



# Implementing QA programs in managed care health plans: factors contributing to success

Revital Gross

*Myers-JDC-Brookdale Institute, and Bar Ilan University, Jerusalem, Israel*

Yael Ashkenazi

*Myers-JDC-Brookdale Institute, Jerusalem, Israel*

Hava Tabenkin

*Haemeq Hospital, Afula, Israel and Clalit Health Services, Tel Aviv, Israel*

Avi Porath

*Ben-Gurion University of the Negev, Be'er Sheva, Israel and Clalit Health Services, Tel Aviv, Israel, and*

Alec Aviram

*National Institute for Health Policy and Health Services Research, Tel Hashomer, Israel*

## Abstract

**Purpose** – The purpose of this paper is to identify the factors that contribute to the success or failure of quality assurance programs implemented by Israeli managed care health plans.

**Design/methodology/approach** – An in-depth study of seven quality assurance programs was conducted, comparing successful with unsuccessful ones using the comparative “case study” method. Employing a semi-structured questionnaire, 42 program directors and professionals in the field were interviewed.

**Findings** – A number of factors associated with the programs’ success emerged. Those external to the program included: ongoing management support, resource allocation, information system support and perceived financial benefit for the organization. Internal factors included: leadership, perceived problem’s importance, laying the groundwork in the field, involving field staff in planning and implementation and staff motivation.

**Originality/value** – The study provides insights into ways to encourage the implementation of successful quality assurance programs in the special organizational context of managed care health plans. As the implementation relies heavily on data, one important precondition is the development of computerized information systems to facilitate ongoing data collection. It is also necessary from the planning stage to take into account organizational factors that affect success.

**Keywords** Quality assurance, Medical management, Israel, Health services

**Paper type** Research paper



The study was funded with the assistance of the National Institute for Health Policy and Health Services Research. The authors would like to thank to members of the study’s steering committee for their valuable comments: Dr Yitzchak Alsheikh, Dr Margalit Goldfrecht, Dr Anthony Heymann, Gila Saadia, Yehudit Tzameret, and Professor Eli Kitai. They would also like to thank all the interviewees for their time and Ronit Matzliach who helped conduct the interviews.

## Introduction

The desire to provide high-quality medical services despite limited resources constitutes a major issue all over the world (Donabedian, 1989; Batchelor and Esmond, 1989). Improving care processes and outcomes has become a key public policy issue in many countries. Organizations that provide health services are seeking ways to provide more efficient and better quality treatment. Implementing quality assurance programs based on the principle of continuous quality improvement (CQI) is one strategy for achieving this goal (Ovretveit, 1997; Shortell *et al.*, 1995). Quality assurance (QA) programs are structured activities that comprise several stages:

- collecting data on clinical treatment or service process outcomes;
- analyzing data and determining means of improvement;
- implementing interventions designed to improve the situation; and
- repeated data collection to examine the intervention's effect (Donabedian, 1991).

Programs are designed to be implemented on a long-term basis and the periodic repeated data collection facilitates ongoing improvement by identifying weak areas and correcting them as necessary. These programs are expected to enhance quality and at the same time cut down costs by increasing treatment efficiency and effectiveness. Therefore, in a world of limited resources and steadily rising costs, healthcare organizations show increasing interest in implementing QA programs that are able to achieve both objectives. For this reason, implementing QA programs is a particularly valuable strategy for managed care organizations that are characterized by three basic features:

- (1) administrative supervision and regulating clinical decisions;
- (2) requiring that members receive their care from a registered provider; and
- (3) risk sharing between providers and the health plan (Hacker and Marmor, 1999).

In the past decade, managed care arrangements spread rapidly in many countries, mainly because of cost containment considerations. In 2000, an estimated 90 percent of the insured working population in the USA was insured through some type of managed care plan (Gabel *et al.* 2000). Consequently, many US physicians are affiliated with managed care organizations, either as salaried employees in structured-staff model health maintenance organizations (HMOs) or through looser contractual arrangements (e.g., preferred provider arrangements). Similar changes in employment terms are taking place in other countries and growing numbers of physicians are now working in some type of organizational setting rather than as independent practitioners; for example, GPs in UK Primary Care Trusts although self-employed, now practice within an organizational context (Pollock, 2001; Badrinath *et al.*, 2006) as do general practitioners (GPs) in New Zealand Primary Health Organizations (Ashton and Cumming, 2004). Moreover, a comparative analysis of structural developments in several European countries concluded that changes reflect the influence of US managed care theory and practices (Erdman and Wilson, 2001). Studies show that QA programs have not always been successfully introduced into organizations and have not always had the expected impact on care processes and outcomes (Wang *et al.* 2006; Huq and Martin, 2000; Badrick and Preston, 2001; Bradley *et al.* 2005; Benbassat and Taragin, 1998; Chambers *et al.*, 1995). Introducing QA programs into managed care

health plans provide a special challenge given the physicians' ambivalent attitudes to practicing in these conditions. The literature indicates that physicians working in managed care settings are apprehensive of the consequences of managed care practices, voicing concerns that managed care will lower care quality while reducing income and autonomy. These concerns are related to observations that, in these settings, physicians sometimes have to subordinate their clinical judgment to managed care protocols and abide by regulations regarding pre-authorized prescriptions, referrals and diagnostic services. Indeed, a survey of physicians' perceptions of how managed care has affected them indicates that participation in managed care has had significant and largely negative effects on important medical practice aspects including physician-patient relationships, clinical decision making, work conditions and settings, and overall satisfaction (Warren *et al.*, 1999).

In Israel, universal coverage for all residents is provided through four competing health plans, which operate as managed care organizations. They exercise a range of administrative controls over physicians (such as pre-authorization and prescriptions monitoring), direct clinical decisions by disseminating clinical guidelines and other regulations, and allowing members to receive care only from a specified list of providers. The Israeli case thus offers an opportunity to examine factors affecting successful QA program implementation in a national managed care system (Gross and Harrison, 2001). A review of the literature reveals that there has been little research into the factors that affect QA program success in managed care organizations. Studies of other types of health organizations identified various factors affecting successful implementation of different types of quality improvement programs. Most studies have been conducted in hospital settings and only a few in community health services. Examples include studies on QA programs in hospitals (Klazinga, 1994; Eldar and Ronen, 1995), TQM programs (Shortell *et al.*, 1995; Warwood and Antony, 2003; Badrick and Preston, 2001) and clinical audit studies (Johnston *et al.*, 2000), clinical governance (Campbell *et al.*, 2002), and other strategies (Baltic *et al.*, 2002; McGilloway *et al.*, 1999; Walshe and Freeman, 2002). Given managed care health plans' unique characteristics and the scarcity of QA program implementation studies in these settings; our goal was to identify factors that contribute to the success or failure of QA programs implemented by Israeli health plans. Better understanding of factors that contribute to the QA program success would contribute to the managed care health plans' ability to design more effective programs.

### Method

Our study was conducted using a qualitative method based on semi-structured in-depth interviews with key personnel. This approach provided in-depth information and insights about the study topic. In the first stage of our study we gathered data on all the quality improvement programs implemented by all four managed health care plans in Israel (the health plans) in order to learn about their overall strategy for quality improvement. Between June and November 2001, we interviewed 71 senior managers from all the health plans, most of them by telephone, using a semi-structured questionnaire; interviews lasted 60 to 90 minutes. Managers were from health plans' head offices (nursing, medicine, management, logistics, labs and imaging divisions) and we also interviewed either the general director or medical director of every district or both (Gross *et al.*, forthcoming). Seven people refused to be interviewed. The second stage included an in-depth study of seven programs involving all the characteristics of

a QA program. This stage was conducted using the comparative “case study” method, which is defined as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident” (Yin, 1984, p. 23) We chose this method since there is close reciprocity between the phenomenon studied (QA program implementation) and the organizational context in which it exists. The programs selected for in-depth analysis were identified together with health-plan officials who provided information about their perceived success. We chose programs perceived as successful and others that were not. The program’s success was defined by two parameters continuation over time and success attaining established goals as perceived by health plan officials. No attempt was made in this study to evaluate the programs’ success directly by gathering data on the results. In order to obtain a comprehensive understanding of factors affecting success, we interviewed program directors and professionals in the field who implemented them. During this stage, in the course of 2003, we interviewed 42 people, most of them by telephone, using a semi-structured questionnaire; interviews lasted between 60 and 90 minutes. The factors that influence the programs’ success and continuity were identified in two ways: by analyzing the ensemble of answers in the interview, through which we profiled successful and unsuccessful programs, and through direct questions in which the interviewees were asked for their opinion about what contributed to a program’s success or lack.

## Findings

### *Background*

Preliminary interviews revealed that health plans used a range of strategies to improve or maintain quality. The interviewees mentioned a wide spectrum of strategies for improvement including general activities where no attempt was made to measure or document their effect, programs with a one-time measurement or programs that were themselves conducted on a one-time basis, as well as long-term programs that included pre- and post-gathering and analysis of data and thus fit the definition of “quality assurance programs.” This analysis revealed that in the health plans’ overall quality improvement efforts, QA programs were not the main strategy for improving quality and that most of the programs at the health plans belonged to a range of other strategies (Gross *et al.*, forthcoming).

### *Identifying factors associated with QA program success or failure*

To understand which factors are associated with QA programs’ success or failure we compared successful and unsuccessful program characteristics. To reach a profound understanding of the factors that affect programs’ success, we chose to probe programs that differed in a range of aspects: the subjects they addressed; their scale; the sectors involved in them and those that implement them; the breadth of their goals; and the scale of the tasks they assign to those implementing them. The programs identified as successful included two programs that treat diabetes patients (programs 1 and 2); a program to treat stoma patients; and a program to prevent elderly peoples’ unnecessary hospitalization. Those identified as unsuccessful included a third diabetes program (program 3); a program targeting hypertension patients; and a program to reduce medical services’ over-utilization in the community. The programs are described briefly in the appendix. Listed below are the factors whose presence emerged in the interviews as playing an important role in a large proportion of the successful

programs. Some were also found in unsuccessful programs, but, on the whole, they were mostly absent. Table I sets out the factors associated with successes that were found in every one of the programs. These can be classified in two types: external – i.e. those dependent on organizational resources, and internal – i.e. those depending on program staff resources.

### **External factors associated with quality assurance program success**

#### *Managers' ongoing support*

Managers' support emerged in the interviews as one of the most important factors in the program's success and its continuation. In the successful programs we examined, we found ongoing support from central or district managers, which was expressed in various ways:

- Message about the importance to the health plan of improving quality in general and about the managers' long-term commitment to the project. Additionally, support for a specific program was also expressed by conveying a message to the staff on all levels about the importance that managers attached to it (e.g., by management representative participation on the program steering committee, attending meetings, and their involvement in decision-making processes about the program).
- Allowing program staff to participate in conferences, seminars and other public events pertinent to the program; taking an interest in results of the program; and formally incorporating the program in the work plan.

A strong message from managers was found to be particularly important in a situation where program staff was constantly flooded with new assignments, programs and demands. In such a situation, staffers tended to give priority to programs that they felt were strongly supported by managers. In all the unsuccessful programs we examined, we noted there was, or had been, a problem with managers' support. For example, in the hypertension program, interviewees explicitly said that managers decided not to promote the program for the time being and considered it "dormant". The head office project managers did not allocate enough time to the program and promote it effectively and they understood that it was not particularly important to the health plan. At a certain stage, the project manager left his position and was not replaced, and consequently work in the field almost came to a standstill.

#### *Resources*

Another external factor affecting success is the amount of resources allocated to the program, including funding to produce materials, organize training days, develop information systems, etc., and time allocated for personnel to run the program. Generally the programs we examined (both successful and unsuccessful) did not greatly lack resources for training, organizing seminars, producing instruction materials for patients, etc. The main difficulty in this area was always the allocation of hours to staff running the program in the field and at the head office. In most cases, there was no significant allocation of workers to handle the additional load required to implement the program, which was generally added to the existing work, aggravating the problem of overload that burdened field and office staff. Surprisingly, we found that even though this factor was mentioned, it was not perceived to have a decisive

	External factors			Internal factors					
	Ongoing management support	Resources	Sufficient information-system support	Perceived financial benefit for organization	Leadership throughout the program	Perceived centrality of the problem	Preparing the field	Involving the field	Motivation (compensation)
<i>Successful programs</i>									
Diabetes 1	+	+	+	+	+	+	+	+	+
Diabetes 2	+	+	+	+	+	+	+	+	+
Hospitalization of elderly	+	+	+	+	+	+	+	+	+
Stoma	+	+	+	+	+	+	+	+	+
<i>Unsuccessful programs</i>									
Over-utilization	-	-	-	-	-	-	-	-	-
Diabetes 3	-	-	-	-	-	-	-	-	-
Hypertension	-	-	-	+	-	+	-	+	-

**Notes:** + factor present in the program; - factor absent from the program; + - factor partially present in the program

**Table I.**  
Factors associated with the success of the programs



effect on the success or non-success of the programs we examined. Time shortage was a perpetual problem for health plan staff. In cases where it was clear to people that the programs were important to the health plan or to their superiors they managed to cope with additional assigned tasks in the time they had. Sometimes, however, the enormous workload resulted in uncompleted work in the way that those performing it themselves would have liked to do it. For example, one successful diabetes program element was to make periodic appointments for patients. Owing to work pressure, the appointments were not always as frequent as they should have been.

*Adequate information systems support*

A key QA program component, according to its definition, is monitoring based on regular data collection to follow-up the program's progress and results. The ability to monitor results is also important so as to give feedback to the field, to know where greater investment should be made, mobilize support for programs in the field and at management level. Results that indicate financial savings, greater client satisfaction, improved clinical data and so forth can bolster management support and enhance the motivation of those (implementing) and participating in the program. Information systems support is also important for producing data required for ongoing operations in the course of the program – for example, lists of patients who constitute a program's target population. In the programs we examined, some data were taken from existing administrative or clinical databases. Others were produced with tools built specially for the programs – for example a diabetes register. However, even when existing data sources were used, it was necessary to organize them and to produce special reports constructed in a convenient way for the people who are meant to use them to monitor or administer the work daily. Manual data collection was found to be slow and labor intensive, making it difficult for the program's managers to maintain it for any length of time.

Computerization is a relatively new area for health plans and one developed largely in recent years. In some cases we found that information systems were constructed in tandem with the programs and computerized tools were constantly being upgraded. Generally, most programs we examined were supported by information systems, albeit imperfect ones that were flawed. One of the successful diabetes programs started out mainly using manual tools; the computerized tools were developed in the course of time, consequently there were ongoing difficulties producing the desired reports at all user levels. In the hypertension program (which was unsuccessful) there were great problems with the computer system. It was hard to obtain reports on work conducted and there were problems that hampered statistical analysis of balanced blood pressure data, making it impossible to check whether there had been improvements, which was the program's key measure. Had it been possible to show such improvement, this could have helped muster support for the program in the field and at the head office. Another program, where the lack of information systems support was cited as a serious problem, was the over-utilization project; discontinued because it was not possible to produce lists of suitable new patients, which seriously held up the work. Furthermore, regarding examining program results, it was impossible to measure how much money had been saved and it was therefore hard to use this information to mobilize support for continuing the program.

### *Perceived financial benefit for the organization*

The interviews revealed that one factor considered when deciding whether to launch or continue a program was economics. The belief in a program's potential medium- or long-term financial benefit added to the desire to invest in it. Quality assurance programs cost money, at least in the short term, but in most cases it was expected that in addition to improving quality, they would also save money in the long run. This was particularly true of the smaller programs we examined, those where savings were expected to be seen in a shorter time and sometimes this was one of the program's declared goals; for example, the stoma program and another to prevent hospitalization of the elderly, both were expected to save money. The latter was required to prove that it was saving money in order to obtain approval for additional social workers to implement the program on a wider scale. The program to prevent service over-utilization was unable to show a financial saving, which is evidently one of the reasons it was decided to discontinue it. In the large complex programs (for hypertension and diabetes), savings were expected in the longer term and it was much harder to measure financial effects. Although not immediately visible, most health plan officials believed that correct diabetes treatment could save money in the long term or even in the medium period, even though savings could not be demonstrated in the short term. Therefore, the financial consideration apparently was not the dominant one in this case, nor did it play a key role determining the program's fate. In contrast, however, the hypertension program had the potential to save money but nevertheless health planners decided not to promote it.

### **Internal factors associated with quality assurance program success**

#### *Leadership*

Our interviews revealed that programs did not “run on their own” – someone had to promote them, monitor what happened and solve problems even after the initial assimilation stage had been completed successfully. This was found to be an important factor in all programs. Successful ones were characterized by strong, active and involved leadership that promoted the program, *inter alia*, mobilizing management support, motivating staff, adjusting the program to changing conditions in the field and making all those involved feel there was someone checking their work and paying attention to them. This kind of leadership was required both at the head office and locally, and was particularly true of large, complex, interdisciplinary projects. Leadership had to be able to motivate people and work with them. Two successful diabetes programs we examined had this kind of leadership. Managers were in constant contact with the field and did not let the subject slip from the agenda. This was also the case for the elderly patient hospitalization prevention project. The program to treat stoma patients was different in that it was chiefly in nurses' hands and was easier to implement. In this case, the program became integrated into routine work and responsibility for heading it had been transferred to the district offices. Moreover, in this case too, leadership (albeit local rather than national) was visibly important and program implementation quality in a particular district depended on nurses leading it. The hypertension program, which was fraught with difficulties, illustrates the importance of local leadership. One main problem was no active leadership. However, even in such a project where there was no strong central leadership, we found that in one of the districts the person responsible for implementation, promoted the program and it was indeed implemented. Conversely, in



another district, the person in charge did not promote the program and consequently it was discontinued. In the two other discontinued projects, the people leading them quit their positions at a certain point and the programs were leaderless.

*Centrality of the problem as seen by those involved in the program*

Our interviews revealed that an important factor motivating participants and in the success of the program was the feeling of all those involved – from leaders to fieldworkers – that the problem they were addressing was paramount and there was a need for intervention. Topics for QA programs may be developed in the field pursuant to a problem encountered by caregivers in the course of their work or at head office. However, whatever the case, we found that there must be a sense that this is an important issue regarding the size of the population affected by the problem, its gravity and sometimes its financial implications. In the programs we examined, diabetes was perceived to be a major health problem that affected an extensive public and had far-reaching health and economic implications. Unnecessary hospitalization was also perceived as a serious problem for the elderly population, which has grave financial and health implications and is central to social work in the health services. The problem addressed by (the successful) stoma program staff is one that affects a relatively small number of patients and does not, on the whole, cause serious complications. Those treating patients believed the problem was important, but they did not rank it as a top nursing priority. In this case, what made the issue important did not derive from its scale and centrality, but from the contribution that the program could make to promote the professional sector addressing it. Senior nurses had an interest in promoting the nursing sector within the organization where (in most cases) nursing is an auxiliary medical profession. In the case of the stoma program nurses could have full control over the treatment and could thus make a unique contribution. The program had an element of empowerment, expanding nurses' authority and bolstering their independence over treatment; consequently this topic was perceived as a problem in which the nursing sector had a great interest. However, although the hypertension program and one of the diabetes programs also addressed major problems, they were not successful.

*Preparing the field for new programs*

Interviews showed that introducing new programs had to be accompanied by preparation in the field, which included and involved all relevant agencies, even those not directly connected to the project. The successful diabetes programs we examined, for example, were constructed gradually, in consultation with relevant sectors, building an infrastructure and making gradual progress to goals and objectives added every year. In the discontinued diabetes program, there were problems related to inadequate field staff preparation, which were disregarded and not put right in the program's course. For example, nurses had to invest a large part of their time making appointments for patients. The clinic managers, important figures in the health plans, were not involved in the program from the start but no support system was set up in the clinics. The result was that nurses' time investment was greater than planned or expected and exceeded that allocated. The situation was markedly different in the new successful diabetes program at the same health plan, where all staff were prepared and consequently the clinic secretaries were helping nurses to make appointments. Part of preparing the field consisted of introducing programs (particularly the large ones)

gradually. Interviewees noted that there are advantages to the process of systematic and gradual building when objectives are spread over time. Starting with something small and adding new issues and objectives every year is less threatening to field staff than presenting them with a large project in its entirety at the beginning. Special preparation was required when it was necessary for physicians to cooperate as secondary partners with other sectors. In a medical organization such as a health plan, the physicians are at the top of the hierarchy and we found that this fact needed to be taken into account when planning and constructing a program. When a program focused on a subject that was not in the physicians' purview or when they were willing to surrender it easily (as in the case of the stoma program), there was no problem. However, when the subject matter concerned them and their cooperation was required, it was a mistake to treat them as marginal partners. A problem of this nature arose in the service overuse program, which was implemented by nurses and social workers who required the physicians to provide patient information. Both nurses and social workers viewed physicians as having mainly technical and therefore minor program roles. This attitude caused some physicians not to cooperate with the program staff. Interviewees remarked that had there been preliminary work to prepare the physicians for the program, or had they been accorded a more central place, there would possibly have been more cooperation.

#### *Involving the field in designing programs*

Our study indicated that it was important for several reasons to involve field representatives in all project planning and implementation stages. Interviewees noted that such involvement gives people the sense of being active partners in the program and makes them feel that the program's success is their own achievement; it encourages them to mobilize fieldworker support; it provides an early opportunity to receive feedback as to how important the issue is to the people in the field (which does not necessarily coincide with the importance attributed at the head office). It makes it possible to obtain input from the field about what is feasible and practicable and thus to build a solution and tools that are acceptable in the field and are commensurate with its capabilities and limitations. The partnership between head office and the field staff was related to the program's size and complexity. Getting the field involved was generally done by inviting fieldworkers of various levels to sit on steering committees or other bodies that plan, construct and implement the programs. Including the field was also expressed by giving consideration to local initiatives and allowing local leaders the freedom to determine the way a program was implemented rather than dictating everything from above. In all the successful programs we examined, the field was included in all stages. One of the unsuccessful programs had only one team in the field and, in the case of the other two unsuccessful programs, the field was not sufficiently involved. In the case of the hypertension project, for example, we were told that fieldworkers had not been involved in constructing the treatment algorithm, which was subsequently discovered to be extremely difficult to use, something that a person who was meant to work with the algorithm regularly would have spotted during the construction phase. There was not enough field involvement in the unsuccessful diabetes program either – not all the nurses were drawn in while the program was being constructed and the clinic managers – who play a key role in administering the clinic's work – were not involved in the program's early stages and consequently did not cooperate in its implementation.

### *Motivation*

Interviews showed that it was important for people in the field, those who implement the programs, to have a sense that the project was contributing something to them or to feel rewarded by it. Compensation for implementing quality programs at the health plans was not generally financial or in-kind; rather it consisted of symbolic acts such as a prize, a certificate, acknowledgement of an outstanding clinic and so forth, or by praising the employee, sending a letter of appreciation, or noting his or her contribution in other ways. All these motivated staff to implement the program on a long-term basis. On another level, QA programs can contribute to those working in them because they make their work easier, as we were told in connection with the diabetes program. Even though projects added to the workload, it was in the end easier to monitor and treat patients when there was a structured and well set out protocol. QA programs can also contribute to participants by strengthening employee status and broadening their powers, which is what happened to nurses in the diabetes and stoma programs, in which they had been given new referral powers for examinations, consultation and giving equipment to patients. Another contribution to participants mentioned in the interviews was the sense that work really was being done better, that patients were better cared for and happier and expressed satisfaction. Social workers in the (successful) program to prevent elderly hospitalizing, for example, received positive feedback and acknowledgement from their patients. The opportunity that QA programs gave made it a change from the usual work routine and was also mentioned as rewarding.

In the (unsuccessful) over-utilization program some interviewees reported low motivation, which derived from staff difficulties and from working with difficult patients, which did not yield many results. In contrast, in the case of one successful diabetes program, which also contended with difficult patients, most interviewees reported high motivation. This derived, *inter alia*, from attempts to give the participating nurses the sense of being special and that numerous seminars were arranged for them. Thus, motivation was high even though particularly difficult patients with whom it was hard and frustrating to work were included in the program. It was thus hard to achieve positive results. Interviewees from one (successful) program noted another factor that seemed to them important regarding motivation to continue the program. Especially in the case of successful programs, after participants had seen considerable success and improvement at first, the improvement rate slowed in the second stage. A motivating strategy, used to prevent things falling back, was to devise new challenges that stimulated new interest. One way of doing so was by periodically introducing new subjects and establishing new objectives, which was done in the case of the two successful diabetes programs. Another strategy used to boost field staff motivation was to have the support of someone who constituted a professional authority. The interviews revealed that it was important for field workers to have someone with whom to consult, guide them, confer authority and also encourage them to complete program tasks. In the successful diabetes programs, diabetes institute physicians became consultants to primary care doctors. In the (successful) program to prevent elderly hospitalization, the program director was also a professional authority with whom it was possible to consult. Conversely, in the case of the (unsuccessful) service over-utilization program, one of the interviewees told there was no support or guidance and she felt isolated.

## Discussion

We attempted to identify the factors that contribute to quality assurance programs' success or failure in Israel' managed care organizations' health plans. Success was defined by two indices: program continuation time and success perceived by health plan officials in improving the goals established for the program. Analyzing successful program characteristics revealed that many factors contributed to success although they were not all equally important. The main finding in this context was that no one factor could be singled out to explain the success or failure. Success depended on the presence of several characteristics concurrently but it was impossible to indicate any particular factor that had a definitive effect on success or failure. Our findings contribute to existing literature in this field, as we have not found previous reports of a similar observation. Our case analysis showed that success was the outcome of the presence of several factors, while failure was the outcome of the absence of a large number of them. We found two factors present in all four successful programs, which were absent from all three unsuccessful ones that preparing field staff and adequate information systems support were factors also found in the successful programs and missing from the unsuccessful ones. However, it emerged from the interviews that their contribution to the programs' success was perceived to be less central. We believe them to be particularly important for successful QA program implementation. The first factor was long-term management support and the other was strong and effective leadership to administer the program and continue promoting it after the initial introduction period had passed.

The effect of long-term management support and leadership is documented extensively in the literature (Cohen *et al.*, 2003; Motwani *et al.*, 1999; Warwood and Antony, 2003; Walshe and Freeman, 2002). Our study's contribution is to describe manifestations in the specific case of Israeli managed care health plans. It emerged from the interviews that important aspects of long-term management support in this context were conveying to the field the message that the subject is important. Conditions that make it possible for the program actually to happen (e.g., resources, staffing) were provided. Similarly, the important aspects of program leadership in this context were: identifying and solving problems and long-term coping with barriers during implementation as well as fostering motivation among the program implementers. The central role of these factors may be linked to the fact that the health plans operate as managed care organizations, which are bureaucratic, hierarchical organizations. In such organizations, manager's role and leadership is especially significant. Comparing factors present in the successful programs and in the unsuccessful ones highlights the methodological importance of study design that observes not only cases that have succeeded (as in the "Learning from Success" tradition – see Rosenfeld (1997)), but also cases that have not. Indeed, we found characteristics in successful QA programs present in unsuccessful ones. In order to understand which are exclusive to the successful programs, therefore, it is important to examine the unsuccessful ones as well, to ascertain that these factors are missing. An examination of the successful programs only, could produce a misleading picture inferring that every factor found in all successful programs is linked to their success.

### **Insights for implementing QA programs in managed care organizations**

Many authors note how local conditions under which QA programs are implemented influence their success (Ovretveit, 1997; Ovretveit and Gustafson, 2002; Counter and Meurer, 2001). Therefore, we cannot use our managed care analysis to generalize about similar organizations elsewhere. Nevertheless, our study provides insights into ways of encouraging successful QA program implementation in the special organizational context of managed care health plans. Our findings suggest that this activity can be encouraged by developing computerized information systems, which enable staff to constantly monitor key quality indices in their area of activity and thus facilitate QA program implementation that rely heavily on data. Moreover, permanent monitoring systems will make it possible to follow outcomes over time and resume programs that have been discontinued if needed (i.e. if the monitoring shows a decline in quality indicators). When information is computerized in this way, the cost of implementing a QA program is lower for the health plan since there is no need for a special investment in data collection. This financial consideration is especially important in managed care plans who give high priority to cost benefit considerations. Another insight from this study is that in order to implement a successful program, it is not enough to design one that responds professionally to deficiencies identified in the quality of care. It is necessary, right from the planning stage, to take into account organizational factors that affect success – for example to ascertain that managers had a long-term commitment to the program; to select appropriate and committed leadership or a leading team and allow time for the job; to involve and include field staff in all planning stages; and to support information systems. This feature is important in managed care health plans that operate as structured organizations. Our findings also suggest that planning and implementing a QA program constitute a complex activity that demands a commitment from the implementers and a time investment.

It seems that in order to encourage activities of this type, it is important to have the appropriate infrastructure at the head office or district office level by, for example, appointing an official responsible for implementing the program whose job is to initiate activities. They need help put plans into effect and to monitor success. Finally, it seems important in future studies to continue to examine QA program implementation in managed care organizations operating in different health systems. This enables the researcher and practitioner community to better understand conditions necessary for improving managed care organization quality. In light of concerns associated with these organizations, this type of accumulated knowledge may serve the dual purpose of helping to constrain budgets and improve care for the benefit of the insured public and the health system as a whole.

### **References**

- Ashton, T. and Cumming, J. (2004), "Primary health organizations: establishments", *Bertelsman Stiftung Health Policy Monitor, Survey*, Vol. 3, available at: [www.healthpolicymonitor.org](http://www.healthpolicymonitor.org)
- Badrick, T. and Preston, A. (2001), "Influences on the implementation of TQM in health care organizations; professional bureaucracies, ownership and complexity", *Australian Health Review*, Vol. 24 No. 1, pp. 166-75.
- Badrinath, P., Currel, R.A. and Bradley, P.M. (2006), "Characteristics of primary care trusts in financial deficit and surplus – a comparative study in the English NHS", *BMC Health Services Research*, Vol. 6, pp. 64-73.



- Baltic, T.E., Whedon, M.B., Ahles, T.A. and Fanciullo, G. (2002), "Improving pain relief in a rural cancer center", *Cancer Practice*, Vol. 10, suppl. 1, pp. s39-s44.
- Batchelor, G.J. and Esmond, T. (1989), "Maintaining high quality patient care while controlling costs", *Healthcare Financial Management*, Vol. 3 No. 2, pp. 21-30.
- Benbassat, J. and Taragin, M. (1998), "What is adequate health care and how can quality of care be improved?", *International Journal of Health Care Quality Assurance*, Vol. 11 No. 2, pp. 58-64.
- Bradley, E.H., Herrin, J., Matterna, J.A., Holmboe, E.S., Wang, Y., Frederick, P., Roumanis, S.A., Radford, S.A., Radford, M.J. and Krumholz, H.M. (2005), "Quality improvement efforts and hospital performance: rates of beta-blocker prescription after acute myocardial infarction", *Medical Care*, Vol. 43 No. 3, pp. 282-92.
- Campbell, S.M., Sheaff, R., Sibbald, B., Marshall, M.N., Pickard, S., Gask, L., Halliwell, S., Rogers, A. and Roland, M.O. (2002), "Implementing clinical governance in English primary care groups/trusts: reconciling quality improvement and quality assurance", *Quality and Safety in Health Care*, Vol. 11, pp. 9-14.
- Chambers, R., Bowyer, S. and Campbell, I. (1995), "Audit activity and quality of completed audit projects in primary care in Staffordshire", *Quality in Health Care*, Vol. 4, pp. 178-93.
- Cohen, M.N., Eustis, M.A. and Gribbins, R.E. (2003), "Changing the culture of patient safety: leadership's role in health care quality improvement", *Joint Commission Journal on Quality and Safety*, Vol. 29 No. 7, pp. 329-35.
- Counter, M.A. and Meurer, S. (2001), "Issues in the assessment of continuous quality improvement implementation in health care organizations", *International Journal for Quality in Health Care*, Vol. 13 No. 3, pp. 197-207.
- Donabedian, A. (1989), "Institutional and professional responsibilities in quality assurance", *Quality Assurance in Health Care*, Vol. 1 No. 1, p. 3.
- Donabedian, A. (1991), "Reflections on the effectiveness of quality assurance", in Palmer, R.H., Donabedian, A. and Povar, G.J. (Eds), *Striving for Quality in Health Care: An Inquiry into Policy and Practice*, Health Administration Press, Ann Arbor, MI.
- Eldar, R. and Ronen, R. (1995), "Implementation and evaluation of a quality assurance programme", *International Journal of Health Care Quality Assurance*, Vol. 8 No. 1, pp. 28-32.
- Erdman, Y. and Wilson, R. (2001), "Managed care: a view from Europe", *Annual Review of Public Health*, Vol. 22, pp. 273-91.
- Gabel, J., Levitt, L., Pickreign, J., Whitmore, H., Holve, E., Hawkins, S. and Miller, N. (2000), "Job-based health insurance in 2000: premiums rise sharply while coverage grows", *Health Affairs*, Vol. 19 No. 5, pp. 144-51.
- Gross, R. and Harrison, M. (2001), "Implementing managed competition in Israel", *Social Science and Medicine*, Vol. 52 No. 8, pp. 1219-31.
- Gross, R., Ashkenazi, Y., Tabenkin, H., Porath, A. and Aviram, A. (forthcoming), "The role of quality assurance programs as a strategy for improving quality in Israel's health plans", *Social Security*.
- Hacker, J.S. and Marmor, T.R. (1999), "The misleading language of managed care", *Journal of Health Politics Policy and Law*, Vol. 24 No. 5, pp. 1033-43, available at: [www.ncqa.org/Programs/HEDIS/](http://www.ncqa.org/Programs/HEDIS/)
- Huq, Z. and Martin, T.N. (2000), "Workforce cultural factors in TQM/CQI implementation in hospitals", *Health Care Management Review*, Vol. 25 No. 3, pp. 80-93.



- Johnston, G., Crombie, I.K., Alder, E.M., Davies, H.T.O. and Millard, A. (2000), "Reviewing audit: barriers and facilitating factors for effective clinical audit", *Quality Health Care*, Vol. 9 No. 1, pp. 23-36.
- Klazinga, N. (1994), "Concerted action program on quality assurance in hospitals 1990-1993 (COMAC/HSR/QA) global results of the evaluation", *International Journal for Quality in Health Care*, Vol. 6 No. 3, pp. 219-30.
- McGilloway, S., Donnelly, M., Mangan, B. and McLelland, R. (1999), "Quality assessment and improvement in mental health services: a qualitative study", *Journal of Mental Health UK*, Vol. 8 No. 5, pp. 489-98.
- Motwani, J., Klein, D. and Navitskas, S. (1999), "Striving toward continuous quality improvement: a case study of Saint Mary's Hospital", *The Health Care Manager*, Vol. 19 No. 2, pp. 33-40.
- Ovretveit, J. (1997), "Learning from quality improvement in Europe and beyond", *Journal of the Joint Commission for Accreditation of Healthcare Organizations*, Vol. 23 No. 1, pp. 7-22.
- Ovretveit, J. and Gustafson, D. (2002), "Evaluation of quality improvement programmes", *Quality and Safety in Health Care*, Vol. 11, pp. 270-5.
- Pollock, A.M. (2001), "Will primary care trusts lead to US-style health care?", *British Medical Journal*, Vol. 322 No. 7292, pp. 964-7.
- Rosenfeld, J.M. (1997), *Learning from Success – How to Forge User-friendly Social Work*, JDC-Brookdale Institute Research Report, RR-304-97, JDC-Brookdale Institute, Jerusalem.
- Shortell, S.M., O'Brien, J.L., Carman, J.M., Foster, R.W., Hughs, E.F.X., Boerstler, H. and O'Conner, E.J. (1995), "Assessing the impact of continuous quality improvement/total quality management: concept versus implementation", *Health Services Research*, Vol. 30 No. 2, pp. 377-401.
- Walshe, K. and Freeman, T. (2002), "Effectiveness of quality improvement: learning from evaluations", *Quality and Safety in Health Care*, Vol. 11, pp. 85-7.
- Wang, M.C., Hyun, J.K., Harrison, M., Shortell, S.M. and Fraser, I. (2006), "Redesigning health systems for quality: lessons from emerging practices", *Joint Commission Journal on Quality and Safety*, Vol. 32 No. 11, pp. 599-611.
- Warren, M.G., Wietz, R. and Kulis, S. (1999), "The impact of managed care on physicians", *Health Care Management Review*, Vol. 24 No. 2, pp. 44-56.
- Warwood, S. and Antony, J. (2003), "A simple, semi-prescriptive self assessment model for TQM", *Quality Assurance*, Vol. 10 No. 2, pp. 67-81.
- Yin, R. (1984), *Case Study Research*, Sage Publications, Beverly Hills, CA.

### Further reading

- Fooks, C., Rachlis, M. and Kushner, C. (1990), "Concepts of quality of care: national survey of five self-regulating health professions in Canada", *Quality Assurance in Health Care*, Vol. 2 No. 1, pp. 89-109.
- Walshe, K. (1995), "The traits of success in clinical audit", in Walshe, K. (Ed.), *Evaluating Clinical Audit: Past Lessons, Future Directions*, Royal Society of Medicine Press, London.
- Walshe, K. and Buttery, Y. (1995), "Measuring the impact of audit and quality improvement programs", *Journal of the Association for Quality in Health Care*, Vol. 2 No. 4, pp. 138-47.

---

**Appendix. Programs selected for the case studies***Diabetes 1 program (successful)*

Established in 1996, this is the longest-running quality assurance program at one of Israel's health plans. Its goals are to enhance the identification and monitoring of diabetes patients, the quality of treatment, and the stability of the patients' condition. It is a nationwide program implemented by the Medical Division and conducted by primary physicians, nurses, dieticians, health educators, and diabetes specialists; most of the work is done by nurses and physicians at primary care clinics. Structured processes for monitoring diabetes patients and a monitoring and treatment support system have been developed through the program. The project has set itself measurable objectives and it is already possible at this stage to see an improvement in identifying, monitoring, and stabilizing patients.

*Diabetes 2 program (successful)*

This program has been implemented by another health plan since 1999. Its goals are to enhance the knowledge and performance of the medical staff, the patients' knowledge, the diagnosis and treatment of diabetes patients, and patient management at diabetes institutes. It is a nationwide program implemented by the Medical Division's Community Health Department. There is multidisciplinary cooperation among those conducting the program, including primary physicians, nurses, social workers, dieticians, health promoters, and diabetes specialists. Reorganizing patient care is at the heart of the program: family physicians are the main treatment providers while the diabetes institutes have become district advisory centers responsible for treating all patients in the district. The program has measurable objectives that are revised every year. An improvement can be seen at almost every measurement.

*Stoma program (successful)*

A stoma is an opening in the abdomen that is constructed surgically in order to drain waste. The opening may be temporary or permanent. The program has been implemented since 2000. Its goals are to improve the care of stoma patients, to reduce the costs of equipment, and to empower the nurses caring for stoma patients. It is a nationwide program implemented by the Nursing Division and conducted by nurses, who have been appointed as care directors and have been authorized to prescribe stoma equipment (which previously only physicians could do). In addition, steps have been taken to improve communication with the hospitals and to build an orderly process of discharge into the community. Interviews with patients at the end of the first year revealed a high degree of satisfaction and an improvement in their ability to cope with the situation. In addition, there has been a decline in the amount of equipment used by the patients.

*Program to reduce hospitalization of the elderly (successful)*

The program was launched in 2000 in response to data indicating that in some cases, psycho-social problems rather than medical problems might be the cause for frequent hospital admissions of elderly patients. Its goals are to improve the quality of life of the elderly persons and to reduce hospital days and costs. It was first implemented in one district and was expanded two years later into a small-scale, nationwide program. It is administered by the Welfare Service of the Medical Division and is conducted by social workers with the support of an administrative physician. Program staff identify persons over the age of 75 who have been admitted to hospital three or more times in the previous six months and, if they meet the project's criteria, they start a process of psycho-social treatment that takes the patients' problems in their entirety into consideration. There has been a measurable reduction in the number of hospital days. Staff members can sense an improvement in the quality of life and satisfaction indices, but they have not yet succeeded in measuring these results.

*Program to reduce overuse of medical services (unsuccessful)*

The program was implemented for just over two years (from late 2000 to early 2003). It was launched because it was thought that, in certain cases, psycho-social problems rather than medical problems might be the reason why patients were frequently seeking treatment and taking large quantities of medication and that these problems should be addressed. The goals were to improve the patients' quality of life and the quality of treatment and to cut costs by reducing visits to specialists and the use of medication. The program was implemented as a pilot in one district of the health plan. It was administered by the district social worker and staffed by a nurse and social worker supported by a doctor. The staff was meant to identify patients meeting the program criteria and develop an individual treatment program responding to their psycho-social needs including guidance about correct use of medical services. Throughout the duration of the program there were problems in gathering data and measuring the results. The implementers had the feeling that there was an improvement in the patients' satisfaction level and a decline in the number of medical appointments, but these feelings could not be corroborated with data.

*Hypertension program (unsuccessful)*

The program has existed since 1998. Its goal is to improve identification, monitoring, and treatment of hypertension patients and the stabilization of their condition. The program is implemented nationwide by the Medical Division. There is multidisciplinary cooperation among those conducting the program include physicians and nurses at primary clinics, dieticians, and health promoters. The program has included the establishment of a structured monitoring process and the creation of a patient register. The program has not been discontinued, but it has run into numerous difficulties. After the first period of implementation, activity both in the field and on the administrative level declined, and in some districts came to a standstill. There were problems with the information system support and analyzing data difficulties. Consequently, there were no results for the main improvement measure – balanced blood pressure.

*Diabetes 3 program (unsuccessful)*

The program was implemented as a pilot until 2000. Its goals were to enhance the patients' compliance with treatment, improve treatment and results, and to develop a model for nurses as case managers. The program operated in one branch of the health plan in each district and was implemented by the Medical Division Community Health Department. The program was based chiefly on the work of nurses together with social workers and dieticians. The nurses were meant to invite patients who met the program criteria to a series of structured-content meetings, to give them guidance and refer them for examinations and to various caregivers. The staff was also supposed to provide group counseling sessions. The program had positive results in only some clinics but not on the scale expected.

**Corresponding author**

Revital Gross can be contacted at: [Revital@jdc.org.il](mailto:Revital@jdc.org.il)

To purchase reprints of this article please e-mail: [reprints@emeraldinsight.com](mailto:reprints@emeraldinsight.com)  
Or visit our web site for further details: [www.emeraldinsight.com/reprints](http://www.emeraldinsight.com/reprints)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.