Managing Health and Finance: Challenges, Outcome, and Control in the Israel Defense Forces

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Background: The Ministry of Defense budget constitutes 16% of the state budget. The budget for the Ministry of Health and for civilian health care is derived from the state budget. The health care funds receive their budgets from several sources. The capitation formula, which is determined by law, is the main factor that affects the size of the budget each fund receives. Objective: The objective of this study is to describe the manner of planning, managing, monitoring, and controlling the budget allocated to medical services, which is a public budget for soldiers. Methods: Several parameters are suggested for comparison, including the interface with the civilian health system, the method for budgeting a health care system, possible results of managing a medically centered budget, and the possibilities for monitoring the provided services. We also examine the potential for decentralization of authority. Conclusions: Managing the budget and locating appropriate alternatives, as well as the availability and accessibility of medical services, are important for procurement and for forming contracts with both military and civilian systems. Turnover based on updated information might serve to improve future health services.

Introduction

In determining a budget in the State of Israel, one of the more important variables is the target of the permitted deficit. This target actually dictates the fate of the state budget. The battle over the budget begins after a permitted deficit is determined by law, and each minister in his or her government office negotiates to achieve the best possible portion. This battle is characterized more as a struggle based on politics and personal prestige than a struggle with clear economic principles.[1]

Although health services are considered high priority, the resources allocated to these services are not the highest. Over the years, sources of public financing have declined, whereas copayments by the population have grown.

The Israeli budget includes a reserve that is determined according to the economic assessment of the Ministry of Finance and that is designated to overcome problems that were not anticipated when the state budget was confirmed. The defense budget represents 16% of the state budget and has retained this level for the past 4 years, through the Iraqi threat and the Palestinian Intifada.[2,3]

The scope of the defense budget is determined based on a formula with two main elements: (1) definition of "the basis of the budget" and differentiation between the changes each year (in other words, regular increases or decreases that affect the basis and temporary increases or decreases that do not have an impact) and (2) determination of an agreed upon model for assessing price changes; the Ministry of Finance is supposed to compensate the Ministry of Defense for increases in local security expenses that were calculated according to the model. In recent years, the Ministry of Finance has been using a rigid policy to determine the budget frame and the required needs of the Ministry of Defense. Budget increases are ultimately decided by the prime minister.

The Ministry of Defense allocates financial resources for the army. The chief of staff in the army is responsible for the funds for various sectors within the army.[4]

The budget for the Ministry of Health and for civilian health care is derived from the state budget. Since 1995, the National Health Insurance Law in Israel has determined the social obligations of the state toward its residents. Services are provided for the citizens, at their choice, by one of the four health care funds that operate in Israel. The health care funds receive their budgets from several sources. The capitation formula, which is determined by law, is the main factor that influences the size of the budget each fund receives. The capitation formula takes into account the relative number of policyholders in each health care fund, as well as the distribution of their ages. The remainder of the budget is obtained from income from the self-participation of members for services not included in the health basket, reimbursement for the cost of treatment of severely ill patients, and contributions.[5]

The budget for medical services for soldiers is derived from the budget designated for military logistics, which also includes a budget for meeting the needs for other services, such as food, transportation, equipment, and construction.[6] These logistic services, along with medical services, are managed by specialized designated centers (for instance, the catering center prepares military menus according to the type of activity and manages contracts for purchasing food). The portion of the budget allocated to each such logistic activity is based on the volume of activity in the previous year, providing a budgetary expression for changes in the system resulting from external or internal conditions, such as a change in the retirement age for career soldiers or a change in social perceptions that encourages recruitment of soldiers who suffer from illnesses that require expensive medical care.

The health basket provided to soldiers in foreign armies is greatly affected by the health basket provided to citizens in the public system, although one can distinguish between countries in which soldiers have more privileges, which provide them with a broader range of services than those to which civilians are entitled, and those in which they do not. The financial onus on soldiers, compared with that on citizens, differs from one coun-

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try to another and is based on various components, such as the average income of the soldier, compared with that of a civilian, and the status of the army in that particular country.[7]

Methods

The objective of this study was to describe the methods for planning, managing, monitoring, and controlling the budget allocated to medical services, which is a public budget provided to soldiers. The study describes work methods and information and control systems that are used to control utilization of the budget and its use for purchasing services from service providers, and it shows possible results from the analysis of these data. Figure 1 displays the process of the budget flow from the stage of conveying the budget from the Ministry of Finance to the Ministry of Defense, through its assignment to various budgetary clauses, to the stage of controlling utilization and paying the providers.

Resource allocation is made to budget divisions; each division characterizes a central issue and specifies subassignments. This distribution enables supervision and control of expenditures on issues and services in annual portions. The designated system that was developed for this purpose is able to produce reports that state the scope of consumption of medical services from the aspect of the service provider, as well as the time the service was implemented. The service provider receives an official letter through the system, updating him or her on the status of the invoice and the expected date of payment, based on his or her contract.

The system enables convenient tracking of costs of medical services and constitutes a primary tool in determining medical policies in the army (for example, should the military ophthalmology department be extended or should soldiers be referred to a hospital for treatment). The system, which was put into effect in 2001, has led to savings of millions of New Israel Shekels since its implementation.[8,9]

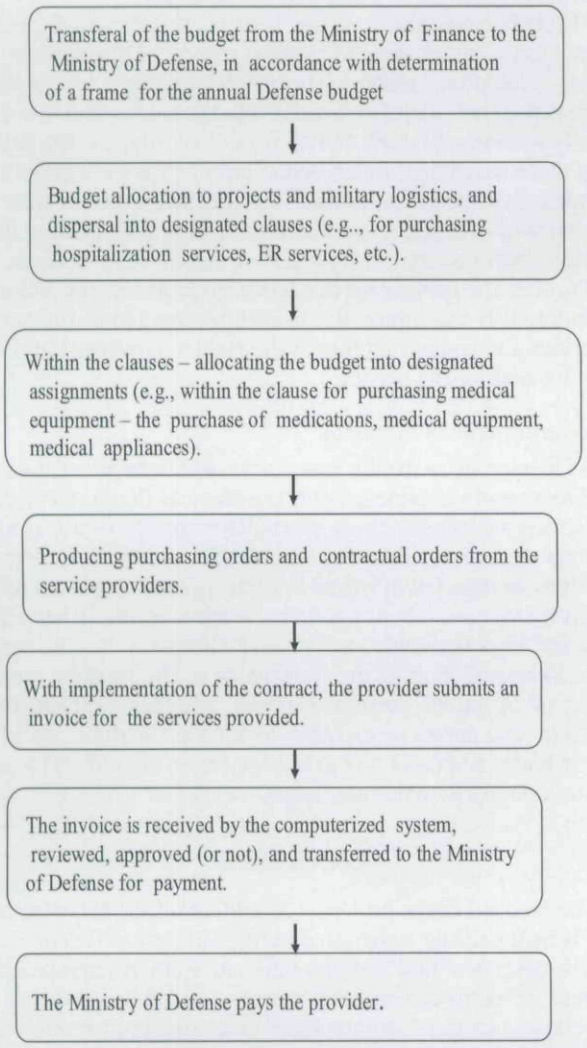

Fig. 1. Process of implementation of the budget, from its inception up to the stage of paying providers for health care services. ER, emergency room.

Discussion

Interface with the Civilian Health System

The civilian health system provides services in all hospitals and in private clinics. Hospitalization services, specialist services in outpatient clinics, emergency services, and advanced medical services, such as magnetic resonance imaging, computed tomography, and in vitro fertilization, are purchased from hospitals. Every service provided has a Ministry of Health code, which is translated into a price; therefore, in addition to the details of the patient and the treatment he or she has received, the information conveyed by the service provider includes financial content (the total amount charged for the service provided).

A separate contract is implemented with each of the institutions that provide medical services. Therefore, there is a need for the development of an information system that is able to receive the media transferred by the service provider, to process and to examine the integrity of the information, and to provide reliable precise feedback to the medical facility about the contents of billing, as described in Figure 2.

Possible Results of Managing a Medically Centered Budget

Method of Budgeting for Medical Services

Figure 3 illustrates the expenditures for treating a patient (excluding expenses for manpower, an element that constitutes ~70% of all medical expenses but is managed centrally within the Ministry of Defense offices), distributed according to type of medical services. Comparing expenditures in various years can provide information regarding decreases or increases in the pur-

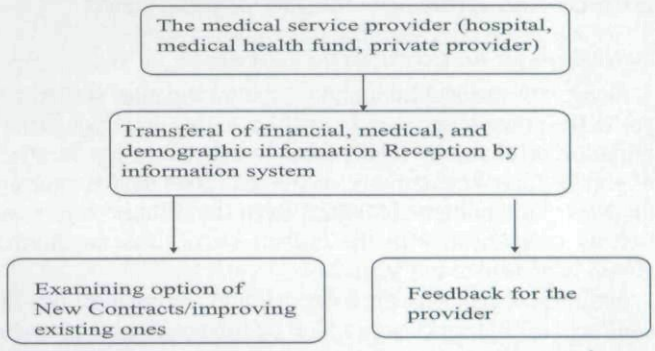

Fig. 2. Principles for monitoring medical expenses in the army with the medical database.

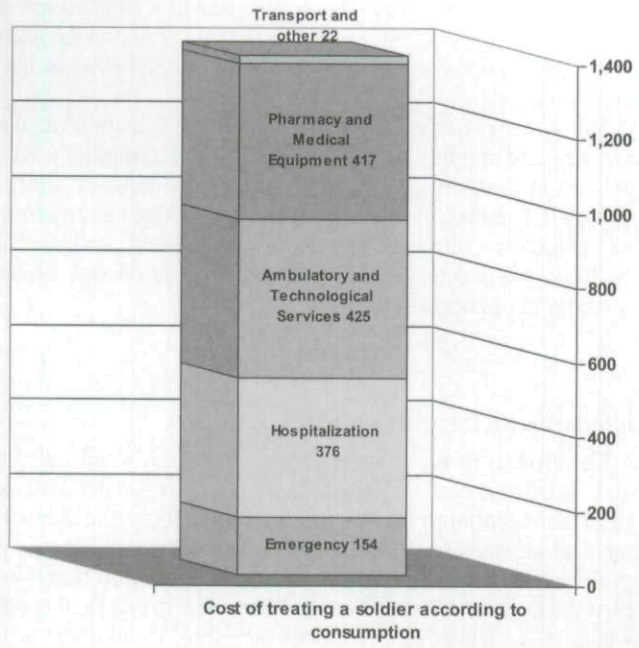

Fig. 3. Costs of treating a soldier according to consumption for the year 2003 (excluding the cost of manpower). Values are in New Israel Shekels. The total per year is 1,394 New Israel Shekels.

chasing of services from health care providers and can facilitate assessment of the advisability of performing some of the services in military clinics or of implementing contracts that provide reductions in the volume of purchasing of these services.

Managing Contracts

The Medical Corps has ~100 contracts and agreements with private providers of medical services. In addition to providing a vast amount of information about financial and economic methods, managing and concentrating all of these contracts enable assessment of the advisability of implementing these agreements, as well as controlling their realization and drawing conclusions regarding their continuance. Most of the contracts managed in the Medical Corps are contracts that oblige the providers to compete over the extent of the reduction in the price determined by the budget offices of the Medical Corps, according to the extent of purchasing of services from that provider and not necessarily according to the price or global budget.[10]

Possibilities for Monitoring Services Received

Along with medical information, the information system receives the prices of services. In addition to this database, demographic data about the soldier (such as age, education, location of service, and function) are collected. These data permit an analysis of the patterns of utilization in the various sectors, as well as comparison with the civilian sector. The monitoring circuit is presented in Figure 4.

Analyses of requests for a service and information on the contract and the services provided by the health care provider enable preauthorization of the medical service. In other words, being aware of the "amount" permitted determines where the

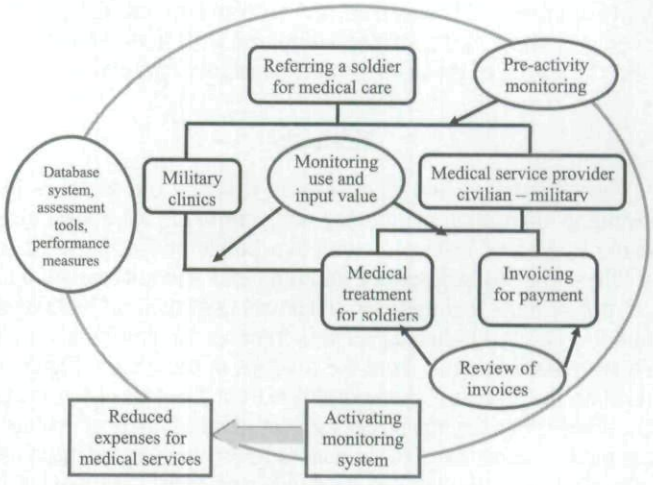

Fig. 4. Process of monitoring medical expenditures in the army.

soldier will receive the medical service. The issue of amount is of interest to all health care funds in Israel and abroad, because it helps prevent abuse of medical services. Experience has shown that this combination leads to great savings.

Through close study of the reports, the database permits retrospective monitoring of medical reports of hospitalized soldiers. In addition, similar to the health care funds and to worldwide experience, along with interest in the soldier and his or her family and reports made to his or her unit, monitoring utilization while implementing an action (and in our case monitoring hospitalizations) helps update the medical aspects, with the objective of decreasing hospitalization time and locating alternative, high-quality, inexpensive, rehabilitation options. Finally, after the medical service has been provided, the service is monitored by examining the invoice received from the service provider and comparing it with the signed agreement and with the demand for the service.

Decentralization of Authority

As in each of the health care funds, which implement decentralized resource management, the Medical Corps is currently preparing to transfer the responsibility for managing medical arenas to three or four regions in the country.[11] Under this scheme, as depicted in Figure 5, each regional physician will be given information about providing services in his or her region and will be responsible for deciding whether a specific service should be provided in the framework of the military medical units or by public medical services, whether supplementary medical manpower is required to increase output, and how many hours a specialist physician or nurse should add to fully utilize military facilities and value.

Conclusions

The Medical Corps budget is a public budget, allocated from the benefit package designated for the Ministry of Defense. This study describes how details collected from numerous databases, including accounting, serve to determine a policy for purchasing services, with respect to assessing their value and monitoring their usage. These databases facilitate financial processes on one hand and promote patient care on the other.

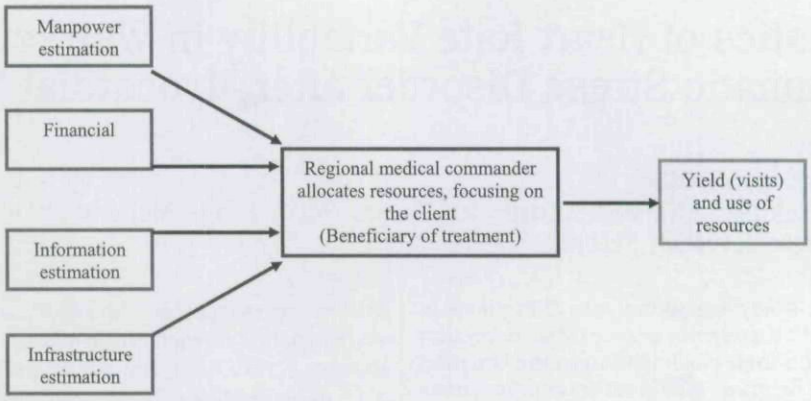

Fig. 5. Description of decentralization of authority to subunits.

Control systems cannot work without the support of database systems that are able to identify and to transfer information rapidly to treating physicians, which helps them treat their patients. Such systems improve effectiveness, help with regular recording, and communicate updates and new information between various components. The subsystems sound an alarm in real time when they identify a treatment that is not optimal or when they recognize an opportunity to decrease expenditures by making better arrangements or by updating guidelines for physicians. The control system requires not only information on current performance and its comparison with past performance but also the ability to assess trends and developments and to predict future needs.

The limited budgetary resources, unique financial arrangements with various providers in the health care market, the available and accessible information, problems in defining quality of treatment and in quantification, and problems with authorization lead to more deals organized through incentive contracts, in which costs and risks are shared by parties to the contract. Therefore, along with strict dynamic authorization, global payment arrangements should be effected to enable maximal utilization of the budget for the best possible medical treatments.

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