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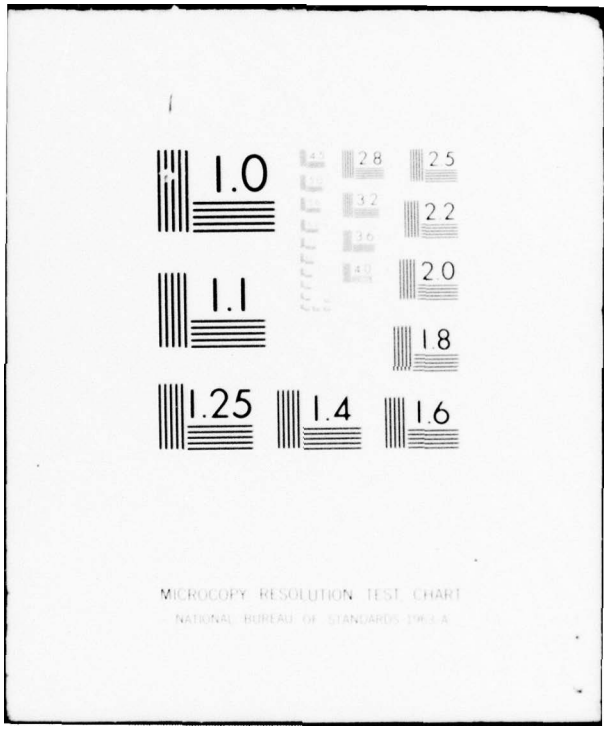
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Within the context of the findings and recommendations of the recent Military Health Care Study (MHCS) the concept of decentralized management is examined. The implications for the concept's application (decentralization) in the Military Health Services System (MHSS) are considered. Based on option 3 of recommendation 3 of the MHCS, i.e., "Implement a regional management structure which allocates resources, including funds, facility and personnel," a regional management structure

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An Analysis of the Implications of Decentralization in the Military Health Services System (MHSS)

by

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Submitted in partial fulfillment of the requirements for the degree of

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Within the context of the findings and recommendations of the recent Military Health Care Study (MHCS) the concept of decentralized management is examined. The implications for the concept's application (decentralization) in the Military Health Services System (MHSS) are considered. Based on option 3 of recommendation 3 of the MHCS, i.e., "Implement a regional management structure which allocates resources, including funds, facility and personnel," a regional management structure is posited which includes a Regional Health Planning Agency (RHPA) for the MHSS. The potential interface of the three principal actors of the posited regional management structure (the regional authority, RHPA and regional medical center/facility) are considered.

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I. INTRODUCTION

The findings of the recently issued Military Health Care Study (MHCS) suggest that the delivery of health services in the Military Health Services System (MHSS) is less than optimally efficient and thus not cost-effective in selected areas. Among the findings leading to this conclusion were: (1), the existence of perverse incentives associated with the historical workload budgeting process; (2), the non-realization of the full potential of Tri-Service regionalization; and (3), the lack of coordination in the management of selected highly specialized (tertiary) care. The study concludes that there exist a number of opportunities to improve efficiency and effectiveness in the MHSS while maintaining a high level of quality care. Against this background, the study suggests a number of changes in current DOD policies as well as MHSS organization. The proposed changes were set forth in nine recommendations which "... were constructed as broad concepts of management and organization..."

It is believed that the main thrust of the recommendation seem to focus on the concepts of regionalized health services and the companion issue of decentralization (the delegation of decision-making authority and planning to lower levels of management). To evaluate this belief, it was decided to examine the management issues related to decentralization in the literature (Part II) and to pursue a more thorough analysis

of the relevant questions surrounding those recommendations (of the MHCS) that are believed to have a significant bearing on the issues at hand, (regionalization/decentralization).

Part III deals with the regional management structure of the MHSS. Consideration is first given to the current structures; then, to the alternatives set forth in the MHCS, namely recommendation 3 - "Oversight of health care delivery operations should be assigned to regional authorities responsible for all health care delivery in their CONUS geographical areas." Consideration is then given to developing what is believed to be an "ideal" regional management structure. A regional health planning agency emerges as a necessary support agency for the posited regional authority: its role relative to the posited regional authority and the already existing regional medical center/facilities is then explained. In Part IV, the salient features of the research efforts are brought together in a concluding analysis.

II. THE CONCEPT OF DECENTRALIZATION

A. THEORETICAL DISCUSSION AND DEFINITION

Decentralization is defined in Webster's Third International Dictionary as the dispersion or distribution of functions and powers from a central authority to regional and local bodies. Notwithstanding this definition, the concept of decentralized management may trigger vastly different notions about its meaning. Currently, much is heard about the merits of decentralization as a concept of management. A close examination of the arguments being debated among organizational theorists might lead one to the conclusion that it is simply the locus of decision-making and planning authority within complex organizations which is of major concern. From this inference the following questions might arise; what is the appropriate management structure i.e., should management control through decision-making authority and planning be centralized at top management levels, or should such authority and planning be delegated to lower management levels? To be sure, there appears to be no quick and easy answer to such questions.

Thompson suggests that under conditions of complexity, when major organizational units are reciprocally interdependent, such units will likely be so arranged as to provide self-sufficiency within their respective environments. [Thompson, p. 76] To extend this theme further,

the research of Lawrence and Lorsch provided the basis of a contingency theory of organization in which they regard the optimal organizational structure as being contingent upon the organization's environmental factors. It is suggested that decentralization under stable environmental conditions and centralization under dynamic environmental conditions may be dysfunctional, i.e., they argue that an organization must establish a "fit" between its internal structural arrangement and its environmental demands. [Lawrence and Lorsch, p. 156-158]

The work of Lawrence and Lorsch appears to be substantiated by the findings of Negandhi and Reimann. They sought to provide further insight relative to the impact of other environmental factors on organizational structure, i.e., their investigation sought to explore the impact of decentralization an organizational effectiveness. The results of this research revealed that under relatively competitive market conditions, decentralized firms were more likely to be more effective than centralized firms. [Negandhi and Reimann, p. 91-94]

> Spearman's rank correlation was ... used to examine the relationships between the decentralization and organizational effectiveness indices. The correlation coefficient between decentralization and the behavioral measures of effectiveness was 0.89 ...
>
> Translated into actual managerial practices, our findings suggest that firms having greater concern for task environmental agents (i.e., firms viewing their task agents in long-term perspectives) are likely to have fewer layers of hierarchy in their organizational structures. They opt for the consultative type of decision making regarding

> major policies, sales, product mix, production, standard-setting, manpower policies, executive selection, and long-range planning. On the other hand, firms viewing their task environment in short-term perspectives are likely to have more layers of hierarchy and the chief executive or owner is probably making all decisions regarding functional areas and major policies. The results also show that the decentralized firms are more effective in both behavioral and economic terms.
>
> [Negandhi and Reimann, p. 147]

Ralph J. Cordiner, Chairman of the Board at General Electric, one of the pioneer companies in decentralized management suggests that a company should assess its environment and itself relative to that environment and thus select an appropriate organizational structure suited to itself:

> If I have any thesis, it is that each company should study, for itself, the particular conditions that will determine its future, and out of such detailed study should evolve a philosophy and structure that is fully appropriate for an individual company. [Cordiner, p. 41]

Regarding decentralization as a philosophy of management, William T. Jerome, III, provides the following observation:

> ... Decentralization is a way to keep responsible managers close to the seat of operations, making it possible to speed up actions, to simplify communications, to maximize procedural formalities - in short to let managers manage. To create such an environment, certain prerogatives of authority and responsibility must be effectively delegated. In other words, under any decentralized forms of organization, managers must be given not only the discretionary funds (or equivalent resources) commensurate with the job to be done but also the opportunity to help plan what is done. [Jerome, p. 122]

Peter Drucker, in his evaluation of General Motors as a big business corporation, suggested that General Motors has become an "essay in federalism" and further states that under the leadership of Alfred P. Sloan (Chairman of the Corporation) the concept of decentralization has been developed "... into a philosophy of industrial management and into a system of self government. It is not merely a technique of management but an outline of a social order." The aims of decentralization at General Motors, i.e., its preceived advantages, are summarized by Drucker as follows:

> 1. The speed with which a decision can be made, the lack of any confusion as to who makes it and the knowledge of the policies on which the decision is based by everybody concerned.
>
> 2. The absence of any conflict between the interests of the divisions and those of General Motors.
>
> 3. The sense of fairness in dealing among executives, the certainty that a good job will be appreciated, the confidence and feeling of security that comes when personality-issues, intrigues and factionalism are kept under control.
>
> 4. The democracy of management and its informality. Nobody throws his weight around, yet there is never any doubt where the real authority lies. Everybody is free to criticize, to talk and to suggest; yet once the decision is taken, nobody tries to sabotage it.
>
> 5. The absence of a gap in the executive group between the "privileged few" and the "great many." "Mr. Wilson (the President) could not arrogate to himself any right he does not accord to his associates."

6. There is a very large management group. Thus there is always a supply of good and experienced leaders, able to take top responsibility.

7. Decentralization means that weak divisions and weak managers cannot ride for any length of time on the coat tails of successful divisions, or trade on their own past reputation.

8. Decentralization means the absence of "edict management" in which nobody quite knows why he does what he is ordered to do. Its place is taken by discussion and by policies which are public and which are arrived at as a result of the experiences of all the people concerned. [Drucker, p. 135-6]

Cordiner further suggested that the most important aspect of G. E.'s philosophy of management is through the decentralization of responsibility and authority for making business decisions. [Cordiner, p. 47] He summarizes the thinking of top management at General Electric by setting forth ten principles which are strikingly similar to the advantages (at General Motors) cited by Drucker.

Since philosophy is, by definition a system of first principles, I should like to list for you ten principles which express General Electric's philosophy of decentralization:

1. Decentralization places authority to make decisions at points as near as possible to where actions take place.

2. Decentralization is likely to get best over-all results by getting greatest and most directly applicable knowledge and most timely understanding actually into play on the greatest number of decisions.

3. Decentralization will work if real authority is delegated; and not if details then have to be reported, or, worse yet, if they have to be "checked" first.

4. Decentralization requires confidence that associates in decentralized positions will have the capacity to make sound decisions in the majority of cases; and such confidence starts at the executive level. Unless the President and all the other Officers have a deep personal conviction and an active desire to decentralize full decision-making responsibility and authority, actual decentralization will never take place. The Officers must set an example in the art of full delegation.

5. Decentralization requires understanding that the main role of staff or services is the rendering of assistance and advice to line operators through a relatively few experienced people, so that those making decisions can themselves make them correctly.

6. Decentralization requires the realization that the natural aggregate of many individually sound decisions will be better for the business than controlled decisions.

7. Decentralization rests on the need to have general business objectives, organization structure, relationships, policies, and measurements known, understood, and followed; but realizing that definition of policies does not necessarily mean uniformity of methods of executing such policies in decentralized operations.

8. Decentralization can be achieved only when higher executives realize that authority genuinely delegated to lower echelons cannot, in fact, also be retained by them. We have, today, Officers and Managers who still believe in decentralization down to themselves and no further. By paying lip-service to decentralization, but actually reviewing detailed work and decisions and continually "second-guessing" their associates, such Officers keep their organization in confusion and prevent the growth of self-reliant men.

9. Decentralization will work only if responsibility commensurate with decision-making authority is truly accepted and exercised at all levels.

10. Decentralization requires personnel policies based on measured performance, enforced standards, rewards for good performance, and removal for incapacity or poor performance. [Cordiner, p. 51-2]

Notwithstanding the perceived advantage/benefits of decentralization its implementation may not be without disadvantages/problems depending on the viewer's perspective. In this regard Lorsch suggested the following while noting the contributions of Cordiner and Sloan:

> Let me be clear - some of this activity is well thought out and has even been well documented (e.g., Cordiner's account of the organization change at General Electric and Sloan's even more comprehensive statement of his experience at General Motors) ... But in many companies there has been a tendency to follow the trend set by such major companies without any careful thought to whether what General Motors ... does is appropriate for that company.
> [Lorsch, p. 157]

George A. Smith, in his work dealing with geographically decentralized companies which cover a period spanning approximately 20 years, analyzed the problem of such companies and as a result suggests that problems associated with decentralization may be listed in two categories (1) "hard or impossible to solve," and (2) problems "that can be substantially overcome." The former category is defined as:

1. Friction between central and local officers.

2. Jockeying for power (headquarters officers versus local officers).

3. Disagreeing over basic organizational arrangements.

4. Belief that the "other level" is not doing its part.

5. Resistance to changed status relationships.

6. Tendency of people at each level to overstep prescribed bounds.

7. Fear of being judged unfairly in the absence of clear standards.

8. Impossibility of finding a common mold into which all local units will fit.

9. Resentments that occur when men are transferred between regions, and between regions and headquarters.

[Smith, p. 106]

Smith further suggests that problems of the latter category are quite substantial in number; in the interest of brevity eight such problems are listed:

1. Arousing needless fears or false expectations through poor communication.

2. Confused organizational planning.

3. Talking and acting in contradictory ways.

4. Blaming people when administrative arrangements are at fault.

5. Expecting people to adjust quickly to new status relationships.

6. Expecting people to play conflicting roles.

7. Refusing to alter arrangements to fit people, or to fit new circumstances.

8. Judging people by standards that are unrealistic.

[Ibid., p. 107]

The review of the literature suggests that changing from a highly centralized to a decentralized organizational structure provides a formidable challenge to the executive group. If it can be assumed, for example, that the changes in organizational structure occur in order to enhance operational efficiency and effectiveness, it then follows that there must exist endogenous incentives for executive management to provide the necessary requisites for successful change implementation, (the aforementioned incentives are believed to be implicit if not explicitly set forth in both the respective summaries of Drucker and Cordiner relative to the decentralization aims of General Motors and General Electric cited here).

Smith suggests that managers in their efforts to explain change should be careful to avoid references to a decentralized program per se because of three misleading implications: (1) that it (decentralization) will start and therefore be completed at a definite point in time, (2) that all the intended changes in authority will result in downward delegation, and (3) that the program can in some way be separated from the everyday routine of the company or firm. [Smith, p. 20] Jerome, by contrast, suggests that top management faces twin problems relative to the complexity of change:

> To the manager, change invariably complicates the conduct of operations for which he has responsibility. This is ironic in that change is the stuff from which progress comes. Therefore, the manager is left with two alternatives: to suppress or discourage change or to create the sort of environment in which change can take place with the minimum disruption. In brief, a manager must be able to coordinate diverse influences and activities if he is to control these rather than be controlled.
>
> [Jerome, p. 4]

The work of Lawrence and Lorsch further suggests the fact that a complex organizational structure operating in a dynamic environment is more likely to be highly differentiated, requiring a great degree of integration. It is suggested that successful conflict resolution plays an ever increasing role in such organizational structures.

> How well the organization will succeed in achieving integration, therefore, depends to a great extent upon how the individuals resolve their conflict. Our work indicates that the conflict resolution varies in some respects depending upon environmental demands ...
>
> [Lawrence and Lorsch, Developing ..., p. 3]

Their studies further indicated that the formality of a unit's structure was related to the relative certainty of that unit's environment. "Organizations or organizational units operating in dynamic environmental condition tended to be decentralized while those facing stable environments were relatively centralized." [Lawrence and Lorsch, op. cit.]

A further review of the literature suggests that decentralization efforts have not been limited to the private sector. Within the public sector, decentralized management is evident in such organizations as

the Federal Reserve System, the TVA, and U.S. Forest Service. In the health care sector, Thomas suggests that enthusiastic advocates of decentralization can be found more recently among mental health administrators. [Thomas and Hilleboe, p. 1622] The works of Kaufman and Purdom provide what is recognized as well documented case studies of the decentralization efforts within the New York City Department of Health and the Philadelphia Public Health Department respectively. The former is complemented by the more recent work of Mustalish, et al. In both decentralization efforts, however, the aim was to affect a transfer of power from the central bureau to the district manager, i.e., to delegate decision-making authority and responsibility to the district level.

B. MODELS IN THE PUBLIC SECTOR

1. New York City Department of Health

Efforts to decentralize the New York City Department of Health predates World War I. Herbert Kaufman's study, covering a period in excess of forty years (up to 1958), provides a thorough analysis of the organizational changes that were affected. Attempts at decentralization were incremental over the forty year period and generally accepted as being unsuccessful, i.e., a decentralization effort that resulted in a transfer of power from the Central bureau to the field manager did not result. Decision-making authority remained at the bureau level. Kaufman cited five factors which contributed to ineffective local district management:

1. The tradition of distinguished authoritative bureau directors who set program policy;

2. Professional rapport between the Central Office Specialists and Field Specialists;

3. Ease of communication between the bureau officials and district staff;

4. Lack of local public interest constituencies to support the district health officer; and

5. Departmental policy that technical matters were within the bureau's area of expertise.

[Kaufman, 1959]

In a more recent study Dr. Anthony C. Mustalish, (Deputy Commissioner, New York City Department of Health) et al., suggested that the changes in organizational structure which ultimately contributed toward another shift of emphasis from the central bureau to field directors (between 1966 and 1971) can be attributed to the following factors in favor of decentralization:

1. National legislation for supporting local program;

2. City administrative reorganization;

3. Resurgence of community activism and participation in health services;

4. Community demands for improving health services; and

5. Ineffectiveness in the delivery of municipal health services.

[Mustalish, p. 1150]

Mustalish further suggested that as a result of the Piel Commission's recommendations (1967), a city "super agency," the Health Services Administration, (HSA) was established which was given responsibility for the total delivery of health care service, i.e., Department of Health, Department of Hospitals, Department of Mental Health, and the Medical Examiner's Office. It was anticipated that the efforts of the HSA would result in improved planning as well as the administration of municipal Health Services. Directed in the first three years of its existence by physician administrators, in 1970 the first non-physician administrator was appointed to head the HSA. Mustalish reports that the agency was staffed by a large number of planners and analysts, and subsequently developed into planning, productivity and management-oriented agency. It was suggested that as a result of the existence and function of the HSA, the authority of the Commissioner of Health and bureau chiefs were reduced. [Ibid., p. 1151]

As a result of a subsequent program, policy, and service review by a commissioner of health, " ... a plan for administrative decentralization of personal health services was outlined that redefined the roles of bureaus and districts and included transfer of budgetary authority from local services to district, assignment of district health managers, and the implementation of a district cost accounting system." [Ibid] During the same period (between 1972 and 1975) an executive order was issued requiring bureau directors to submit for discussion

a list of functions over which the bureau should retain control citing the justification therefor. Mustalish suggests that "... the impetus for decentralization came from a recognition of the complexity of a metropolis such as New York City, the changing focus of public health, and the need to provide an integrated broad spectrum of specific health services to communities." [Mustalish, p. 1150]

Organizational initiatives were put forth to strengthen the health services organizational structure.

> Lines of communication were established between the commissioner and the district health officers. A formal channel of communication was created through the formation of the Health Officers Advisory Committee which met periodically with the Commissioner. The committee worked with bureau directors in establishing policies that were to be implemented in the district.
>
> [Ibid.]

It is significant to note that while the bureau structure was revised to permit "decentralization" there appeared to be no significant change in the administrative structure at the district level. Notwithstanding the foregoing observation, a district reporting and accounting system was introduced that provided clinic utilization and unit cost data on a decentralized basis by district. In addition a program budgeting system was established that gave the district for the first time input to the resource allocations. Mustalish reports that purchasing of supplies and equipment, long a source of field frustration, was decentralized. [Ibid.]

Reorganization of Department activities was evident by the fall of 1973.

> Health Officers and managers had authority and accountability for operations in their respective districts. Personnel functions, purchasing and budgeting, and program administration were now largely local functions. Bureau activity for district health operations was predominantly advisory, consultative and evaluative. There were, however, problems with this new structure: (1) the direct communication between the First Deputy's office and the 16 health officers and 22 managers was a logistical nightmare; (2) lines of decision-making between the district health officer and the manager were unclear.
>
> [Ibid.]

November 1973 signaled the creation by executive order of six regions throughout the city headed by a regional health director. "The regional health director replaced the borough health director's position that was established in 1954." His reporting authority was the first Deputy Commissioner. Each director was assigned two health officers and four managers. "The managers had operational responsibility for the district activities." The health officers functioned as staff to the regional director on program planning and evaluation. [Ibid.]

The present status of the Department relative to its organizational structure is reflected in the following statement:

> ... district operations - as in previous administrations - reverted to being directed by the Deputy Commissioner. Regionalization was retained and strengthened. Managers remained responsible for administering the services of the district. Managers now report, however, to health officers who in turn report to regional director. [Ibid.]

In the concluding discussion, Mustalish considers whether or not the present "New York City organization" is indicative of a decentralization of decision-making. He suggests that "the reorganization has not changed the locus of decision-making affecting the local communities on the central field axis." The following summary of the decentralization efforts are provided:

> A reorganization of the New York City Department of Health has occurred under the banner of decentralization. Local managers were introduced into the health districts and together with the health officers assigned responsibility for functions previously carried out by service specific bureaus. The local level now has responsibility for service operation and providing utilization, cost and productivity information. As operators of services and providers of essential management information communication between field and central levels has become important in policy decisions. Districts now have an increased capability to influence policy in allocating Department resources in accord with community priorities although the present fiscal crisis and scarcity of resources has become a major factor in the decision-making process.
>
> [Ibid., p. 1153-4]

From the foregoing it appears that the decentralization efforts were not supported by the type of managerial initiatives (requisites for success) that are expressed in the principles outlined by Drucker and Cordiner relative to the experiences of General Motors (GM) and General Electric (GE) respectively. Both Drucker and Cordiner suggest that for decentralization to be successful, real authority must be delegated and, unless top management is deeply and personally dedicated to the effort,

actual decentralization will never take place. Notwithstanding the organizational initiatives (cited by Mustalish) undertaken to strengthen communications, it appears that such initiatives were designed to support the status quo, i.e., to facilitate the flow of information to the central bureau rather than to enhance the capabilities of regional managers in the decision-making process.

Cordiner points to the fact that decentralization requires a clear understanding of the main roles of the principal actors of the organization. He suggests, in regards to line and staff, that the staff is to provide "... assistance and advice to line operators through a relatively few experienced people, so that those making decisions can themselves make them correctly." As suggested by Mustalish, it appears that there was not a clear delineation of functional relationships which resulted in what he referred to as a "logistic nightmare."

Noticeably absent from the decentralization effort was any consideration of managerial incentives and performance measures. A review of the GM/GE principles suggest that decentralization rest on the need to have personnel policies based on "measured performance, enforced standards, rewards for good performance, and removal for incapacity or poor performance." In addition to the foregoing, it was suggested that decentralization could be greatly facilitated by a structure and delegation of responsibility that clearly specified decentralization as a primary policy. In this regard, it must be concluded that the efforts

put forth on behalf of the New York City Department of Health are inconsistent with the aforementioned recommended behavior.

2. Philadelphia Department of Health

An intensive study of the community health services of the Philadelphia Department of Public Health was undertaken in 1963 by Paul W. Purdom. The purpose of his study was to provide further insight into the operation and function of an organization on a decentralized basis. For the purpose of the analysis decentralization was defined by Purdom:

> .... decentralization will refer to the intentional division of authority to make important decisions within a unified agency at a single level of government. In the public health framework, the term has had application to efforts to vest such authority in district offices serving a defined geographical area, but within the political jurisdiction.
> [Purdom, p. 509]

Purdom suggested initially that to some extent decentralization of the administration may have been sought as a goal in itself. Decentralization efforts were in existence as early as 1929. At the time of Purdom's study the Philadelphia plan was considered to have shown a greater degree of progress in its decentralization efforts than any large public health agency.

The aim of the Philadelphia Plan was to delegate primary responsibility and authority for field operation to the district health director. The district health director was thus charged with the

optimal allocation of health care resources (e.g., manpower, funds and facilities including the subfunction associated therewith). [Purdom, p. 511]

Supporting the district health director in these efforts was a central Professional Direction Group that was principally charged with the responsibility for program planning and development, establishment of technical procedures and program standards, evaluation of program performance and effectiveness and the establishment of control enforcement activity. [Ibid.]

As a result of the new decentralization plan (reorganization of 1958) Purdom suggests that there was a greater degree of decentralization of administration. Notwithstanding the foregoing, these decentralization efforts were not without problems, significant among them were communications:

> An obvious finding ... is that communications are, indeed, a vital factor in the administration of any program and that decentralization of administration presents special problems in communications.
>
> .... The preponderance of communication with the public is through central office personnel. The bulk of communications between the central office personnel and those in districts was directly between the professionals in each office. The latter might not be viewed so seriously if other analysis (not shown) had not revealed that the communications of district health directors dealt primarily with routine-type matters, such as leave and travel, and that communications concerning program content, budget, and so on, by-passed the district director.

> .... That the communications patterns revealed a role for the district health director that was contrary to the organization plan.
>
> .... The district director was a manager of sorts for the district, relating more to minor routine administrative matters than to progress needs and community relations.
>
> [Ibid., p. 512]

In consideration of the foregoing, Purdom suggests alternatives that might be taken relative to future organizational development to facilitate decentralization efforts. He outlines three approaches (two of which are herein considered relevant) dealing with: (1) improved communications, and (2) strengthening the districts through the establishment of appropriate support organizations and systems, e.g., the necessary management information systems. [Purdom, p. 515-17] What is intended relative to improved communications is the development of a system whereby routine communications and minor administrative matters are prevented from reaching the desk of the district director, while those communications which are believed to be necessary for him to exercise his assigned responsibility are brought to his attention. It is suggested that this system might be accomplished by strengthening the supportive administrative services in the districts, i.e., by placing a professional administrator in the districts trained in public health administration. It is anticipated that this action would allow the district director time to his assigned duties. Purdom further suggests that the central divisions would have to exercise restraint

relative to their direct communications with professional counterparts in the districts regarding matters which fall within the scope of the district director's responsibilities.

To strengthen the districts through the establishment of appropriate support organizations and systems, Purdom suggests that the districts be staffed with highly trained and competent personnel in various professional areas. It is further suggested that some of these personnel be detached from central offices and at the same time strengthening districts. Thus "... the function of the central office would be recast to one of research and development, the preparation of long range plans (i.e., five years or more), consultation and evaluation."

Purdom speculates that contributing causes of this negative result may be found in a retrospective analysis of the reorganization efforts:

> In the reorganization of the Community Health Services it appears that the organizational method was adopted first, rather than matching the organizational arrangements to the over-all objectives. The objectives of this reorganization were clearly stated. There was also a delineation of responsibilities. However, it appears that preplanning stopped short of developing a conceptual model of the contemplated organization to determine who would perform certain functions and where decisions would be made for very specific actions.
>
> [Ibid., p. 514]

Although it may be assumed that based on the foregoing there exist a greater degree of decentralization in the Philadelphia Department of

Health than in other health agencies, it appears that the Philadelphia Plan has not been realized totally. The requisites for success a la the GM/GE principles were in fact not effectuated to the extent necessary for that result. Here, as well as the New York City case, real authority was not delegated. The role of the staff in rendering assistance and advice to line managers (district directors) was not clearly defined. Additionally, top management did not appear to support the decentralization efforts enthusiastically with all of the resources at its disposal.

Given that district directors were charged with the optimal allocation of resources, it appears from the case that district directors dealt with routine, minor administrative matters while more important communications, e.g., budget and program data, by-passed them. In addition, it was suggested that the role of the district directors developed contrary to that in the organization plan. At the risk of redundancy, Drucker and Cordiner pointed to the fact that decentralization rest on the need to have an appropriate organizational structure, relevant relationships and specific policies (in support of decentralization) which are known and thoroughly understood by management personnel. Noticeably lacking in this case as well as the previous one was sufficient consideration given to managerial incentives and performance measures. Again, the GM/GE principles suggested the fact that decentralization required personnel policies based on measured performance, enforced standards and rewards for good performance.

Thomas, et al suggest that in regards to decentralization efforts, both the New York City Health Department and the Philadelphia Health Department, the respective leaders ".... do not have clear-cut principles to guide them and that they are actually confronted with complex issues," [Thomas, p. 1621]

It is suggested that the competing roles of generalist and specialist bring about problems associated with integration and differentiation which then necessitates successful conflict resolution [Lawrence and Lorsch, op. cit.] in order to have an effective organization structure.

> But there is still another dimension involved - the competing roles of generalist versus specialist. Specialization, the division of labor, is the hallmark and fundamental element of modern administration. However, once labor has been divided, the administrator must try to assure coordination to provide an integrated final product. Historically, the specialist has been regarded as the embodiment of division of labor; the generalist, on the other hand, has been regarded as the coordinator or integrator. Traditional views consider the generalist as necessary because coordination is an element of administration, and presumably he can coordinate in situations where the specialists is unable to do so. But increasingly it is asserted that, even when there is conflict, specialists can provide what coordination is needed and that generalists should defer to the specialists.
>
> [Thomas, p. 1621]

Thomas provides the following suggestions regarding organizing for decentralization of health departments:

1. One major challenge in achieving decentralization of a large health department is to provide administrators in charge of field operations who are competent ....

2. The decentralization of a health department could be greatly facilitated by an organizational structure and allocation of responsibilities that clearly specify decentralization as a primary policy.

3. As an ideal model, structure should clearly designate a generalist for each geographic field district as the official to whom all other personnel in the local office are responsible, and from whom they receive their assignments and instructions.

4. General policy statements should emphasize the desirability of decentralizing decision-making from the generalist in the central office to those in the field.

[Ibid., p. 1630-1]

In the preceding discussion, the concept of decentralized management dealt with both the private as well as the public sectors, albeit in the case of the former the discussion appeared to be more substantial. Yet, it is anticipated that the argument relative to decentralization was clearly set forth in the literature regarding its theory and application. Notwithstanding the foregoing, the question can be asked whether the concept (decentralized management) has the potential for successful application in the MHSS and more specifically in a regionalized health care system?

David A. Pearson, discussing the concept of regionalized personal health services in the United States provides a clue in the following comments:

> The traditional concept of regionalism combines notions of geography, culture, and fixed boundaries delimiting political units or - especially important today - economic market areas. Another familiar use of the term denotes a type of organization-decentralization. The joint application of the concepts of geographic and organizational regionalism provides a structure within a given boundary or geographic area for deployment of various consumer goods and services, based on the logic of regional location and developing from regional planning, decentralization, and coordination.
>
> [Pearson, p. 3]

Pearson further states:

> Regionalization, in the delivery of health services as in other activities, is brought about because gaps in the production of goods or services, economic inefficiencies such as duplication of resources, and increasing costs and expenditures require it - it is mandated by the logic or organizational theory. The essential elements of the resulting structure are an economically, socially, and spatially defined region and an organization that combines centralization and decentralization to permit a two-way flow of activity and a coordinated effort.
>
> [Ibid., p. 4]

In today's environment, it is anticipated that the challenge facing top management (DOD decision-makers) of providing high-quality medical care delivered in an efficient and cost-effective manner would seem to dictate that bold initiatives be taken that would result in an appropriate regional management structure.

III. DECENTRALIZATION IN THE MHSS: THE REGIONAL MANAGEMENT STRUCTURE

A. THE EXISTING ORGANIZATION

The Military Health Services System (MHSS) is made up essentially of four major sub-systems, i.e., the three military medical departments and the office of the Assistant Secretary of Defense, Health Affairs, ASD (HA). The mission of the MHSS is set forth in the Military Health Care Study Supplement (MHCS Sup.) as follows:

> The mission of the Military Health Services System is to provide health services necessary to support and maintain high morale in the uniform services by providing a comprehensive and high quality uniform program of health services for members and other eligible beneficiaries, and to be responsive to missions directed by the Executive Branch of the Government.
>
> [MHCS Sup., p. 4]

In consonance with the foregoing, current directives suggest that each military medical department is charged with the responsibility for maintaining and operating a health care delivery system in support of service specific operational requirements as well as the provision of quality health care to eligible DOD beneficiaries. ASD (HA), in addition to serving as the principal staff advisor to the Secretary of Defense, serves as program administrator for CHAMPUS (the Civilian Health and Medical Program of the Uniform Services).

Notwithstanding the minor differences that exist with the organizational structure of each military medical department, the Surgeons General have program development responsibility for the medical component of each branch of service.[1]

> Although the Military Medical Departments are organized differently, the programming of resources to support their activities is handled similarly by each service. In each service the Surgeon General has major responsibility for developing and defending within his service and the Department of Defense, to OMB and before Congress, the majority of his medical department's requirements ....
>
> [Ibid., p. 38]

In CONUS, each of the three military medical departments has developed a regionalized system of health care delivery which focuses on fixed medical facilities, i.e., primary, secondary and tertiary care facilities. Primary or outpatient care is provided in strategically located outpatient clinic, regional branch dispensaries (Navy) and hospital ambulatory care departments, while secondary or routine inpatient care is provided in both service hospitals and medical centers. Additionally, in each service region is a medical center complex which serves as a referral center for highly specialized, or tertiary care, the primary facility for graduate medical education and clinical investigation.[2]

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[1] For a detailed description of resources programming in the MHSS see Appendix A.

[2] For a more detailed description of the organization of the military medical department see Appendices B, C and D.

Despite efforts of Tri-Service cooperation, (see Appendix E), as well as the goals and objections of the DOD regionalization efforts begun in 1973, (see Appendix F), the findings of the MHCS suggest the following:

> ... Planning and programming for the direct care system independent of CHAMPUS is inefficient, resulting in substantial over- or under- estimates of CHAMPUS requirements.
>
> ... The Tri-Service regionalization program has not yet achieved its potential for maximizing the use of cooperative arrangements and improving the management of Service resources.
>
> ... Management of selected highly specialized (tertiary) care is not well coordinated.
>
> Some military medical facilities providing highly specialized care may not fully utilize all capability for certain medical procedures.
>
> Relatively large proportions of patients requiring the highly specialized care selected for study are transferred to facilities of their own Service rather than the closest military facility capable of providing that care.
>
> DOD utilization standards have not been developed for most of the high cost, special purpose services and equipment studied. Moreover, there are few generally accepted standards within the civilian community for these services and equipment.
>
> ... The MHSS is handicapped by lack of adequate population, workload, and cost data and comparable information systems for the military departments.
>
> [MHCS, p. 6-7]

The MHCS further suggest that there exist opportunities for significant improvements in the system relative to resource planning, management and evaluation, i.e., "... the studies concluded that a number of

opportunities exist to improve efficiency and effectiveness while maintaining the delivery of quality care to entitled beneficiaries."[1] [Ibid., p. 5]

B. THE PROPOSED SYSTEM

To bring about the desired improvements in the MHSS, the study concluded with nine recommendations.[2] Recommendation 3 provides the motivation for anticipated organizational structural changes on a regional basis. The recommendation provides that:

> Oversight of health care delivery operations should be assigned to regional authorities responsible for all health care delivery in their CONUS geographical areas.
>
> [Ibid., p. 9]

A further review of the study suggests that due to a lack of consensus relative to the eventual form of the organization for a "regional authority," three options were provided.

> (1) Implement regional coordination through the existing service organization and Tri-Service regionalization program.
>
> (2) Establish a regional coordinating authority ... with responsibility for all health care functions.
>
> (3) Implement a regional management structure which allocates resources including funds, facilities, and personnel.
>
> [Ibid., p. 83-84]

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[1] For a detailed summary of the major findings of the MHCS see Appendix G.

[2] For a detailed listing of the recommendations of the MHCS see Appendix H.

Regarding the three options of the recommendation, the comments of the three Surgeons General (which will be discussed below) suggest their general opposition to the implications of option 3, hence their acceptance of the concept of a regional authority without the ability to "compel agreement." The discussion that follows generally deals with recommendation 3 option 3 and for the sake of brevity will simply be referred to as option 3.

Notwithstanding the motivation underlying options 1 and 2, a regional management structured resulting from either would seem to support the status quo, i.e., no meaningful change in the way things presently are done. Clearly the findings of the MHCS suggest that the present system has not resulted in the kinds of benefits hoped for. Further, there seems to be no rationale for assuming that the same regional management structure without appropriate incentives will become more efficient and more cost-effective by proclamation.

It is suggested in the literature that managers be given the authority along with the responsibility to make the kinds of decisions that will result in efficient management and cost-savings. Thus, the implications of option 3 seem to be in consonance with the philosophy of decentralized management espoused by Cordiner and documented by Drucker.

> Under options 1 and 2, it is not intended that regional coordinators should exercise command or operational control over funds, facilities or personnel in their region in carrying out this authority. However, option 3 would allow some level of operational or functional control over these resources...
> [Ibid., p. 84]

Whipple referring to recommendation 5, i.e., to the possible use of Capitation Budgeting (CB) in the MHSS, further suggests that to attain the benefits in the MHSS that have resulted in the private sector, managers must be given the decision-making and planning authority commensurate with responsibility in order to achieve cost reductions.

> It is impossible for CB to yield any sufficient benefits in terms of cost containment if those who are receiving the now capitated budget are constrained from making cost-saving decision (and taking the responsibility for them) which may yield the cost-saving hoped for.
>
> [Whipple, WP2 p. 3]

Referring to the implications of option 3, the Assistant Secretary for Health (HEW) suggests that the resultant structure seems to provide for a dual reporting authority as it is defined, and would seem to be in conflict with recognized management principles (Scalar). He further suggests, however, that such an organizational structure would provide significant management control of resources on a regional basis.

> ... The third option, "Implement a regional management structure which allocates resources, including funds facilities, and personnel is not favored because it appears to establish two lines of authority. That is, individual units potentially will be responsible to both a Tri-Service regional management structure and an individual national military service management structure. It would appear that the implementation of a regional management structure which allocates resources including funds, facilities, and personnel does establish significant operational control over facilities and personnel in that region.
>
> [MHCS, p. 84]

Notwithstanding the concern expressed by the Assistant Secretary, a review of DOD policy and current military directives and regulations suggests the existence of ample precedence within the current military establishment to support the provisions and implications of option 3. The latter portion of the Assistant Secretary's comments relative to significant management control of resources (an implicit assumption of option 3), seems to provide the basis for a regional management structure that at the very least has the potential to affect the desired improvement envisioned in the MHCS relative to a Tri-Service regionalized system of health care services.

The Surgeon General of the Army (commenting on option 3) raises questions relative to possible conflicts with the statutory authority and responsibility of the "Service Secretaries, Chiefs and Surgeons General with regards to the health of their forces ..." as well as the "service unique roles and missions ..." It is further suggested that the tighter management control of resources resulting from option 3 could possibly lead to a chaotic state of affairs. With regard the former concern, given that there does in fact exist "conflict," it is anticipated that the reorganizational authority of the Executive Branch granted President Carter by Congress could eliminate the need for this concern. With regard the latter point, it is further anticipated that there exists within DOD and the current military establishment sufficient expertise to design and affect a regional management structure consistent with

option 3 that would not compromise operational responsiveness to military contingency requirements, i.e., that will safeguard " ... effective, timely, military service response to defense contingencies." [MHCS, p. 84]

The comments of the Surgeon General of the Navy (cited in the MHCS) do not appear to address option 3 directly, but seem to imply that recommendation 3 excludes any consideration of operation control of resources by a regional coordinating authority. The comments of the Navy Surgeon General (at the time of the study) are especially pertinent:

> ... We understand that recommendation 3: (a) Intends that the "*regional authorities*" will function as Tri-Service regional coordinators (b) Does not intend that the Tri-Service regional coordinators should exercise operational control over facilities or personnel in their respective region (c) Intends to insure continued responsiveness of regional health care delivery to all military priorities of the respective services.
>
> [Ibid.]

In consideration of the foregoing remarks, it seems that the Surgeon General of the Navy accepted by default the concept of a regional authority that cannot "compel agreement," thus his position appeared to agree with that of both the Assistant Secretary for Health (HEW) and the Surgeon General of the Army.

The response of the Surgeon General of the Air Force to option 3 appears to highlight the fundamental issue associated with this option

and the potential for success of any regionalized management structure, i.e., "... it would be difficult to conceive an organizational mode of regional managers with authority to allocate resources without exercising operational control over funds, facilities, and personnel ..." [Ibid.] It is suggested by the writer that the lack of such authority (which is not expressed in option 1 or 2) may be a contributing cause to the findings of the MHC, e.g., that Tri-Service regionalization, the coordination of highly specialized care ... etc., have not resulted in a full realization of potential reward and benefits. Thus, the establishment of a regional management structure responsible for all health care delivery defined within the parameters of option 3 appears to be consistent with the findings in the literature, specifically the works of Purdom and Mustalish as well as the research conducted by Whipple in the area of capitation budgeting and the associated incentive structure found in the private sector.

C. THE FUNCTION OF A REGIONAL AUTHORITY

Recommendation 2 of the MHCS proposed that a "central entity" be established within DOD to serve as a coordinating mechanism for planning and allocating resources as well as exercise oversight of health care delivery in CONUS. To facilitate the discussion that follows, it is assumed that some form of a central entity will exist and that it will be the reporting authority for the posited regional authority.[1] Subject

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[1]The DOD Health Council (DHC) was established in 1976 to meet the objectives of recommendation 2 and to advise the Secretary of Defense

to the mandate imposed by higher authority, it is further assumed that the focus of the central entity's attention will be strategic in nature emphasizing the development of broad policies and guidelines (designed to ensure the existence of an effective and efficient health care delivery system). As an alternative view, it is conjectured that the central entity may be concerned with goal maximization subject to constraints imposed by contingency requirements, Congressional legislation affecting the MHSS, as well as the availability of resources. Figure 1 provides an illustrative over-simplification of what is considered to be the goal optimization interface between the proposed management subsystems (in the MHSS).

The discussion which follows focuses on the regional management level with some consideration given to the regional medical center/facility level (which subsequently will be considered in more detail). Suffice it to say at the regional management level, it is posited that management will be concerned with minimizing the deviation by the regions as a whole and by facility-managers in particular from established goals and objectives in support of mission requirements. It is further anticipated that given appropriate incentives, regional facility-

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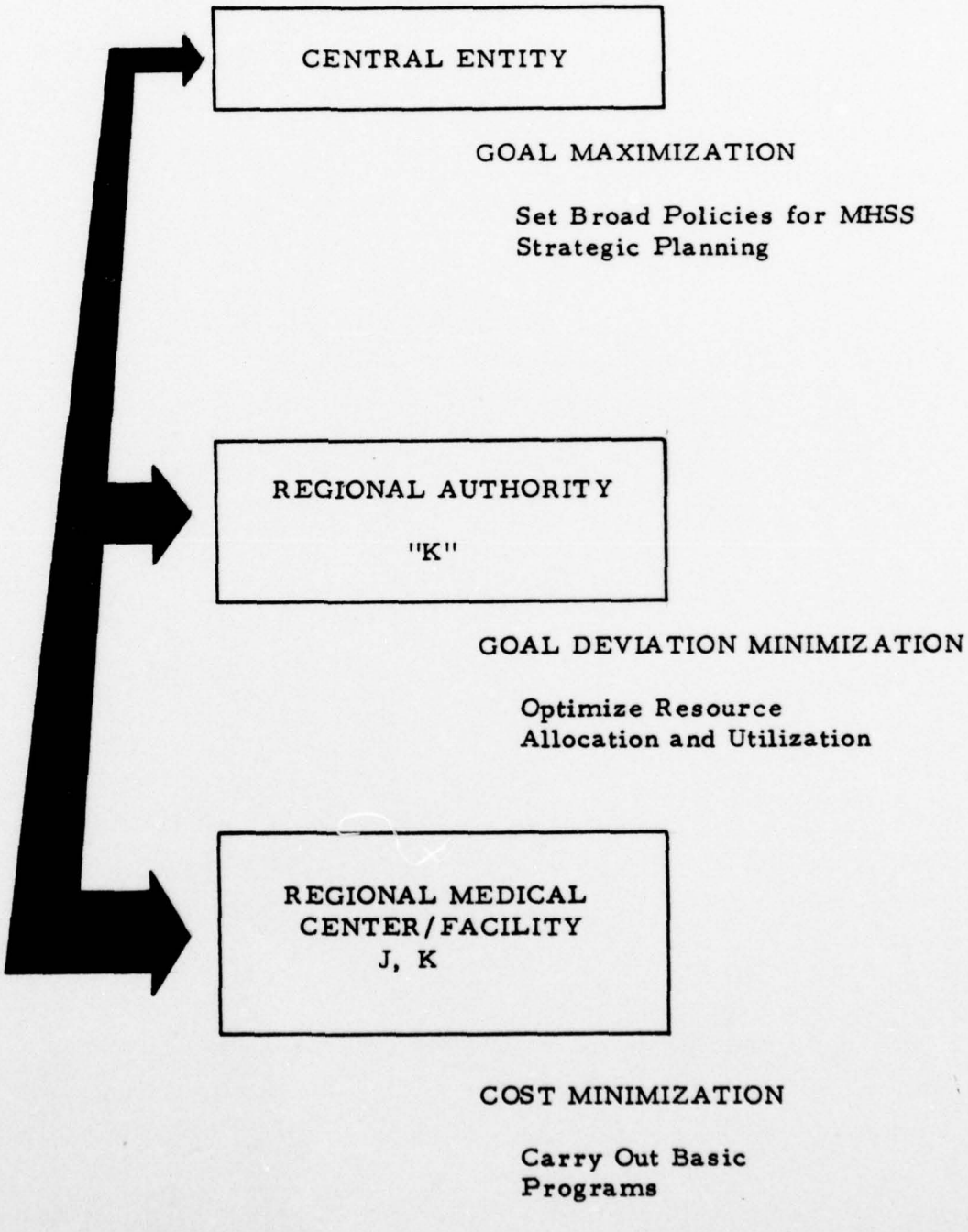
concerning overall health matters. For the capitation budgeting demonstration project (scheduled for FY 78, contract awarded to McKinzie and Co.) the DHC will serve as the regional coordinating authority in overseeing and coordinating the conduct of the capitation budget test.

FIGURE 1

PLANNING FUNCTION



managers will act to minimize cost in carrying out regional programs that will result in efficiencies as well as quality care. Whipple suggests that the desired behavior on the part of management could be motivated by an appropriate incentive mechanism that would allow the cost-savings thus accrued to be shared by those contributing to such savings; i.e., a mechanism whereby regional managers as well as facility-managers would benefit from cost savings that result from managerial innovation and system efficiency. Whipple further suggests that the greatest savings would accrue at the facility-manager level rather than the regional level; i.e., it is suggested that facility-managers are involved with and have the potential to exercise control over the day-to-day decision-making process that could in fact result in either cost savings or cost increases. [Whipple Fr p. 8] It is therefore conjectured that a necessary condition for managerial innovation with the potential for cost-reductions is the ability of facility-managers to be in a position to exercise the kinds of prerogatives relative to decision-making and planning that could result in cost savings and increased system efficiency.

To further facilitate the discussion regarding the function of the posited regional authority, additional assumptions relative to the remaining recommendation of the MHCS must be made. These include the assumptions that population demographics and size will form the basis for CONUS health care planning, that resource programming and budgeting will be on a capitation basis, that both the direct care system and CHAMPUS resources will be integrated in some fashion, that

performance factors probably based on cost per beneficiary be developed to assess efficiency, that inpatient utilization control incentives be established, and that dual choice for non-active duty beneficiaries will eventually be established in the MHSS.

Given the foregoing it is anticipated that regarding regional health care programs, the regional authority will be concerned with the following:

1. Planning, programming, and evaluation of health care delivery operations, including CHAMPUS.

2. Planning, programming, and evaluation of investment equipment procurement and health facility construction.

3. Professional technical education programs.

4. Professional and technical personnel policies.

5. Planning, Programming and Budgeting actions.

Implicit in the assumptions of the MHCS recommendations is the fact that on a regional level for a specified catchment population (eligible DOD beneficiaries) whose members would be constrained from seeking care outside the MHSS, the posited regional authority would be responsible for providing a specified level and range of health care services. If, in fact, the foregoing assumptions do reflect the true state of affairs, it is conjectured that such assumptions will tend to provide the necessary incentive for the regional authority to take such actions that will result

in the optimal allocation of resources relative to the health care services provided. It is anticipated that the scope of services should include interrelated health care programs from within the MHSS as well as CHAMPUS. The conjecture here is that in some areas (Tri-service regions) CHAMPUS cost may well vary with the direct care cost of the MHSS. As Terasawa points out:

> If in <u>every</u> region the marginal cost of one particular delivery system is lower than the other, then the knowledge of aggregate marginal cost is both necessary and sufficient in arriving at a cost minimizing alternative. In this ... the aggregation procedure tends to underestimate the cost savings which may result from an increased use of the direct care system facilities and corresponding decrease in the use of CHAMPUS ... The mere knowledge of the relative size of "aggregate marginal cost" is neither necessary nor sufficient in determining a truly cost minimizing alternative ...
>
> [Terasawa, p. 6-7]

It is therefore further anticipated that a trade-off between CHAMPUS and the direct care system relative to some specific health program or program element may result (given that CHAMPUS costs are lower). To the extent that the marginal cost of delivering care for various regional programs can be identified and where such costs are less than the marginal cost of CHAMPUS, the incentive to maximize the use of MHSS regional facility is clearly stated. [Terasawa and Whipple, p. 3]

When considering the scope of regional health care program, the conjecture here is that regional managers will be concerned with the

total utilization of regional facilities in support of such programs, i.e., ensuring the most cost-effective utilization of available resources and planning adjustment to the level of available resources. Of additional concern is the avoidance of overcapitalization and duplication of services. Both of the latter considerations are directly related to the question of facility-specific total cost. Terasawa and Whipple suggest that there are two components that contribute to the total cost of an operation at a military health care facility: the "periodic fixed cost" and the variable cost of operations:

> ... We posit that the total "periodic fixed costs" of operating the facility are dependent on the physical size, the number of staffed beds, and the expected case-mix of the facility. Next the variable cost of operating the facility will depend on both the level of operation for which it is staffed and the utilization of the facility ....
>
> [Ibid., p. 2]

The foregoing suggests that only those capital improvement and service programs would be established at facilities that could best provide the service efficiently and economically for the projected demands for the eligible population. It is further anticipated that such decisions would necessarily take into account the non-dollar cost to the beneficiary population as well, i.e., location and accessibility. The concern here is to minimize the total cost of delivered care to all eligible beneficiaries without sacrificing necessary quality or reducing the requisite scope of regional health programs.

Once consideration has been given to regional health care programs and facility requirements in support of such programs, it is anticipated the regional managers will be concerned with "... skills, and number of people per skill, necessary to staff health care facility." [Adzies and Zukin, p. 25] A necessary consideration here would be an appropriate mix of providers, i.e., the ratio of physicians to new health professionals (NHPs) with the potential for greater productivity. Given the assumption that regional managers will now absorb total personnel costs, it is anticipated that these managers will be motivated to seek increases in provider productivity by augmenting providers groups with NHPs, e.g., NAMICS, nurse practitioners as well as physician assistants where feasible. It is suggested that the experiences of the three military medical departments with NHPs supported by similar experiences in the private sector should provide sufficient justification for optimism relative to such productivity innovations.[1,2]

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[1] See for example the research report prepared under the continuing contract between OASD (M&RA) and the Naval Postgraduate School, entitled "Studies of the Effectiveness of Paramedical Personnel Usage in Medical Care Delivery."

[2] See the Final Report of the HMEIA Research Project Contract NO1-MB-44173 (P) on the Cost Effectiveness of Physician Assistants prepared by the Bureau of Health Resources Development, Health Resources Administration, Department of Health, Education and Welfare and the Kaiser Foundation Health Services Research Center, 4610 S.E. Belmont St., Portland, Oregon 97215.

Once regional health programs have been developed and facility and personnel requirements to support such programs determined and quantified, it is suggested that regional managers will be concerned with fund allocations and managerial control of resources. Regarding regional capitation budget allocations, Whipple suggests that the total system's cost including CHAMPUS costs for the catchment area population be included in the capitation budget and "funneled through a regional authority." [Whipple, Fr p. 2] Recognition of facility-specific costs associated with regional medical center/facilities as well as the characteristics of the beneficiary population "assigned" to such facilities suggests that sub-allocation methodologies will be required relative to intra-regional resource allocations.

Considering the foregoing, it is conjectured that budgeting and financial control systems will become critical factors relative to the eventual accomplishment of region goals and objectives. It is further conjectured that such management information necessarily be regionally based in order to provide, for example, regional utilization and beneficiary cost data; i.e., an adequate base of information for the regional manager (decision-maker). It is therefore intended that management capture in the planning process the total range of relevant costs in order that such costs be reflected in the capitation rate setting process.

Managerial control of resources in the MHSS historically has provided a formidable challenge to top management. Notwithstanding the

concerned with what activities the organization should undertake, (i.e., its planned output) and, what resources it should use, (i.e., its planned inputs)? "After the fact," management looks at how effectively the organization did its job (i.e., its actual output relative to the organization objective) and how efficiently the organization used the resources thus employed, (i.e., its actual cost to expected cost). Hence, management control of resources in the Military Health Services System can be defined as that process by which military health care administrators assure that resources are obtained and used effectively and efficiently.

It is suggested in the literature and recognized by the writer that it rarely is possible to find a single overall measure of performance for non-profit organizations that will approximate the profit measure found in profit oriented organizations. In this regard the MHSS is certainly no exception. Rather we seek performance indicators that are of use to top management, (central entity and regional authority), as well as operational managers, (local commands), relative to the management control function. It is anticipated that the referenced research efforts in this area will soon produce reliable performance indicators for use by the regional authority.

Recommendation 1 of the MHCS provides that "National Security Mobilization, contingency and other essential force requirements should be the primary determinant of the size and composition of the peace time military medical force ..." [MHCS, p. 8] It is beyond the scope and

intent of the current effort to attempt to prescribe the exact form of the operational relationship that should exist between the MHSS and the three service components. In accordance with the implications of the recommendation, it is anticipated that the regional health program developed in accordance with policy and priority guidance provided by higher authority (central entity) will provide the necessary mission support. It is conjectured that such program development might take the form of a five year regional plan (defense) with a chapter for each regional medical center/facility. Further, it is anticipated that the regional authority will ensure that the requirements for mobilization contingencies be met by timely, systematic review and evaluation routines, as well as the establishment and dissimination of regional planning guidance. It is recognized that there probably exist differing requirements associated with a purely peace-time CONUS based health care delivery system contrasted with that for mobilization contingencies. It is therefore suggested that effective integration and coordination of both requirements become prime requisites for eventual success without degrading the regional health program.

D. REGIONAL HEALTH PLANNING AGENCY (RHPA)

The preceding discussion focused on the functions of a regional authority with some consideration given to the potential interface between the regional authority and the regional medical center/facility level. Given the possible range and scope of regional health care

program, it is conjectured that a significant amount of planning and coordination will be further requisite conditions for successful mission accomplishment. In the MHSS (already a highly complex system), it is anticipated that there will exist a high level of differentiation within and among the restructured system's components. Consider for example, the fact that within each service department there exist graduate medical education, clinical investigation, as well as continuing medical education, programs, not to mention the traditional care delivery sub-systems (e.g., clinics, dispensaries, etc.) with associated administrative support mechanisms which are believed to be peculiar to each military medical department. Additionally, with command and control of health care services particular to each service department (under the current organizational structure) it is conjectured that there may exist service-specific priorities and perceptions as well as differing methodologies within each department that would require the integration of specialized components in order to achieve the desired level of cooperation and coordination in the MHSS in general and within Tri-Service regions in particular. It is further conjectured that the achievement of the requisite level of cooperation and coordination will be predicated in part on the degree in which a regional entity identification can be established with the potential for commanding the loyalties (esprit de corps) believed to be traditionally associated with the separate service systems.

It is suggested that situational developments as a result of the previously described differences could be exacerbated by the fact that strong advocates of the current system may not come to the conclusion (along with DOD decision-makers) that benefits associated with the new system (the posited Tri-Service regional management structure) sufficiently exceed those of the current structure and hence will tend to withhold their enthusiastic support of any organizational initiatives relative to significant system changes. A few examples have been presented here in an effort to set forth some of the general issues that would have to be dealt with if reorganization efforts are to result in an effective organizational structure.

The contingency theory of Lawrence and Lorsch suggests that as an organization such as the MHSS takes on more complex tasks, it will tend to become more complicated structurally by differentiating new organizational components (in this instance the posited regional management structure). Further, it is suggested that these highly differentiated units must be brought together in an integrated whole in order for the resultant organization to be effective. The relevant question here is whether or not the degree of integration required because of the proposed changes in the MHSS will result in a manageable structure. The conjecture here is that it is in fact manageable and that an additional regional entity is required which will augment the recommended regional authority and the already existing regional medical center/facilities. This entity

must provide further coordination and integration, as well as provide the regional decision-maker with an adequate basis of information to support the resource optimizing behavior previously described.

Pearson, in discussing the historical development of regionalized health services in the U.S., indicates:

> It was recognized that this overall scheme would be ineffective without proper planning and coordination. In each local community, a planning agency would be created to develop the program. A local body would be necessary to coordinate the services and programs of community medical centers and their affiliated institutions with other health activities in the area. Local coordinating agencies would also evaluate the study needs for their particular areas. The ultimate control mechanism was vested in a state coordinating agency or board, which would supervise the development of community medical centers and evaluate branches and stations to prevent unnecessary duplication and uncoordinated construction of facilities. In addition, this coordinating body would study problems of organization and financing and would initiate necessary legislation.
>
> [Pearson, p. 13]

James Zimmer and Robert Berg, discussing the problems associated with providing an adequate base of information for decision-making in a regionalized system, suggest that regional planning and coordination will depend on having an adequate data base, and that for such an effort, data are required essentially for two purposes, "... the identification of unmet needs and the containment of cost." [Ibid., p. 135]

Motivated in part by what Zimmer and Berg call unmet needs and cost containment, Congress passed the National Health Planning Resources and Development Act (P.L. 92-641) in January 1975.[1] Martin S. Perlin summarizes the relationship of the public law to planning and coordination and points to the role of the health system agencies (HSAs):

> There is no longer an alternative to formal long range planning by health institutions. The National Health Planning Resources and Development Act (P.L. 93-641), following on the heels of an increasing number of state laws on certificate of need, has set in place a new era in health facility planning. In addition to outside regulations and controls over the operation of health facilities, the top management of today's hospitals must demonstrate that plans for new facilities and major programs are based on sound and defensible planning processes. Those agencies responsible for implementing these regulations will have the necessary clout to make them stick.
>
> [Perlin, p. 19]

In consideration of the foregoing discussion, it is suggested that within the MHSS and specifically at the regional management level a military regional health planning agency (RHPA) be established to thus provide an "adequate base of information" for the regional decision-maker and to function as a regional planning and coordinating staff.

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[1] For a detailed analysis of P. L. 92-641 see Truesdell, W.C., Jr. and Duny, M. S., An Analysis of National Health Planning and Resource Development Act of 1974 and Its Impact On Health Care, Masters Thesis, Naval Postgraduate School, Monterey, California, June 1976.

Recognizing that there is probably no universal "best" arrangement for organizing to do the work of planning and coordination. Figure 2 provides an illustration of a regional management structure depicting the posited RHPA. It is posited here that for each MHSS region, the regional authority should be supported by a RHPA.

E. THE FUNCTION OF A RHPA

To facilitate the following discussion, it will be assumed (in accordance with the findings and recommendations of the MHCS) that the requisite management information system (MIS) will exist. The MIS envisioned here falls within the definition provided by Davis and Freeman in their discussion of the hospital manager's need for a management information system -- a system that will provide not just information but one that will directly support and assist decision making:

> The term information system refers to the procedure, or mechanism, whereby numeric, alphabetic, graphic, photographic or other information is gathered, stored, perhaps rearranged, and retrieved. A management information system makes this information avilable to managers who are responsible for planning, operations, and control, in a form directly applicable to their management tasks. Not every information system qualifies as a management information system.
> [Davis and Freeman, p. 67]

To further emphasize the distinction and potential utility of the management information system, table 1 provides examples of information system functions.

FIGURE 2

REGIONAL MANAGEMENT STRUCTURE

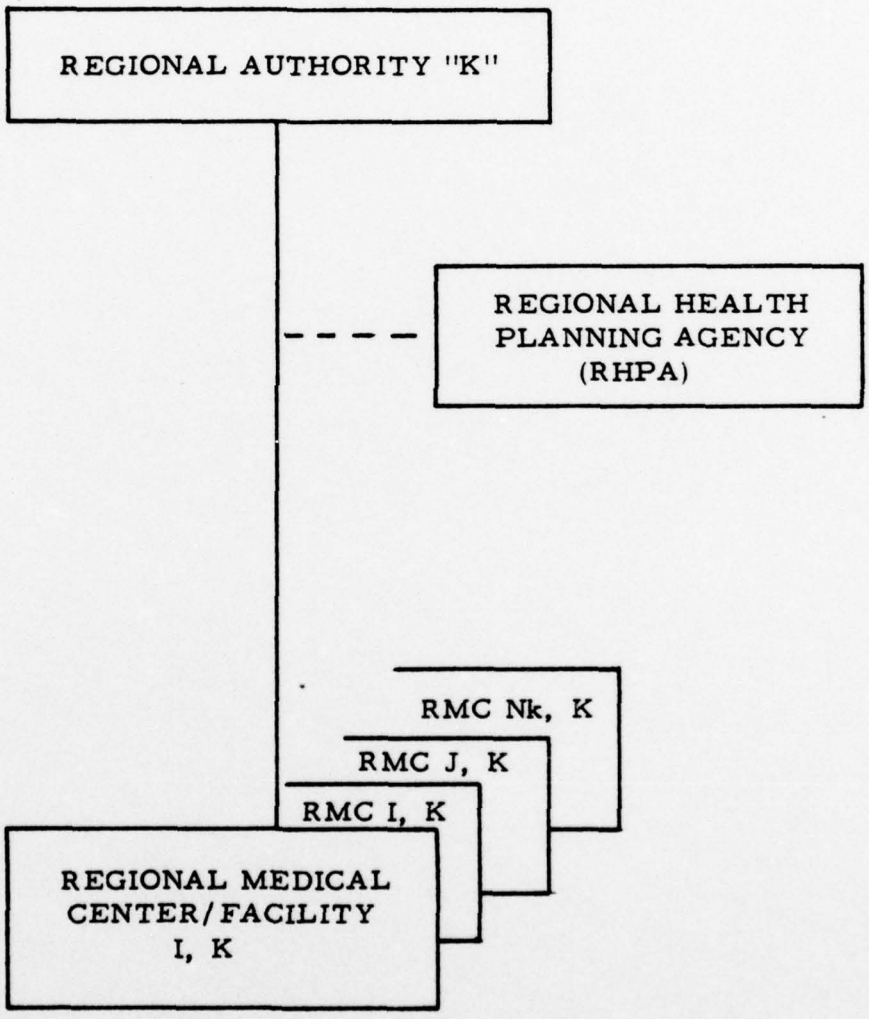

TABLE 1

EXAMPLES OF INFORMATION SYSTEM FUNCTIONS

Type of System	Example of Personnel Functions
Simple Data Processing System	Positing time and attendance; producing paychecks; reporting labor distriction.
Integrated Information System	Simultaneous updating of payroll and personnel files after across-the-board wage increase.
Information Retrieval System	Provides individual salary histories or absenteeism records.
Management Information System (MIS)	Productivity reporting based on performance standards, exception reports for turnover and absenteeism, workload forecasts, work schedules.

Source: Health Care Management Review, vol. 1, no. 4, p. 6, Fall 1977.

With the previous distinctions as benchmarks, it is further assumed that among the characteristics of the MIS, it will be regionally based (in regional medical center/facilities) and that it will facilitate the development of budgeting and financial control data (e.g., uniform chart of accounts for regional medical center/facilities).

At this juncture a brief discussion of planning that endeavors to link the traditional organizational components, e.g., the marketing, production, human resources and financial components in commercial organizations (such as General Motors and General Electric) to planning in the health care sector appears useful. Adzes and Zukin, discussing

management's approach to health planning suggest that there exists a relationship between planning for organizational subsystems and health system planning. They further suggest that the marketing function includes:

- Assessing health status and health care needs and demands.
- Deciding on the type of services, facilities and programs that will meet these needs and demands in a practical, affordable, and cost-effective manner.
- Designing the programs to promote the use of services, and health itself.
- Considering the effect of price (charges for services) or inconvenience (distance traveled or waiting time) on the use of services.

[Adizes and Zukin, p. 20]

The marketing subsystem is thus designated by the acronym "NSC" which stands for "needs assessment/scope of service/client interface."

Regarding the production subsystem, it is suggested that production encompasses all of the activity that results in a desired output, i.e., the process of rendering care.

> ... In commercial organizations, production includes the manufacturing and engineering systems. For a health organization of national scope, production includes the design, location, and operation of facilities; maintenance programs for equipment; transportation, communication and other infrastructure; stores and supplies -- in short, all that needs to be done in order to provide for health. In essence, this is the health care delivery system.
>
> [Ibid., p. 21]

structural changes as well as the managerial innovations currently recommended, it is anticipated that the challenge will continue to exist. Accepted criteria for the assessment of management control, (i.e., measures of managerial performance), is the evaluation of efficiency and effectiveness. It is considered necessary and desirable to have efficiency measures that could compare in some form inputs to outputs relative to a process of production; and to have effectiveness measures that could take into account the relationship of outputs to the goals and objectives of an organization.[1]

Health care facilities in the MHSS may be thought of as "responsibility centers" in which inputs (wages, personnel, supplies, etc.) converted to cost elements, are thus compared to output, e.g., services rendered.

Inputs / Cost	Responsibility Centers / Processor	Output / Services

Of special concern to management are performance indicators that will assess the expected cost of various factors of production (inputs) with the actual cost of producing a certain product mix. In this regard, it has been suggested in the literature that "before the fact" management is

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[1]Research is currently being conducted in this area under the continuing contract between BUMED/Code 02 and the Naval Postgraduate School, entitled "Investigation of the Possible Uses of Performance Indicators to Foster Efficiency in the MHSS." See also "Controlling Hospital Cost: An Index Approach," by David Whipple and Michael Block, Inquiry, March 1976.

The human resources subsystem emphasizes personnel requirement, including employee development, incentive/reward mechanisms, and performance evaluation. Referring to the financial subsystem, it is suggested that the concern here is for both capital as well as quantifying the cost of facilities and services. "In this subsystem we are concerned with the source, use, allocation and control of money in relation to the programs and activities of the organization. [Ibid.] It is further suggested that the four subsystems provide the basis of a "planning tent" in the health care sector:

> In sum, what we have is one subsystem (NSC) that determines the needs of the client or the environment and how to satisfy these needs, and three subsystems that actually fulfill these needs. Planning then becomes the process of integrating these four subsystems so that they come together into a common focus or mission. [Ibid.]

The foregoing discussion regarding health planning has a direct application in the MHSS. The planning considerations discussed will form the basis for delineating the functions of the posited RHPA relative to regional military health care programs. In this regard Davis and Freeman indicate that "the availability and use of information in the decision-making process is not just one prerequisite for efficient and effective management ... it is the prerequisite." [Davis and Freeman, p. 68] Thus, in a very broad sense, it is suggested that the RHPA in its planning and programming function, delineated by higher authority will be concerned with the following decision process:

1. Defining and assessing the level of health care need for the regional catchment area population.

2. Analyzing the area of need with regards to the potential demand for care and facility utilization.

3. Defining and developing general goals relative to health care needs of the regional catchment area population.

4. Developing specific program objectives relative to the previously established goals.

5. Identifying alternative courses of action.

6. Selecting desired alternative courses of action for further consideration.

7. Developing and recommending specific courses of action to the regional decision-maker.

8. After implementation, evaluating performance with respect to effectiveness and efficiency.

Support of the specific functional concerns of the regional authority (see page 47), it is anticipated that the RHPA (in consonance with the foregoing decision process) will endeavor to accomplish the following:

1. Regarding planning, programming and evaluation of regional health care delivery operations, it is anticipated that the RHPA will;

a. Delineate specific regional health programs;

b. Clarify options relative to such programs, taking into account possible champus tradeoffs;

c. Recommend procedures to improve efficiency;

d. Detail financial implications of recommended actions;

e. Monitor system performance relative to the quality of care rendered and program effectiveness. Regarding quality of care and program effectiveness, it is suggested that "unmet needs" [Zimmer and Berg op.cit.,] will be identified through patient dissatisfaction (the perceived quality of care) and thus provide an indicator of consumers perception of, for example, the degree to which "providers" measure up to certain standards.[1]

2. Regarding planning, programming and evaluation of investment equipment procurement and health facility construction, it is anticipated that the RHPA will develop procedures and methodologies to prevent over-capitalization and duplication of service in regional medical center/facilities. For example, all investment equipment requests would be funneled through the RHPA for review and recommendation for approval/disapproval before such requests would be considered by the regional authority. It is further anticipated that the RHPA will develop a regional capital expenditure program designed to ensure the timely replacement of existing investment equipment. Regarding facility construction, it is

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[1] Research is currently being conducted in this area under the continuing contract between BUMED/Code 02 and the Naval Postgraduate School, entitled "Patient Satisfaction Information System (PSIS) Project."

anticipated that the RHPA will monitor maintenance and repair programs within the region through, for example, a system of periodic inspection routines that would ensure timely recommendations for the replacement of existing facilities as well as the construction of new facilities to meet expanding requirements.

3. Regarding professional and technical education programs, it is conjectured that the RHPA will: (a), serve as the focal point for coordinating graduate medical education programs and continuing medical educating programs; and (b), provide the mechanism for coordinating employee development programs for both civilians and military personnel.

4. Regarding professional and technical personnel policies, it is anticipated that the RHPA will be concerned with the development of: (a), regional standards relative to hiring, training and disciplinary policies; and (b), incentive reward systems. Such reward systems might take the form suggested by Whipple in which facility-managers as well as the regional authority benefit from accrued cost-saving. [Whipple op. cit.] It is conjectured here that there probably exists within each military medical department different policies and local procedures that relate to personnel practices; and that such policies, procedures and practices will have an ultimate impact on the kind of incentive reward system eventually established.

5. Regarding planning, programming and budgeting actions, it is anticipated that the RHPA will provide the necessary support to the

regional authority for both budget formulation and budget execution on a regional basis. In this regard it is further anticipated that the agency will render technical guidance and assistance (related to the planning guidance set forth by the regional authority in accordance with policies and priorities, planning data and per-capita resource ceilings established by the central entity) to regional medical center/facilities relative to their operating budget formulation and subsequent submission. Given the foregoing it is suggested that the RHPA then provide the necessary support to the regional authority for the development of the regional operating budget based on these component budget inputs and on projected changes in the size, characteristics and deployment of the beneficiary catchment area population. In addition, it is anticipated that the agency will develop sub-capitation methodologies for intra regional resource allocations taking into account the facility-specific total cost of regional medical center/facilities and the characteristics of the beneficiary population assigned to such facilities.

An implicit assumption relative to the foregoing discussion is that the planning forecasts (both short and long range) will be predicated on environmental analysis (both external and internal). It is suggested that the relevant characteristic of both have been taken into consideration in the foregoing discussions although not explicitly cited under the headings of internal and external environmental analysis. Suffice it to say that the outline presented in exhibits 1 and 2 provide the basic

EXHIBIT 1

COMMUNITY SURVEY

I. Demographic characteristics

- A. Population size
- B. Age distribution
- C. Sex ratio
- D. Marital status

II. Community health status

- A. Positive measurements
  - 1. Birth rates
  - 2. Fertility rates
  - 3. Life expectancy
- B. Negative measurements
  - 1. Mortality
    - a. Crude death rate
    - b. Age specific death rate
  - 2. Morbidity
    - a. Incidence of disease
    - b. Prevalence of disease
    - c. Disability data

Source: Perlin, M.S., Managing Institutional Change, Aspen, p. 51-52, 1976.

EXHIBIT 2

RESOURCE INVENTORY

I. Facilities for care of ambulatory patients

- A. Physicians', dentists', or other practitioners' offices
  - 1. Solo
  - 2. Associated group
  - 3. Organized group
- B. Hospital clinics -- general or special
- C. Health department clinics
- D. Industrial clinics
- E. School clinics
- F. Other clinics
- G. Rehabilitation centers
- H. Neighborhood service centers
- I. Community mental health centers

II. Facilities for emergency services

- A. First aid stations
- B. Emergency service units
  - 1. Community-based
  - 2. Hospital-based

III. Facilities for patients requiring residential care (in-patient)

- A. Short term general hospitals
- B. Short term special hospitals

EXHIBIT 2

RESOURCE INVENTORY

C. Chronic disease and long term hospitals

D. Acute psychiatric hospitals

E. General hospital sections of psychiatric communities

F. Rehabilitation hospitals

G. Extended care facilities

H. Nursing homes

1. Skilled

2. Intermediate

I. Infirmaries

1. Schools and colleges

2. Sections of homes for the aged and homes for children

IV. Facilities for organized home care services

A. Comprehensive

1. Community-based

2. Hospital-based

B. Visiting nurse agencies

V. Facilities for supporting services

A. Pharmacies

B. Clinical laboratories

C. Dental laboratories

D. Radiology services

EXHIBIT 2

RESOURCE INVENTORY

E. Ambulance stations

F. Prosthesis and appliance fitters and makers

G. Opticians

VI. Supply services

A. Manufacturers and distributors of drugs

B. Manufacturers and distributors of medical and dental supplies and equipment

C. Publishers of health services literature

Source: Perlin, M.S., Managing Institutional Change, Aspen, p. 53-54, 1976.

formats for consideration by the RHPA relative to the external environment, while an assessment of the internal organization is believed to be an ongoing process in the aforementioned planning and programming considerations.

F. THE REGIONAL MEDICAL CENTER/FACILITY

In the following discussion emphasis will be placed on (1), the general role of the regional medical center/facility-manager in providing support for as well as the execution of regional health programs; (2), the potential interaction of the facility-manager (C.O.) with the organization's staff (administrators and providers); and (3), the potential interface between the facility-management and the regional management levels. It is not the intent here to prescribe the exact form, course of action, or direction that the facility-manager should take relative to the eventual accomplishment of the organization's mission. Rather, what is intended is an exploration of those principles and considerations which are believed to be logically derived from the foregoing literature review and subsequent discussions. The conjecture here is that there exists within the current structure sufficient expertise (in and among the various levels of facility-managers and specialists groups) to adequately chart the necessary courses of action that would be required to achieve (within the parameters set forth by a central entity) the specified goals and objectives of the MHSS.

The following assumptions will then serve as a basis for the discussion: (1) A greater degree of decision-making and planning will be delegated to lower levels of management (the regional authority and facility-managers) in order that those managers who are actually in positions to make the kinds of management decisions that might result in cost-saving (or increases) can in fact do so; (2) Appropriate incentive/reward systems will be developed and subsequently implemented in order to enhance the likelihood of achieving the desired goal maximizing/cost minimizing behavior by both providers and administrators -- thus creating the type of competitive climate that could possibly result in a greater degree of satisfaction by those involved in the decision process; (3) Performance indicators of some fashion will be developed and available which will measure the system's efficiency and effectiveness thereby providing a means to compare regional medical center/facilities (intra, as well as extra, regionally); (4) True enrollment of the beneficiary population will be affected from which some measure of the reasonable cost of providing care per beneficiary could be ascertained; (5) Regional medical center/facilities will in fact be assigned responsibility for providing the total health care "needs" of designated beneficiaries within a specific regional location; (6) Budgeting for the projected "demands" of the eligible beneficiary population will be on a capitation basis; (7) Material requirements in support of military contingencies as well as certain categories of medical equipment (e.g., in the former

case, a "surgical team block," and in the latter case, Computer Assisted Tomography Scanner or "Cat Scanner") will be budgeted for on a line-item basis and therefore not be included in the capitated budget; (8) Sub-capitation methodologies for the intra-regional resource allocations will be developed that would be sensitive to facility-specific costs; (9) Methodologies for monitoring the quality of care rendered as well as patient satisfaction will be available.

Based on the foregoing assumptions it is conjectured that the facility-manager will be concerned with achieving a high level of coordination and cooperation within and among various highly specialized units of the organization in order to ensure the attainment of mission requirements in an efficient and cost-effective manner. Literature findings suggest that the degree in which organizational effectiveness is achieved is predicated in part upon the level and degree of involvement in the decision process by those who are responsible for ensuring specific task accomplishment (e.g., service chiefs and department chairmen). The point to be emphasized here is the fact that managers are more apt to support and pursue those programs and objectives when they have had an active part in establishing them.

It would seem then that the facility-manager should endeavor to develop (in the organization) the kind of environment that would be conducive to an interchange of ideas and recommendations with and among the organization's staff (both administrators and providers).

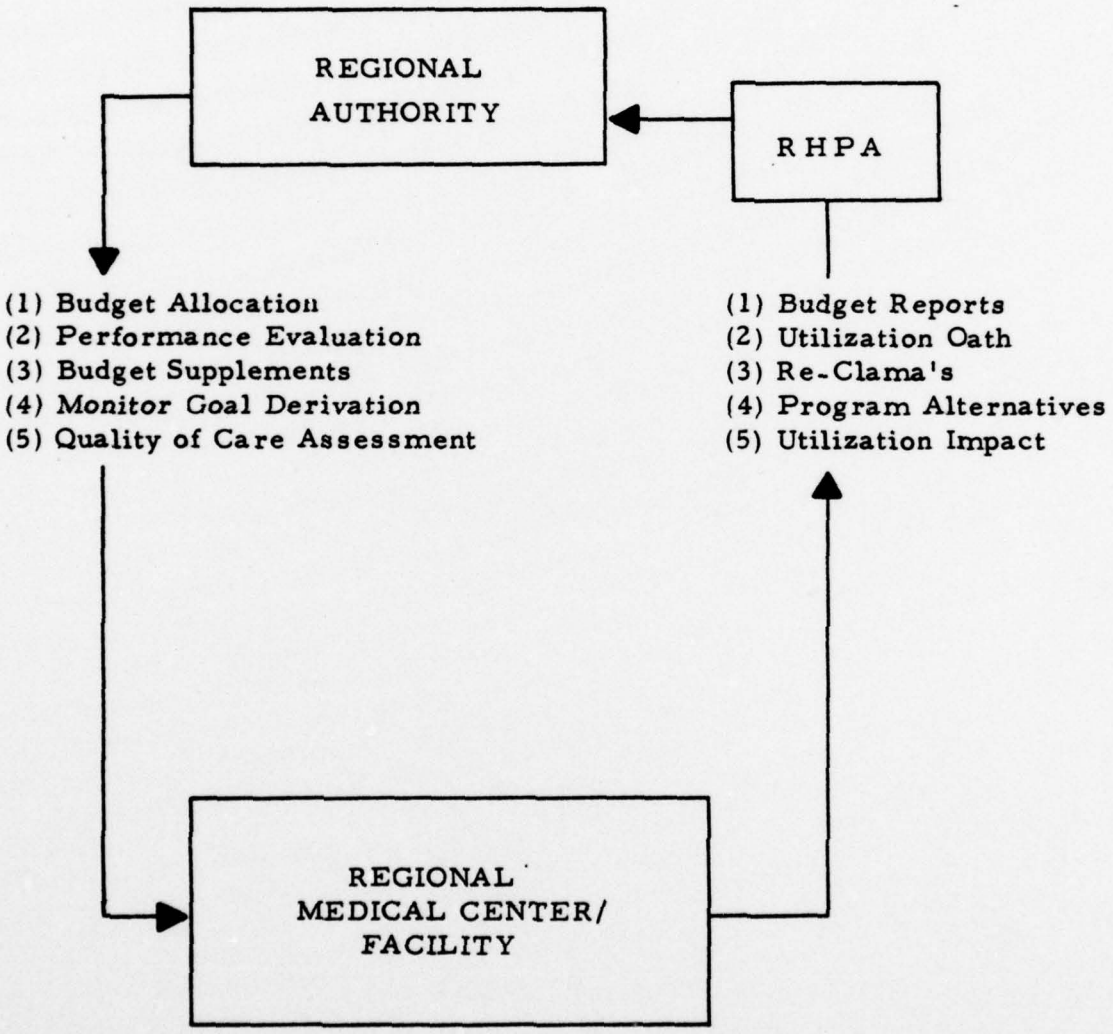
It is suggested that examples of the kinds of initiatives that might be taken by the facility-manager could take the form of regularly scheduled conferences with key staff members for the purposes of exploring the consequences of, and seeking timely recommendations regarding changes in, the external environment that have potential impact on the organization. Such changes might be brought about by demographic shifts resulting from, for example, a squadron transfer or the permanent change in home port of a carrier (from San Diego to Norfolk). Relevant considerations relative to the foregoing might involve assessing the potential impact of such changes on clinic operations, i.e., which clinics would be affected and to what degree.

Additional considerations (by the facility-manager) might result in the formation of task oriented staff groups for the purpose of determining (for example) the appropriate panel size (number of families/enrollees per physician) to be included in a newly proposed family practice program or, exploring and making recommendations relative to appropriate provider/physician extender ratios for given levels of health services, specific health programs, clinics or branch facilities. It is conjectured that although some of the previously noted examples may be visible within the current structure, they nevertheless could serve to reinforce the efforts on the part of the facility-manager in attempting to promote greater degrees of participation by the organization's staff.

At this juncture, it is anticipated that the discussion will be enhanced by considering the potential interface between the facility-manager and that of the regional authority levels. It is posited that the regional medical center/facility represents that part of the proposed regional management structure where basic health care programs are carried out and as a result will be the focal point for any cost-savings which may be realized. It then seems reasonable to conjecture that both the regional authority and the facility-manager will be concerned with the process in which health care is rendered. As was previously stated, management will be concerned with the actual resources utilized in producing a particular output. Alternatively, management will be concerned with how efficiently the organization employed the resources available to it in achieving its objectives.

It is anticipated that there are a number of considerations as well as a combination of activities that will require integration in some fashion in order to affect the desired level of manager control. Figure 3 provides an illustrative simplification of the kinds of data considerations/activities that might result at both levels. It is posited that the RHPA, acting within the parameters set by the regional authority will provide the necessary support function in facilitating the interaction between both management levels. Such activities on the part of the RHPA could take the form of systematic assessments of utilization impact (provided at the facility-manager level) as well as monitoring system efficiency

FIGURE 3


REGIONAL AUTHORITY
RHPA
(1) Budget Allocation
(2) Performance Evaluation
(3) Budget Supplements
(4) Monitor Goal Derivation
(5) Quality of Care Assessment
(1) Budget Reports
(2) Utilization Oath
(3) Re-Clama's
(4) Program Alternatives
(5) Utilization Impact
REGIONAL MEDICAL CENTER/ FACILITY

and effectiveness through the use of developed methodologies. In addition, the RHPA could monitor the degree of goal deviation and assess the potential impact on regional health programs by those programs proposed as alternatives by the facility-manager.

More specifically, consider the following examples of the potential interface between the principal actors of the posited regional management structure. First, suppose that two regional medical facilities located within 30 miles of each other (belonging to different service components) have submitted requests for a "Cat Scanner, " (this would remain a "line item budget" element under the proposed system). It is conjectured that within the current system each facility could conceivably be funded for this item since the approval and funding process by the cognizant authorities may not take into account the fact that a similar request is being evaluated simultaneously for an adjacent regional medical facility or the fact that such an item may indeed exist in an adjacent facility. Thus the potential exists for overcapitalization and duplication of services.

It is suggested, however, that under the proposed system the potential for such overcapitalization and duplication of services tends to be reduced significantly (and at a substantial cost-savings). The process would involve an evaluation of the facility-managers' requests for the item by the RHPA. The need for the item in the region would first be determined. That is, the probable total demand for Scans to be generated

by the overall catchment population would be estimated. If it is confirmed that there exists a "need," each facility would then be evaluated with respect to its capacity to provide the service in a more efficient and cost-effective manner. Based on the results of the foregoing analysis, the RHPA would then make appropriate recommendations to the regional authority relative to the requested item.

The facility-manager (under the proposed system) would be motivated by at least two considerations. First, his facility would be competing with other regional medical center/facilities for particular items of investment equipment (items costing $1,000.00 or more, eg., a "Cat Scanner"). Given the existence of such a competitive environment, it is suggested that the incentive exists for that manager to operate his facility in an efficient and cost-effective manner. Second, unlike the current system in which methods of prioritizing items of investment equipment may be found (at the facility-manager level) that may be based largely on political considerations which may in fact outweigh other merits and hence determine the level of priority eventually assigned the requested item, the facility-manager now can seize the opportunity to reward a service chief or department chairman for efficient management by forwarding the request directly to the regional authority (with a strong recommendation for purchase) as one of his facility's high priority items.

Next, consider a permanent change in home port of two navy aircraft carriers (CVAs) from the west coast to the east coast. As previously

noted, relevant considerations for both the facility-manager and the regional authority relative to such a development would involve assessing the potential impact on regional facility utilization in terms of health care programs offered and the number and type of providers required to support such programs. It is posited that the RHPA will provide the demographic data and subsequent data analysis to both the regional authority and the facility-manager relative to the potential environmental impact of this development, and thus on their capitation rates and catchment population size. It is therefore anticipated that the role played by the RHPA will facilitate the decision process thus employed by the regional authority and the facility-manager in making necessary adjustments to regional health programs and specific components thereof.

IV. CONCLUSION

Although there seems to be no precise definition, the concept of decentralization as a philosophy of management appears to have a set of "first principles." Thus, a case has been made for the concept's consideration by DOD decision-makers in their efforts to affect the changes recommended in the MHCS.

The review of the literature suggests that changing from a highly centralized to a decentralized organization structure (such as the MHSS) provides a formidable challenge to the executive group. In this regard it is pointed out that there exists certain environmental considerations that must be dealt with if an effective organizational structure is to result. These considerations involve issues of organizational design and complexity, e.g., dealing with organizational conflict as well as specialization/integration issues to achieve the required level of coordination and cooperation. It was further pointed out in cases where decentralization efforts did not yield expected results (e.g., the health agencies cited here) the requisite conditions a la the basic principles were not given full and enthusiastic support by the executive group. It would seem that any change in the organizational structure of the MHSS would be motivated by the desire (on the part of DOD decision-makers) to obtain a more efficient and cost-effective health care system. Thus

it is concluded that there must exist the endogenous and consistent incentives at all levels to provide the requisites for successful change implementation.

The belief here is, given the ongoing research effort cited here dealing with potential managerial improvements in the MHSS, that the recommended regional management structure will provide the requisite management and organizational level changes sufficient to ensure the continued delivery of health care services to eligible DOD beneficiaries at high levels of quality but at substantial cost-savings.

APPENDIX A

Resource Programming in the Military Health Service System[1]

Although the military medical departments are organized differently, the programming of resources to support their activities is handled similarly by all Services. In each Service the Surgeon General has the major responsibility for developing and defending within his Service and the Department of Defense, to OMB and before Congress, the majority of his medical department's requirements for:

- Military personnel.

- Operation and maintenance (O&M) funds -- funds for civilian personnel, supplies, equipment under $1,000, contract services, and other items.

- Major construction monies -- funds for building and renovation of facilities.

- Procurement -- funds for equipment costing over $1,000.

Minor differences occur among Services in:

- The extent to which certain health services delivery resources are not identified with DOD Program 8 (training, medical, other personnel activities), but with other DOD programs, such as Programs 1 and 2 (strategic and general purpose forces), and thus do not come under the program managership of the Surgeons General, all of whom are Program 8 (medical) managers for their services.

- The location of authority to allocate and expend health resources once programmed.

In the Air Force virtually all health delivery resources are programmed by the Surgeon General.* In the Army, the Surgeon General programs

*As of FY 1977 clinic operation previously not funded under Program 8 (medical) will be identified with that program. The organic medical components of strategic and tactical units may not be brought into Program 8.

[1]Source: Military Health Care Study, Supplement, OMB/HEW/DOD, p. 38-41, December 1975.

all medical department officer personnel and all resources for fixed facilities worldwide. He does not program enlisted health services personnel or O&M and procurement funds for mobile health service delivery units (Forces Command medical units in the CONUS and organic medical components of nonmedical field units overseas). In the Navy, the Surgeon General programs the resources for the BuMed delivery system. He does not program the resources for the operating forces system, and these represent a substantial portion of the total department health delivery effort, including approximately 25 percent of the health services manpower.

Authority to allocate and expend health services resources once they are programmed varies in accordance with the command and control structures outlined in the previous sections. This authority, however, is circumscribed in all departments as follows:

--Operations and Maintenance (Medical). O&M medical monies can be used flexibly with funds shifted among the various categories of resources included in the appropriation -- civilian personnel, supplies, etc. The only constraint on use of these medical funds is that civilian personnel ceilings, derived from Congressionally-set ceilings for each service, cannot be breached.

O&M medical monies are "fenced" by Congress; no more than five percent department-wide can be diverted to nonmedical O&M purposes. Thus, commanders who receive O&M medical monies and other O&M funds -- the major Army commands overseas, the major Air Force commands -- cannot divert O&M medical monies to other O&M purposes *without departmental approval.*

--Major Construction. Congress authorizes and appropriates construction funds for specific projects, and funds can only be used on the projects for which they are appropriated.

Within these constraints, authority to allocate and expend health services resources once they are appropriated is as follows:

- Army. Within the U.S. the commander, HSC, has the authority to allocate and reallocate the military manpower authorizations and O&M medical resources he receives from the Department of the Army within his command, which encompasses both health care delivery in the United States and the Army's health-related training and education.

Overseas, the medical commander's resource authority parallels that of the commander, HSC. He controls military manpower authorizations and O&M medical monies allocated to him by his major commander and can allocate and reallocate these resources to health activities within his command.

The Surgeon General controls medical procurement funds, funds for purchase of equipment over $1,000 used in fixed facilities worldwide.

As noted above, the Surgeon General does not program enlisted health services personnel or O&M and procurement funds to support health service delivery in nonfixed facilities. These resources are programmed by other Army managers and allocated to major Army commands. The major Army commanders can allocate and expend these resources as they see fit. Because these resources are not identified with Program B (medical), they can be diverted to nonmedical purposes by the major commanders.

All medical RDT&E resources are controlled by the Surgeon General, as the medical Research and Development Command is a subordinate command under his authority.

The Army Surgeon General also programs the O&M, construction and procurement funds for those tri-service activities in support of the direct care system for which he is the Executive Agent. Military manpower requirements for these agencies generally are specified in the charters of each agency.

- Air Force. Military manpower authorizations and O&M medical funds are allocated to major commands by the Department of the Air Force. Each major commander, with the advice and assistance of his command surgeon, allocates these resources to the health services activities under his command and control. Procurement funds are centrally controlled and purchases of equipment over $1,000 must be approved by the Surgeon General.

Although health service activities are integrated into the Air Force command structure, health services resources are not "integrated" into a major command's total resources.

--The major command cannot divert O&M medical monies to other O&M purposes within the command because Congress has fenced these funds.

--Construction monies are earmarked for specific projects by Congress.

--Procurement monies are controlled by the Surgeon General.

Thus, while a major commander can allocate and reallocate health services resources among the health services activities under his command and control, in general he cannot "trade-off" health service and other command activity resources.

As Executive Agent, the Air Force Surgeon General programs funding for the Central Medical Registry.

- Navy. Military manpower authorizations, O&M medical funds, and procurement monies for the BuMed health services delivery system, training and education and applied RDT&E are allocated and controlled by the Navy Surgeon General as Chief of BuMed.

The Surgeon General does not program or control the resources of the operating forces health care delivery system. These resources are programmed by other Department of Navy managers and controlled by the major operating force commanders. Because the O&M and procurement monies which support the health services efforts of the operating forces are not identified with Program 8 (medical), the major commanders can divert these funds to other uses as they see fit.

Although he does not program operating forces resources, the Surgeon General, in his role as health care advisor to the Chief of Naval Operations and Commandant of the Marine Corps, can influence that system's resource programming. Thus, for example, when a new class of ship is commissioned, the Surgeon General can participate in determining what military medical manpower resources are required to support the ship's company. He also is responsible for preparing the health services portion of the outfitting list which specifies the equipment required aboard.

As Executive Agent, the Surgeon General programs resources for the Defense Medical Material Board.

- By DOD instruction all health facility construction appropriation requests must be approved by the ASD(H&E) prior to submission to Congress. The ASD(H&E) must certify the need for construction of a new facility or renovation of an existing one and approve the size and capacity of the proposed facilities.

- The ASD(H&E) is a member of the Manpower and Personnel Council, established by the Secretary of Defense. The Council, composed of Assistant Secretaries of Defense is responsible for developing the All-Volunteer Force structure. In this forum the ASD(H&E), as the OSD health services expert, has the opportunity to influence the overall size and composition of the military medical departments manpower forces.

In addition to his staff responsibility, the ASD(H&E) provides policy guidance and has operational responsibility for the CHAMPUS* program. This program is fully described in the study paper "Review of Champus Management."

The ASD(H&E) is not responsible for development, coordination and evaluation of DOD medical RDT&E policies and programs. The Director of Defense Research and Engineering (DDR&E) has that responsibility. The DDR&E, as his title implies, has directive authority legislated by Congress over research activities within the military departments. The DDR&E, unlike the Assistant Secretaries overseeing other functional areas, has authority to withhold funds from RDT&E activities. The office of DDR&E, thus, has the authority to develop and implement policy with regard to health sciences research and ensure that RDT&E resources are used in accordance with the DOD-wide priorities he has set.

*CHAMPUS, the Civilian Health and Medical Program of the Uniformed Services, finances health care provided by civilian providers to DOD beneficiaries as specified by law.

APPENDIX B

Organization of the Army Medical Department[1]

Department of the Army Organization. The Department of the Army consists of the Office of the Secretary of the Army; the Army Staff, headed by the Chief of Staff; and the 15 major Army commands which report to the Chief of Staff and constitute the field organization of the Army. The major commands headquartered in the continental United States (CONUS) are organized functionally (for example, the Army Material and Army Intelligence Commands). The major overseas commands are organized geographically (e.g., the U. S. Army Europe).

Summary: Army Medical Department Organization. The Army Medical Department is organized primarily along functional lines. Most health services delivery -- services provided in fixed facilities -- both in the United States and in geographical areas overseas is the responsibility of dedicated health services commands. The balance -- services provided by field or mobile medical units -- is provided by commands of which the medical organizations are a part. Health services education and training and health research and development are also the responsibility of dedicated commands.

The Surgeon General, through the commander of the Medical Research and Development Command, commands and controls medical RDT&E activities. Through the commander of the Health Services Command, the Surgeon General also controls health service delivery in fixed facilities in the U.S. ahd health education and training activities. He does not command or control health services delivery activities of field or mobile medical units in the U.S. or of the overseas medical commands. He does have technical guidance over all Army Medical Department activities and has direct access to the Chief of Staff and Secretary of the Army on health and medical matters, including utilization of Army Medical Department personnel.

HEALTH SERVICES DELIVERY

Command and Control. Army health services are delivered by two types of organizations: those designed to function in fixed facilities (permanent or semi-permanent structures) and those designed to function in support of combat operations in nonfixed or field facilities.

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[1]Source: Military Health Care Study, Supplement, OMB/HEW/DOD, p. 16-22, December 1975.

In the U.S., Hawaii, Alaska, and Panama, fixed-facility patient care and ancillary support activities are under the command and control of the commander, U. S. Army Health Services Command (HSC). HSC, headquartered at Fort Sam Houston, Texas, is a major Army command, whose commander is responsible to the Army Chief of Staff.* Reporting directly to the commander of the HSC are 33 subordinate Medical Department Activity (MEDDAC) and 8 Medical Center commanders.

- A MEDDAC provides health services in a defined geographical area. It usually includes a hospital, whose commander also serves as the MEDDAC commander, and outlying health facilities on installations without hospitals. All health service activities operating out of fixed facilities in the geographic area -- medical, dental and veterinary -- are assigned to the MEDDAC.

- A Medical Center is also a medical command, similar to a MEDDAC, which provides health services on a regional basis. Its major component, however, is a sophisticated referral and teaching hospital which provides specialized or tertiary care and supports MEDDAC and overseas medical referrals.

All fixed health service delivery facilities in the U.S., thus, are under the command of the MEDDAC or Medical Center commanders who in turn are under the command and control of HSC.

All field or mobile health services units in the continental U.S. are under the command and control of Forces Command. This major command is comprised of all CONUS operating forces, forces whose primary mission is to engage in combat.

Forces Command medical elements are of two types:

- Field medical units are medical entities and in combat operate nonfixed hospital facilities and their affiliated support services (e.g., evacuation and combat support hospitals and air ambulance units supporting them). During peacetime these Forces Command units are in a training or "nontreatment" status and typically have only two Medical

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*The Army Chief of Staff has given the Surgeon General control of HSC and the Surgeon General is responsible for direction and supervision of its activities. The Surgeon General is the rating or performance evaluation officer of the Commander of HSC and the endorsing officer for all other general officers assigned to the command.

Department officer staff assigned, a Medical Service Corps officer who commands the unit and a training nurse. Specific physicians and other professional staff working in HSC facilities are identified for assignment to field medical units and in the event of contingency operations would deploy with the unit. Enlisted personnel assignments to field medical units vary according to the units designated readiness level, from fully staffed to two levels of reduced staffing.

- Organic medical components of nonmedical field organizations are medical elements within a combat unit such as a combat division or infantry battalion. In combat these elements provide primary care and prepare patients for evacuation to field medical units. In peacetime these organic medical components customarily have a small number of physicians assigned, with physician strength dependent upon the unit's designated readiness level.

Forces Command medical personnel do not operate fixed facilities. However, they receive technical training and maintain their skills by working part time in MEDDAC and Medical Center facilities under agreements between HSC and Forces Command. Thus, physicians assigned to organic medical components of nonmedical field organizations often provide primary care (such as sick call) to the troops in their organization for a portion of the day and work in the MEDDAC the remainder.

Outside of the U.S., health services delivery in fixed facilities is also functionally organized under medical commanders who exercise command and control over health services delivery resources within major geographic regions. For example, in Europe there is a medical command comprised of 12 MEDDACs which provide health services within specified geographic areas. Unlike HSC, which is a major Army command, however, the overseas medical commands are subordinate components of major Army commands.* Thus, the medical commander in Europe reports to the commander of the U. S. Army, Commander, Korea.

Overseas, field medical units operate fixed facilities and thus are under the command and control of the medical commander of the major Army command. Organic medical components of nonmedical field units are under the command and control of the combat organization of which they are a part.

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*The Department of the Army is being reorganized. Korea and Japan are proposed major commands.

Technical Guidance. Each major commander has a surgeon or medical advisor on his staff. In the CONUS-based major commands, the surgeon is a full-time counselor, responsible for advising the commander and his staff on all health and medical matters pertaining to the command and for participating in all planning activities dealing with military operations. He recommends and supervises execution of measures for prevention and control of diseases within the command; provides staff coordination for dental, veterinary, and other medical activities; plans and directs individual and unit training of medical troops; advises the commander on training of nonmedical troops in military sanitation and emergency medical treatment and provides staff supervision over medical matters of the command. In the overseas commands, the surgeon is generally dual-hatted, serving also as the principal medical commander.

In the U.S. each installation commander has a designated medical staff advisor or Director of Medical Activities (DMEDA). The DMEDA is a physician operating within the HSC health services delivery system, usually the MEDDAC commander. Both the installation commander and the Health Services Command participate in rating the DMEDA's performance, and he thus has an incentive to meet the requirements of both. In Europe, MEDDAC commanders also serve as DMEDAs on the staff of specified geographical area commanders.

Through the assignment of surgeons and dual-hatted DMEDAs, the Army seeks to ensure that line commanders at all levels have the medical advice they require and that the functionally-organized health services delivery systems remain responsive to the commanders' needs.

The Surgeon General has worldwide technical guidance over all Army Medical Department activities. He can deal directly with surgeons of major commands on matters relating to health services policy. The surgeons in turn can deal directly with personnel in their commands on health service policy matters. Use of these technical channels of communication is common for information exchange, observation, guidance on preferred methods of health delivery and similar activities. Command channels generally are used when the health service matter in question impinges upon the major commander's command prerogatives (such as the use of health services personnel).

Commanders of health service delivery units at all echelons have technical guidance over the military units they command. To assist him in his technical guidance responsibilities, the commander of the Health Services Command has designated the seven Medical Center commanders as Army Regional Coordinators. In this role, the Medical Center commanders are responsible for:

- Maintaining liaison with and providing technical guidance through personal and staff consultations with fixed facility health care activities within their assigned region.

- Keeping the HSC commander informed on the status of health care services in their region and making recommendations for improvement in Army health care delivery.

The Army Regional Coordinator system is an intermediate structure for providing technical guidance only. It is not an intermediate command and control structure.

Army Regionalization of Fixed Facilities. In the United States, each of the three military medical departments has developed a regionalized health care system. Within a specified geographical area -- the seven HSC regions in the Army -- three levels of care are provided. Primary or outpatient care in the Army is provided by HSC clinics and hospital outpatient departments; secondary or routine inpatient care for patients in their assigned geographical areas by the MEDDAC hospitals and Medical Centers; and tertiary or highly specialized care by the Medical Centers.

Overseas, Army health care is also regionalized in a general sense, with specific facilities designated to provide only primary and/or secondary care and others designated as specialized referral centers. Within specific areas overseas, however, not all levels of care are provided by any one service. As a rule, primary care is provided by all services in all areas where their forces are stationed. Hospital facilities, both smaller ones and the specialized referral centers, however, often support the forces and other beneficiaries of all services. In Europe and Okinawa, for example, the Army provides specialized care to all services.

(The term regionalization is also used for a DOD-wide program initiated in 1972. That program is explained in Appendix F.)

Education and Training. The Academy of Health Sciences, a subordinate component of HSC, is responsible for the Army's health-related education programs for officers and enlisted personnel. The Academy's programs range from basic medical training for enlisted soldiers to post-doctoral medical specialty education and include training in medical combat doctrine -- how medical units are organized and operate to support combat forces. The Academy also programs and monitors health services training of military personnel in civilian institutions. The Surgeon General has control and technical guidance authority over the Academy's operation and participates in rating the performance of its commanding general.

Research, Development, Test and Evaluation. The Medical Research and Development Command, a subordinate command of the Surgeon General, is responsible for all Army medical RDT&E. The commander of the Research and Development Command also serves as the Assistant Surgeon General for Research and Development and thus is responsible to the Surgeon General in both staff and line capacities.

APPENDIX C

Organization of the Air Force Medical Department[1]

Department of the Air Force Organization. The Department of the Air Force is composed of the Office of the Secretary of the Air Force; the Air Staff, headed by the Chief of Staff; and 15 major commands and 10 separate operating agencies which constitute the field organization of the Air Force. The major commands, comprised of operating forces or forces whose primary mission is to engage in combat, are organized on a functional basis in the continental U.S. (e.g., Strategic Air Command, Military Airlift Command) and on a geographical basis overseas (for example, the Air Forces in Europe and the Pacific Air Forces). The separate operating agencies perform staff support functions which cut across all of the commands (e.g., Military Personnel Center). While the major commands operate bases or installations, the separate operating agencies do not: they are tenants on major command installations.

Summary: Air Force Medical Service Organization. Health services in the Air Force are integrated into the Air Force field organization: all health activities are subordinate elements of the 15 major Air Force commands and are under the command and control of major commanders. The Surgeon General is a staff advisor to the Secretary of the Air Force and Air Force Chief of Staff and has technical guidance authority over all Air Force medical department activities.

HEALTH SERVICES DELIVERY

Command and Control. The health services delivery resources which support the major commands are integral to them, and command and control of health services delivery is through the major command channels. Units of the Air Force separate operating agencies are tenants on major command installations, and the major commands provice health services support to tenant agency personnel.

Each Air Force installation has a Director of Base Medical Services who controls all health service activities -- medical, dental, veterinary -- assigned or attached to the base. The Director of Base Medical

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[1]Source: Military Health Care Study, Supplement, OMB/HEW/DOD, p. 23-28, December 1975.

Services normally reports to the installation commander who in turn reports to the commander of his major command.*

A few medical resources on some installations are not under the control of the Director of Base Medical Services. Strategic and tactical units worldwide have small organic medical components, usually a flight surgeon and two technicians, which go with the unit when it is deployed. In cases where the flight line is close to the base medical facilities, these personnel may be assigned to the Director of Base Medical Services. Where the flight line is some distance from base medical facilities, these units may remain under the control of the unit commanders. In those instances where organic medical components remain under the command and control of tactical and strategic commanders, they generally provide primary care to their unit's personnel part of the day (e.g., hold routine sick call) and work in base medical facilities the remainder. As the supply of Air Force physicians has decreased, control of organic medical units increasingly has been assigned to the Director of Base Medical Services. As a matter of policy, the unit commanders rate the flight surgeons organic to their command, including assessment material from the Director of Base Medical Services. In practice, the situation is often reversed, with the Director of Base Medical Services rating the physician with input from the unit commander.

Technical Guidance. To assist him in managing health services delivery in his command, each major commander has a command surgeon on his staff. The Surgeon General can communicate directly with command surgeons on health policy matters. The Surgeon General does not use technical channels to handle health-related matters which impinge upon the major commander's command prerogatives: communication of this kind follows regular command channels.

The command surgeon in each major command has the authority to provide technical guidance directly to Directors of Base Medical Services.

Air Force Regionalization of Fixed Facilities. In the United States, health service delivery is regionalized under the Air Force hospital

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*In a few instances there is an intermediate level commander to whom the installation commander reports. In those cases where the Director of Base Medical Services and installation commander are the same rank, both report to the same higher level commander, usually the commander of their major command.

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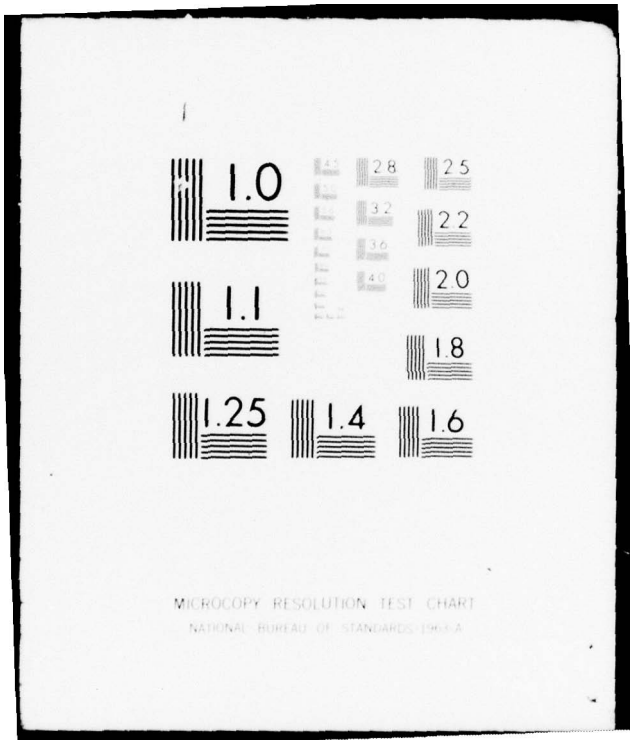
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system. Under this system the CONUS is divided into six geographic areas, each served by a tertiary care hospital called an Area Medical Center. Each geographic area is further subdivided into regions, and each region is served by a secondary care facility, the Regional Hospital. Primary care is provided by small base hospitals and clinics. In addition to serving as teaching hospitals and referral centers for less specialized facilities, the Area Medical Centers and regional hospitals provide consultant support to their respective areas and regions.

Overseas health service delivery is regionalized on both an intra- and tri-service basis, as noted above under the section on Army regionalization of fixed facilities.

Education and Training. Three major commands have primary responsibility for education and training of Air Force Medical Department personnel. The School of Health Care Sciences of the Air Force Training Command provides most of the training for enlisted personnel, both technical training and basic courses in Air Force health services organization and management. The Academy also conducts basic orientation and management courses for Air Force medical department officers.

Training for flight surgeons, flight nurses and aerospace physiologists and for the technicians who support them is conducted at the School of Aerospace Medicine which is part of the Aerospace Medical Division of the Air Force Systems Command (see section on RDT&E). The School also provides most of the Air Forces advanced technical-professional training and education in specialty areas such as veterinary and preventive medicine, bioenvironmental engineering, optometry and dentistry.

Military personnel doing sponsored graduate and post-graduate work in civilian institutions come under the command of, and their progress is monitored by, the Air Force Institute of Technology. The Institute is part of the Air University, a major Air Force command.

Each of these major commands has a command surgeon who has technical guidance authority over the health service education and training activities within the command. The Surgeon General has technical guidance authority over the health services education and training activities of all three.

Research, Development, Test and Evaluation. All medical RDT&E is the responsibility of the Aerospace Medicine Division of the Air Force Systems Command. The Systems Command is a major command responsible for advancing aerospace technology and adapting it to operational aerospace systems. As with other health service activities, the command surgeon has technical guidance authority over medical RDT&E.

APPENDIX D

Organization of the Navy Medical Department[1]

Department of the Navy. The Department of the Navy is comprised of the Navy Department, which includes the Office of the Secretary of the Navy and the executive functions of the Navy and Marine Corps, under the command of the Chief of Naval Operations and Commandant of the Marine Corps, respectively: the shore establishment: and the operating forces.

The operating forces of the Navy and Marine Corps are combat forces or forces afloat, such as the Atlantic and Pacific Fleets. The shore establishment of the Department of the Navy, as its name implies, includes the land-based activities of the Navy and Marine Corps, the primary purpose of which is to support the operating forces. In the Navy, the shore establishment consists largely of functional commands (such as the Naval Intelligence Command and Naval Weather Service). The shore establishment of the Marine Corps is called the Supporting Establishment. Its responsibilities include maintenance of the permanent basis on which Marines are garrisoned or housed when they are not deployed.

Summary: Organization of the Navy Medical Department. Health services delivery in the Navy is organized into two systems, a worldwide shore-based system which is functionally organized and an operating forces system which is integrated into the command and control structures of those forces. The Navy Surgeon General commands and controls the shore-based health service delivery system, most health-related training and education and applied health sciences RDT&E. Basic health sciences research is the responsibility of the Office of Naval Research.

HEALTH SERVICES DELIVERY

Command and Control. There are two basic health services delivery systems in the Navy.

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[1]Source: Military Health Care Study, Supplement, OMB/HEW/DOD, p. 29-35, December 1975.

- Shore-based or fixed facilities world wide are under the command and control of the Bureau of Medicine and Surgery, the Chief of which is the Navy Surgeon General. *

- Facilities of the operating forces -- forces comprised of ships, airplanes, Fleet Marine Forces -- are integrated into the command and control structure of these forces.

Medical facilities in the shore-based or Bureau of Medicine and Surgery (BuMed) system are organized on a geographical basis. Under this system of Navy Medical Regions, all of the medical care delivery resources within a given region are under the command and control of a Regional Medical Director who reports to the Chief of BuMed (The Navy Surgeon General). A Medical Region generally includes a Medical Center and/or Navy hospital(s) and several branch dispensaries. In regions including a Medical Center, the commander of the Center serves as Regional Medical Director. In others, a hospital commander is designated Regional Director. A similar regionalized organization exists for dental care delivery and the Dental Regional Directors also report directly to BuMed. ** Four environmental health and preventive medicine units and two disease vector control centers which serve the Navy and Marine Corps worldwide are not regionalized. The officers in charge of these organizational units also report directly to BuMed.

Health delivery resources in the operating forces are integrated into the command and control structure of those forces. The Commanders in Chief Pacific and Atlantic Fleets have command and control of the health delivery resources of ships and aircraft in their respective Fleets. Command and control below the Fleet level, however, are split between type commanders and numbered fleet commanders. The type commanders each command specific categories of forces, i.e., submarine forces, amphibious forces, air forces, mine forces, cruiser-destroyer forces, service (support) forces, and Fleet Marine Forces. ***

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*Currently most but not all fixed facilities are under BuMed command. Most of those which are not are in the process of being transferred to the BuMed system.

**Dental regionalization has just begun. To date two dental regions have been established.

***The Fleet Marine Forces vary from the other type commands in that their chain of command is to the Commandant of the Marine Corps and not the Chief of Naval Operations. Thus, the type commanders of the Fleet Marine Forces are members of the Marine Corps and receive their resources from the Commandant. As part of the Atlantic and Pacific Fleets, however, they are under the control of the Fleet commanders.

When these forces are deployed, however, they are under the control of the numbered fleet commanders, the commanders of the Third and Seventh Fleets in the Pacific and the Second and Sixth Fleets in the Atlantic. Basically, the type commanders in each Fleet, Atlantic and Pacific, are the providers of resources and the numbered fleet commanders are the users of resources.

The Commander of the U.S. Naval Forces Europe does not command operating force resources but controls those made available to him from the Atlantic and Pacific Fleet type commanders. (The Military Sealift Command, which transports people and cargo in support of all services, consists of civil service-manned and commercial ships under contract and has military health services personnel assigned only to its headquarters for technical guidance and contingency planning purposes.)

When not deployed, health services personnel of the operating forces may work in the fixed facilities of the BuMed system. As a rule they do so under informal agreements made by the Regional Medical or Dental Directors and senior commanders of the operating forces present in the region. The Commandant of the Marine Corps and the Chief of Naval Operations formally have agreed that virtually all physicians and other medical personnel assigned to Marine Corps operating forces will come under the control of the Regional Medical Director when those forces are in garrison at Camp Pendleton. A similar agreement is now being negotiated for Camp Lejuene. (These two agreements formally will tie most of the medical department officers assigned to the Fleet Marine Forces into the BuMed regional system: only a few Marine air wing medical department personnel will continue to work in regional facilities under informal, local agreements.)

Technical Guidance. In the shore-based BuMed system, medical and dental officers in charge of health care facilities on an installation are assigned additional duty as staff advisers to the installation commander, thereby ensuring he has the technical guidance he needs and that health services delivery is responsive to the needs of his installation. (The installation commanders, however, do not participate in rating the performance of the medical and dental officers.)

In the operating forces system, each major command -- the Atlantic and Pacific Fleets, U. S. Naval Forces Europe and the Military Sealift Command -- has a command surgeon and a dental officer who have technical guidance authority over all health service units within the command. In addition, within the Pacific and Atlantic Fleets, each type commander is assigned a staff surgeon and a staff dentist, the force medical and dental officers, and each numbered fleet commander has a staff medical and a staff dental officer. The force medical and

dental officers have technical guidance authority over all health service units within their type commander's forces. The numbered fleet staff medical and dental officers have technical guidance authority over all health service units deployed to their fleets. When deployed to a numbered fleet, thus, health service unit commanders are subject to technical guidance from 3 sources: the major command surgeon and dental officers; the force medical and dental officers and the numbered fleet staff medical and dental officers.

The Surgeon General has technical guidance authority over all health service delivery activities of the Navy. He can deal directly with major command surgeons through technical channels. As in the Air Force the Surgeon General goes through command channels when his guidance impinges upon command prerogatives.

The Surgeon General also provides technical guidance to the Commandant of the Marine Corps. In addition, the Commandant has a staff medical and a staff dental adviser assigned to him by the Navy. The Medical Officer and Dental Officer of the Marine Corps are dual-hatted, and also serve as Special Assistants to the Surgeon General for Marine Corps affairs.

Navy Regionalization of Fixed Facilities. As in the Army and Air Force, Navy fixed facilities in the U.S. are regionalized. Primary care is provided by BuMed branch dispensaries and outpatient facilities of hospitals. Secondary or routine inpatient care is provided by BuMed hospitals and Medical Centers to beneficiaries within their geographical area of responsibility. Specialized or tertiary care is provided by the Medical Centers.

Overseas, the health service delivery system is regionalized on both an intra- and tri-service basis as explained in "Army Regionalization of Fixed Facilities."

Training and Education. Health services technical, professional and managerial education, ranging from training of hospital corpsmen and dental technicians to post-graduate specialty education is primarily the responsibility of BuMed. The Bureau operates eight schools, a Health Care Administration at Bethesda, Maryland; an Aerospace Medical Institute in Pensacola, Florida; a Naval Undersea Medical Institute in Groton, Connecticut; two Hospital Corps Schools, one at Great Lakes, Illinois, and the other in San Diego, California; and a Dental Technician School also in San Diego. BuMed also programs and monitors health care education of military personnel in civilian facilities.

Two field medicine schools, designed to train Navy personnel for assignment with the Marine Corps, are funded and operated by the Marine Corps.

Research, Development, Test and Evaluation. Responsibility for health sciences research is divided between BuMed and the Office of Naval Research (ONR). The Office of Naval Research, a line office under the Assistant Secretary of the Navy for Research and Development, has primary responsibility for basic health sciences research. BuMed has primary responsibility for applied health sciences RDT&E.

APPENDIX E

Tri-Service Regionalization Program[1]

Regionalization of peacetime military health services support, known as Tri-Service Regionalization, was tested in four areas between May 1972 and May 1973, and initiated CONUS wide in October 1973. The objectives of this program are as follows:

-- To encourage and assist the military medical departments in the establishment of a formal regional cooperative system to improve inter-Service health planning and delivery of health services at all levels.

-- To improve the delivery of health services to all active duty military personnel and other eligible beneficiaries.

-- To assure delivery of comprehensive health services without interference with existing command relations, budgeting, and programming systems or Service identification of personnel and facilities.

-- To provide for a cooperative arrangement which will afford the latest advances in diagnosis and treatment and greater opportunity for clinical investigation and continuing education of health services personnel.

-- To eliminate or reduce those health services and associated resources existing, planned, or programmed which cannot be fully justified by the total Department of Defense workload or an overriding military operational program.

To date, the program has been directed principally toward discovering areas where cooperative inter-Service arrangements could be initiated to improve the overall management of MHSS resources. Several administrative procedures have been reviewed to determine specific areas which offer potential for improvement. Typical of these activities include the following:

-- Revision of Department of Defense and Service directives to standardize health service terms and definitions.

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[1]Source: Military Health Care Study, Final Report, p. 42-43, December 1975.

-- Development of a directive requiring a data base with which to compare length-of-stay statistics to measure progress in utilization review.

-- Development of a plan for the formulation and implementation of a regionalized military blood program.

-- Granting of a contract to conduct a feasibility study on a Department of Defense patient enrollment system.

There is some evidence that the Service medical facilities at the regional level are better utilizing resources and are exploring the potential for more complete utilization of health services. In general, managers in Tri-Service regions have not clearly demonstrated the potential benefits of the program. The review of bed occupancy data on a facility basis, previously mentioned, suggests there may be excess beds in a number of facilities. For example, many facilities have bed occupancy rates significantly below the 80-85 percent level that is generally accepted as optimum for effective use of total resources.

Although the regionalization concept has been in effect a relatively short period of time it appears that much remains to be done before it makes significant progress toward achievement of its objectives. Further progress may require strengthening this concept by giving regional authorities the responsibility for oversight of health care delivery in their CONUS geographical areas.

APPENDIX F

DOD Regionalization[1]

In October 1973, following a nine-month test in four geographical areas, a DOD regionalization program, conceived by the ASD(H&E) and developed with the cooperation of the three military medical departments, was instituted in CONUS. The basic purpose of the program is to bring the three separate service systems into closer conjunction by establishing a formal mechanism for regional cooperation. Specific goals of the program are to:

- Improve the planning and delivery of health care services to all DOD beneficiaries.

- Advance opportunities for clinical investigation and continuing education of health services personnel.

- Eliminate or reduce health services and associated resources -- existing, planned or programmed -- *which cannot* be fully justified by the total DOD workload or an overriding military operational program.

Under the plan, 13 CONUS regions have been established. Within each a tri-service Regional Review Committee composed of a hospital/ medical center commander from each service, designated by their Surgeons General, has been established. The Review Committees meet regularly to assess their region's capability and resource requirements and identify areas in which cooperative efforts can enhance their health services delivery. The Regional Review Committees report quarterly to the Military Medical Regional Coordinating Office, composed of the Surgeons General and ASD(H&E).

Cooperation is the cornerstone of tri-service regionalization. Existing command relationships, service programming and budgeting systems and service identification of personnel and facilities are not changed under the program. Persuasion and logic are the major tools available to the Review Committee members to influence each other and the other facility commanders within their regions.

The narrative reports submitted during the test phase and first quarter of the program provide some measure of the impact of tri-service regionalization to date:

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[1]Source: Military Health Care Study, Supplement, OMB/HEW/DOD, p. 43-45, December 1975

-- Quality of care. The reports cite no specific evidence that quality of care has improved. However, ASD(H&E) notes that there is reason to believe that efforts to appraise quality lead automatically to improvement in care and indicates that greater emphasis will be placed on trying to measure quality of care in the future.

-- Resource economy. Reports cite some specific examples of economies in resource use, such as sharing of specialty services.

-- Patient waiting periods. There has been no evidence of increased or decreased waiting periods for specific services. However, sharing of specialty services has made additional care available to some patients for the first time.

-- Evacuation patterns. Regionalization has made expansion of the current patient regulating system possible. The services, in conjunction with the Armed Services Medical Regulating Office, are developing a system under which all CONUS hospital patients will be centrally regulated. Under this system a patient will be regulated to a facility outside of his home region only if he requires specialized care not available in the region, medical education and clinical investigation programs would be supported by his extra-regional transfer or other military regulations dictate such a transfer

-- Resource reallocations. No mechanism is available to effect reallocation of resources at the regional level. Action at the departmental level is required to implement locally-developed innovations.

-- Expansion/discontinuance of clinical services. Reports cite specific examples, most of which deal with expansion of care provided through sharing of specialty services.

-- Medical education/clinical investigation. Tri-Service Regionalization is a factor in influencing the medical services to re-evaluate their teaching programs both as to size and number. Communication and cooperation among the three services has improved. ASD(H&E) sees continued emphasis as necessary in this area, particular to help ensure the integrity of the proposed centralized patient regulation system.

-- Consumer satisfaction. The reports cite no negative patient reaction to regionalization. Patients' response has been positive where additional services have been established (e.g., at remote Air Force installations where Navy ophthalmic support has been made available for the first time).

-- Line commanders response. The reports cite no evidence that installation and other commanders feel regionalization has adversely affected the care provided to their forces.

As noted in previous sections, there traditionally has been a substantial degree of informal tri-service cooperation in overseas areas. Tests to determine the value of formalizing this cooperation through establishment of Regional Review Committees in Europe and Japan also have been completed. Regionalization in these areas will be formally instituted by July 1, 1974.

APPENDIX G

Major Findings of the Military Health Care Study (MHCS)[1]

In general, the study determined that the MHSS provides a broad spectrum of relatively effective and efficient health care services to more than nine million entitled beneficiaries. In addition, experience has clearly demonstrated the unique capability of the MHSS to respond to military and civil emergencies. However, the study has concluded that a number of opportunities exist to improve MHSS efficiency and effectiveness while maintaining the delivery of quality care to entitled beneficiaries.

Specific findings are summarized in the following sections:

Resource Requirements

1. Relatively little change in the MHSS beneficiary population size and entitlement composition will occur between 1975 and 1990.

2. Only small increases in demand for CONUS health services are projected between 1975 and 1990.

3. Volunteer physician accessions must increase above the FY 1975 level of 454 to meet future demand for health care services, assuming a range of physician retention rates and no changes in physician productivity, beneficiary utilization, or graduate medical education programs.

4. Used as a physician manpower forecasting tool, the resource model projects that physician supply will not fall below 10,000 active duty physicians through 1990.

-- This assumes an initial active duty physician level of 11,664 with 500 annual civilian accessions (approximately the number in FY 1975), and any retention or Graduate Medical Education program growth scenario studied.

-- All retention rates used in the model were set higher than previous experience, anticipating increased retention due to Variable Incentive Pay (VIP).

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[1]Source: Military Health Care Study, Final Report, OMB/HEW/DOD, p. 5-8, December 1975.

Planning, Management and Evaluation

1. Planning for military health care delivery in CONUS is principally based on historical workload and population projections rather than population-based forecasts of total demand.

-- This, together with other factors such as uncertainties about accessions, strength levels and transfers, results in overprogramming of beds.

2. The incentives in workload-based programming may encourage relatively heavy use of inpatient care.

-- The MHSS and the fee-for-service civilian sector have higher hospital utilization than the capitation-based Kaiser system.

-- However, selected indicators suggest that quality of military health care is generally comparable with that in Kaiser and other civilian facilities.

3. Kaiser enrollees use more in-system outpatient services than MHSS *nonactive* duty beneficiaries; when estimates of out-of-system use in both the MHSS and Kaiser are added to in-system rates, overall rates in the two systems are roughly comparable.

4. A study of 13 selected diagnoses showed that hospital lengths of stay for each of the Services tend to be longer than those for comparable patients hospitalized with the same selected diagnoses in the civilian sector.

-- Nonactive duty patient stays for each of the military departments were longer than stays for 12 of 13 diagnoses in Kaiser hospitals; stays were longer for 5 diagnoses, but shorter for only 1, than in PAS hospitals.

-- Patients hospitalized under CHAMPUS experienced shorter lengths of stay for 7 of 13 diagnoses than those for each of the military departments; CHAMPUS stays were longer for 2 diagnoses.

-- Active duty patient stays varied widely among the Service hospitals and were almost always longer than nonactive duty stays for the same diagnoses.

5. Planning and programming for the direct care system independent of CHAMPUS is inefficient, resulting in substantial over- or underestimates of CHAMPUS requirements.

6. The Tri-Service regionalization program has not yet achieved its potential for maximizing the use of cooperative arrangements and improving the management of Service resources.

7. Management of selected highly specialized (tertiary) care is not well coordinated.

-- Some military medical facilities providing highly specialized care may not fully utilize all capability for certain medical procedures.

-- Relatively large proportions of patients requiring the highly specialized care selected for study are transferred to facilities of their own Service rather than the closest military facility capable of providing that care.

-- DOD utilization standards have not been developed for most of the high cost, special purpose services and equipment studied. Moreover, there are few generally accepted standards within the civilian community for these services and equipment.

8. The MHSS is handicapped by lack of adequate population, workload, and cost data and comparable information systems for the military departments.

Military Health Care Costs

1. The total cost of CONUS military health care delivery in FY 1974 was calculated to be $2,097 billion.

-- This includes costs for direct care in fixed facilities, CHAMPUS, CHAMPUS handicapped, and care of active duty personnel in non-Service facilities.

2. There is a wide range of costs for nonactive duty beneficiaries in direct care and CHAMPUS facilities.

3. An aggregate cost model analysis suggests that the cost of most care delivery alternatives may be greater than the cost of providing care through the direct care portion of the MHSS.

-- In general, some savings would be expected from moving small amounts of work from CHAMPUS to military medical facilities.

-- However, analysis of individual medical facility cost data indicates that some military medical facilities have costs which exceed the local CHAMPUS price for care. Consequently, some savings might be expected from small shifts in care to CHAMPUS from these facilities.

-- Additional costs would be expected from large shifts of care now provided in military medical facilities to CHAMPUS.

-- Total system cost could be expected to increase if substantial numbers of nonactive duty beneficiaries (including active duty dependents, retired and their dependents, and survivors) were contracted to alternative health care programs, such as the high option Blue Cross/ Blue Shield or Kaiser in Northern and Southern California. Total cost would also increase if only retired and their dependents were contracted to alternative plans. These findings assume premium rates charged to civilian Federal employees for those plans in FY 1974, and that prepaid plans must be purchased for all currently entitled beneficiaries, although some of these do not use the MHSS.

Military Health Care as a Benefit

1. The majority of MHSS beneficiaries evidence general satisfaction with their health care.

2. Nonactive duty beneficiaries get most of their outpatient and about half of their inpatient care from military facilities.

3. CHAMPUS and direct care benefits for all eligibles, combined with the military retiree's unique "space-available" eligibility for care in VA medical facilities, create an attractive benefit package for beneficiaries under age 65.

APPENDIX H

Recommendations of the Military Health Care Study (MHSS)[1]

The study proposes a number of changes in current DOD policies and organization for military health care delivery. These recommendations, developed after careful consideration of study findings, were structured as broad concepts of management and organization rather than a detailed list of improvements. Because they are intended to provide long-term guidance for MHSS operations, these concepts should create a framework within which details of management and organization can be adapted to changing requirements and circumstances within and outside of DOD.

1. National security mobilization, contingency and other essential force requirements should be the primary determinant of the size and composition of the peacetime military medical force; additions should be made to that force when:

-- Adequate health care facilities for beneficiaries are not available overseas or at underserved locations.

-- A valid teaching or training requirement is being met.

-- The marginal cost to provide quality care in military facilities is less per beneficiary than nonmilitary alternatives.

2. A central entity within DOD, serving as a coordinating mechanism for planning and allocating resources, should be established to oversee health care delivery in CONUS.

3. Oversight of health care delivery operations should be assigned to regional authorities responsible for all health care delivery in their CONUS geographical areas.

4. MHSS health care delivery planning for CONUS should be primarily based on the size and demographic characteristics of the population to be served.

5. Resource programming and budgeting for the MHSS in CONUS should be done on a capitation basis.

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[1]Source: Military Health Care Study, Final Report, OMB/HEW/DOD, December 1975, p. 8-9.

6. Resource programming for the direct care system and CHAMPUS should be integrated within DOD.

7. Costs per beneficiary should be developed and used as a measure of efficiency and performance.

8. Programs to control inpatient utilization in military medical facilities should be established.

9. Consideration should be given to the feasibility of allowing dependents of active duty members, retiree families and survivor families to select a health care program other than that provided in the MHSS.

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