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UNIFORM CHART OF ACCOUNTS
A FORMAT DESIGN FOR A
MANAGEMENT INFORMATION REPORT

A Graduate Research Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree
of
Master of Health Administration

by

Lieutenant John C. Wocher, MSC, USN

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I. INTRODUCTION

The management of any enterprise relies heavily on information systems and this is certainly true for hospitals and health care institutions. Among the myriad of data that is used for management decisions in health care, financial data seems to lead the field. A manager who is successful will find financial information absolutely essential for continuous and alert awareness to conditions and situations affecting operation of the enterprise.¹ Gaining this essential awareness can take many forms, such as through personal observation, through contact with various employees and business contacts, through the study of financial and statistical reports, or through outside audits and internal studies. The written report, however, is the principle vehicle for transmitting financial data to managers in order to make business decisions.

The American Hospital Association's publication of Uniform Chart of Accounts for Hospitals addresses the many social, economic and scientific changes that have occurred in the past several decades which have complicated information needs and the methods to integrate them. They stress the importance of developing new methods to gather and disseminate quantitative data with a greater emphasis on the utilization of this information.²

This Graduate Research Project (GRP) focuses on the management information system known as the Uniform Chart of Accounts (UCA) which was developed following a joint study of the military health care system in August of 1973. The UCA system is currently in use at all DOD military fixed health care facilities.

The hospital industry today is very complex and the administration of its resources is a key to the successful application of management skills. Beyond the principal objective of providing quality care at optimal cost are many objectives that are considered crucial to the successful operation of a health care facility. Certainly, one of the most important objectives is the financial one of assuring continued viable operation from a fiscal standpoint.

The utilization of financial and statistical information is critical to the foundation for planning decisions. Although hospitals operate differently as to sources of income and type of care provided, the use of a common or universal accounting classification allows for a comparative standard of measurement. It is in this manner that comparability of information becomes a positive factor in defending fiscal policy and cost determination.

A uniform chart of accounts has been in existence for many years. Its principal use has been in the civilian sector. However, UCA for the military was really born as a result of the 1973 study of the military health care system.³

Background

A background is considered essential in understanding the history which brought Uniform Chart of Accounts into prominence in the military sector as well as what this management information system was designed to do.

The Office of Management and Budget, the Department of Defense, and the Department of Health, Education, and Welfare, acting on a mandate from the President, initiated a joint study of the military health care system in August 1973. The four principal concerns providing the impetus for this study were:

- (1) Anticipated physician shortages associated with ending the draft.
- (2) Increased overhead and support costs throughout the Department of Defense.
- (3) The quality of systems for planning, management, and evaluation.
- (4) The social equity of military medical care and its compatibility with national health care objectives.

Following an intensive 2½ year effort, the study was published in December 1975. It contained nine major recommendations for more effective and efficient delivery of military health care services in the continental United States (CONUS) fixed military medical facilities during peacetime. From these recommendations came the need for a uniform data system within the three military medical departments. The following specific

findings were reported:

(1) Separate and independent information systems and data bases are maintained.

(2) Different interpretations of the definitions of common data elements are made.

(3) Inconsistencies, definitional problems, and noncomparable inputs provide three divergent output modes.

(4) Valid comparisons of systems operations cannot, therefore, be made.

In developing the UCA, consideration was given to the existing accounting and reporting systems that are in place and functioning within the military medical departments. Differences in military missions, system sizes, hospital sizes, fiscal and financial structures, reporting authorities, reporting requirements, and other distinguishing factors were taken into consideration. In considering an integrated military accounting and reporting system, the following components were identified as essential:

- (1) Uniform Chart of Accounts
- (2) Performance measurement
- (3) Reporting

The UCA is a system of cost accounting and expense reporting that provides management with a basic framework for responsibility accounting and the flexibility to categorize financial information of functional activities that may cross organizational lines.

To establish a uniform financial reporting procedure,

it is necessary to identify, define, and divide activities and services into functions so that the expenses can be accumulated and reported on a uniform functional basis in a consistent manner by reporting entities. The two most important uses of financial and work performance data are, first, to aid management in its operation of medical treatment facilities and, second, to help the military medical departments to be able to comply with legal and fiduciary responsibilities. For the most part, appropriate fund accounting systems fulfill the latter requirement while this system satisfies the former requirement.

One consideration in the development of the UCA was the need for its usability by all echelons of management, and the need for expense and performance data consistency despite the diverse organizational structures of the military medical facilities. Another consideration was to provide a general comparability and consistency with civilian health facilities' cost grouping practices. As a management tool, the UCA has no local system constraints, such as data arrays and report formats. Individual medical treatment facilities have flexibility and can design systems to accommodate their own organizational structures and management reporting needs.

The UCA is designed to record, accumulate and report information regarding expense (cost incurred) and workload (output) of specific and aggregate functions performed in military medical treatment facilities. Since the UCA can be the basis of an effective information system, it is important

that expenses and workload are identified with the proper function. Financial accounting procedures should be established to ensure that accurate and complete records of cost-incurred transactions are maintained. Similarly, the work performance measures must be subject to rigorous and disciplined accumulation process. In this way, the users will accept the data as reliable and relevant.

Increased concerns about defense expenditures, the national focus on the escalating cost of health services, and the belief that management of the military health service system can be improved suggests that a single accounting system is necessary. The use of uniform accounting classifications, uniform methods, and workload definitions provide a common standard measurement and makes comparisons more meaningful. Not only will comparisons among similar Army, Navy and Air Force medical treatment facilities be possible, but comparisons with the civilian health sector will be facilitated. The following benefits are expected to result from the appropriate use of the UCA:

- (1) Cost awareness.
- (2) More current, accurate, and complete expense information.
- (3) Expense assignment to the work center that incurs the cost and performs the service.
- (4) Cost effectiveness evaluation.
- (5) More effective decision-making when cost or performance is a factor.

(6) Better comparisons among DOD military medical facilities and with the civilian health sector.

(7) Reliable and relevant management information system.

The UCA for military medical treatment facilities and the related reporting system allow for a common standard of measurements and communications. By providing uniform and consistent measurements and communications, the Department of Defense and the DOD Components are in a position to make better decisions on the operating activities of the military health care delivery system. Thus, the objectives of the UCA are to provide:

- (1) A single tri-service chart of accounts.
- (2) Common definitions for workload, cost elements, and work centers.
- (3) A basis for management reports.
- (4) A means of measuring performance for:
 - (a) Internal comparisons.
 - (b) Interservice comparisons.
 - (c) Intraservice comparisons.
 - (d) Civilian sector comparisons.
- (5) A mechanism to measure efficiency and cost.
- (6) A common mechanism for the assignment of overhead and ancillary service expenses.

The end product of the UCA is a substantial data base of information and a Medical Expense and Performance Report (MEPR).

The MEPR, as a summary of the data base, represents

what the Military Departments and DOD representatives have decided would be the most useful at their respective levels. To create a viable information system and one that is responsive to existing requirements, each health care delivery organization must identify the data essential to satisfy its particular management needs and develop the reporting requirements to supply that data.

Conditions That Prompted the Study

It appears that the implementation of Uniform Chart of Accounts in the military sector was not greeted with enthusiasm by those activities which were responsible for actual implementation. This impression was initially based on a discussion with a group of fiscal officers at the time of implementation briefings in California for all Navy commands on the West Coast and in the overseas Pacific areas in late 1977.⁴ Following this briefing, Navy Commands had difficulties in implementation for various reasons. Among them were impressions that milestones were unrealistic, data gathering was a cumbersome task that had to be done manually, no additional staffing or funding was provided for this new task, and that there was little understanding and support by top management personnel. After what appeared to be much foot-dragging by the Navy, full implementation of the Uniform Chart of Accounts System was accomplished within the military health care system.

The result of full implementation of UCA has not significantly benefited the local commands to date according to recent informal conversations with many military health care

administrators and financial officers.⁵ This is surprising since the benefits expected are stated as follows:

- (1) Cost awareness.
- (2) More current, accurate, and complete expense information.
- (3) Expense assignment to the work center that incurs the cost and performs the service.
- (4) Cost effectiveness evaluation.
- (5) More effective decision-making when cost or performance is a factor.
- (6) Better comparisons among military medical facilities and with the civilian health sector.
- (7) Reliable and relevant management information system.

Several reasons that many commands do not realize these benefits are that:

(1) The UCA system only reports expensed costs by function in an after-the-fact (historical) summary. Because of the time delays associated with computer downtime and errors, coupled with a submission date 90 days after the data is collected, the data, at best, is 3 to 6 months old by the time the printout is received back by the local activity. Local processing of the data would improve on this problem, but has not been addressed.

(2) Until UCA is more widely known throughout the local commands, accuracy of the data is subject to question. The UCA is frequently viewed as a necessary evil and the

incentive to provide accurate data input, in the absence of feedback, is not considered very strong.

(3) Cost comparability with other reporting activities, if being done by higher authority, is not shared with local commands. Cost comparability studies of the civilian sector, if being done, is also not shared.

(4) Internal cost comparisons comparing data in two quarters that are significantly out of date by the time the comparisons can be done, is viewed as of little value in dynamic decision making.

The perception (by a majority of hospital administrators queried) that the benefits of the UCA are not being realized, was the primary condition that prompted my choice of this area as a Graduate Research Project.

A secondary condition that prompted this study was that these same administrators voiced a concern that the UCA is not/was not marketed or structured well. Several informal telephone inquiries preliminary to this project revealed that the quarterly printout received from the Automated Data Services Center in Bethesda was never seen by top management personnel including the Commanding Officer. When asked why, the most typical reply was that it was too voluminous in format and not readily understandable or translatable. One study which addresses the presentation of data to managers stated that the presentation of the data, by itself, is not adequate. Something must be done to simplify UCA output and make it useful to managers who are not always expert in reading and interpreting

financial reports.⁶ Another author feels that the following standards should apply in presenting data to top management officials:

- (1) Someone with an accounting background should analyze and interpret the data.
- (2) It should be presented where it has the most value for decision making.
- (3) The format should be such that a minimum amount of time is required to comprehend it.⁷

Again, preliminary contacts with commands reveal that these standards are not the norm at most activities and the data, when presented, is in a voluminous, unedited format.

It is possible that the quarterly printout from UCA is not designed to benefit local commands but is intended for use by Department of Defense only. If so, it is not clearly addressed in the UCA Users Manual, and is a serious design flaw. If this is the case, the report may simply be a verification that UCA input data from the local command was received in the proper format without errors. The UCA Users Manual does, however, suggest that since there are no local systems constraints such as data arrays and report formats, that local commands are free (and encouraged) to design their own.

Summary of Conditions Prompting the Study

- (1) Initial unpopularity of the Uniform Chart of Accounts.

- (2) Lack of benefit to local commands.
- (3) Lack of awareness of Uniform Chart of Accounts by management personnel.
- (4) Retrospect nature of the data.
- (5) Voluminous format of the data.
- (6) Difficulty of interpretation of the data.
- (7) Lack of feedback to providers of the data within the local command.
- (8) Lack of locally developed management reports using UCA input data for computer printout data as a data base.

Related Literature

In interviews with financial officers in selected hospitals, one author found an attitude among some that financial reports were not as valuable as they could have been because of the financial illiteracy of the recipient of the report. This certainly supports the difficulty perceived by local commands in understanding the format of the Uniform Chart of Accounts reporting system. These same financial officers were unanimous in their comments on the frequency of financial reports and felt that the information should be timely and on an "as needed" basis.⁸ The Uniform Chart of Accounts quarterly report does not seem to fit this criteria.

According to another source, format for reports are critical to the manager's ability to understand them. The arrangement of information, underscoring exceptions or abnormal situations, give managers key facts upon which to make a

decision.⁹ Managers make decisions essentially based on past information, current information and predicted (future) information. Usually, financial reports fall into one of these three categories. The UCA utilizes past performance reporting and thus is retrospective in nature. This is considered a limitation to the usefulness of the data to a decision-making manager.

This author also felt that more condensation of reports could be useful including wider usage of graphic presentations and highlight reports where trends and deviations were more important than showing absolute dollars and cents accuracy.¹⁰

Another study conducted by the Catholic Hospital Association in 1965 was interesting. Their intent was to develop a manual to give certain guidelines (in plain language) which would aid hospital administrators in their ability to comprehend quantitative data in order to better exercise control of financial activities.¹¹ This Graduate Research Project has a similar objective regarding locally prepared reports using UCA input data and the quarterly report prepared in Bethesda.

In reviewing the literature, the researcher found a myriad of information concerning technical preparation of financial reports in the traditional accounting formats. Principally, these formats were designed for communication among accountants and financial experts and were not particularly useful. In most instances, the information was not hospital-specific, although this did not detract from the purpose of the review. It was not surprising that very little

in this sector was productive.

Statement of the Problem

The problem is to determine the best way to design a uniform management report that will provide meaningful information feedback to commanding officers and individual departments, using the UCA's Medical Expense and Performance Report (MEPR) as the data base.

Methodology

Because of the aforementioned perceptions within the military sector concerning UCA, the first objective was to determine if local commands within the three military services were using the UCA as a data base for the preparation of local reports to management personnel. A questionnaire (see Appendix A) was designed to accomplish this objective. The first two questions were designed to determine if local commands used UCA input data or the Medical Expense and Performance Report (MEPR) as the data base. The next two questions were designed to determine if feedback to individual departments was accomplished using UCA input data or the MEPR as a data base. These first four questions would determine the extent of preparation of local reports and feedback to departments to validate or disprove an assumption that one of the reasons the UCA was not perceived to be of benefit was because commands were not using the data.

The fifth question was designed to determine who maintained or filed the MEPR and what management personnel

received it. This question was asked to obtain a consensus from local commands on whom they believed should see the final data. For those commands that did prepare local reports using this data base, it was important to determine which department prepared them; therefore, a sixth question was added.

In order to determine what data commands considered most valuable in the MEPR or the UCA input data, two more questions were developed. These questions solicited specific comments.

To further assist in this study, two additional questions were added to determine if MEPR or UCA input data was used to accomplish internal comparisons at the local level. Finally, it was important to determine if local commands considered the MEPR valuable as a management tool.

The remaining question does not relate to this study. However, since the questionnaire would be mailed to various commands in the three services, it offered an excellent opportunity for the Naval Regional Medical Center, Camp Pendleton, California, to address another area in which it had an interest. Therefore, the last question was added as a rider to the research questionnaire and the responses will not be used in this research project.

Once the questionnaire was developed, the issue of respondent population and sample size was addressed. It was necessary to obtain results from all three services since the UCA was a DOD directed program. It was decided to consider all military hospitals with an inpatient capability as the

population to be surveyed.

The population to be surveyed was determined to be 169 military hospitals with inpatient capability and included all Army, Navy and Air Force facilities. To determine appropriate sample size, the following formula was developed:

$$\text{Equation: } n = \frac{Nz^2pq}{d^2 (N-1) + z^2pq}$$

n = Sample size N = 169 (Population size)

p = Estimate of true proportion of the population that are using MEPR or UCA input data to develop management reports at the local level. This is estimated at 0.25.

q = $1 - p$ or 0.75

z = Value to be used for a 95% confidence interval

d = The acceptable width of the difference of the sample proportion from the true population proportion. In this case, it will be plus or minus 0.05.

The formula thus becomes:

$$n = \frac{(169) (1.96)^2 (.25) (.75)}{(0.05)^2 (169 - 1) + (1.96)^2 (.25) (.75)}$$

$n = 107$

Based on this determination of sample size, a slightly larger number of questionnaires (111) were mailed.

Objectives

The data will be collected and analyzed to meet the following objectives:

- (1) Establish whether or not commands use MEPR or UCA

input data to generate a locally prepared report.

(2) Establish whether or not commands provide feedback to individual departments using either MEPR data or UCA input data.

(3) Determine which top management personnel are routed the quarterly printout.

(4) Determine who, in the case of commands preparing reports, actually does the preparation.

(5) Establish what data commands desire from the MEPR and quarterly printout.

(6) Establish what information commands perceive as most useful from the quarterly printout.

(7) Determine the percentage of commands performing internal comparisons based upon UCA input data or the MEPR.

(8) Establish whether commands consider the MEPR a useful management tool.

(9) Analyze those locally prepared reports submitted with the questionnaire for those activities that provided them.

(10) Develop a management report based on the results of the survey to meet needs of local activities.

Footnotes

¹Richard L. Smith, Management Through Accounting (Englewood Cliffs: Prentice-Hall Inc., 1962), p. 8.

²Chart of Accounts for Hospitals (Chicago: American Hospital Association, [1973]), p. 1.

³Joint Study of the Military Health Care System in Department of Defense Uniform Chart of Accounts (DOD 6010.10M) conducted in 1973.

⁴BUMED Uniform Chart of Accounts Implementation Seminar, Oakland, California, November 1977.

⁵In gathering this information, Comptrollers of several military hospitals on the West Coast were informally queried on benefits of UCA.

⁶Joseph D. Clancy, "Hospital Statistics and Utilization Review," Hospital Accounting, June 1966, p. 22.

⁷Harry L. Farris, "Accountant's Value Lies in His Ability to Provide Information," Southern Hospitals, May 1965, pp. 50-60.

⁸Charles T. Andrews, "Financial and Statistical Reports for Administrative Decision-Making in Hospitals" (Ph.D. dissertation, Graduate School of Business Administration, Indiana University, 1968; Ann Arbor, Michigan: University Microfilms Inc.).

⁹James D. Gallagher, Management Information Systems and the Computer (New York: American Management Association Incorporated, 1961), p. 11.

¹⁰Andrews, "Financial and Statistical Reports for Administrative Decision-Making in Hospitals," pp. 129-132.

¹¹Guides to Hospital Administrative Planning and Control Through Accounting (St. Louis: The Catholic Hospital Association of the United States and Canada, p.2. This guide was the result of Research Project W-34, sponsored by a grant from the United States Public Health Service.)

II. DISCUSSION

Of the one hundred and eleven questionnaires mailed to Army, Navy, and Air Force medical treatment facilities with authorized inpatient capabilities, eighty-six were returned. In any questionnaire survey, there will always be a percentage of non-response. Usually, percentages of less than twenty percent are ignored.¹ In this survey, a response rate of eighty percent was achieved.

The first question to be addressed was whether or not commands prepared a local management report using the MEPR or UCA input data as the information base. The initial assumption upon which the sample size determination was predicated was that seventy-five percent did not prepare a report. Tables 1 and 2 are the results from the survey.

TABLE 1.--Percentage response to whether or not a locally prepared report is made using the MEPR as a data base (N=86)

A management report is prepared	15%
A management report is not prepared	85%

TABLE 2.--Percentage response to whether or not a locally prepared report is made using UCA input data as the data base (N=86)

A management report is prepared	28%
A management report is not prepared	72%

As can be seen from the above data, the number of commands not using the MEPR as a data base for management reports is much higher than the original assumption of seventy-five percent. In the case of using UCA input data to prepare a management report, the data is very close to the initial assumption. These percentages seem to support one objective of this research, that commands are ignoring these valuable sources of information for management reporting.

Having established that management reports are not prepared by the vast majority of commands, feedback to Commanding Officers using the MEPR and UCA input information appears to be lacking. Equally important, feedback to individual departments is viewed as desirable. To determine whether or not feedback to individual departments which provide the UCA workload statistics is being accomplished, two additional questions were asked of the respondents. Tables 3 and 4 below are the results of the survey.

TABLE 3.--Percentage response to whether or not feedback to individual departments is provided using the MEPR as the data base
(N=86)

Feedback is provided	23%
Feedback is not provided	77%

TABLE 4.--Percentage response to whether or not feedback to individual departments is provided using UCA input data as the data base (N=86)

Feedback is provided	39%
Feedback is not provided	61%

It can be seen from the tables that the percentage of commands that use the MEPR to provide feedback to individual departments is very close to the initial assumption of twenty-five percent. In the case of using the actual UCA input data, the percentage is slightly higher. Because feedback is considered desirable to both Commanding Officers in the form of a management report (analysis) and to individual departments who collect and report the data (in terms of understanding, compliance and internal management), it has been established that the vast majority of commands do not accomplish these tasks. This data tends to support one assumption of this research: that there is a need for MEPR and UCA feedback to both top management personnel and individual departments.

Drucker indicates that a prerequisite for worker (or department) responsibility is feedback information on performance. Responsibility is said to require self control. This requires continuous feedback information on performance based on standards.²

Having established the fact that the vast majority of commands do not use the MEPR or UCA input data to provide information to top management or individual departments, it was

next desired to determine where the MEPR was routed upon receipt by the medical treatment center. Determining who in the organization actually saw the MEPR was considered key in assessing visibility of the Uniform Chart of Accounts. The perception by hospital administrators prior to administering the survey questionnaire was that the Uniform Chart of Accounts was not widely known or supported throughout the command.

Table 5 reports the results.

TABLE 5.--A percentage response to the question of who the MEPR is routed to within the organization (N=86)

Commanding Officer	51%
Administrator (XO or DAS)	35%
Comptroller	96%
Director of Clinical Services	6%
Personnel	4%
Director of Nursing	1%
Data Processing Officer	1%
Internal Review	1%

The fact that Commanding Officers see the MEPR in approximately half of the commands and the administrator only thirty-five percent of the time certainly appears to support the assumption among administrators prior to the survey that the Uniform Chart of Accounts suffered from low visibility. This low visibility could also contribute to the impression among administrators that the Uniform Chart of Accounts lacks local support and understanding. It is interesting to note

that the Director of Clinical Services and the Director of Nursing rarely see this report, yet play such key roles in the accurate reporting of UCA data.

To ascertain what department prepared local management reports for those activities indicating that they were being accomplished, it was useful to determine which departments prepared them. This question was asked to see if a trend could be revealed that would be helpful to the research. Table 6 below indicates the results:

TABLE 6.--A percentage response of those activities that do prepare a local management report to determine which/ what department does the preparation

Comptroller	24%
Resource Management Office	52%
Medical Resource Management Office	4%
Management Analysis Office	4%
Fiscal and Supply Office	6%
Other	0%

The data suggests that preparation of local management reports originate within the fiscal arena, without exception. the differences in terminology are probably attributable to service designations. The results are not surprising and certainly do not indicate a trend away from the customary method of having financial reports prepared by the comptroller/ fiscal office.

Because the data is presented in such a voluminous

format, this probably contributes to why it is not being completely understood when seen by management personnel. To determine what information commands consider most useful in the MEPR, a question regarding this was posed. Similarly, a question was posed as to what the most useful information was in the UCA input. The MEPR format cannot be controlled but UCA input information format can, and a comparison was deemed necessary to see if any significant differences surfaced. The results are tabulated in Tables 7 and 8 below.

TABLE 7.--The seven most frequent responses to the question of what data the command considered most useful in the MEPR

Workload and Expenses	17
Unit Cost Reports	9
Comparisons with Other Activities	6
Ancillary Service Utilization	5
Clinic Visits	4
Special Programs	3
Trends, Narrative, Stepdown	2

TABLE 8.--The seven most frequent responses to the question of what data is most useful in UCA input collection

Workload Reports	12
Unit Cost Reports	7
Ancillary Utilization	7
Expenses	7

TABLE 8--Continued

Occupies Bed Days	6
Cost per Unit Data	4
Internal Comparisons	4

As can be seen from the data, the responses are similar, with only minor variations. Overall, workload, expenses and unit costs were most frequently cited as being useful information from both the MEPR and the UCA input data. It would follow that any management report developed from these sources should include this information. Likewise, the remainder of responses indicate a desire to use this data for management purposes. Since these responses indicate the most frequent responses, the development of a management report to include this information is considered essential and the results will be used to develop such a report.

One of the stated objectives of the Uniform Chart of Accounts is to provide a means of measuring performance for internal comparisons. The survey questionnaire also asked the medical treatment facilities whether or not internal comparisons were being accomplished using the MEPR or the UCA input data. Table 9 shows the results obtained.

TABLE 9.--A percentage of response to the question of whether or not internal comparisons were being accomplished using the MEPR or UCA input data (N=86)

Internal comparisons accomplished using the MEPR	23%
Internal comparisons not accomplished using the MEPR	77%
Internal comparisons accomplished using UCA input data	46%
Internal comparisons not accomplished using UCA input data	54%

The data shows more internal comparisons being accomplished using UCA input data than the MEPR. Because of format, the MEPR probably does not lend itself well to doing internal comparisons since it is very general in nature as opposed to the volume of raw input data collected in workload reporting. It is still surprising that the majority of commands do not take advantage of the opportunity to accomplish internal review. The value of internal comparison appears obvious to management decision-making where evaluation of data is a basis for making decisions.

The last question in the questionnaire dealt with the usefulness of the MEPR as a management tool. Table 10 tabulates the responses.

TABLE 10.--A percentage response to the question of whether the command found the MEPR to be very useful, generally useful if not useful as a management tool (N=86)

Very useful	5%
Generally useful	38%
Not useful	57%

That over fifty percent of the commands felt that the MEPR was not useful is considered significant. It is surmised that the difficulty in understanding the format, the low visibility and support at the local level, and the fact that the local commands generally do not prepare a management report based on this data base are contributing factors.

The interpretation of the data strongly supports the need for a management information report to be developed for use by top management officials. Additionally, the management information report must be presented when and where it has the most value for decision-making and in a format that is easily comprehended in a minimum amount of time. Because presentation of the data at the appropriate place and time will vary within commands, this will and should be determined by the users of the data. Thus, this study will focus on the content and design format of the Management Information Report.

Design Criteria of the Management Information Report

Content

Tables 7 and 8 contain what surveyed commands indicated

to be the information that was most important to them. Therefore, the management information report will provide for the extraction of display of the below data:

Occupied Bed Days (Workload)

Admissions (Workload)

Average Length of Patient Stay (Workload)

Medical Supply Costs (Expenses)

Cost of Rations Served (Expenses)

Visits and Supply Dollars (Workload/Expenses)

Weighted Laboratory Procedures (Workload)

Format

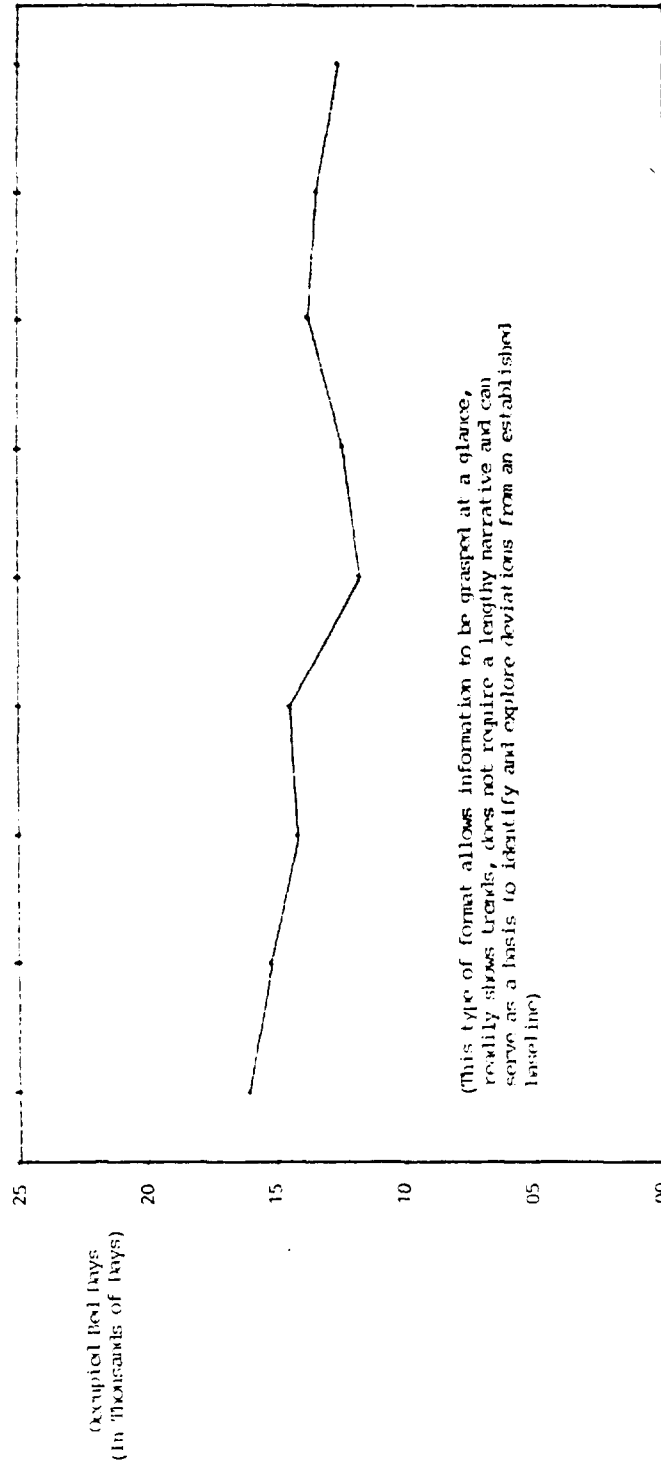
Because the data within the UCA system is so voluminous and complex in its current format, simplification will be the key to the design. In keeping with the requirement that the format should be easily understood in a minimum amount of time, the graphic display lends itself ideally to this situation.

Each of the following graphic displays will provide for basic identification of information presented. Actual data will be used based on UCA operation at the Naval Regional Medical Center, Camp Pendleton, California. Each display will contain information indicated in the survey as the most useful to commands.

1stQtrFY80	2ndQtrFY80	3rdQtrFY80	4thQtrFY80	1stQtrFY81	2ndQtrFY81	3rdQtrFY81	4thQtrFY81	1stQtrFY82
16,545	15,429	14,498	14,716	12,479	13,069	13,959	13,636	13,296

(Occupied Bed Days
(In Days)

OCCUPIED BED DAYS



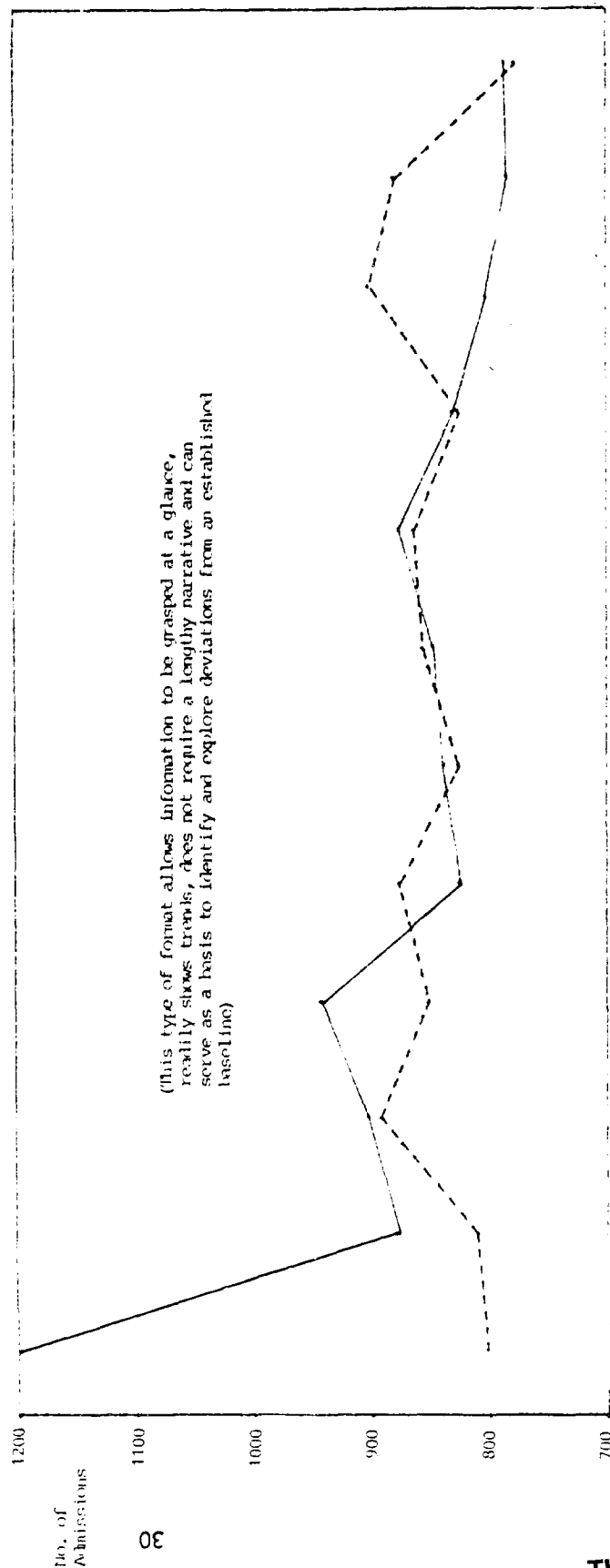
(Occupied Bed Days
(In Thousands of Days)

Naval Regional Medical Center, Camp Pendleton, California
(Includes Branch Hospital, 29 Palms, California)

Fig. 1. Occupied Bed Days

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
No. of Admissions												
CY80	1199	877	911	940	838	845	859	881	839	803	783	789
CY81	803	813	895	867	887	830	865	871	837	906	878	774

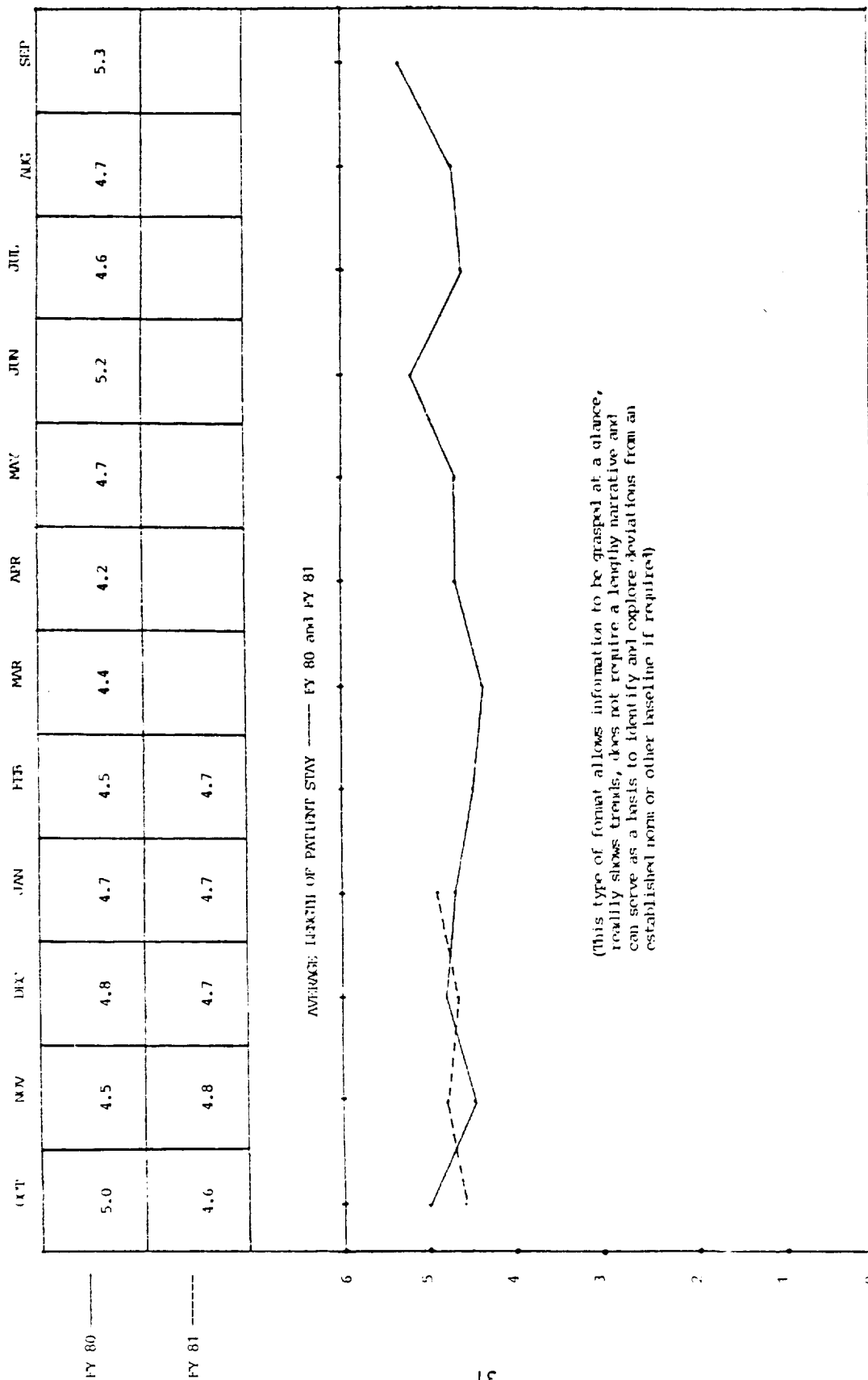
ADMISSIONS BY CALENDAR YEAR



Naval Regional Medical Center, Camp Pendleton, California

(narrative to explain declining trend can be included here)

Fig. 2. Admissions by Calendar Year



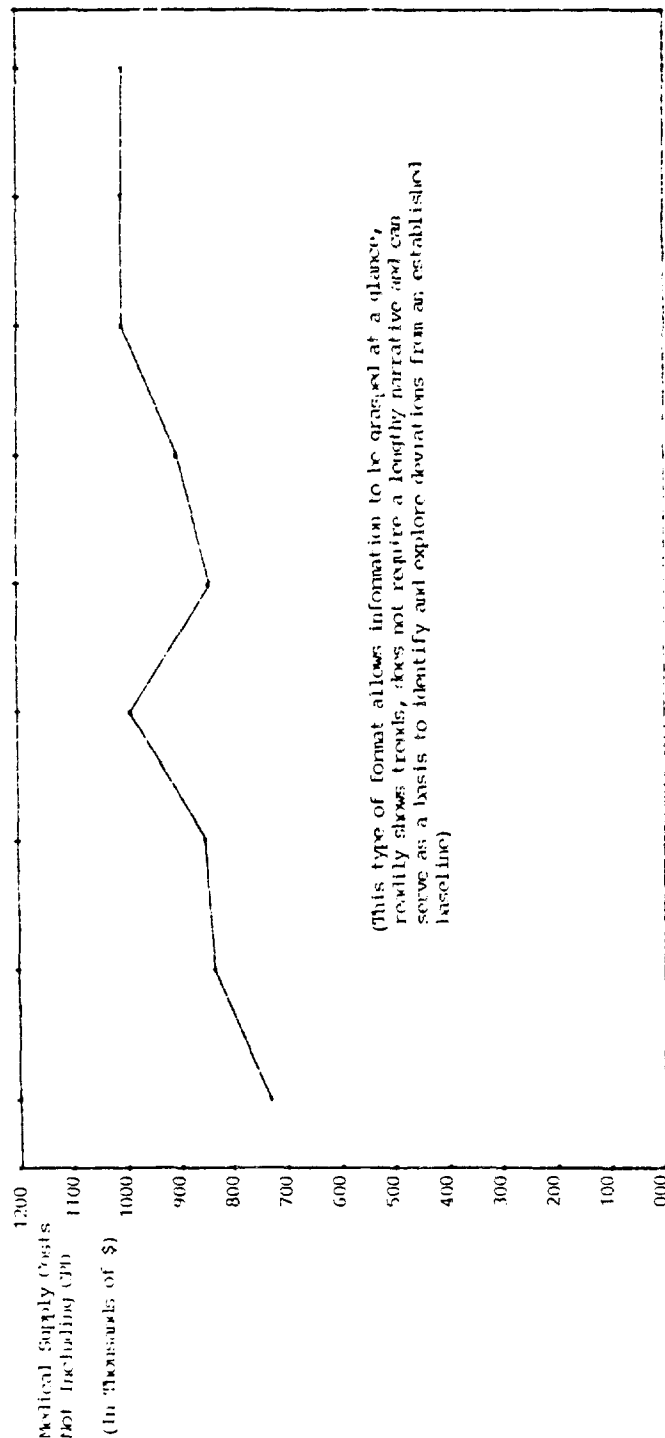
DAVAI REGIONAL MEDICAL CENTER, CAMP PEPPER, CALIFORNIA

Fig. 3. Average Length of Patient Stay

1st Qtr FY80 2nd Qtr FY80 3rd Qtr FY80 4th Qtr FY80 1st Qtr FY81 2nd Qtr FY81 3rd Qtr FY81 4th Qtr FY81 1st Qtr FY82

Medical Supply Costs Not Including CH (In Dollars)	737,017	826,024	856,963	954,367	853,555	917,858	1,044,795	1,051,872	1,018,312
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MEDICAL SUPPLY COSTS



Naval Regional Medical Center, Camp Pendleton, California

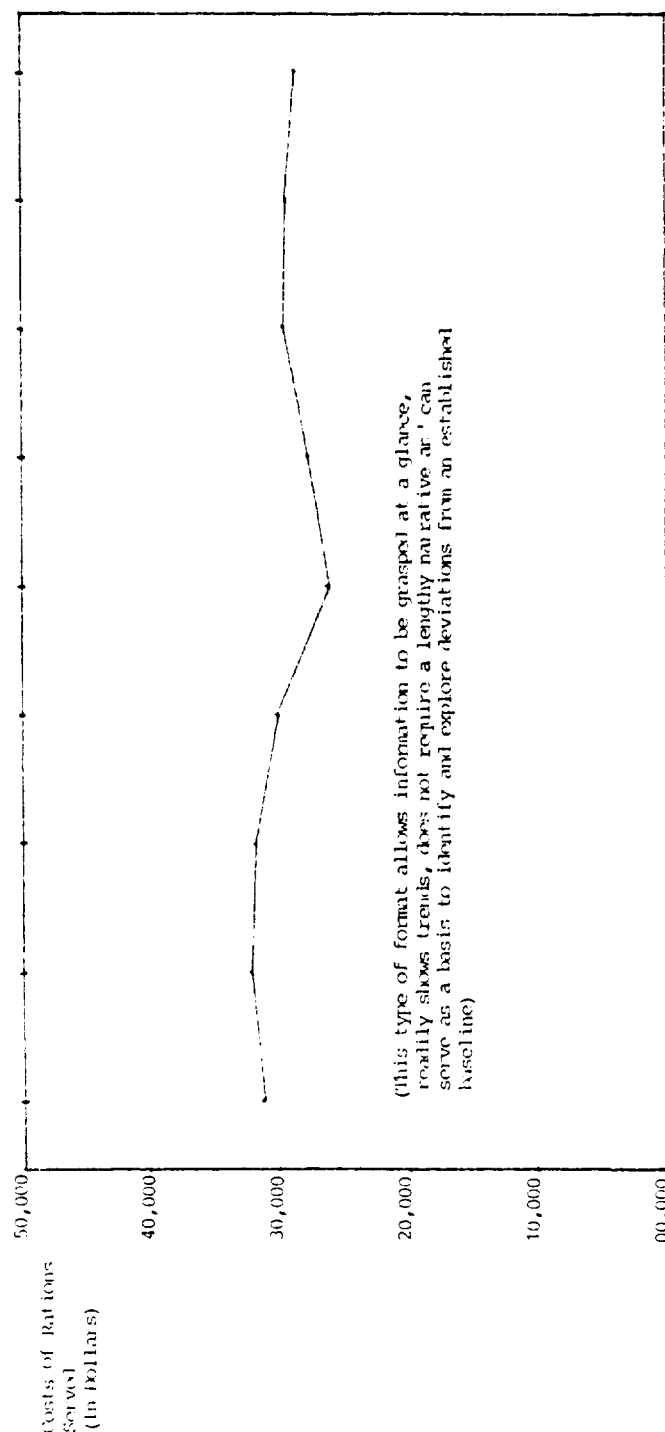
(An explanatory narrative can be included, if desired)

Fig. 4. Medical Supply Costs

1stQtrFY80	2ndQtrFY80	3rdQtrFY80	4thQtrFY80	1stQtrFY81	2ndQtrFY81	3rdQtrFY81	4thQtrFY81	1stQtrFY82
31,592	32,937	32,139	30,385	27,270	28,444	29,970	29,750	29,070

Costs of
Rations Served
(In Dollars)

COST OF RATIONS SERVED



Naval Regional Medical Center, Camp Pendleton, California

(A narrative to explain the declining trend beginning in 2ndQtrFY80, ending in 1stQtrFY81 could be included here)

Fig. 5. Cost of Rations Served

	1-01-1980	2-01-1980	3-01-1980	4-01-1980	1-01-1981	2-01-1981	3-01-1981	4-01-1981	1-01-1982
Total Registered/ Unregistered Victims	206,997	216,092	213,336	219,701	156,988	168,084	173,286	164,018	160,469
Total Supply \$/ Family Practice	5,237	1,564	2,497	1,882	6,036	3,267	8,287	5,683	3,842

TOTAL VICTIMS

TOTAL SUPPLY DOLLARS FOR FAMILY PRACTICE

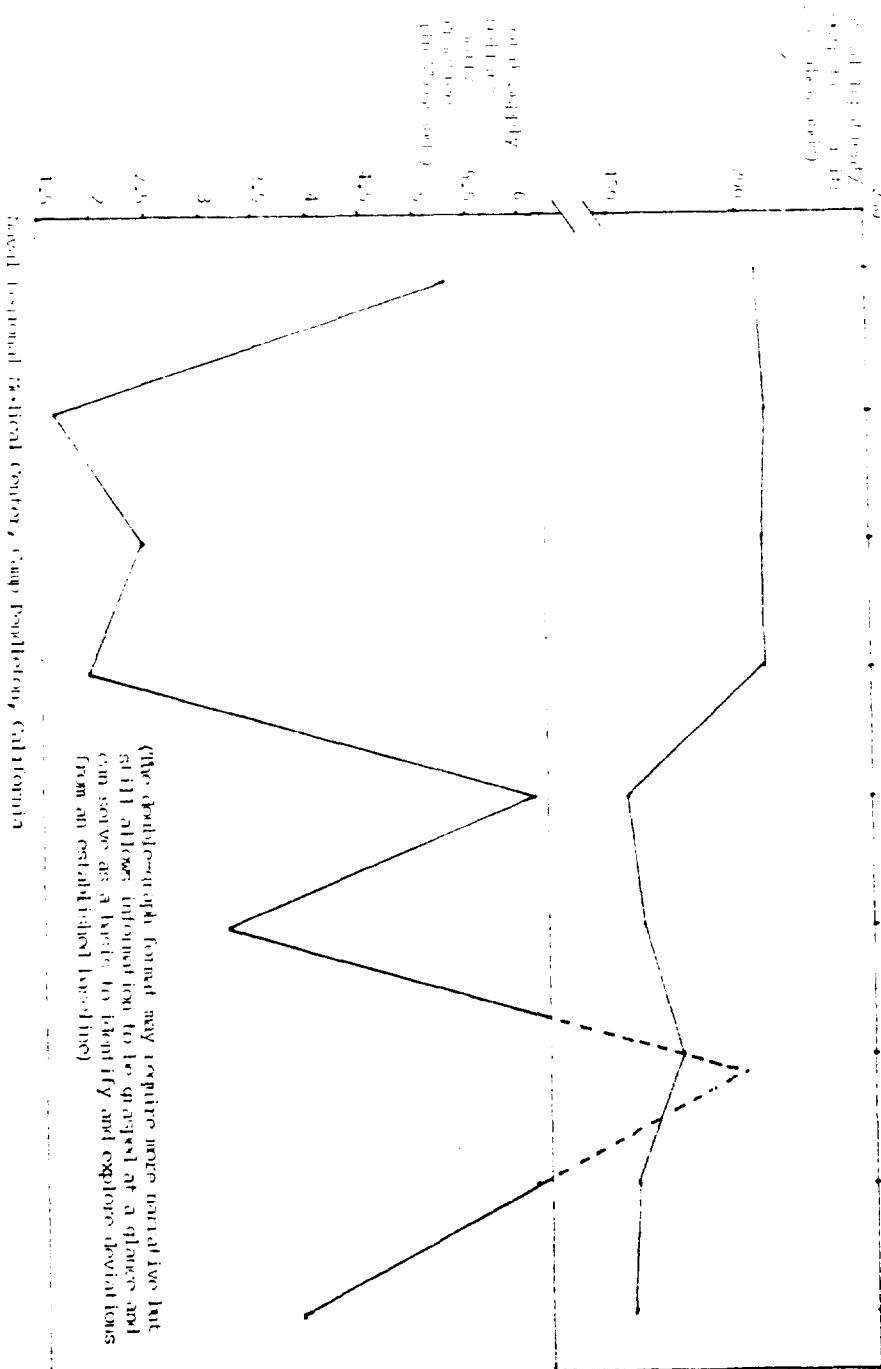
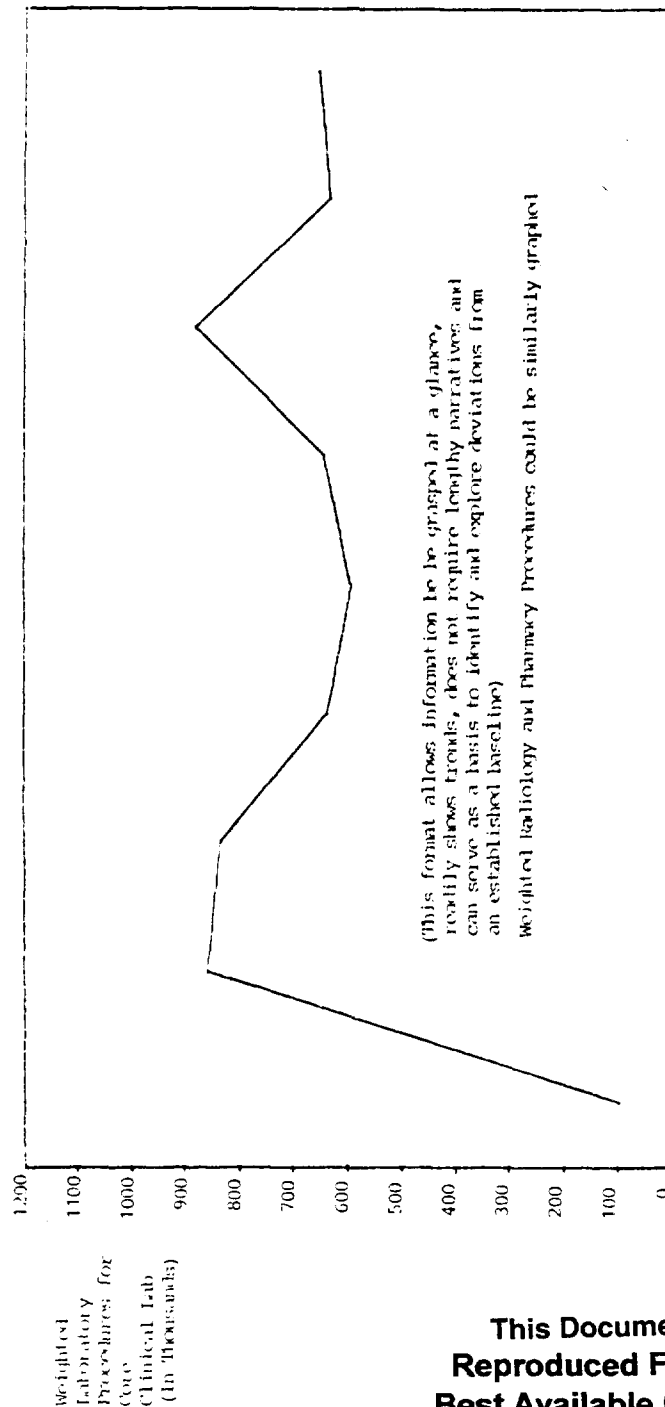


FIG. 6. Total Victims - Total Supply Dollars Family Practice

Weighted Laboratory
Procedures for Core
Clinical Lab

1st Qtr FY80	2nd Qtr FY80	3rd Qtr FY80	4th Qtr FY80	1st Qtr FY81	2nd Qtr FY81	3rd Qtr FY81	4th Qtr FY81	1st Qtr FY82
90,987	865,701	838,250	634,761	592,778	619,121	784,031	621,621	656,790

WEIGHTED LABORATORY PROCEDURES FOR CORE CLINICAL LAB



Naval Regional Medical Center, Camp Pendleton, California

Fig. 7. Weighted Laboratory Procedures for Core Clinical Lab

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Figures one through seven are representative of the areas that were identified in the collection of data in this research effort and are certainly not exhaustive. They are, however, readily adaptable to specific areas of the Uniform Chart of Accounts, should top management personnel desire specific information in various other areas. The management report developed from the information contained in the Uniform Chart of Accounts System should contain a cover sheet, a table of contents, a list of figures and other identifying data that the usual reports include and since format restrictions do not exist, they can be developed to meet local needs.

Footnotes

¹Stephen Issac, Handbook in Research and Evaluation (San Diego, California: Edits Publishers, 1980), p. 93.

²Peter F. Drucker, Management, Tasks, Responsibilities and Practices (New York: Harper & Row, Publishers, 1974), p. 268.

III. CONCLUSION

The Uniform Chart of Accounts System is a management tool that is not being utilized to maximum benefit within the military services. The research data indicates that fully eighty-five percent of commands surveyed do not prepare a management report using the MEPR as a data base. The data further indicates that a management report is not made using the information collected locally for UCA submission. Feedback to the providers of the locally collected data is not done by the majority of commands. Commanding Officers see the MEPR in only half of the medical facilities and the Administrator only thirty-five percent of the time. Internal review, a UCA mandate, is only accomplished by half of the commands surveyed. Only five percent of the commands surveyed indicated that the MEPR was useful as a management tool, thirty-eight percent indicated that it was generally useful and fifty-seven percent indicated that it was not useful.

Commands surveyed did indicate that there were areas within the Uniform Chart of Accounts they considered useful and specifically identified them. The benefits expected to result from the appropriate use of the Uniform Chart of Accounts are:

- (1) Cost awareness.
- (2) More current, accurate, and complete expense

information.

(3) Expense assignment to the work center that incurs the expense.

(4) Cost effectiveness evaluation.

(5) More effective decision-making when cost or performance is a factor.

(6) Better comparisons with other facilities.

(7) Reliable and relevant management information.

It logically follows that there is a need for a locally prepared management report in light of expected benefits and the results of the survey.

The problem was to determine the best way to design a uniform management report that would provide meaningful information feedback to Commanding Officers and individual departments using the Medical Expense and Performance Report (MEPR) as the data base.

The written report is the principle vehicle for transmitting financial data to managers in order to make business decisions. The format for reports are critical to the manager's ability to understand them. The arrangement of information, for quick comprehension was a key factor. Wider use of graphic presentations were considered ideal where trends and deviations from established baseline were more important than actual mathematical accuracy.

Figures one through seven were developed as a format which met most of the requirements for grasping information at a glance. They represent the typical areas identified as

useful to and desired by commands. The types of information displayed can be readily adapted to display most of the information contained in the Uniform Chart of Accounts. In this manner, the design is considered an excellent method to convey UCA information to Commanding Officers and other management personnel in order to enhance the decision-making process.



DEPARTMENT OF THE NAVY
NAVAL REGIONAL MEDICAL CENTER
CAMP PENDLETON, CALIFORNIA 92055

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IN REPLY REFER TO:

02:JCW:JCW
6010
17 Nov 1981

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From: Commanding Officer, Naval Regional Medical Center,
Camp Pendleton, California 92055
To: Commanding Officer

Attn: VCA Coordinator

Subj: Uniform Chart of Accounts Research Project

Ref: a) DODINST 6010.10X

Encl: 1) Research Questionnaire

1. Earlier this year, the Naval Regional Medical Center, Camp Pendleton, California was designated as a residency site for the U. S. Army/Baylor University Graduate Program in Health Care Administration. The first two residents are on board and have begun their major Graduate Research Projects.

2. One project will involve the development and design of a management report to provide feedback to departments providing the input data and will use the MEPR as the data base. This report will also allow for developing meaningful information for the Commanding Officer. One assumption is that the MEPR is not uniformly used to provide for internal comparisons as indicated in reference (a) nor is it an easily translatable document for Command use.

3. To assist in this project, it is requested that enclosure (1) be completed and returned to this Command NLT 15 December 1981.

4. The point of contact at this Command is Lieutenant John G. Wochner, MSC, USN, Administrative Resident, Autocon 993-1543/1540. Completed questionnaire should be marked for Administrative Resident. Your cooperation in this project is greatly appreciated.

E. L. Wilson
E. L. WILSON
By direction

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UCA RESEARCH QUESTIONNAIRE

11/81

Activity _____

UCA Coordinator _____ Autson _____

1. Does your activity generate a locally prepared report to the Commanding Officer using the MEPR as the data base? (If yes - please attach a sample)

2. Does your activity prepare a local report to the Commanding Officer using UCA input data as the data base? (If yes - please attach a sample)

3. Does your activity provide feedback to individual departments using the MEPR as the data base? (If yes - explain)

4. Does your activity provide feedback to individual departments using UCA input as the data base? (If yes - explain)

5. Who is the MEPR routed to and what department files/maintains it?

Page 3

11. Please explain how costs for free receipts are identified and obtained.

Please return this questionnaire to:

Commanding Officer
Naval Regional Medical Center
Camp Pendleton, California 92055

Attn: ADMINISTRATIVE RESIDENT

BIBLIOGRAPHY

- American Hospital Association. Budgeting Procedures for Hospitals. Chicago: The Association, 1971.
- American Hospital Association. Chart of Accounts for Hospitals. Chicago: The Association, 1966.
- American Hospital Association. Cost Finding and Rate Setting for Hospitals. Chicago: The Association, 1968.
- American Hospital Association. Internal Control and Internal Auditing for Hospitals. Chicago: The Association, 1969.
- American Hospital Association. Statement on the Financial Requirements of Health Care Institutions and Services. Chicago: The Association, 1969.
- Andrews, Charles T. "Financial and Statistical Reports for Administrative Decision-Making in Hospitals." Ph.D. dissertation, Graduate School of Business Administration, Indiana Univ., 1968; Ann Arbor: Mich.: University Microfilms Inc.
- Association of University Programs in Health Administration. Financial Management of Health Care Organizations: A Referenced Outline and Annotated Bibliography. Washington, D.C.: The Association, 1978.
- Austin, Charles J. Information Systems for Hospital Administration. Ann Arbor: Health Administration Press, 1979.
- Beranek, William. Analysis for Financial Decision. Homewood, Ill.: Irwin, 1963.
- Berki, Sylvester E. Hospital Economics. Lexington, Mass.: Health, 1972.
- Brown, Ray E. Judgment in Administration. Hightstown, N.J.: McGraw-Hill, 1966.
- Clancy, Joseph D. "Hospital Statistics and Utilization Review." Hospital Accounting, June 1966.
- Cleverly, William O. Financial Management of Health Care Facilities. Germantown, Md.: Aspen Systems, 1975.

- Donabedian, Avedis. Aspects of Medical Care Administration. Cambridge, Mass.: Harvard University Press, 1973.
- Drucker, Peter F. Management, Tasks, Responsibilities and Practices. New York: Harper & Row, 1974.
- Falcon, William D., ed. Reporting Financial Data to Management. New York: American Management Association, 1965.
- Farris, Harry L. "Accountant's Value Lies in His Ability to Provide Information." Southern Hospitals, May 1965.
- Funk, Denise A. Health Data Systems: An Informational Manual. Chicago: Blue Cross Association, 1973.
- Gallagher, James D. Management Information Systems and the Computer. New York: American Management Association, 1961.
- Griffith, John R. Measuring Hospital Performance. Chicago: Blue Cross Association, 1978.
- Heckert, J. B. and Willson, J. D. Controllershship. New York: Ronald, 1963.
- Kerckhimer, Allen G. Understanding Hospital Financial Management. Germantown, Md.: Aspen Systems, 1978.
- Hodge, Melville H. Medical Information System: A Resource for Hospitals. Germantown, Md.: Aspen Systems Corp., 1977.
- Hospital Financial Management Association. The State of Information Processing in the Health Care Industry. Chicago: The Association, 1976.
- Issac, Stephen. Handbook in Research and Evaluation. San Diego: Edits Publishers, 1980.
- Joint Study of the Military Health Care System in Department of Defense Uniform Chart of Accounts (DOD 6010.10M) conducted in 1973.
- Kovner, Anthony R. and Neuhauser, Duncan, eds. Health Services Management. Ann Arbor: Health Administration Press, 1978.
- Lindsay, Franklin A. New Techniques for Management Decision-Making. Hightstown, N.J.: McGraw-Hill, 1963.
- National Center for Health Services Research. "Demonstration and Evaluation of a Total Hospital Information System." DHEW Publication No. (HRA) 77-3188, July 1977.

- Perlman, Mark; Adams, Jeffrey; Wolfe, Harvey; Shuman, Larry. Methods for Distributing the Costs on Non-Revenue Producing Centers. Ann Arbor: University Microfilms Hospital Abstract 10600AC, 1972.
- Quirin, G. David. The Capital Expenditure Decision. Homewood, Ill.: Irwin, 1967.
- Seawell, L. Vann. Hospital Accounting and Financial Management. Berwyn, Ill.: Physicians Record Co., 1964.
- Seawell, L. Vann. Introduction to Hospital Accounting. Chicago: Hospital Financial Management Association, 1971.
- Seawell, L. Vann. Hospital Financial Accounting: Theory and Practice. Chicago: Hospital Financial Management Association, 1975.
- Seawell, L. Vann. Principles of Hospital Accounting. Berwyn, Ill.: Physicians Record Co., 1960.
- Silvers, J. B. and Prahalad, C. K. Financial Management of Health Institutions. New York: Spectrum Publications, 1974.
- Smith, Richard L. Management Through Accounting. Englewood Cliffs: Prentice-Hall Inc., 1962.
- Tonkin, G. W. "The Controller's Role on the Management Team." Hospital Financial Management, Vol. 24, No. 4, April 1970, pp. 7-9.
- Warner, D. Michael and Holloway, Don C. Decision Making and Control for Health Administration. Ann Arbor: Health Administration Press, 1978.
- Weeks, Lewis E. and Berman, Howard J., eds. Economics in Health Care. Germantown, Md.: Aspen Systems Corp., 1977.
- Weston, J. Fred and Brigham, Eugene F. Managerial Finance, Third Edition. New York: Holt, Rinehart and Winston, 1969.
- Wren, George R. Modern Health Administration. Athens, Ga.: University of Georgia Press, 1974.
- Young, D. E. "Effective Presentation of Reports: Information for Understanding." Reporting Financial Data to Management, New York: American Management Association, 1965.

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