of the JNH laboratory by the Cecil Field laboratory. Assuming a normal work year of 250 days, we have extrapolated these data to yield an estimate of 672 patients and 1719 tests shipped to Jacksonville each year for processing.

Comparing this figure to the JNH laboratory's estimated number of chemistry tests for 1969, which is 55,775, it can be seen that those done for Cecil Field represent only around 3% of the total number of chemistry tests performed at Jacksonville.

8.3.4.5 Other Support Services

8.3.4.5.1 Supplies

Medical supplies for the Hospital are stocked in a storeroom at the basement level. Backup supplies and intravenous solutions are kept at a depot approximately one-half mile away. The sources of medical supplies for the Hospital are either through naval supply or purchased directly from manufacturers. Medical supplies are classified by value and turnover rate and are accounted for with a computer system.

All medical supplies are classified as either standard or nonstandard. Standard supplies are drawn from the naval base storeroom, which in turn draws from Atlanta or Tracy, which in turn draw from Philadelphia. Nonstandard supplies are purchased by the Hospital directly from the manufacturer. Economic order quantities (EOQ) are observed in the following way: high dollar volumes are carried at a two-month supply level with order procedure taking an additional two

months; low dollar items are carried at a six-month supply level with an ordering procedure of approximately two months.

The hospital storeroom is funded by the Navy Stock Fund. The value of a quarterly inventory in the hospital's two storerooms for food and supplies averages approximately \$80,000. An additional inventory valued at over \$107,000 is carried for medical materiel program nuclear casualties (MMPNC) and reserve items. The active stock for medical supplies is approximately 1100 items.

Deliveries from the medical depot to the Hospital average six per day, mainly for intravenous solutions. Because of the distance, the time spent traveling between depot and hospital averages at least three hours per day and requires three enlisted men for maintenance and delivery. In addition, the IV solutions are not kept in a temperature-controlled area at the depot; the solutions should be kept cool, which is difficult to achieve in the climate of Jacksonville.

It would clearly be preferable for the supply depot to be located in a subbasement of the hospital for greater convenience, better temperature control, and protection from any surface hazards (fire, plane crashes, or acts of war). Delivery to a subbasement could be via direct entrance from the outside or by a freight elevator.

Discrepancies in orders (incorrect order received) for 1969, year-to-date through September, showed a shortage of \$2,812.68. However, the time required to fill out forms to correct errors in shipment has an estimated value of approximately \$7,500 in labor, according to the supply officer.

8.3.4.5.2 Linen

JNH has its own laundry located a block from the hospital. Laundry chutes in the hospital building carry soiled linens to the ground floor, where they are sorted into large hampers and transferred by truck to the laundry building. Fresh linens are returned by truck to the linen distribution room in the hospital. Carts are used to distribute clean linens to the wards. These carts have shelves and are loaded with the designated allowance for each ward. They are then wheeled to the wards and substituted for the previous day's carts, which are returned to the issue room with their remaining linens. The carts serve as part of the linen storage in each ward. Four men from the laundry staff are involved part time in this distribution operation. Unscheduled supplementary deliveries can be made if a ward runs short.

At present, no counts are kept of the amount of linen used by each ward, but a periodic inventory is made of the total linen supply. JNH is considering a program of color coding by wards to try to trace and identify linen losses. This will increase handling costs and inventory costs considerably, and there are mixed feelings about whether it would be worthwhile. The hospital administration favors the idea, but the laundry manager is opposed. The net value of such a change cannot be quantified, because no one knows the present loss rate or what the future loss rate would be, nor how much increase in inventory would be required. The present linen inventory is worth about \$63,000, with annual replacement costs of \$18,000 to \$20,000.

The laundry is operated by eleven civil service employees under the management of a Navy NCO, supplemented by the services of seven full-time equivalents from the rehabilitation and holding wards. The annual civilian payroll is \$68,000 including fringe benefits, and supply costs are \$6,375 per year. The initial cost of the laundry's equipment was over \$94,000. Utilities are charged to the laundry at the rate of about \$11,000 per year, but maintenance and transportation are furnished by the base at no cost to the laundry. The laundry operates on a single shift five days per week.

The average daily load of the laundry is 4950 pounds, or an estimated 13,500 pieces of various types, for which a breakdown has been provided. Including only direct operating expenses (no amortization or free labor and services), the cost per pound of laundry works out to be 6.86 cents, or 2.5 cents per piece. Recently a price quotation was obtained from a commercial laundry in Jacksonville for laundry service to the hospital; it proposed a price of 7.5 cents per pound averaged over all types of items as listed on the estimated breakdown, including pickup and delivery and one-day service. Although this is slightly higher than the present direct cost on the hospital's budget, it actually would be cheaper than the total real cost to the Navy if one factors in amortization and all the costs now hidden in other budgets. The basic reason the commercial laundry can operate so cheaply is that its wage scale is much lower than the civil service scale.

On a purely economic basis, it would appear sensible to convert to commercial laundry service in this situation. However, there is some feeling that the hospital laundry provides useful occupational therapy for ambulatory patients, so the issue is not exclusively economic. Flexibility and control are also of concern. The decision is still under active consideration at Jacksonville. If the commercial option is chosen, this will have to be approved by BUMED, and there is considerable uncertainty as to whether BUMED would do so.

Only limited use is made of disposable substitutes for launderable linens at JNH. Some disposable gowns are used for isolation patients and some wrappers for instruments in the operating rooms, and these are considered satisfactory. Disposable washcloths have been tried, but their quality was unacceptable. Altogether, the use of disposables at JNH is a minute fraction of the total linen requirements. The hospital recently considered a number of other disposable items but concluded that there would be no monetary savings and the quality did not match that of the corresponding launderables. Consequently, there is no present intention to convert to greater use of disposables.

8.3.4.5.3 Food Service

The hospital serves approximately 1000-1300 meals per day. Over a recent 20-day observation period, the average was 700 bed trays plus 475 cafeteria meals per day (including meals served both to staff and to patients). There is some cyclical variation over the course of a year; the peak month tends to be October, and the workload drops off in November and December. The following data on monthly rations are given in Table 8.3.25:

- Total rations served per month, 1966-69
- Average rations served per month, 1966-69
- Average rations served per month, 1969

TABLE 8.3.25

NUMBER OF RATIONS SERVED
(1 ration = 3 meals)

<u>Month</u>	<u>Total 1966-69</u>	<u>Average Per Month 1966-69</u>	<u>Average Per Month 1969</u>
January	44,272	11,068	10,278
February	43,868	10,967	10,231
March	47,261	11,815	11,182
April	45,009	11,252	10,066
May	45,741	11,435	10,430
June	43,913	10,978	9,877
July	44,346	11,087	10,526
August	46,686	11,672	11,582
September	45,882	11,471	11,711
October	47,554	11,889	12,505
November (3 years)	31,383	10,461	--
December (3 years)	26,940	8,980	--

Table 8.3.26 shows for the month of October 1969 the number of breakfast, lunch, and supper meals served daily, broken down by patient trays (served in the wards), patients served in the dining room, and staff meals.

Staffing. The kitchen staff remains uniform in size throughout the year, because the Hospital cannot exceed its authorized ceiling and cannot fire anyone. The current authorized kitchen staff is 54 civilians, 8 military, and a purchasing agent.

Size. The central food service facility occupies 18,787 square feet (less walls and partitions). No other area of the hospital is used for food service.

Procurement. Most food is ordered from NAS supply. Dry stores are delivered from NAS supply once every two weeks. Frozen foods and vegetables are obtained once a week. Approximately 94% of the food service division's purchases are from NAS; the remaining 6% are by open purchase.

Food Preparation. All food is prepared and cooked in the hospital galley. All the meat and most of the vegetables are frozen. A special room has been set aside for thawing meat preparatory to cooking.

It is contemplated that a private contractor will install a coffee machine in each of the 11 wards; this is in response to frequent patient complaints about inferior coffee.

Special Diets. Specialized diets comprise approximately 11% to 12% of all meals served. There are roughly 65 to 80 special diets per day, and about 18 different types of diets are used. Of these, 10 to 12 different diets are in use on any given day. The special diets are based, however, on the regular diet schedules.

Disposal. Food garbage is dispensed directly to the sewer system via disposal chutes. Paper trash is compressed and deposited in one of two Dumpsters, which are collected once daily by a contracted trash collector. Cans, bottles, etc., are disposed of in the same manner. The contractor is supposed to spray each Dumpster after it has been emptied, but problems have been encountered in enforcing this requirement. Both Dumpsters are filled each day.

Serving Procedures. Food is distributed to the wards on carts loaded in the food service area. Fifteen carts are used for this purpose; they go to eleven different locations. Food is not warmed on the carts. The same personnel who distribute the trays to the wards also collect the dirty dishes. This service is frequently performed by ambulatory patients; a recent study indicated that such patients save the hospital more in wages than they cost the hospital for services rendered to them.

TABLE 8.3.26

MEALS SERVED IN OCTOBER 1969

	<u>Breakfast</u>	<u>Lunch</u>	<u>Supper</u>	<u>Totals</u>
1 Oct., Wed.				
Ward Trays	233	234	239	706
Patient D.R.*	30	108	60	198
Staff	103	169	109	381
	<u>366</u>	<u>511</u>	<u>408</u>	<u>1285</u>
2 Oct., Thur. (Pay Day)				
Ward Trays	214	235	244	693
Patient D.R.	25	97	36	158
Staff	105	179	97	381
	<u>344</u>	<u>511</u>	<u>377</u>	<u>1232</u>
3 Oct., Fri.				
Ward Trays	224	245	242	711
Patient D.R.	20	76	14	110
Staff	96	178	85	359
	<u>340</u>	<u>499</u>	<u>341</u>	<u>1180</u>
4 Oct., Sat.				
Ward Trays	237	238	240	715
Patient D.R.	16	19	21	56
Staff	60	65	65	180
	<u>303</u>	<u>322</u>	<u>326</u>	<u>951</u>
5 Oct., Sun.				
Ward Trays	214	220	210	644
Patient D.R.	8	22	24	54
Staff	65	84	89	238
	<u>287</u>	<u>326</u>	<u>323</u>	<u>936</u>
6 Oct., Mon.				
Ward Trays	208	228	245	681
Patient D.R.	24	89	42	155
Staff	95	164	106	365
	<u>327</u>	<u>481</u>	<u>393</u>	<u>1201</u>
7 Oct., Tue.				
Ward Trays	214	241	244	699
Patient D.R.	33	92	50	175
Staff	100	190	108	398
	<u>347</u>	<u>523</u>	<u>402</u>	<u>1272</u>
8 Oct., Wed.				
Ward Trays	224	247	251	722
Patient D.R.	34	88	50	172
Staff	97	185	115	397
	<u>355</u>	<u>520</u>	<u>416</u>	<u>1291</u>

TABLE 8.3.26 (Continued)

	<u>Breakfast</u>	<u>Lunch</u>	<u>Supper</u>	<u>Totals</u>
9 Oct., Thur.				
Ward Trays	223	253	252	728
Patient D.R.	27	103	46	176
Staff	103	156	102	361
	<u>353</u>	<u>512</u>	<u>400</u>	<u>1265</u>
10 Oct., Fri.				
Ward Trays	237	235	250	731
Patient D.R.	27	78	27	132
Staff	83	157	82	342
	<u>357</u>	<u>470</u>	<u>378</u>	<u>1205</u>
11 Oct., Sat.				
Ward Trays	219	238	237	694
Patient D.R.	10	21	18	49
Staff	74	91	87	252
	<u>303</u>	<u>350</u>	<u>342</u>	<u>995</u>
12 Oct., Sun.				
Ward Trays	223	234	232	689
Patient D.R.	7	28	31	66
Staff	68	88	80	245
	<u>298</u>	<u>350</u>	<u>342</u>	<u>1000</u>
13 Oct., Mon.				
Ward Trays	209	224	239	672
Patient D.R.	27	112	57	196
Staff	110	173	88	379
	<u>346</u>	<u>509</u>	<u>382</u>	<u>1247</u>
14 Oct., Tue.				
Ward Trays	218	240	253	711
Patient D.R.	13	110	81	274
Staff	105	172	100	377
	<u>336</u>	<u>522</u>	<u>434</u>	<u>1312</u>
15 Oct., Wed.				
Ward Trays	237	248	245	730
Patient D.R.	37	121	68	226
Staff	111	179	96	386
	<u>385</u>	<u>548</u>	<u>411</u>	<u>1344</u>
16 Oct., Thur. (Pay Day)				
Ward Trays	234	255	268	757
Patient D.R.	59	107	50	216
Staff	119	164	91	374
	<u>412</u>	<u>526</u>	<u>409</u>	<u>1347</u>

TABLE 8.3.26 (Continued)

	<u>Breakfast</u>	<u>Lunch</u>	<u>Supper</u>	<u>Totals</u>
17 Oct., Fri.				
Ward Trays	222	237	240	699
Patient D.R.	49	90	14	153
Staff	112	186	87	385
	<u>383</u>	<u>513</u>	<u>341</u>	<u>1237</u>
18 Oct., Sat.				
Ward Trays	220	228	232	680
Patient D.R.	12	16	20	48
Staff	71	77	75	223
	<u>303</u>	<u>321</u>	<u>327</u>	<u>951</u>
19 Oct., Sun.				
Ward Trays	191	208	210	609
Patient D.R.	9	26	25	60
Staff	56	89	82	227
	<u>256</u>	<u>323</u>	<u>317</u>	<u>896</u>
20 Oct., Mon.				
Ward Trays	226	250	262	738
Patient D.R.	45	100	61	206
Staff	111	194	93	398
	<u>382</u>	<u>544</u>	<u>416</u>	<u>1342</u>
21 Oct., Tues.				
Ward Trays	234	238	248	718
Patient D.R.	62	114	66	241
Staff	110	188	91	400
	<u>406</u>	<u>561</u>	<u>402</u>	<u>1369</u>
22 Oct., Wed.				
Ward Trays	224	242	263	729
Patient D.R.	64	103	66	233
Staff	100	202	93	395
	<u>388</u>	<u>547</u>	<u>422</u>	<u>1357</u>
23 Oct., Thur.				
Ward Trays	250	264	266	779
Patient D.R.	69	118	73	260
Staff	111	187	94	392
	<u>430</u>	<u>569</u>	<u>432</u>	<u>1431</u>
24 Oct., Fri.				
Ward Trays	229	252	251	732
Patient D.R.	78	104	39	221
Staff	104	179	88	372
	<u>411</u>	<u>535</u>	<u>378</u>	<u>1325</u>

TABLE B.3.26 (Continued)

	<u>Breakfast</u>	<u>Lunch</u>	<u>Supper</u>	<u>Totals</u>
25 Oct., Sat.				
Ward Trays	226	224	228	678
Patient D.R.	16	29	24	69
Staff	68	80	77	225
	<u>310</u>	<u>333</u>	<u>329</u>	<u>972</u>
26 Oct., Sun.				
Ward Trays	204	207	210	621
Patient D.R.	24	41	43	108
Staff	72	83	98	253
	<u>300</u>	<u>331</u>	<u>351</u>	<u>982</u>
27 Oct., Mon.				
Ward Trays	214	238	242	694
Patient D.R.	58	126	64	248
Staff	114	210	88	410
	<u>386</u>	<u>574</u>	<u>392</u>	<u>1352</u>
28 Oct., Tue.				
Ward Trays	239	246	253	738
Patient D.R.	72	108	66	244
Staff	116	180	98	404
	<u>427</u>	<u>542</u>	<u>417</u>	<u>1386</u>
29 Oct., Wed.				
Ward Trays	230	229	238	695
Patient D.R.	81	119	64	264
Staff	125	184	36	344
	<u>436</u>	<u>532</u>	<u>338</u>	<u>1293</u>
30 Oct., Thur.				
Ward Trays	214	242	244	700
Patient D.R.	75	84	48	207
Staff	127	182	126	434
	<u>416</u>	<u>508</u>	<u>417</u>	<u>1341</u>
31 Oct., Fri.				
Ward Trays	218	232	222	672
Patient D.R.	67	82	19	168
Staff	112	167	118	397
	<u>397</u>	<u>481</u>	<u>359</u>	<u>1237</u>

*Dining Room

Collection of dirty trays and carts starts within ten minutes of delivery of the last cart to the wards, but even so, some dishes remain in the wards for about an hour.

Costs. The food service budget is based on actual meals served (converted to the daily ration) and the authorized cost per ration. For the third quarter of 1969, this came to \$153,418.67; this does not include any budget for equipment, which is a separate budgetary item. The cost does include uniforms (which are included in the food service supply budget) but does not include laundry (which comes out of a separate "operating services" budget).

The raw food cost allowance is \$1.32 per day per patient, i.e., \$1.32 per ration. The hospital has managed to stay very close to that allowance. Charges for meals are \$1.32 for enlisted men (breakfast 27¢, dinner 60¢, supper 45¢) and \$1.60 for officers and dependents (breakfast 35¢, lunch 70¢, supper 55¢). Unlimited second helpings are allowed.

The hospital figures that it costs \$4.71 to serve three meals. This includes labor, food, utilities, and supplies; it should not be confused with the \$1.32 per ration figure, which covers only food.

The military Chief of Food Service claims to have calculated the cost per 100 portions of every recipe in the Armed Forces Recipe Service. He has made cost comparisons of preprocessed versus unprocessed foods and of hospital-administered versus outside-contracted services. As an example, he asserts that he can make cake cheaper by using cake mixes than by using bulk ingredients.

The Food Service Chief estimates that preparation, rather than cooking, is the largest component of food service labor cost. For this reason the galley uses some prepared but not precooked components (e.g., breaded entrees). The galley is attempting to use more convenience foods on weekends.

Pilferage appears to be less of a problem than it used to be, because of higher wages and a consequent reluctance to jeopardize one's job. The stock is inventoried monthly; each day only enough stores are issued from locked cabinets for that day's rations.

Efficiency. The Hospital uses a BUMED "productivity index," which refers to the number of rations served per day per kitchen employee. At JNH, this figure is 6.9.

Suggested Improvements. The Food Service Chief and other members of the staff were asked what changes or improvements they would suggest if the hospital were to burn down and a new hospital could be erected in its place. Among a number of items discussed, the following received prominent attention:

- More room should be installed in the cafeteria to display items being served. (At present, only four entrees can be served, and there is no space for sandwiches.)
- Installation of a separate "speed line" for the man who wants only a sandwich and glass of milk.
- A larger and more private office where the food service chief could think and talk in private; ditto for the dietitian.
- Hot and cold carts for moving food to wards (the current food carts have no temperature control capability).
- Installation of new equipment; there are severe maintenance problems with the old equipment moved into the new building.
- Installation of enclosed cabinets; at present, all storage is open.
- Convection baking ovens; the current baking ovens have no steam injection and heat unevenly.
- Shelving and better constructed decks in the freezers.
- Air conditioning in the galleys and laundries.
- Steam heat on the hot line to keep food moist.
- Separate dining area for Chief Petty Officers.
- Better locker and ventilation facilities for mess stewards.
- More space for paper goods.

8.3.4.5.4 Housekeeping and Maintenance

Housekeeping. The hospital currently maintains 20 housekeepers and 2 supervisors; all 22 employees are civilians. There is one military billet authorized for sanitation, but (as of October 1969) it has been vacant for some time. No specialized sanitation work is conducted.

According to the officer in charge of housekeeping, 90% of the maintenance cost is manpower. As an example, a shift to paste wax for the floors doubled manpower needs for waxing.

In FY 1969, the housekeeping function cost \$111,000 (labor only).

Maintenance. Maintenance at the Naval Air Station is a consolidated function. NAS Public Works provides the maintenance for all tenant commands.

A limited number of Public Works employees (referred to as the "local forces") are assigned full-time to the hospital. They stand watch in the control room and serve as electricians, refrigeration mechanics, plumbers, and carpenters. They are considered hospital employees; all are civilians.

In addition to the local forces, JNH also uses standing job orders for service calls and emergency calls. At the start of the year, a given amount of money is actually paid to Public Works to cover the "estimated" number of standing job orders. These fall into one of four general categories:

- Operation
- Preventive maintenance
- Service calls
- Emergency service calls

In addition to the work performed by the local forces and via the standing job orders and certain specific job orders, there is also a category of project orders. These are fixed-price agreements with Public Works. Under this arrangement, Public Works cannot exceed the cost estimate. Generally no project order is negotiated with Public Works for less than \$750. The distinction between specific job orders and project orders is on the basis of size.

The hospital is given an authorized ceiling on the maintenance budget by BUMED; how this budget is allocated among standing job orders, specific job orders, and project orders is up to the hospital. We were later told by the Administrative Officer that the hospital is also given a *floor*; that is, it *must* spend a specified minimum amount on maintenance.

The hospital maintains no regular depreciation schedule on plant and equipment; therefore, depreciation does not provide any funding for maintenance. NAS Public Works imposes a regular control inspection schedule.

Local forces handle about 90% of the hospital's trouble calls. Separate power and water plants are maintained by and for the hospital independently of Public Works. The wages for the employees manning these facilities are paid by JNH.

When an outside contractor is hired (as, for instance, for elevator maintenance), the negotiation and administration of the contract are taken care of by Public Works, but the funding of the contract comes from the hospital budget.

The maintenance of medical equipment is handled not by the maintenance department, but by the medical repair branch of the Fiscal and Supply Division.

According to the officers involved in hospital maintenance, and contrary to normal expectations, the relations between NAS Public Works and JNH are excellent; the hospital officials believe (though with exceptions) that the hospital's needs come very near the top of NAS priorities. The NAS Public Works engineer and maintenance officer meet weekly with the hospital's chief of operating services.

8.3.4.5.5 Communications

A typical one-month telephone bill for the hospital (the example given is for July 1969) is as follows:

	\$2,448.00	for 153 instruments (unrestricted) at \$16
	306.00	for 102 extensions at \$3
	<u>297.00</u>	for 27 restricted phones at \$11
Subtotal	\$3,051.00	
	1,646.75	"goodies"
	<u>116.75</u>	for long-distance charges
Total	\$4,814.50	

There is no allocation of phone charges to departments. The total phone bill for FY 1969 came to \$56,600.

Explanations: Unrestricted instruments are those from which commercial long-distance calls can be made. Restricted phones can be used only for calls within the base. "Goodies" are added-on features, like DCJ (master intercom hookup - an outside call can be transferred or hooked into different inside instruments through the DCJ), and there can be a three-way conversation with the

front desk tuning in); call directors (which will take up to 16 calls on 16 different lines on one instrument – Jacksonville has two of these, one at the information desk and one at the OPD desk); and Porta-phones (plug-in portable phones for use in wards). The Porta-phones are kept at the nursing stations and there are six units, one for each inpatient floor.

Thirty-four departments have individual DCJ numbers; three more are tied up by OPD, and three more are tied up at the main hospital switchboard.

The CENTREX System in use does *not* allow transferring among internal lines of outside incoming calls.

In addition to the above, the hospital is hooked into the AUTOVON System, an automatic voice network which connects military installations (a sort of WATS line for defense installations). The hospital has 16 AUTOVON lines.

In addition to all the above, tie-lines are maintained with base headquarters and Cecil Field. There is also an intercommunications system (squawk boxes). A hot-line connects Mayport and the Hospital, using two hospital locations, one at the information desk, and one at the Medical Officer of the Day desk. There are two recorders for messages on an answering service basis; these comprise a medical transcribing unit system.

8.3.4.5.6 Transportation

JNH does not maintain its own motor pool. All vehicles are assigned to the hospital by NAS Public Works. These include: three ambulances (and two civilian ambulance drivers who can drive all vehicles), two 1½-ton trucks, two ½-ton pickups, one station wagon, one sedan, and three fork lifts.

A trip ticket is filled out for each trip with starting and final mileages, and is turned in daily.

Repairs and maintenance are provided by Public Works and are charged to the hospital at cost. The only exception to this rule involves the ambulances, which use premium fuel and are fueled at the Navy exchange using credit cards.

Medical transfers (as, for instance, to Bethesda) are handled through MATS.

For VIP's, a sedan and driver are secured from Public Works. No charge is made to the hospital for this service; the Public Works transportation pool absorbs the charge.

The Armed Services Medical Regulation Office (in Washington) controls all MEDEVAC flights (for instance, a transfer to Bethesda of a child with a heart ailment).

Maintenance on vehicles is charged not to the transportation budget but to the maintenance budget; there is no separate transportation budget for the hospital. Salaries of civilian drivers are charged against the maintenance budget. The maintenance and repair budget appears administratively under the Fiscal and Supply Division.

8.3.4.5.7 Materials Handling

The bulk of the materials transported within the Jacksonville Naval Hospital are moved by hand on carts of various types and sizes. However, some automatic systems are also in use. Two vertical conveyors operate between the first floor and the seven upper floors. The ascending conveyor starts from the Clean Supply Room on the first floor, with automatic loading and ejection of 16- by 22-inch covered trays. Dial settings select the desired floor for unloading. The descending tray conveyor runs from all floors down to a first floor workroom and carries soiled supplies on the same kinds of trays. The trays are of fiberglass and can stand repeated autoclaving. The descending trays are manually loaded and automatically unloaded at the first floor.

The dining room has a conveyor system consisting of a simple horizontal belt for carrying dirty trays and dishes to the dish-washing area. There is also a pneumatic tube system throughout the Hospital, which carries the usual small cylindrical containers; any station can send a container to any other station in the system without rehandling by proper settings of the controls. Laundry chutes and trash chutes carry soiled linens and other refuse to the first floor from the upper floors. In addition, there are five elevators for transporting passengers and freight. By and large, aside from minor complaints, these transport systems seem to work reasonably satisfactorily.

8.3.4.5.8 Data Processing

The data processing activity includes a 602 Punch, a 407 Tab-Printer, and several card punches, sorting machines, etc. The officer in charge of data processing indicates that the equipment works satisfactorily despite its age. (Other officers complained that turnover time is excessively long.)

A list of data processing procedures and reports regularly prepared by the data processing activity at the hospital was secured. In general, control is achieved by setting targets, normally including only those items considered truly controllable. For example, military salaries are generally not considered controllable,

since they are assigned by an outside agency. The hospital is planning to take computer machine rental out of the data processing target reports, because this is also fairly well fixed in advance.

In general, the data processing procedures are those laid down by BUMED. According to the report given us, BUMED is planning four regional data processing centers – in Bethesda, Pensacola, San Diego, and Great Lakes – to which the other hospitals will be tied by remote terminals. The apparent Navy approach, then, differs from the Air Force, which is planning to have the Air Force base computers provide services to the hospital on the base. This difference in approach may reflect the fact that many of the Navy hospitals are not located on a Navy base.

8.3.4.6 Other Health Programs

8.3.4.6.1 Mental Health Care Services

Dr. Miller, Chief Psychiatrist, has been at the Hospital since October 1967 and is close to completing his tour of duty. He is in charge of 22 beds, including psychiatric patients in the Neuropsychiatric Ward, the Officers' Ward, the E building, and the Women's Ward (8 East), which includes women who must be kept in security.

The patient load that can be handled depends very much on the staff available. JNH currently has two psychiatrists, one psychologist, one social worker, and two neurologists. Dr. Miller has set a policy of not taking dependents as patients, since they are so overloaded. He refers such patients to CHAMPUS. He feels that the size of the medical team that he has is really quite minimal. If it were any smaller, consultation would be difficult.

There are 500 outpatient visits per month in the unit and 800 to 1,000 visits to the neuropsychiatric unit. The outpatient load is two dependents to each active duty military person, but they are slowly cutting down the dependent load. The inpatients are all active-duty military personnel.

Dr. Miller feels that his prime responsibility is to treat active-duty personnel who have problems and to restore them to active military status. However, some patients are "boarded out"; that is, he recommends removal from service. He has also cut down the number of patients seen by the Outpatient Clinic.

In addition to the staff mentioned above, residents – eight doctors – come up to the unit once a week and see patients. However, more office space is needed for them. Space is, in fact, one of Dr. Miller's major problems. For example, he would like to have an enclosed outdoor area for patients who do not have to be confined for legal or medical reasons.

He likes the idea of having the hospital on a naval base, rather than separate as in the case of some hospitals, because he has the availability of other useful facilities such as the gymnasium, brig, legal assistance, movies, etc.

Psychotics are transferred to Philadelphia or Pensacola, which have large psychiatric units and can care for long-term patients. Dr. Miller feels that many of the people who are discharged for "character problems" could be kept in the service if special psychiatric units were available to treat them.

Dr. Miller mentioned the following problems with the current hospital:

- (1) There is no lounge area for the medical staff.
- (2) While the rest of the Hospital is well designed and constructed, the psychiatric unit is too small.
- (3) Staffing is a problem, because many of the corpsmen and technicians may have to perform double duties; in addition to their medical duties, they are rotated through some nonmedical duties such as guard duty. This is a waste of time, since they are generally there only nine months or a year anyway, and by the time they become useful they leave. He gave as one example, the corpsman at the unit desk, who has become quite proficient in terms of screening phone calls and patients (a form of triage) and therefore can save a considerable amount of the physicians' time.
- (4) The storage rooms are not very useful on the psychiatric ward. If they had been better designed, they could have been used as offices.
- (5) The nurses' station on the unit is poorly designed. Patients can see into the unit, but it is difficult to monitor patients' rooms from the nurses' station.

In general, Dr. Miller feels that the unit is much too small in terms of the potential patient volume. For example, it has no outpatient treatment program at all. It really needs 5 psychiatrists, 15 social workers, and 2 to 3 psychologists. Instead of providing treatment, the present staff acts as consultants, making decisions on disposition of patients.

8.3.4.6.2 Medical Processing

Several types of physical examinations are administered at the Jacksonville Naval Hospital. One of these is the examination administered every four years to Navy retirees. (The Navy is the only service which has retained quadrennial examinations.)

Another type of examination is administered to active-duty personnel on the temporary disability retired list. These examinations are referred to as TDRL's. A service man returns every 18 months for five years for physical reevaluation before being permanently retired.

A third type of physical examination is that administered to active-duty personnel. Noted in the table as AD's, these include annual staff officer exams, examinations of reenlistees, enlisted men over 40, discharges, and WAVES from NATTC.

Examinations are also administered to FBI agents located in the area and (occasionally) to other governmental officials.

Table 8.3.27 shows recent statistics on the number of physical examinations given. Roughly 40% of those examined require further referrals, laboratory work, etc.

TABLE 8.3.27

PHYSICAL EXAMINATIONS
JACKSONVILLE NAVAL HOSPITAL

<u>Month</u>	<u>Total</u>	<u>Quads.</u>	<u>TDRL</u>	<u>AD</u>	<u>FBI</u>
July 1969	134				
August 1969	104	31	16	63	6
September 1969	112	31	12	62	7
October 1969	78	38	7	27	6

In addition, once a year the hospital administers physical examinations to preschool (entering) children on five consecutive Saturdays in August. This involves approximately 12,000 to 15,000 exams and requires the use of five to seven MD's and 15 paramedical personnel.

The regular examinations are performed by a series of MD's in various outpatient clinics. The examinee first comes to the Physical Examination Room. From there he is sent to the Dental Clinic, and then to the General Practice Clinic, where he obtains forms which he carries with him thereafter. The examinee fills out his own past medical history. He then goes to the laboratory, where a urinalysis is done, plus a serology for TDRL's. The examinee then reports to the Eye/Ear Clinic, then to Radiology for a chest X-ray, and then to the Medical Clinic (where EKG's are administered to those over the age of 40), and finally back to the Physical Examination Room.

8.3.5 WORKLOAD STATISTICS

Tables 8.3.28 through 8.3.31 present a variety of workload statistics for FY 1968 and 1969 dealing with the major activities of the Jacksonville Naval Hospital. Other data bearing on workloads have been included in the portions of Section 8.3.4 dealing with inpatients, outpatients and dispensaries, pharmacy, laboratory, linens, food service, and medical processing.

8.3.6 COSTS

Tables 8.3.32 through 8.3.38 in this section present summary information on costs and budgets for Jacksonville Naval Hospital. Note that military pay is *not* included in the hospital budgets as part of the obligational authority. However, the detailed accounting records that are compiled quarterly do include military compensation.

A functional cost distribution for FY 1969, is presented in Table 8.3.39. Basic cost data were obtained from documents provided by the Fiscal Office, primarily quarterly computer printouts of accounting records. Personnel distributions were derived from staff assignment sheets for nursing personnel and from other manning records of the Personnel Office, supplemented by interviews with specific departments on staff utilization. The numbers shown represent full-time equivalents. Tabular entries for cost of various categories of personnel were estimated on the basis of approximate averages, distributed in such a way as to make the subtotals consistent with available accounting figures. For example, regular staff physicians and dentists were assigned an average annual compensation of \$15,000, residents and interns \$12,000, registered nurses \$8,000 or \$10,000, and clerks \$5,000. Other personnel cost entries absorbed the necessary remainders of the appropriate subtotals.

TABLE B.3.28

GENERAL WORKLOAD INFORMATION

	<u>FY 1968</u>	<u>FY 1969</u>	<u>Difference</u>
Births			
1st Qtr	376	396	20 •
2nd Qtr	356	389	33 •
3rd Qtr	310	315	5 •
4th Qtr	<u>321</u>	<u>332</u>	11 •
	1,363	1,432	
Admissions (Daily Average)			
1st Qtr	29.7	23.5	6.2 -
2nd Qtr	20.6	20.7	0.1 •
3rd Qtr	26.2	23.3	2.9 -
4th Qtr	24.5	22.5	2.2 -
Discharges (Daily Average)			
1st Qtr	25.6	23.2	2.4 -
2nd Qtr	21.4	21.6	0.2 •
3rd Qtr	24.8	22.9	1.9 -
4th Qtr	24.3	22.6	1.7 -
Outpatient Clinic Visits			
1st Qtr	52,401	52,818	417 •
2nd Qtr	53,072	51,253	1,819 -
3rd Qtr	56,826	54,451	2,375 -
4th Qtr	<u>51,542</u>	<u>54,568</u>	3,026 •
	213,841	213,090	751 -
Inpatient Clinic Visits			
1st Qtr	3,602	3,024	578 -
2nd Qtr	2,492	2,875	383 •
3rd Qtr	3,290	2,926	364 -
4th Qtr	<u>3,336</u>	<u>4,198</u>	862 •
	12,720	13,023	303 •

TABLE 8.3.20
OCCUPIED BED DAYS - TOTAL BY SERVICE

Occupied Beds (Daily Average)	FY 1998	FY 1999	Difference
1st Qtr	324	357	33 +
2nd Qtr	257	336	79 +
3rd Qtr	340	341	1 +
4th Qtr	356	302	54 -
Medical			
1st Qtr	6,192	5,560	632 -
2nd Qtr	5,123	6,426	1,303 +
3rd Qtr	6,160	5,577	583 -
4th Qtr	5,775	5,121	654 -
Surgical			
1st Qtr	5,465	7,505	2,042 +
2nd Qtr	4,299	6,265	1,966 +
3rd Qtr	5,684	6,893	989 +
4th Qtr	7,042	5,412	1,630 -
Orthopedic			
1st Qtr	7,465	9,711	2,246 +
2nd Qtr	5,878	9,313	3,435 +
3rd Qtr	7,849	8,855	1,006 +
4th Qtr	9,586	8,242	1,344 -
Obstetrics and Gynecology			
1st Qtr	5,148	4,797	351 -
2nd Qtr	4,421	4,157	264 -
3rd Qtr	4,876	4,494	382 -
4th Qtr	4,219	4,080	139 -
Pediatric			
1st Qtr	1,487	1,078	409 -
2nd Qtr	1,087	1,274	187 +
3rd Qtr	1,402	1,486	83 +
4th Qtr	1,387	1,088	299 -
Neuropsychiatric			
1st Qtr	2,384	2,512	128 +
2nd Qtr	1,720	1,887	147 +
3rd Qtr	2,666	2,217	449 -
4th Qtr	2,591	2,083	508 -
Eye, Ear, Nose, and Throat			
1st Qtr	1,674	1,644	30 -
2nd Qtr	1,134	1,616	482 +
3rd Qtr	1,990	1,372	618 -
4th Qtr	1,847	1,484	363 -

TABLE 8.3.30
WORKLOAD DISTRIBUTIONS

	<u>FY 1988</u>	<u>FY 1989</u>
A. Inpatient Admissions		
Uniformed Services Total	3,086	2,811
Army	110	102
Air Force	38	31
Navy/Marine Corps	2,924	2,664
Other Uniformed Services	14	14
Dependents of Active-Duty Uniformed Services	3,581	3,385
Retired Personnel	785	779
Dependents of Retired and Deceased	1,127	1,092
Other Authorized Treatment	1,507 ^a	1,644 ^b
a. Includes 1,250 newborn		
b. Includes 1,512 newborn		
B. Outpatient Clinic Workload		
Uniformed Services Total	31,466	38,462
Army	1,281	1,550
Air Force	761	825
Navy/Marine Corps	29,188	35,676
Other Uniformed Services	236	411
Dependents of Active-Duty Uniformed Services	139,105	126,611
Retired Personnel	21,595	21,288
Dependents of Retired and Deceased	28,888	36,511
Other Authorized Treatment	3,982	3,473
	<u>275,034</u>	<u>226,340</u>
C. General Practice Clinic		
Outpatient	36,691	40,732
Inpatient		
Visits Per Day		
Inpatient		
Outpatient	101	111
D. Allergy Clinic		
Outpatient	2,024	1,620
Inpatient		
Visits Per Day		
Outpatient	6	5
Inpatient		

TABLE 8.3.30 (Continued)

	<u>FY 1989</u>	<u>FY 1988</u>
E. Neurology Clinic		
Outpatient	3,621	3,742
Inpatient	<u>1,032</u>	<u>124</u>
	4,653	4,676
Visits Per Day		
Outpatient	10	10
Inpatient	<u>3</u>	<u>3</u>
	13	13
F. Neuropsychiatric Clinic		
Outpatient	8,708	8,239
Inpatient	<u>315</u>	<u>218</u>
	9,103	8,455
Visits Per Day		
Outpatient	24	23
Inpatient	Less than 1	Less than 1
G. Psychology Clinic		
Outpatient	2,168	1,965
Inpatient		<u>38</u>
		2,003
Visits Per Day		
Outpatient	6	6
Inpatient		Less than 1
H. Physiotherapy Clinic		
Outpatient	2,849	4,157
Inpatient	<u>10,242</u>	<u>10,616</u>
	13,091	14,773
Visits Per Day		
Outpatient	8	11
Inpatient	<u>28</u>	<u>29</u>
	36	40
I. Urology Clinic		
Outpatient	11,334	10,058
Inpatient		
Visits Per Day		
Outpatient	31	28
Inpatient		

TABLE B.3.30 (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>
J. Ophthalmology Clinic		
Outpatient:	8,721	6,750
Inpatient		
Visits Per Day		
Outpatient		
Inpatient		
K. Optometric Clinic		
Outpatient	7,929	1,060
Inpatient		
Visits Per Day		
Outpatient		
Inpatient		
L. Otorhinolaryngology Clinic		
Outpatient	6,961	7,712
Inpatient		
Visits Per Day		
Outpatient	19	21
Inpatient		
M. General Medicine Clinic		
Outpatient	8,421	11,214
Inpatient		
Visits Per Day		
Outpatient	23	31
Inpatient		
N. Dermatology Clinic		
Outpatient	8,288	9,006
Inpatient		
Visits Per Day		
Outpatient	24	26
Inpatient		
O. General Surgery Clinic		
Outpatient	7,453	8,620
Inpatient		
Visits Per Day		
Outpatient	21	24
Inpatient		

TABLE 8.3.30 (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>
P. Obstetrics Clinic		
Outpatient	13,230	14,903
Inpatient		
Visits Per Day		
Outpatient	36	41
Inpatient		
Q. Gynecology Clinic		
Outpatient	17,624	23,209
Inpatient		
Visits Per Day		
Outpatient	48	61
Inpatient		
R. Pediatric Clinic		
Outpatient	50,086	28,376
Inpatient		
Visits Per Day		
Outpatient	137	78
Inpatient		
S. Orthopedic Clinic		
Outpatient	8,251	6,607
Inpatient	732	1,219
	<u>8,983</u>	<u>7,816</u>
Visits Per Day		
Outpatient	23	18
Inpatient	2	3
	<u>25</u>	<u>21</u>

TABLE 8.3.31

ANCILLARY SERVICES

	FY 1968		FY 1969		Difference	
	Workload	Cost	Workload	Cost	Workload	Cost
A. Pharmacy						
1st Qtr	79,183	\$70,914	97,340	\$69,001	18,157	+ \$1,913 -
2nd Qtr	84,895	59,293	98,336	77,190	13,441	+ 17,895 +
3rd Qtr	97,870	78,150	100,267	84,506	2,397	+ 6,347 +
4th Qtr	87,217	74,423	86,399	87,052	818	- 12,629 +
	<u>349,165</u>	<u>282,791</u>	<u>362,342</u>	<u>317,749</u>	<u>23,177</u>	<u>+ 34,958 +</u>
B. Laboratory						
1st Qtr	80,652	17,310	135,188	16,933	44,536	+ 377 -
2nd Qtr	86,754	9,834	134,892	23,280	48,138	+ 13,446 +
3rd Qtr	107,019	16,198	155,134	13,971	48,115	+ 2,225 -
4th Qtr	116,254	18,827	156,405	22,202	40,151	+ 3,375 +
	<u>380,679</u>	<u>62,167</u>	<u>581,619</u>	<u>76,386</u>	<u>181,940</u>	<u>+ 14,219 +</u>
C. Radiology						
1st Qtr	20,146	7,645	16,385	9,730	3,761	- 2,085 +
2nd Qtr	19,251	7,453	22,620	10,542	3,567	+ 3,089 +
3rd Qtr	22,214	11,016	24,768	10,229	2,554	+ 776 -
4th Qtr	19,611	8,569	25,605	14,307	5,994	+ 5,738 +
	<u>81,222</u>	<u>34,682</u>	<u>89,578</u>	<u>44,818</u>	<u>8,356</u>	<u>+ 10,136 +</u>
D. Dental						
1st Qtr	2,484	543	2,854	581	370	+ 38 +
2nd Qtr	1,920	177	2,167	486	247	+ 309 +
3rd Qtr	3,177	566	2,876	725	301	- 150 +
4th Qtr	2,929	986	2,283	557	646	- 429 -
	<u>10,510</u>	<u>2,272</u>	<u>10,180</u>	<u>2,349</u>	<u>330</u>	<u>- 77 +</u>

TABLE 8.3.32
FUND AVAILABILITY

	<u>FY 1968</u>	<u>FY 1969</u>
BUMED Allotment		
1st Qtr	\$1,038,900 ^a	\$ 720,000
2nd Qtr	669,500	726,300
3rd Qtr	666,400	732,500
4th Qtr	<u>804,200</u>	<u>757,300</u>
Total	\$3,179,000^b	\$2,936,100^c
Reimbursements		
1st Qtr	53,628	55,460
2nd Qtr	50,915	51,039
3rd Qtr	59,260	50,681
4th Qtr	<u>57,467</u>	<u>49,193</u>
Total	\$ 221,270	\$ 206,373
Total Obligational Authority		
1st Qtr	1,092,528 ^a	775,460
2nd Qtr	720,415	777,339
3rd Qtr	725,660	783,181
4th Qtr	<u>861,667</u>	<u>806,493</u>
Grand Total	\$3,400,270^b	\$3,142,473

a. Includes \$450,000 for new hospital equipment.

b. Includes NAVFAC funds in the amount of \$536,557.

c. Includes NAVFAC funds restricted for Maintenance and Repair – Real Property – \$182,100.

TABLE 8.3.33
FUND DISTRIBUTION

	<u>FY 1968</u>	<u>FY 1969</u>	<u>Change</u>
Civilian Pay			
1st Qtr	\$ 301,158	\$ 336,370	\$ 35,212 +
2nd Qtr	318,167	344,632	26,465 +
3rd Qtr	318,284	335,558	17,274 +
4th Qtr	<u>318,090</u>	<u>372,426</u>	<u>54,338 +</u>
Total	1,255,699	1,388,988	133,289 +
Civilian Benefits			
1st Qtr	23,102	26,403	3,301 +
2nd Qtr	24,162	26,822	2,660 +
3rd Qtr	25,596	26,514	918 +
4th Qtr	<u>26,460</u>	<u>29,181</u>	<u>2,721 +</u>
Total	99,320	108,921	9,601 +
Provisions			
1st Qtr	41,009	45,702	4,693 +
2nd Qtr	39,572	41,638	2,066 +
3rd Qtr	45,703	41,069	4,634 -
4th Qtr	<u>44,185</u>	<u>39,326</u>	<u>4,849 -</u>
Total	170,469	167,745	2,724 -
Minor Property			
1st Qtr	33,732	8,152	25,580 -
2nd Qtr	127,755	3,657	124,098 -
3rd Qtr	66,069	4,772	61,297 -
4th Qtr	<u>30,274</u>	<u>8,670</u>	<u>21,604 -</u>
Total	257,830	25,251	232,579 -
Contracts			
1st Qtr	26,207	5,604	20,603 -
2nd Qtr	11,139	14,565	3,426 +
3rd Qtr	19,592	8,397	11,195 -
4th Qtr	<u>10,764</u>	<u>24,579</u>	<u>13,815 +</u>
Total	67,702	53,145	14,557 -
Civilian Medicare			
1st Qtr	1,285	2,280	995 +
2nd Qtr	3,571	1,711	1,860 -
3rd Qtr	8,740	1,704	7,036 -
4th Qtr	<u>4,640</u>	<u>334</u>	<u>4,306 -</u>
Total	18,236	6,029	12,207 -
Staff Total Active Duty			
1st Qtr	2,261	1,293	968 -
2nd Qtr	2,154	6,624	4,470 +
3rd Qtr	1,519	4,227	2,708 +
4th Qtr	<u>1,304</u>	<u>6,384</u>	<u>5,080 +</u>
Total	7,238	18,528	11,290 +
All Other			
1st Qtr	663,774	349,656	314,118 -
2nd Qtr	193,895	340,690	146,795 +
3rd Qtr	240,157	360,940	120,783 +
4th Qtr	<u>425,950</u>	<u>322,580</u>	<u>103,370 -</u>
Total	1,523,776	1,373,866	149,910 -
Grand Total	<u>\$3,400,270</u>	<u>\$3,142,473</u>	<u>\$257,797 -</u>

TABLE 8.3.34

COMPENSATION

	<u>FY 1968</u>	<u>FY 1969</u>	<u>Difference</u>
Military			
1st Qtr	\$ 783,343	\$ 788,068	\$ 4,725 +
2nd Qtr	803,600	871,709	68,109 +
3rd Qtr	834,822	893,436	58,614 +
4th Qtr	<u>784,760</u>	<u>893,603</u>	<u>108,843 +</u>
Total	3,206,525	3,446,816	240,291 +
Civilian Pay			
1st Qtr	301,156	336,370	35,214 +
2nd Qtr	318,167	344,632	26,465 +
3rd Qtr	318,284	335,558	17,274 +
4th Qtr	<u>318,647</u>	<u>372,428</u>	<u>53,781 +</u>
Total	1,256,254	1,388,988	132,734 +
Civilian Benefits			
1st Qtr	23,102	26,403	3,301 +
2nd Qtr	24,162	26,822	2,660 +
3rd Qtr	25,596	26,514	918 +
4th Qtr	<u>26,460</u>	<u>29,181</u>	<u>2,721 +</u>
Total	99,320	108,920	9,600 +
Grand Total	\$4,562,099	\$4,944,724	\$382,625 +

TABLE 8.3.35

COST PER PATIENT DAY

	<u>FY 1988</u>	<u>FY 1989</u>	<u>Change</u>
Administration			
1st Qtr	\$ 4.41	\$ 4.73	\$0.32 +
2nd Qtr	6.64	5.52	1.12 -
3rd Qtr	5.28		
4th Qtr	4.50		
Professional Care			
1st Qtr	20.28	19.86	0.42 -
2nd Qtr	26.42	22.02	3.40 -
3rd Qtr	21.04		
4th Qtr	19.43		
Dietetic Service			
1st Qtr	4.72	4.11	0.61 -
2nd Qtr	5.68	4.28	1.40 -
3rd Qtr	4.43		
4th Qtr	4.37		
Recreation Service			
1st Qtr	0.30	0.21	0.09 -
2nd Qtr	0.27	0.23	0.04 -
3rd Qtr	0.27		
4th Qtr	0.26		
Maintenance and Repair Buildings and Grounds			
1st Qtr	2.88	4.34	1.46 +
2nd Qtr	4.66	6.20	1.54 +
3rd Qtr	4.48		
4th Qtr	6.14		
Laundry			
1st Qtr	0.48	0.33	0.15 -
2nd Qtr	0.69	0.60	0.19 +
3rd Qtr	0.51		
4th Qtr	0.57		
Transportation			
1st Qtr	0.18	0.15	0.03 -
2nd Qtr	0.28	0.28	
3rd Qtr	0.21		
4th Qtr	0.17		
Total Cost/Patient Day			
1st Qtr	33.35	33.73	0.38 +
2nd Qtr	43.65	39.01	4.64 -
3rd Qtr	36.22		
4th Qtr	35.44		

TABLE 8.1.36

ANALYSIS OF PUBLIC WORKS EXPENSE

	<u>FY 1988</u>	<u>FY 1989</u>	<u>Change</u>
Maintenance & Repair Real Property			
1st Qtr	\$ 31,705	\$ 38,670	\$ 6,965 +
2nd Qtr	27,558	49,400	21,842 +
3rd Qtr	29,600	30,225	625 +
4th Qtr	49,357	57,795	8,438 +
Total	138,220	176,090	37,870 +
Transportation			
1st Qtr	6,419	4,954	1,465 -
2nd Qtr	5,700	8,655	2,955 +
3rd Qtr	6,494	6,916	462 +
4th Qtr	5,881	5,734	147 -
Total	24,494	26,259	1,805 +
General Engineering Support			
1st Qtr	6,900	2,864	3,636 -
2nd Qtr	5,218	6,561	1,343 +
3rd Qtr	6,712	6,145	2,567 -
4th Qtr	8,825	6,285	2,580 -
Total	29,255	21,835	7,420 -
Fuel Oil			
1st Qtr	5,335	23,379	18,044 +
2nd Qtr	11,416	16,802	5,086 +
3rd Qtr	14,331	13,875	456 -
4th Qtr	17,575	20,502	2,927 +
Total	48,657	74,258	25,601 +
Electricity			
1st Qtr	15,284	25,877	10,693 +
2nd Qtr	13,634	22,638	9,004 +
3rd Qtr	22,289	21,463	836 -
4th Qtr	25,863	25,290	373 -
Total	76,880	95,268	18,388 +
Telephones			
1st Qtr	5,474	13,375	7,901 +
2nd Qtr	4,911	15,018	10,107 +
3rd Qtr	15,738	15,125	613 -
4th Qtr	13,069	15,275	2,216 +
Total	39,182	58,793	19,611 +
Other Utilities			
1st Qtr	25,102	35,591	10,489 +
2nd Qtr	26,782	52,780	23,998 +
3rd Qtr	35,832	37,297	1,465 +
4th Qtr	39,408	37,607	1,801 -
Total	129,124	163,275	34,151 +
Minor Construction and Special Projects			
1st Qtr	1,525	0	1,525 -
2nd Qtr	889	1,167	278 +
3rd Qtr	2,654	4,102	1,448 +
4th Qtr	46,481	-	46,481
Total	\$ 51,549	\$ 5,269	\$46,280 -

TABLE B.3.37

BUDGET PLAN FOR FY 1976

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
Civilian Salaries	\$400,000	\$378,040	\$303,788	\$387,046	\$1,513,594
Personnel Benefits	30,400	28,488	28,579	28,987	117,302
Supplies:					
Target Managers	197,906	185,304	215,113	208,377	802,300
Public Works	2,300	2,200	2,400	2,400	9,300
Contracts:					
SFC A4 - D1	13,940	3,575	3,975	3,575	24,574
SFC M1	0	5,400	0	0	5,400
EAM Rental	5,770	5,770	5,770	5,770	23,080
Equipment					
Minor	3,275	3,275	3,275	3,275	12,900
Plant Property	3,750	3,000	3,900	3,900	13,750
Travel	2,000	3,000	3,000	4,000	12,000
NAS Public Works 140's					
L1 - Telephone	14,560	14,560	14,560	14,560	58,200
L7 - Transportation	5,400	5,300	5,000	5,000	20,700
M1 - Maintenance and Repair	24,000	45,000	30,000	30,000	179,000
N1 - Utilities	84,000	84,000	82,000	82,000	334,000
P1 - Other Engineering Support	8,000	3,150	3,700	3,700	15,600
S1 - Personnel Support	1,000	500	500	500	2,500
A4 - BUMED Support	400	400	400	400	1,600
Total	\$787,500	\$774,000	\$764,500	\$793,500	\$3,099,500
Obligational Authority	\$748,000	\$725,000	\$714,000	\$714,000	\$2,901,000
Estimated Reimbursements	49,500	49,000	50,500	49,500	198,500
Total	\$797,500	\$774,000	\$764,500	\$763,500	\$3,099,500

TABLE 8.3.38
DISPENSARY COSTS, FY 1989

A. Naval Air Technical Training Center, Jacksonville	
Military Labor (1 officer, 14 enlisted)	\$133,700
Civilian Labor	0
Supplies and Services	<u>20,135</u>
	\$153,835
B. Naval Air Station, Jacksonville	
Military Labor (13 officers, 60 enlisted)	\$584,000
Civilian Labor	76,260
Supplies and Services	<u>54,000</u>
	\$713,260
C. Naval Air Station, Cecil Field	
Military Labor (6 officers, 46 enlisted)	\$416,000
Civilian Labor (2 employees)	17,000
Supplies and Services	<u>66,400</u>
	\$499,400
D. Naval Station, Mayport	
Military Labor (11 officers, 28 enlisted)	\$290,800
Civilian Labor (10 employees)	73,700
Supplies and Services	<u>66,250</u>
	\$430,750
 Grand Total	 <u>\$1,826,236</u>

TABLE B.3.30
 FUNCTIONAL COST DISTRIBUTION^a
 JACKSONVILLE NAVAL HOSPITAL
 FY 1969

	Medicine ^b	Surgery ^c	Obstetrics and Gynecology ^d	Dispensary ^e	Clinics ^f	Dental ^g	Laboratory ^h	Radiology	Pharmacy	Food Ser
Staff Totals	137	61	73	0	77	9	75	10	63	
Dentists						2				
						30,000				
Physicians	17	7	3		42		3	2		
	266,000	102,000	42,000		682,000		45,000	30,000		
Registered Nurses	41	18	28		8					
	378,000	180,000	724,000		80,000					
Other Nursing	77	36	42		42					
	370,455	277,729	756,451		261,508					
Other Professionals						7	22	8	11	
						37,560	151,889	56,075	94,528	30,000
Nonprofessionals	2									
	10,000									64
	963,455	669,729	522,451		973,506	67,560	196,889	86,075	94,528	408,271
Linen										
Provisions										154,304
Drugs									318,060	
Medical Supplies	19,086	49,643	6,946		38,607	1,985	65,340	43,820		
General Supplies										33,831
Services	8,455	2,166			1,707		4,722		58	17
Housekeeping ^o	33,109	30,572	11,571		28,066	825	3,302	4,953	1,651	11,571
Maintenance ^p	46,450	42,899	16,237		39,381	1,159	4,633	6,950	2,317	16,237
Utilities ^q	89,762	82,863	31,371		76,085	2,238	8,951	13,427	4,476	31,371
Minor Equipment	2,139	7,833	444		5,693	402	2,860	998	52	2,531
Totals	1,162,466	775,525	589,020	0	1,113,046	74,168	286,697	156,173	421,142	658,181
Percent of Total	17.22	11.48	8.72	0	16.48	1.10	4.25	2.31	6.24	9.75

See following page for explanatory notes

A

COST DISTRIBUTION
 LE NAVAL HOSPITAL
 FY 1969

Pharmacy	Food Service ¹	Administration ¹	Records ²	Sterile	Linens	Other Supply	Other Support ¹	Totals	Percent of Total
63	11	43	27	4	10	17	38	620	
								2	
								30,000	0.44
		1						75	
		30,000						1,085,000	16.08
								95	
								812,000	12.02
								197	
								1,166,141	17.27
11	3	8	2	4		7		72	
94,528	30,000	100,000	20,000	23,176		70,000		583,198	8.94
	60	34	25		10	10	38	179	
	378,228	283,483	201,629		50,599	60,162	290,116	1,274,217	18.87
94,528	408,228	413,283	221,629	23,176	50,599	130,162	290,116 (-131,661 housekeeping)	4,951,566	73.3
					15,312			15,312	(-1.95)
	154,394							154,394	0.2
318,060								318,060	2.2
				78,473				303,880	4.7
	33,832	27,762	6,169		6,868	34,641	26,705	135,997	4.50
58	17	44,251 ^m		133	7,421 ⁿ	23	84,456	153,108	2.01
1,651	11,571	17,334	825	2,476	125	5,778		152,858	2.27
								(including labor of 131,161)	
2,317	16,237	24,324	1,158	3,475	1,158	8,108		214,495	2.26
4,476	31,371	46,994	2,238	6,713	2,238	15,665		414,413	3.18
52	2,531	7,965	2,558	441	1,424	32,017	3,507	70,664	6.14
421,142	658,181	582,133	234,577	114,887	85,845	226,394	273,123	6,753,377 ^f	1.04
6.24	9.75	8.62	3.47	1.70	1.27	3.35	4.04		100.00

Arthur D Little Inc

**Annotations for Functional Cost Distribution at Jacksonville Naval Hospital,
Table B.3.30**

- a. Basic cost data were obtained from documents provided by the Fiscal Office, primarily quarterly computer printouts of accounting records. Personnel distributions were derived from staff assignment sheets for nursing personnel and from other manning records of the Personnel Office, supplemented by interviews with specific departments on staff utilization. The numbers shown represent full-time equivalents. Tabular entries for cost of various categories of personnel were estimated on the basis of approximate averages, distributed in such a way as to make the subtotals consistent with available accounting figures. For example, regular staff physicians and dentists were assigned an average annual compensation of \$15,000, residents and interns \$12,000, registered nurses \$8,000 or \$10,000, and clerks \$5,000. Other personnel cost entries absorbed the necessary remainders of the appropriate subtotals.
- b. Includes all inpatient wards other than those in the next two columns.
- c. Includes operating rooms, recovery rooms, and surgical inpatient wards.
- d. Includes Obstetrics, Gynecology, and Nursery wards.
- e. Dispensary services are operated and paid for by separate commands.
- f. General Therapy and specialized clinics operated in and by the hospital.
- g. Includes only in-hospital dental services to patients and staff.
- h. Includes clinical laboratories, Pathology, and Blood Bank.
- i. Includes dietitians and kitchen personnel.
- j. Includes general administrative functions, fiscal, personnel, data processing.
- k. Includes handling of inpatient and outpatient records and compilation of reports and statistics, plus admission and discharge processing.
- l. Includes engineering services, custodial, minor construction, equipment repair.
- m. Includes travel costs.
- n. Purchased dry cleaning services (hospital operates its own laundry).
- o. Allocated in proportion to area.
- p. Allocated in proportion to area.
- q. Allocated in proportion to area.
- r. Gross total operating expenditure for FY 1969.

TABLE 8.3.40
OTHER DENTAL ACTIVITIES

A. Naval Air Station, Jacksonville (FY 1989 line item cost \$57,000)

Dental Officers-12	2 CAPT 3 CDR 7 LT
Enlisted-19	1 MDT 1 DTC 2 DT1 5 DT2 6 DT3 4 DN

B. Cecil Field Naval Air Station (Cost \$17,000)

Dental Officers-5	1 CAPT 2 CDR 1 LCDR 2 LT
Enlisted-10	1 DTC 2 DT 1 DT2 5 DT3 1 DN

C. Mayport Naval Station (Cost \$21,000)

6 Officers	2 CAPT 1 CDR 3 LT
10 Enlisted	1 DTC 2 DT1 2 DT3 5 DN

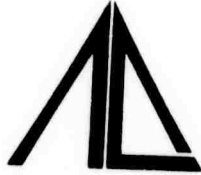
Thus, the personnel cost allocations shown are to be regarded as reasonable approximations rather than precise accounting figures, since the latter were not directly available on a functional assignment basis. Note that the total costs and their breakdowns represent dollars disbursed or transferred and do *not* include fringe benefits that are not chargeable to hospital accounts, such as military retirement, tax advantages, PX and commissary privileges, etc.

8.3.7 VIEWS AND COMMENTS

Although no specific study was undertaken to explore the subjective feelings and reactions of staff personnel regarding current facilities, equipment, or operating procedures at the Jacksonville Naval Hospital, a number of expressions were made to interviewers during the course of the study. Some of those which either recurred frequently or which received special emphasis are mentioned below:

- There is apparent confusion over the clear definition of the dispensary role. Ambiguities in the relations between the dispensaries and the main hospital should be resolved.
- There is a belief that a circular dispensary structure, with service functions (e.g., pharmacy, X-ray, records, administration) located centrally and offices and examining rooms around the periphery, would be a more efficient operation, shortening distances, enhancing communications, and speeding up the sick call process.
- Some feel that the hospital should have an OR facility in the delivery suite so that caesarean sections could be performed there instead of having to move the patient to OR.
- A circular design has also been suggested for the nursery, so that nurses could observe all babies from a central location.
- Several doctors suggested that the ratio of examining rooms to attending physicians be increased. This might increase the total number of patients seen per time period and might reduce patient waiting time.
- Soundproofing was cited by several interviewees as inferior.
- The lack of an effective convalescent holding facility requires extended durations of hospitalization and may encourage malingering.

- **Staffing procedures are inflexible. It is difficult to transfer out either military or civil service personnel.**
- **Apparently some dependents served by the hospital have separate medical records at various locations, no one of which contains full information about the patient, prior visits, and treatment or tests. This creates both confusion and duplication when a patient requires tests.**
- **Because of the substantial distance and consequent time required for travel between the dispensaries and the hospital, it is felt by many that dispensary operations should be made somewhat more self-sufficient.**



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