Management Tools and Organization as Key Factors Towards Quality Care: Reflections from Experience

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Health care organization in French hospitals has become an increasingly important issue, as efforts to ensure better cost control have increased financial constraints, as patients have demanded ever better results and quality, and as nurses' expectations for better working conditions have grown. Organizing a health care unit requires an articulation between individual efforts — necessary both for gathering accurate information on each patient and for providing patients with personalized care — as well as an integrated system of various logistics, specialized services such as nursing care, custodial care, technical examinations, and administrative procedures. Coordination between these different components continues to be a significant challenge for hospitals, as each category has developed independently its own specialty and sense of autonomy, resulting in different professional rationalities, cultures, approaches, and sometimes conflicting behaviour. Pointing out these difficulties is not sufficient to solve the problem, however, and since the management tools currently in use (activity measurements, procedures used to develop choices and judgements) are often kept in place for external reasons, they may actually perpetuate these behaviours.

This paper is a set of reflections derived from a long period of experience and research in the management of French hospitals and health management institutions. It reports that the financial reforms implemented in budgeting procedures for French hospitals, and the efforts to control costs better in the national health insurance system, have resulted in new types of behaviour in physicians, nurses and health care managers, as well as the need for information that deals not only with health care activities but also with quality. © 1997 Elsevier Science Ltd.

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BACKGROUND OF THESE ISSUES IN FRANCE

The quality care of patients always has been the main objective of physicians, but quality assessment traditionally has been the business of peers. The information produced has never been readily available to the rest of society. With the implementation of national health care insurance in most European countries and the end of the post-war economic expansion, public policies have sought increasingly to enact better cost control in health care, and consequently have interfered with the medical professions. Presently, France continues to search for new behaviours, new organizational procedures, and new and more adequate information systems. How will these management procedures and measurements impact health care? Already some changes are perceptible, and the introduction of new economic incentives has altered considerably the hospitals' strategies. The next issue to be dealt with is quality of care.

METHODOLOGY

This paper presents an overview of the main health care organization issues in France. It represents a set of reflections, based on over 25 years of research, observation, and collaboration with many hospitals and health management institutions, conducted from a management research perspective.

The team of management researchers at the Ecole des Mines de Paris has been involved, over the years, in health economics and hospital management, which represent two of their main research fields. The team's primary focus always has been on the implementation and use of management tools and procedures, and only secondarily on the history of change in health care. The Ecole des Mines de Paris has played a leadership role in a number of studies in which hospitals or administrations have sought outside help in solving their management and organization problems. A large range of problems has been tackled in these studies, including issues of organizational units [1], the use of cost measurement in resource allocation procedures [2], the effects of global budgeting on the practices of hospitals and State authorities [3], the implementation and use of the medical information system [4], the review of market-type mechanisms used in different European health care
systems [5], and the organization of nursing care in medical units [6].

These studies were implemented as action-research, enabling the researchers to be in direct contact with the people in charge of those issues, in hospitals, services, or ministries, and to work with them on specific projects, in order to elucidate their rationalities.

As in other economic analyses, the main assumptions in these studies have been the limitation of rationality of each economic actor [7], the necessity of a multi-disciplinary approach in order to understand the interactions between the various actors in a system (e.g. technical, economic, cultural, and sociological perspectives) [8], and the impact of existing management tools on shaping health care executives' understanding of the options that are available to them [9]. This set of assumptions has proved to be very useful for understanding the evolution of the hospital system in France.

OVERVIEW OF A LONG-TERM INVESTIGATION OF HOSPITAL MANAGEMENT IN FRANCE

Hospitals in France have undergone multiple changes since the end of the 1960s, but these changes can be divided broadly into the following four periods:

From 1960 to 1975, economic expansion allowed for strong growth in the health care sector. Full-time physicians appeared in public hospitals. The number of hospital beds increased. During this period, the main issues facing the health care system were technical effectiveness and resource allocation; operations research tools (e.g. using modelling and simulation to address problems with queuing, capacity, and transportation) were used extensively. The main question during this period was how to provide equally satisfying care to all people.

From 1975 to around 1985, "good management" questions were added to medical usefulness issues. Hospitals were facing an increased demand for technology (X-ray departments, labs, operation theatres), the medical disciplines were sub-specializing, thus creating new needs, and technological improvements were taxing hospital budgets. To control costs, attempts were made to promote efficient, globally economic behaviour among physicians, as well as from managers. To measure the impact of organizational changes, cost accounting was developed to provide adequate information. Despite these efforts, however, there was no drop in the annual rate of increase in health care costs. In the period from 1983 to 1984, a radical change was implemented in budgeting procedures for public hospitals: instead of charging the National Health Insurance for incurred medical expenses after the fact, hospitals were granted, at the beginning of the year, a fixed annual budget meant to cover all hospital expenses. An annual rate of increase for health care costs was fixed by the Health Ministry. This procedure is still in operation, and the strong financial constraints which it has placed on hospitals have resulted in considerable changes in hospital practices. The rigidity of the bureaucratic funding procedure (e.g. budgets have to be approved by the State authorities) has been balanced by the competition it created between hospitals striving to get larger shares of the State-allocated resources (equipment and labour).

Since 1996, a new medical information system based on the US Diagnosis Related Groups, and progressively implemented since 1982, has been generalized, enabling authorities to identify and quantify the actual procedures occurring in each hospital. Implementation of this system has allowed those determining budgets to base the allocation of resources on real activities performed in each hospital, instead of simply increasing a hospital's previous budget by the fixed per annum rate. In addition, regional plans have been developed to coordinate and define the mission of the various health care institutions. Network organizations and complementarity now are promoted. New initiatives are under way, such as giving health insurance a stronger role, creating regional health authorities, and developing accreditation procedures.

Cost control always has been an official leitmotif in health policies in France, but this quick survey of hospital management history shows that after several decades of unfruitful attempts to rely on institutional good-will, only a change in economic incentives and management procedures could achieve a strategic change in hospitals' strategies towards more productivity and a more effective resource allocation. One significant result of these changes is that the quality of care provided may become one of the criteria used in the allocation of budgets.

AN INCREASINGLY CONSTRAINING ENVIRONMENT

Currently, five factors are strongly influencing the evolution of hospital management. Firstly, the development of technology, along with the specialization of numerous medical disciplines and the creation of multiple independent care units, has continued. Secondly, the financing rules for allocating hospital budgets have been changed significantly (see above) and public policies and health insurance funds now insist on cost control in order to induce rapid changes in actor behaviour. Thirdly, the role of the public hospital within the health care system, and within society as a whole, is currently the subject of many debates, covering such issues as sanitation plans, the implementation of networks, complementarity among general practitioners, and costing weight of hospitals for insurance funds. Fourthly, nurses in hospitals have expressed their desire for better working conditions, a greater emphasis on their mission, and the need to hire more nurses in the hospitals. (Since 1982, the creation of new jobs in hospitals has been prohibited, causing hospital managers to out-source many of their logistical functions in order to maximize the size of their
management, medical, and technical staffs.) Fifthly, and finally, patients themselves have made greater demands in terms of care (e.g. single room, telephone connections, food preferences, etc.), treatment (e.g. demand for better outcomes, refusal of therapeutic risks), and general organization (e.g. no long delays, no waiting times, shorter length of stay, social facilities to ease the transition out of the hospital).

Each of these five factors puts pressure on hospitals to promote and deliver good care, to attract new patients, to recruit high quality medical and nursing staffs, and to produce better outcomes for less money than their competing neighbours. Prior to the implementation of the new information system, however, this kind of competition between hospitals was limited because State authorities had inadequate data to help them allocate funds appropriately. With little information available to the State other than the number of beds, the days spent in each unit, the average length of stay, and the bed occupancy ratio, hospitals always were able to argue for continuation of their funding at the previous year's level, plus the fixed annual increase. All of this has changed with the new information system. Comparisons between different hospitals are now made easily.

Large differences between various hospitals in funding allocated per procedure performed are more difficult to explain. Thus, competition between hospitals for State funds has been enhanced. Management procedures and information systems have great influence on both Hospital and State authority strategies towards a more rational allocation of resources, via the funding negotiation.

With the problem of appropriately funding hospitals solved, the ultimate argument is then quality. Traditionally, hospitals have been professional bureaucracies [10] in which the expertise is concentrated at the level of operational units (i.e. in the hands of the physicians themselves). However, quality of care concepts necessarily lead to the definition of criteria, to measurements of performance, and to external authority; all things that most physicians strongly resent. However, managers, in their ambition to further the development of the institutions they lead, are rallying to the quality care movement. Increasingly, physicians are choosing to build strategic alliances with them in order to compete better for State-allocated funds. Thus, new management rules have created the conditions for an important change in the actors' behaviour. It is so far too early to establish that quality of care already has been influenced by these new procedures, but at least it has really become a widespread concern, which should provide interesting results in the years to come.

THE NEED FOR ORGANIZATION

Where is quality being sought? Of course, there are the basic drives for improved competence and technical capability. In addition, a major effort is under way to compare various alternative procedures, to define clinical guidelines, and to prohibit dangerous practices. Naturally, these are issues for physicians to work out, but they must be implemented, and probably will produce significant results when they are finally put in place. One important problem they cause, however, is that they challenge the traditional view of the doctor-patient relationship, in which a single physician is responsible for "his" patient. This view, while viable for a long time, has grown increasingly inadequate as new specialties have split off, as the use of technology has grown everywhere, and as multiple competencies (professional sub-specialties) have become involved in the treatment of each patient. As is the case in other industries, increased complexity in the process has generated specialized professional rationalities, cultures, career paths, and professional perspectives, which reinforce each competency but increase the need for coordination among all the actors involved in the process.

In the hospital environment, physicians must cooperate with the nurses of various grades and qualifications, with administrators, with technical staff, and with people from the service units (those who provide services that support the hospital infrastructure). Each and every one of these groups plays their part in the care process. For instance, food, especially in France, often is thought of as an important contribution to a quick recovery. Social facilities ease the transition when the time comes to leave the hospital. Coordination with technical units prevents excessive delays. Also, coordination between physicians of various units makes it possible to treat a patient with multiple afflictions as one patient with many problems, rather than as many problems that happen to be in one patient.

The issue of quality measurement further stresses the importance of organization and co-operation within the health care environment, as the health of the patient is affected by every aspect of the health care process. Thus organization is going to appear as an important factor for good results and quality care. However, in no other field is the executive in charge of a unit so far removed from the day-to-day functioning of the unit itself. Cultural factors, detailed in another paper [11], contribute to physicians' lack of interest in organization, yet the fact remains that individual technical exploits are no longer sufficient to achieve good quality and that attention to the collective organization of health care operations must be achieved. Some of the factors that contribute to the health of patients (excluding medical and surgical skills that are beyond the scope of this paper) are the following:

- **activity structuring**: task programming; allotting labour to tasks and patients; training, qualification and multi-competency issues; administrative procedures; dealing with crises, emergencies and hazards; working conditions
- **scheduling and managing working time**: building
teams and shifts; scheduling shifts; organizing meeting times and handling overlaps; dealing with chronobiology and outside life; absenteeism and employee turnover.

— **information systems**: information about the patient; guidelines and research protocols; security of information and various instructions; communication support

— **collective organization of work**: relationships among actors in the same unit; links and circuits with other units; role and position of the nursing officer

Three points need to be made about this list. Firstly, these issues already have been addressed in the administrative and service sections of health care. The resources freed by the resulting gains in productivity have been reinvested in the clinical units. However, the time has come when clinical units themselves must begin using these same approaches in order to increase their productivity and quality. Secondly, it is important to remember that each of these categories influences the others, so each issue must be considered globally, as it fits into a larger context. Thirdly, based on the extensive contact we have had with different nurses and nursing officers, it seems that, if a new initiative is to be implemented successfully, it is imperative that the action in question be rationalized in terms of benefit to the patient, and that the rationalization be communicated by managers to those involved in the clinical process.

**RECOGNIZING THE SIGNIFICANCE OF EACH PART OF THE CARE PROCESS**

In the absence of normative ideas regarding the way care should be delivered, what is the definition of a "good" organization? In this case, the nature of the organizational system will reflect a balance between the interests of the various medical professions. One problem, which strongly affects French hospitals, is that physicians, empowered by their dominant position, tend to organize operational units according to their own work needs, often causing dissatisfaction among the nursing staff. Another challenge is dealing with the unavoidable discrepancies between prescribed tasks and tasks actually performed. To accommodate this, tasks have to be defined and assigned appropriately, but a certain margin of slack must be built into the system so that the worker can deal with the various unpredictable incidents that occur each day.

Since hospitals deliver care to their patients in just-in-time processes, it is vital that the balance between assigning specific responsibilities to individuals and caring for the patient as a team is well established. The complex nature of modern medical care necessitates flawless cooperation between every member of an operational unit, requiring both formal (prescribed) and informal (improvised) coordination, as well as a sense of shared responsibility in the collective process. Taken together, these factors mean that human resource management will be extremely important in organizing health care.

**ORGANIZATION IS A KEY FACTOR TO QUALITY**

Improved organization thus appears to be a way of handling financial constraints, accommodating patients' demands for high quality care, and satisfying nurses' needs for better working conditions and increased social recognition. Everybody has something to gain by such an approach. This is an important point to emphasize, since all the actors will have to be persuaded that better organization is in their own interest, if change is to be accomplished.

The French Health Ministry has launched a campaign to promote efforts aimed at improving the working conditions and organization in hospitals. To date, several experimental efforts have been made and some have yielded encouraging results. In Bourg-en-Bresse, for instance [12], a physician and nurse were part of a team that investigated a typical work situation — one dreaded by nurses — the disinfection of operating rooms in between use by two patients. The findings in this case highlighted two issues. The first was that nurses had no guidelines regarding the proper use of disinfectant. As it turned out, nurses were wiping disinfectant off the equipment before the product could be fully effective. The second issue was that a great number of operations took place in the same half-day, in accordance with the physicians' strategy for admissions. In both cases, merely observing and explaining the problem led to obvious ways to improve the system. New guidelines for the disinfection process were established by a panel, and the admissions policy was modified so that cleaning could be spread over the whole week, allowing enough time for nurses to do the job properly. The result was improved working conditions for nurses, better safety for patients, higher quality of care delivered by physicians, and effective use of monies used for the purchase of disinfectant.

**CONCLUSION: THE CONDITIONS FOR A REAL CHANGE**

Changes such as these must be supported strongly by physicians, given their prominent position in the French hospital. This probably is going to be a major cultural change for doctors because they are not used to, and are not formally responsible for, handling the logistics of their teams. This culture must adapt, however, since the organization of the whole clinical unit forms around the work of the physician. This necessitates tight cooperation between the medical and nursing staff and highlights the importance of taking each profession's point of view into account.

For organizational change to be successful, each of the actors in the process must become familiar with the issues
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outlined in this paper and must be encouraged to express their own point of view. This implies the exchange of information, participation by all actors, and regular unit meetings. Managers will have to explain how productivity gains derived from better organization will improve working conditions, deliver higher quality care, and attract more patients. This will be accomplished by utilizing existing human resources more effectively, rather than by increasing present work loads. Such productivity gains will also make a hospital more competitive for State resources, as it will be able to argue that it has lower expenses for the same procedure, or provides better service for the same amount of money. In this regard, it is clear that the new rules issued for hospital financing have generated a need for new information systems that will include quality measurements as well as volume criteria. Toward achieving these organizational changes, it will be the manager’s duty to launch reforms and to ensure that the reforms benefit the community as a whole (including the hospital). It will be the physician’s duty to agree on appropriate quality measurements and to ensure that the new rules will not promote corruption with regard to the reporting of information.

Such an evolution was not thought to be realistic only a few years ago. The good will of all actors involved (physicians and nurses, hospital managers, State authorities, National Insurance system) is not questionable; but no real incentive was put to them to promote different behaviour. Economic and financing necessities have led to a new approach, with a new information system, new management tools and procedures, inducing new behaviour and strategies. The first step, now achieved, produced an increased rationality in funding the hospitals in France, reducing the inequalities between them, and developing efficient hospital management; the next one, already within sight, consists of promoting a higher concern for quality of care as an argument for getting more resources. This economic and management approach to quality of care has yet to match ethical rules, leading to strong co-operation between managers and physicians, an essential condition for promotion of global quality.

REFERENCES


