Challenges in implementing a budget-holding programme for primary care clinics

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In 1990, Kupat Holim Clalit (KHC), Israel’s largest sick fund, initiated a demonstration programme for transforming a number of primary care clinics in the Negev district of southern Israel into autonomous budget-holding units. Four programme components were implemented in the nine participating clinics: allocation of a fixed budget; expansion of day-to-day decision-making authority; establishment of a computerized information system to produce monthly reports on expenditure; and provision of incentives for budgetary control.

The research findings are based on a four-year evaluation of the programme, which involved a longitudinal case study conducted with multiple research tools: in-depth interviews, a staff survey, and analysis of relevant documents.

This article analyzes the challenges involved in implementing the demonstration programme. It examines clinic staff evaluation of the implementation process (e.g. overall staff had a positive attitude toward it); assesses staff satisfaction with clinic participation in the programme (while only 33% were satisfied, only 21% said they would like the clinic to revert to the pre-programme model) and factors influencing this satisfaction (among them intrinsic benefits, perception of the programme as fair and age); and discusses the lessons to be learnt from the programme regarding effective implementation of organizational change.

The main lessons indicate the importance of certain factors in implementing such programmes: (a) long-term management commitment to the programme; (b) appointment of agents of change/programme administrators; (c) establishment of a formal agreement between the parties involved; (d) establishment of communication channels between the parties involved; (e) intrinsic benefits for staff, perceived as incentives to economize; (f) reliable data, perceived to be reliable by the parties involved; (g) staff participation in the process of change; and (h) involvement of the participating unit as a single entity.

Introduction

Health service delivery in Israel is largely the task of the country’s four major sick funds (all non-profit health insurance organizations), a service delivery model resembling that of HMOs in the USA. Services are provided by the sick fund’s own health care facilities or through contractors.

Of the four sick funds, Kupat Holim Clalit (KHC) is the largest, insuring about 65% of the Israeli population (as of June 1994). KHC owns and operates some 1300 primary care clinics and employs over 2300 primary care physicians. In addition, it owns and operates 17% of the country’s general hospital beds. KHC has a centralized organizational structure, with central management determining overall policy and allocating budgets to the eight district managements and to KHC hospitals. The district managements are responsible for supplying health care services to their insured populations. The budget allocated to each district covers primary, secondary and tertiary care. Each district management operates primary care clinics, specialty clinics, laboratories and diagnostic centres.

Since the 1980s, KHC has been attempting to contain costs and improve services to meet the growing competition from other sick funds. As part of this
attempt, it has delegated authority to, and within, district managements and hospitals (Gross and Rosen 1992). This decentralization is seen as an effective means of providing high-quality health services with limited resources, the assumption being that day-to-day decision-making authority, budgetary control and cost/expenditure data will enable service provision units to contain costs without compromising the quality of care.

In 1990, KHC began implementing a demonstration programme for transforming a number of primary care clinics in the Negev district of southern Israel into autonomous budget-holding units. A total of nine urban clinics participated in the programme. The nine clinics serve one-quarter of KHC insures in the Negev district. During the initial stages of the programme, KHC had an insured population of 300 000 in the Negev district, comprising 80% of the district population. At this time, KHC operated 25 urban clinics in the district, each serving between 2000 and 10 000 insures, and about 100 rural clinics, each serving between 50 and 1000 insures.

The demonstration programme had four central components: allocation of a budget, expansion of day-to-day decision-making authority (related to budget utilization and the type/scope of services provided); establishment of a computerized information system to produce monthly reports on expenditure by area and work team; and provision of incentives for budgetary control (returning part of a clinic’s savings for use at its discretion). The programme had three principal objectives: budgetary control and cost containment; improvement of services and increased insuree satisfaction; and improvement in the motivation, initiative, responsibility and satisfaction of clinic staff (Gross et al 1991).

Regular (i.e. non-budget-holding) primary care clinics provide services to insurees, but have little authority in determining the amount or kind of services provided, and do not monitor expenses. The central and district managements are responsible for budget monitoring and management at the clinic level. They direct the work of the clinic by stipulating permitted prescription drugs, hospitals and diagnostic centres for insuree referral, staffing and hours of operation.

Programmes similar to KHC’s have been introduced into primary health care services in a number of European countries, a well-known example being the NHS fundholding initiative in Britain (Secretaries of State for Health 1989; Godinho 1990; Maxwell et al 1993; Hawie et al 1995; Bradlow and Coulter 1993; Glennerster and Matsaganis 1993). Such programmes are widely perceived as a means of enabling service providers to use existing resources more efficiently and to better meet clients’ needs. In spite of this, there have been few empirical studies of the implementation of such programmes.

A literature review indicates that there are three sets of challenges in implementing programmes of organizational change. The first set of challenges relates to the implementation process itself. One challenge is to minimize resistance to the programme (Lawler 1986). This can be achieved by ensuring the participation of staff in the planning and introduction of change (Patti 1974; Zaltman et al 1973), by explaining and justifying the organizational change to staff, and through ongoing educational activities (Grant and Gale 1990; Eisenberg 1985, 1977; Margulies and Duval 1984; Scott and Marinker 1992). Another challenge is programme diffusion – extending the programme components to non-participating units within the organization (Lawler et al 1983; Zaltman et al 1973).

The second set of challenges relates to the implementation of individual programme components. In budget-holding programmes, one challenge is to ensure that the need for cost containment and budgetary control does not create fears among staff about reduced autonomy in exercising their professional judgment (Pollit et al 1988; Hillman 1987; Reagan 1987), and – in the case of physicians – that this need is not considered contrary to medical ethics (Scrivens 1988) or injurious to the physician–patient relationship (Taylor 1989). Another challenge is to ensure full delegation of authority, because a central management used to making decisions may be reluctant to delegate authority, fearing reduced control (Gross et al 1990; Leana 1986; Laird and Laird 1957). An important part of implementing budgetary autonomy is the establishment of an information system for data collection and dissemination: this leads to changes in practice patterns and increased cost consciousness by providing feedback on individual expenditure (Cummings et al 1990; Tierney et al 1990; Schroeder 1987). The challenge of implementing this component is to address technical problems which arise in operating the system and to allay staff fears of excessive management control.
The third set of challenges relates to staff satisfaction with unit participation in the programme, a factor which largely determines both the degree of staff participation in the implementation process and the programme's outcomes.

This article focuses on the challenges in implementing the KHC budget-holding programme for primary care clinics. The implementation process is analyzed, and staff evaluations of the programme are examined. The article is based upon empirical data from the comprehensive longitudinal evaluation study which accompanied implementation of the programme (1990–1994). The aim of the study was to provide KHC with information for use in determining whether to transform other clinics into budget-holding units, and if so, how to do this most effectively. The findings regarding the influence of the budget-holding programme on costs, staff satisfaction and patient satisfaction can be found in Gross and Nirel (1997). In this current article factors which assisted or hindered implementation of the programme are discussed and conclusions are drawn concerning the effective implementation of similar programmes of organizational change in health care organizations.

Method and research tools

The implementation of KHC’s budget-holding programme was evaluated using the multiple case study method in nine sites and multiple research tools. Use of a number of research tools produces a comprehensive picture of the object of study, strengthening and validating the findings of each tool in isolation (Yin 1984). The findings presented in this article are based upon data collected through in-depth interviews with various management personnel, a staff survey, and analysis of internal district management documents.

In-depth interviews were conducted at three points in time during the four-year evaluation: on initial implementation of the programme (the second half of 1991), a year after initial implementation (the end of 1992), and about two years after initial implementation (the first half of 1994). The interviewees were key personnel in the district management, managers from four participating clinics, and managers from two regular clinics (about 25 interviewees per round of interviews). Due to budgetary limitations, not all of the clinic managers were interviewed. We chose those managers who represented the different types of clinics participating in the programme: teaching versus non-teaching, clinics in weak versus strong socioeconomic areas, and clinics in the city versus in development towns. Managers of regular clinics were interviewed as a control indicating changes occurring in the district that were not related to the programme implementation. These interviews provided a perspective which shed light on the findings from the in-depth interviews in the budget-holding clinics.

The face-to-face interviews employed semi-structured questionnaires. In the budget-holding clinics, the topics covered were: technical implementation of the programme, the introduction of change, changes in work procedures following implementation of the programme, and attitudes of clinic staff to the programme. In the regular clinics, we focused on current work procedures and changes in the clinics.

A survey of all staff members in the nine participating clinics (n = 112) was conducted in March–June 1993 with a response rate of 96%. Self-administered, closed questionnaires were distributed at clinic staff meetings attended by the researchers, with any absent staff members receiving and returning the questionnaire by mail.

The questionnaire included questions on the implementation process: 1 the clarity of the programme, the fairness of the programme, the programme’s intrinsic benefits, workloads, and the influence of the programme on trust and communication. The questions were selected and adapted from a questionnaire developed by Mirvis (1983). Also included were questions on the positive and negative outcomes of the programme (see Table 1). The majority of the questions consisted of general statements for which appropriate responses had to be selected. Respondents had to indicate the degree to which a statement was correct, with possible responses on a scale of 1 to 5. 2 Indeces on the various topics were constructed from the average of answers to a group of questions on a given topic, and tested for reliability using Kronbach’s Alpha (see Appendix).

Staff satisfaction with participation was examined with the question, “To what degree are you satisfied with your clinic’s participation in the programme?” Possible responses ranged from ‘to a small degree’ (1) ‘to a very great degree’ (5). A multiple regression analysis was conducted in order to identify factors with an independent influence on staff satisfaction.
Background characteristics of the participating clinics

Nine clinics participated in the demonstration programme. They were not chosen at random – some of the clinics asked to join the programme, some agreed to participate, and others were persuaded to participate to ensure the inclusion of different types of clinic. What characterized the participating clinics was that they were all urban (rural clinics were not included) and all five of the district’s teaching clinics for family medicine specialization were included. Most KHC insurees in the district (77%) are registered with urban clinics such as those in the programme.

The composition of permanent staff in the clinics, as in all KHC clinics, is determined by the number of registered KHC members and the number of budgeted positions. In most respects, the staff composition in the budget-holding clinics is thus no different from that in other KHC clinics. However, the percentage of family medicine specialists among physicians in the nine clinics (56%) is higher than the percentage among physicians in clinics in the district as a whole (36%), due to the fact that five of the nine clinics are teaching clinics. Of the 112 staff members in the staff survey, 43 were physicians, 36 nurses, 14 office staff, nine pharmacists, and ten social workers or other employees. Seventy-four of the staff members were women. The average age was 46, with 53% of the staff aged between 46 and 67 years. On average, staff had worked for 20 years in their profession (44% having worked 21–40 years in their profession) and for nine years in the clinic (17% having worked more than 16 years in the clinic).

Findings

Challenges and problems in implementing the four programme components

The principal challenge of a programme of organizational change is implementing all of the programme components. We will address the implementation of each of the four components of the KHC programme separately, and discuss problems raised in the in-depth interviews.

Allocation of a fixed budget

For budget-holding to be successful, the allocated budget must be realistic. In the KHC programme, each clinic was allocated an itemized budget covering different areas of expenditure: manpower, hospitalization, emergency services, diagnostic procedures, referrals, drugs, administration (insurer reimbursement, small-scale equipment), and maintenance (electricity, water, communications). The size of the budget was determined on the basis of per capita expenses in the district and adjusted according to the number of KHC insurees registered with the clinic. It was regularly updated following changes in the number of registered insurees and allocation of extra funding from central management to district following new wage agreements and cost of living increases. During the first three years of this programme, budget calculation was modified to take into account individual clinic characteristics. For example, in the areas of hospitalization and drugs, later calculations took into account the age distribution of KHC insurees, a factor initially not considered.

The clinics were asked to keep within the budget, and allowed to transfer funds from one area of expenditure to another (up to 20% of the amount allocated). However, no sanctions were taken against clinics which exceeded their budget. Overall, the budgets were considered realistic, fair and binding by clinic staff, although the guidelines for budget updating were considered unclear. In general, per capita expenses in the clinics were very similar to the per capita budget allocated, i.e. in general most clinics managed to stay within the budget (Kupat Holim Clalit Negev District 1993). Furthermore, when levels of expenditure in the budget-holding clinics and those in clinics in the Negev district as a whole were compared, it was found that in a period of sharply rising expenditure in the district, the budget-holding clinics succeeded in keeping their levels of expenditure relatively stable (Gross et al 1996).

In 1993, the third annual budget was allocated to each clinic. However, reports on clinic expenditure were issued only irregularly, and there was no formal discussion of finances with the district management. As a result, the district management did not assess the budgetary status of the clinics (deficit or surplus), and this made clinic staff uncertain as to the need for budgetary control.

Establishment of an information system

A reliable information system is essential to budgetary control, providing an important tool for monitoring expenditure. In the KHC programme, the challenge was to establish an information system considered reliable by clinic staff and district management alike. A computer was installed in each clinic, and a key
punch operator hired to enter and compile data on expenditure. The programme administrators then issued monthly reports to each clinic on expenditure by area of expenditure and by work team (physician plus nurse). Initially, there were delays in entering data and the system suffered from technical faults. Moreover, staff found it difficult to understand and utilize the reports – a problem solved in the course of 1992, when the system was modified and improved. In the first round of in-depth interviews, great satisfaction was expressed with the expenditure reports as a management tool providing feedback to staff (especially physicians) on individual practices. However, delays in producing the reports continued throughout 1992, with reports issued several months after expenditures were made.

Data in the reports were perceived by staff as reliable and clear. The staff survey indicates that only 3% of the staff reported mistakes in the reports, and only 7% reported difficulty in understanding the data. Moreover, 69% of the staff felt that the format of the reports was successful. However, only a low percentage (34%) reported receiving the reports within a reasonable period of time. When asked whether the reports enabled them to economize without jeopardizing the quality of care, 42% of the staff replied ‘yes’ while the rest answered ‘no’, meaning either that the data did not help at all to economize or that the data did not help to economize without jeopardizing quality of care.

While clinic staff considered the expenditure data to be reliable, interviews with key personnel in the district management indicate that some management personnel did not. Scepticism about the reliability of the data, and thus about the clinics achieving ‘real savings’, led to unwillingness to reward the clinics for saving money. As a result, the clinics’ efforts to economize were not recognized or encouraged, and the district management proved reluctant to expand the clinics’ decision-making authority.

The third and final round of in-depth interviews with clinic managers indicate that in 1993 the expenditure reports were still being produced irregularly: there were often delays of several months, and sometimes two or three reports would arrive at once. The key punch operators in the clinic issued incomplete reports in the interim which, although perceived as less reliable than the reports produced by the programme administrators, nonetheless assisted the clinic managers in budget control. During 1993, less use was made of the expenditure reports because of their erratic production and because clinics received only one copy of each report (whereas formerly each physician received his/her own copy). Moreover, the failure of the district management to address clinic finances and the reduced contact with the programme administrators caused ‘a decrease in staff motivation to use the data’, in the words of one respondent. At the same time, KHC adopted a new policy giving patients direct access to specialists, without the need for referral from the clinic. According to the respondents, this policy contributed to the feeling of reduced control over expenditure (‘the matter is out of our hands’), and of reduced interest in the expenditure reports.

Incentives to economize
The aim of incentives to economize is to encourage budgetary control and cost containment. To be effective, these incentives must be perceived as fair and worthwhile. In the KHC programme, clinics which saved money and thus had a budgetary surplus were supposed to receive a percentage of the savings for use at their discretion. The in-depth interviews indicate that during the 1991-93 period, annual meetings took place between the district management and the participating clinics to discuss finances. Clinics with a surplus budget received authorization to use part of the savings to purchase equipment such as computers, printers, televisions or games for children. Clinics without a surplus received nothing. However, some clinic managers felt that the percentage of the savings allocated to the clinic was too low, and that the administrative process was too complicated. Respondents reported uncertainty – and sometimes conflict – regarding the sum to be returned to the clinic at the end of the year. Moreover, the procedure for using the savings was unclear (did proposals have to be submitted in advance, and was authorization required for specific purchases?), as was the range of items which clinics were allowed to purchase.

Expansion of decision-making authority
This component represented a challenge to the district management – the delegation of certain areas of authority to the clinic management – and a challenge to the clinic – day-to-day operation within a framework of budgetary autonomy. The in-depth interviews indicate that this component was the most problematic to implement. The participating clinics assumed somewhat greater authority than regular clinics in a number of areas: referral of patients for hospitalization in non-KHC hospitals without authorization from
the district management; hiring of specialists to provide services at the clinic; provision of extra services for a fee, thus bringing additional income into the clinic; purchase of small items of equipment from non-KHC sources; and purchase of expensive equipment using savings in other areas of expenditure, with the authorization of the district management.

Initially, the extent of the delegated authority was unclear. For example, it was not always clear whether authorization was needed from the district management for referrals to non-KHC hospitals, and whether it was possible to purchase items from non-KHC sources, and if so, what the ceiling cost was. This uncertainty apparently stemmed from the phrasing of the formal agreement and from different interpretations of this programme component in the district management, as well as from the lack of general guidelines regarding referral and purchasing procedures.

With time, the division of authority was clarified, although the authority delegated to the clinics proved to be less than they expected, and was not always easy to exercise. For example, the clinics expected to be able to purchase office and medical equipment up to the sum of NIS 1000 without authorization from the district management, as stated in the formal agreement. This did not happen, however, and the in-depth interviews with the clinic managers indicate their disappointment with implementation of this component, and their feeling that the district management failed to fulfill its stated obligations.

In 1993, KHC's central management officially expanded the medical decision-making authority of managers in all KHC primary care clinics: clinic physician-managers were henceforth responsible for the authorization of hospitalizations and diagnostic procedures in KHC, government and public hospitals, reimbursement for special drugs, emergency services, etc. In addition, the procedure for obtaining authorization from the district management was simplified by the creation of 'district administrations', which assumed some of the powers of the district management. As a result of these changes, medical decision-making authority in regular clinics became indistinguishable from that in the participating clinics. However, the latter still had greater authority regarding the hiring of specialists, the provision of extra services for a fee, and the purchasing of equipment.

Challenges and problems in introducing organizational change

Organizational change is usually perceived as a continuum of interconnected stages: initiation and start-up; adoption and implementation; institutionalization and diffusion (Lawler et al 1983; Zaltman et al 1973). The challenges which faced the Negev district management can be classified according to these three stages.

Stage One: Initiation and start-up

The challenge for the district management at this stage was to promote the proposed budget-holding programme, persuade health personnel and clinic managers to participate, commit itself to the programme and become actively involved in the introduction of change. The KHC programme originated from two sources in the Negev district: the director of KHC in the district, who viewed the programme as a tool for promoting efficiency, accountability, cost containment and insurance satisfaction (Naveh 1988), and a clinic manager, who gained the support of other clinic managers in the district. These two individuals were very active in promoting the proposed programme. At this stage, a cost assessment of primary care clinics was conducted, and methods of calculating clinic budgets were reviewed (Elhayany and Zmora 1989) in preparation for implementation of the programme. In addition, the principles of clinic budget-holding were agreed upon by the participating clinics and the district management. During this period, the priorities of KHC's central management altered in favour of increased decentralization (Kupat Holim Clalit 1992), a factor which contributed to the adoption of the programme.

The 'initiation and start-up' stage was characterized by a high level of cooperation between the team of health professionals which developed the autonomous clinic model and the district management, and between the district management and the clinic managements. It was also characterized by active involvement and strong commitment on the part of the district management, with the programme perceived as the district's 'flagship project'. As a result, staff in the participating clinics understood the programme to be a top priority in the district, something which, according to the clinic managers, contributed to their willingness to participate in the programme. In the in-depth interviews, the clinic managers referred to the close links with the district management at this stage as one of the benefits of the programme.
However, no permanent communication channels were established between the clinics and the district management over time, and the district management failed to hold regular meetings with clinic staff or with the forum of clinic managers. Thus, at later stages of the programme, clinic managers no longer mentioned close links with the district management.

An additional challenge at this stage was drafting a formal agreement acceptable to both the district management and the clinics. This was accomplished in 1991. The agreement detailed the obligations and rights of the participating clinics, the principles of budget allocation, the extent of the authority delegated to the clinics, and the guidelines governing the incentives to economize. However, the interviews with clinic managers indicate that the extent of the delegated authority was unclear, as were the incentives to economize.

In 1993, the clinic managers organized a forum to discuss implementation of the programme and modification of the formal agreement. The aim of the forum was to revise the agreement in light of experience, and clarify areas considered unclear. In addition, the forum sought additional authority in the area of manpower, requesting that the hiring of new staff be done with their consent. In the event, however, disagreement between the forum and the district management on the content of the revised agreement prevented its being signed.

**Stage Two: Adoption and implementation**

The central challenge at this stage was to ensure that implementation of the programme components led to changes in clinic work procedures. In fact, four principal changes took place: (a) acknowledgment and use of the expenditure reports; (b) new practice patterns and heightened cost consciousness following the provision of price lists, discussion among staff of costs and how to reduce them, the clinic management’s emphasis on the need to economize and choose cheaper treatment alternatives where possible, follow up of hospitalized patients to reduce hospitalization costs, and conversations between the clinic physician and individual physicians regarding excessive expenditure; (c) expansion of the quantity and type of services provided by the clinic through the hiring of specialists to provide services at the clinic, the provision of dieticians, massages and prenatal courses for a fee, and the provision of special products in the pharmacy; (d) new management practices, with more time devoted by the physician-managers to management activities and to the monitoring of medical work and clinic finances (see details in Gross et al. 1996).

The clinics were greatly assisted in the introduction of change by the three programme administrators: the deputy medical manager of the Negev district, an economist and a computer programmer. In 1989-1990, the programme administrators worked out the practical and organizational aspects of the demonstration programme, and constructed the tools for its implementation.

In 1991-1992, the principal tasks of the programme administrators were to work with participating clinics, preparing the staff for change and persuading them to participate in implementing the programme; monitoring the introduction of change; and providing guidance and support in everything related to the expenditure reports. The administrators also organized periodic meetings between clinic staff and the district management to discuss finances and incentives to economize, assisted the clinics in using their additional authority, and facilitated discussion between the clinics and the district management on issues such as the purchasing of equipment, monitoring of hospitalizations, and the hiring of specialists.

During the ‘adoption and implementation’ stage of the programme, the programme administrators changed, and the new administrators worked less with the clinics. In 1993, following changes in the district’s priorities, the number of programme administrators was reduced from three to two: an economist (full position) and a computer programmer (half position). The activities of the administrators were curtailed, and less assistance was provided to the clinics in understanding the significance of the expenditure reports for medical work and in economizing. The in-depth interviews indicate that clinic staff felt the reduced involvement of the programme administrators to be indicative of a cutback in the implementation of the programme.

Although changes to accepted work procedures tend to be met with resistance among staff, no such resistance was voiced by staff in the participating clinics. In fact, the in-depth interviews indicate that staff were more than willing to introduce change. This can be linked to the successful preparatory work of the programme administrators and the district management during the ‘initiation and start-up’ stage.
of the programme. Later in-depth interviews indicate that staff in the participating clinics were willing to adopt new work procedures at every stage of the programme.

Stage Three: Institutionalization and diffusion
Did the Negev district management succeed with long-term implementation of the programme? In 1993, there was a cutback of the programme due to factors indirectly related to the programme and factors directly related to it. The former were KHC’s financial crisis and subsequent changes in its priorities; a reduction in the number of KHC districts, which led to a neighbouring district being subsumed into the Negev district and 60,000 additional insurees; adjustment to this new organizational structure and to the newly established ‘district administrations’.

The factors directly linked to the programme were the failure to sign the revised formal agreement proposed by the forum of clinic managers, and the feeling among certain district management personnel that the demonstration programme was not producing incontrovertibly positive outcomes in the short term. During 1993, faced with new challenges and new priorities by the KHC central management, the district management chose to delay transformation of all the district’s primary care clinics into autonomous budget-holding units, and channel its energies in new directions. According to the in-depth interviews with clinic managers, the interest of clinic staff in the programme diminished the moment the district management reduced its involvement.

During 1991–1993, despite the cutback of the programme, the district management introduced several budget-holding initiatives into all its primary care clinics: the provision of services for a fee, the hiring of specialists to provide services at the clinics, and recognition of clinic preferences in staff appointments. In addition, in January 1994, the district management implemented two of the programme components in all of the district clinics: allocation of a fixed budget and establishment of an information system. At the same time, KHC’s central management decided to allocate budgets and provide expenditure data to all KHC primary care clinics, with 1994 designated a year of preparation and 1995 the year of implementation.

It is possible that this is related to the economic benefits which resulted from the decline in expenditures at the participating clinics and which were reported by the researchers to the district management (Gross et al 1996).

Challenges and problems related to staff satisfaction with the programme
Staff evaluations of the programme were measured using criteria developed by Mirvis (1983). Table 1 presents the distribution of responses to questions on different aspects of the programme. The responses of clinic staff indicate that the majority of them found the programme clear: for 63% of the staff it was clear who was responsible for the programme in their clinic, while 51% found the details of the programme clear. The programme was perceived by 65% of the staff as advantageous to all staff; only 10% felt it to be advantageous only to the clinic management, and a mere 6% felt it to be advantageous only to clinic physicians. Sixteen per cent of the staff felt that the programme involved too many changes, and 37% that the programme had added to their workload. The average scores of the indices for programme clarity and programme fairness were 3.57 and 3.27, respectively, where a score of three represents neutrality in responses, above three indicates positive responses, and below three, negative responses.

To what extent did clinic staff feel that the programme offered intrinsic benefits? Forty-five per cent of the staff said that the programme added new interest to their work, and 26% that it encouraged personal development. The average score of the scale for intrinsic programme benefits was 2.86, representing relatively low scores.

Did the programme improve trust and communication between the clinics and the district management? As the table shows, only a few staff members felt that the programme created tension and pressure (26%). However, only a few (18%) felt that it improved clinic–district management relations.

Finally, to what extent did clinic staff feel that the programme had positive outcomes? Thirty-one per cent of the staff said that the programme had improved the quality of care and led to better use of resources. About one-quarter of the staff said that the programme had improved the service to insurees and reduced clinic expenditure, although only 12% said that it had increased staff satisfaction. Fifty-two per cent of the staff said that the programme had at least
Table 1. Staff evaluations of the programme, by clinic

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<tr>
<td>staff confused and lack confidence</td>
<td>17 0 36 8 17 0 0 15 9 12</td>
<td>95</td>
<td></td>
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<tr>
<td>excessive control of staff*</td>
<td>33 25 46 46 50 56 50 46 27 43</td>
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</tr>
</tbody>
</table>

* Percentage of staff who answered ‘correct’ or ‘completely correct’
# Percentage of staff who answered ‘to a great degree’ or ‘to a very great degree’
1 Number of valid responses for each question
p≤0.05 Chi square test for differences between clinics

one positive outcome. As regards negative outcomes, only 8% of the staff felt that the programme had reduced the autonomy of the medical staff, and only 12% that it had created confusion and lack of confidence among staff. However, 27% of the staff felt that the programme had led to too much intervention by the clinic management in staff work, and 43% that it had led to excessive control of staff.

As Table 1 indicates, there was considerable variance between the nine clinics in staff evaluations of the programme. This suggests that the implementation process differed from clinic to clinic, or alternately, that the staff of the nine clinics differed in their expectations and perceptions of the programme, and thus evaluated the programme differently.

The examination of staff satisfaction indicates that 33% of the staff were satisfied with their clinic’s participation in the programme – with considerable variance between the nine clinics, however. Despite this finding, few of the staff (21%) said that they
would like the clinic to revert to the pre-programme model (see Table 1), with the exception of the staff in Clinic 5, most of whom (57%) would have preferred this.

These findings raise the question of why only one-third of the staff were satisfied with clinic participation in the programme when the majority of them did not want their clinic to revert to the pre-programme model.

Table 2 presents the correlations between staff satisfaction with clinic participation and staff evaluations. As the table indicates, there is a strong and significant correlation between staff satisfaction with clinic participation and perception of the programme as clear, advantageous to all staff, offering intrinsic benefits and improving clinic–district management relations. As might be expected, there was also a strong and significant correlation with perception of the programme as having positive outcomes. However, no correlation was found with perception of the programme as having negative outcomes. This suggests that the low percentages of staff satisfaction with clinic participation were not linked to fear of the programme having negative outcomes.

Also examined was the relationship between staff satisfaction with clinic participation and variables related to staff perception of new clinic work procedures arising from implementation of the programme: new management practices, cost-containment strategies, incentives to economize and staff attempts to economize (Table 3).

Table 3 indicates significant positive correlations between staff satisfaction with clinic participation and new management practices, cost-containment strategies and cost-cutting behaviour.

Finally, a multivariate regression analysis was used to identify variables associated with satisfaction independently of the effects of other variables. Included were staff background variables, variables related to programme implementation and variables related to staff evaluations of the programme (Table 4). The one staff background variable with an influence on staff satisfaction was age (staff aged 25–45 being less satisfied than older staff). In addition, the programme

<table>
<thead>
<tr>
<th>Table 2. Correlation between staff evaluation of the programme and staff satisfaction with clinic participation in the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarity of programme</strong></td>
</tr>
<tr>
<td>clear who is responsible for programme in clinic</td>
</tr>
<tr>
<td>details of programme clear</td>
</tr>
<tr>
<td><strong>Fairness of programme</strong></td>
</tr>
<tr>
<td>advantageous only to management</td>
</tr>
<tr>
<td>advantageous only to physicians</td>
</tr>
<tr>
<td>advantageous to all staff</td>
</tr>
<tr>
<td><strong>Workload</strong></td>
</tr>
<tr>
<td>programme places burden on staff</td>
</tr>
<tr>
<td><strong>Intrinsic benefits of programme for staff</strong></td>
</tr>
<tr>
<td>adds new interest to work</td>
</tr>
<tr>
<td>encourages personal development</td>
</tr>
<tr>
<td><strong>Trust and communication</strong></td>
</tr>
<tr>
<td>programme creates tension and pressure</td>
</tr>
<tr>
<td>programme improves clinic–district management relations</td>
</tr>
<tr>
<td><strong>Positive outcomes for clinic</strong></td>
</tr>
<tr>
<td>reduced expenditure</td>
</tr>
<tr>
<td>improved quality of care</td>
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<tr>
<td>better use of resources</td>
</tr>
<tr>
<td>increased staff satisfaction</td>
</tr>
<tr>
<td>improved service to insurers</td>
</tr>
<tr>
<td><strong>Negative outcomes for staff</strong></td>
</tr>
<tr>
<td>management intervenes in staff work</td>
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<tr>
<td>reduced staff autonomy</td>
</tr>
<tr>
<td>staff confused and lack confidence</td>
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<td>excessive control of staff</td>
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<table>
<thead>
<tr>
<th>Correlation coefficients</th>
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</table>

<table>
<thead>
<tr>
<th>Table 3. Correlation between staff perception of new work procedures in the clinics and staff satisfaction with clinic participation in the programme</th>
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<tbody>
<tr>
<td><strong>New management practices</strong></td>
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<td>give more authorizations</td>
</tr>
<tr>
<td>restrict expensive drugs/procedures</td>
</tr>
<tr>
<td>give advice on improving quality of care</td>
</tr>
<tr>
<td><strong>Cost-containment strategies</strong></td>
</tr>
<tr>
<td>staff discuss ways of economizing</td>
</tr>
<tr>
<td>manager discusses ways of economizing</td>
</tr>
<tr>
<td>management emphasize need to economize</td>
</tr>
<tr>
<td><strong>Incentives to economize</strong></td>
</tr>
<tr>
<td>clinic rewarded for reducing expenditure</td>
</tr>
<tr>
<td>intrinsic rewards for reducing expenditure</td>
</tr>
<tr>
<td><strong>Cost-cutting behaviour</strong></td>
</tr>
<tr>
<td>use of treatment price list</td>
</tr>
<tr>
<td>staff attempt to economize</td>
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</table>

<table>
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<tr>
<th>Correlation coefficients</th>
</tr>
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</table>

** p<0.01
* p<0.05
evaluation variables 'perception of the programme as offering intrinsic benefits', 'perception of the programme as fair', and 'trust and communication: programme improves clinic-district management relations' had a clear and strong influence on staff satisfaction. Other programme evaluation variables had no clear influence on satisfaction, despite the strong and significant correlations found in the bivariate regression analysis. The reason for this could be the interdependency of these variables and the variable 'perception of the programme as offering intrinsic benefits' (the correlations between the latter and the former ranging from 0.20 to 0.40), or the relatively low number of observations.

Summary and conclusions
The findings of the evaluation indicate that the Negev district succeeded in its principal challenge of implementing – at least partially – all the components of the demonstration programme. Moreover, work procedures in the clinics changed and, even during the 'adoption and implementation' stage, elements of the programme were disseminated to regular (non-participating) clinics.

Overall, the staff of the budget-holding clinics had a positive attitude toward the programme and the implementation process. However, the findings suggest a possible answer to the question of why only one-third of the staff were satisfied with clinic participation when the majority did not want their clinic to revert to the pre-programme mode. The answer is that there was resistance to the programme or a perception of the programme as adding to workloads, being unfair or having negative outcomes; rather, the answer seems to be that the programme was implemented to a lesser degree than expected.

Analysis of the implementation process points to a number of lessons for successful implementation of similar decentralization programmes.

Long-term management commitment to the programme
The process by which organizational change is assimilated can take several years. The importance of long-term management commitment to the change is discussed extensively in the literature on Total Quality Management (Berwick et al 1990; Imai 1988; Deming 1986), and supported by the findings of the present study. Our findings show that management

| Table 4. Regression analysis of staff satisfaction with clinic participation in the programme† |
|-------------------------------------------------|-------------|---------|
| Variable                                        | Coefficient | Remaining |
|                                                 |             | after a  |
|                                                 |             | step-wise |
|                                                 |             | elimination | variables |
| **Staff background characteristics**            |             |          |
| aged 25–45 years                                | *0.63       | *0.69   |
| member of clinic management                      | 0.22        |          |
| **New work procedures in clinic**                |             |          |
| Cost-Containment Strategies Scale‡              | 0.23        |          |
| **Staff evaluation of the programme**           |             |          |
| Positive Outcomes for Clinic Scale‡             | 0.26        |          |
| fairness of programme:                           |             |          |
| programme advantageous                           | *0.52       | *0.69   |
| to all staff                                    |             |          |
| trust and communication:                        |             |          |
| programme improves clinic-district management    | 0.16        | *0.48   |
| relations                                       |             |          |
| clarity of programme:                           |             |          |
| clear who is responsible for programme in clinic| 0.34        |          |
| Intrinsic Programme Benefits Scale‡             | *0.45       | *0.55   |
| R²                                              | 0.38        |          |

* p < 0.05
† The independent variables included in the regression were divided dichotomously as follows:
A. Staff Background Characteristics: aged 25–45 years (rather than 46–65 years): member of the clinic management (rather than the clinic staff).
B. The variables 'programme is advantageous to all staff', 'programme improves clinic-district management relations' and 'clear who is responsible for programme in clinic' were measured using a five-point scale ranging from response 1 ('not at all') to response 5 ('to a very great degree'). The cut-off point was between 'low' (responses 1–3) and 'high' (responses 4–5).
C. Some of the variables were multiple-item scales representing the average grade for a number of questions (Cost-Containment Strategies Scale, Positive Outcomes for Clinic Scale, Programme Benefits for Staff Scale); for these variables, the cut-off point was determined according to the average, with grades below the average defined as 'low', and grades above the average defined as 'high'. The 'high' category was included for each of the variables in the regression.
‡ See Appendix for a list of the questions included in the multiple item scales.
1 As ascertained through staff responses to questionnaire.
commitment was an important factor in implementation of the KHC programme, impressing upon staff that the management valued their efforts to change work procedures and reduce costs.

When the programme became a secondary priority for the central manager of KHC, the district management’s commitment and involvement decreased, and the interest of the clinic staff in the programme declined. In addition to this, there were structural problems (such as lack of a good information system and lack of clarity about the rules of expenditure and savings). Indeed, it is difficult for management to remain committed to a programme when the organization as a whole is experiencing a financial crisis and having to change its priorities (as occurred in KHC). However, it is important to make an effort to ensure long-term commitment, so that additional changes can be introduced in the future.

Appointment of agents of change/ programme administrators
Responsibility for implementing a programme of organizational change and for solving day-to-day problems with implementation is customarily assigned to a special administrative body manned by individuals either from within or outside the organization – the agents of change (Mirvis 1983; Zaltman and Duncan 1977). Agents of change are particularly important when the change is complex and requires staff adjustment, as in the KHC programme. Our findings indicate that the three programme administrators were an important factor in the successful implementation of the programme. The administrators ensured that the district management devoted time and thought to the programme despite other pressing concerns, and ensured that clinic staff participated in implementation of the programme despite pressure of work. In addition, the findings indicate the importance of the agents of change in assisting in the process of change, even in its latter stages.

Establishment of a formal agreement between the parties involved
If the programme of organizational change alters the power structure and distribution of authority in the organization, it is beneficial to clarify the ‘rules of the game’. Goals, plans of action and agreements in organizations are notoriously obtuse (Gross 1964; Kast and Rosenzweig 1974), and some would argue that such obtuseness encourages flexibility in decision-making and conflict-solving. Our findings, however, indicate the importance of clear rules and guidelines in preventing misunderstanding, creating a common language, adjusting the expectations of each party, fostering belief in the process of change and ensuring that implementation is uniform in all the participating units.

The findings indicate that the extent of the decision-making authority delegated to the clinics was unclear, as were the incentives to economize and the guidelines for use of savings. This created a feeling that the district management was not fulfilling its obligations. The forum of clinic managers attempted to define issues unclear in the original agreement, but consensus was not reached with the district management regarding these definitions. This indicates the importance of both parties determining the ‘rules of the game’ together.

Establishment of communication channels between the parties involved
The establishment of permanent communication channels demands time and effort from the management and the participating units – in this case, the district management and the clinics – but the benefits are considerable: cooperation without infringement of autonomy, improvement in the participating units’ capacity for self management, and a stream of ideas from the units to the management. Communication channels are needed for a number of important tasks in laying the groundwork for a programme: advising the participating units on general policy to ensure that their decisions comply with this; encouraging unit-management cooperation in decision-making affecting work in the units; transferring data to the units; expressing ongoing management commitment to the programme; and clarifying controversial issues. In the KHC programme, permanent communication channels were not established, and few of the staff in the clinics saw the programme as improving clinic–district management relations – a factor which hindered full implementation of the programme.

Intrinsic benefits for staff
Budgetary autonomy is expected to increase the efficiency of the participating units, enabling them to improve the service to clients while reducing expenditure. This requires a long-term effort by unit staff, which in turn requires appropriate incentives. In the KHC programme, incentives were directed at the clinic as a whole: the return of part of any savings made by the clinic for use at its discretion. The
in-depth interviews indicate that clinic staff did not perceive this as a strong incentive. Indeed, the multivariate analysis indicates that it was the intrinsic programme benefits, rather than the incentives, which positively influenced staff satisfaction with clinic participation in the programme. This finding supports the theories proposed by Maslow (1954) and Herzberg (1976, 1968) as to the importance of intrinsic benefits, and the findings of studies which tested these theories. It raises the hypothesis that it may be worthwhile planning intrinsic incentives (personal development and role enrichment) as part of a programme of change. It should be noted, however, that the KHC programme did not include individual financial incentives, and that these might have had a considerable influence on staff satisfaction with clinic participation.

**Reliable data**

One topic barely touched upon in the literature is the importance of reliable data. An information system for producing reports on clinic expenditure was a central component of the KHC programme. The expenditure data were used to determine cost containment by a clinic, and thus whether any savings should be returned to that clinic. In a budget-holding programme, the management will only return savings and delegate additional authority to the units if it trusts the expenditure data, and it will only trust these data if it considers them reliable. For this reason, it is not enough for data to be reliable: they must be perceived to be reliable. The Negev district management were not fully convinced of the reliability of the expenditure data, and this may explain why two of the programme components were not fully implemented: incentives to economize and expansion of decision-making authority. In addition, the data have to be received on a regular basis and within a reasonable period of time, in order to be perceived by staff as reliable enough to not jeopardize the quality of care. To be successful, then, a budget-holding programme requires a reliable information system, regular assessment of the margin of error, correction of any errors and explication of the data to the management and to the clinic staff.

**Involvement of the unit as a single entity**

The delegation of decision-making authority and budgetary autonomy to a small organizational unit necessarily involves changes in the day-to-day work procedures of unit staff. While the clinic management were responsible for introducing change in the KHC programme, the success of the latter was due to the participation of the staff. As recommended in the literature (Atkinson and Hayden 1992; Kotter and Schlesinger 1979), the KHC programme involved staff participation at every stage: in the preliminary discussions of the programme, in the meetings to discuss the expenditure reports, in the discussions of the expenditure data, and in the visits of the district management to the clinics. In addition, at staff meetings the clinic management regularly discussed new work procedures arising from implementation of the programme. Thus, we see that the entire staff was involved in the process of change which was not only a management issue. A participative pattern of management, then, promotes commitment to the process of change and ensures staff participation.

In conclusion, the present study – a longitudinal multiple case study conducted with multiple research tools – cannot be used to support broad statistical generalizations, because of the small number of participating clinics and the fact that implementation took place in a single district and a single sick fund. Nonetheless, as an empirical study of organization change, it provides important insight into the process by which primary care clinics were transformed into budget-holding units, and offers a unique opportunity to learn about the introduction of change in
Implementing a budget-holding programme

Endnotes
1 Therefore this survey was not relevant to the regular clinics that did not participate in the budget-holding programme.

2 For some questions, the possible responses were ‘completely incorrect’ (1), ‘incorrect’ (2), ‘generally correct’ (3), ‘correct’ (4), and ‘completely correct’ (5). For other questions, the possible responses were ‘not at all’ (1), ‘to a small degree’ (2), ‘to a certain degree’ (3), ‘to a great degree’ (4), and ‘to a very great degree’ (5).

3 The staff survey did not include cleaning staff, resident physicians working in the clinic on a temporary basis or visiting consultants.

4 The one clinic in which staff were reluctant to introduce change withdrew from the programme.

5 The percentages quoted here represent those staff members who chose the response ‘to a great degree’ or ‘to a very great degree’ for the questions examined.

References


Acknowledgments

We gratefully acknowledge the cooperation and assistance of members of the District Management of Kupat Holim Clalit in the Negev, and thank the managers in the nine participating clinics for setting aside time to be interviewed, and the other members of staff for participating in our surveys. Special thanks are due to Asher Elhayany, Irit Zmora and Sigal Regev for their assistance during the various stages of the research. We are grateful to colleagues at the JDC-Brookdale Institute for their advice and guidance during the course of our work. Finally, special thanks to Galina Lane for her skillful editing of the manuscript.

Biographies

Nurit Nirel is a researcher in the Health Policy Unit of the JDC-Brookdale Institute in Jerusalem, a non-profit research centre which works with the Israeli Government and health service providers to improve the health care system in Israel. She holds an MA in Labor studies from Tel Aviv University. In 1991–1993, she served on the State Commission of Inquiry into the Functioning and Efficiency of the Israeli Health Care System. She is a member of the Institute research team conducting a comprehensive evaluation of decentralization in Kupat Holim Clalit, Israel’s largest health insurance fund. The focus of her current research is the employment of immigrant physicians and Total Quality Management in health care organizations.

Revital Gross is a senior researcher in the JDC-Brookdale Institute’s Health Policy Unit. She holds an MA in Public Administration from the Hebrew University, Jerusalem. She is head of the team of Institute researchers evaluating decentralization in Kupat Holim Clalit. Her current research projects include evaluation of the recently passed National Health Insurance Law, and a task profile of primary care physicians.

Correspondence: Nurit Nirel, JDC-Brookdale Institute of Gerontology and Human Development, JDC Hill, POB 13087, Jerusalem 91130, Israel.

Appendix

Multiple-item scales of evaluation of the programme†

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha¹</th>
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</thead>
<tbody>
<tr>
<td>Clarity of programme</td>
<td>0.67</td>
</tr>
<tr>
<td>clear who is responsible for programme in clinic details of the programme</td>
<td>clear</td>
</tr>
<tr>
<td>Fairness of programme</td>
<td>0.67</td>
</tr>
<tr>
<td>advantageous only to management‡</td>
<td>advantageous only to physicians‡</td>
</tr>
<tr>
<td>advantageous to all staff</td>
<td>encourages personal development</td>
</tr>
<tr>
<td>Intrinsic benefits of programme for staff</td>
<td>0.68</td>
</tr>
<tr>
<td>adds interest to work</td>
<td>improved quality of care</td>
</tr>
<tr>
<td>encourages personal development</td>
<td>improved service to insurers</td>
</tr>
<tr>
<td>Positive outcomes for clinic</td>
<td>0.77</td>
</tr>
<tr>
<td>reduced expenditure</td>
<td>staff discuss ways of economizing</td>
</tr>
<tr>
<td>improved quality of care</td>
<td>manager discusses ways of economizing</td>
</tr>
<tr>
<td>improved service to insurers</td>
<td>management emphasizes need to economize</td>
</tr>
</tbody>
</table>

† Based upon Mirvis (1983)
‡ For the purpose of calculating the scale, the five-point scale was inverted; so that 1 indicated a positive response, and 5 a negative response.
¹ We used Cronbach’s Alpha (Cronbach 1951) to present reliability coefficients for each multi-item scale. This statistical procedure is based on the “internal consistency” of a multi-item scale, that is, it is based on the average correlation of items within a scale. The statistic generated is a correlation coefficient between the values of 0 and 1, in which a 0.70 correlation is interpreted as adequate reliability. It is assumed that the items on a scale are positively correlated with each other because they are measuring a common entity.