Effects of a fundholding discontinuation
An Israeli Health Maintenance Organization natural experiment

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Objective – To evaluate the effects of fundholding on cost containment and after termination of the project.

Design and setting – Primary care practices participating in the project were allocated an itemized budget. Practices assumed authority for hospitalization, drugs, ambulatory medical diagnostic, consultant services and acquisition of minor equipment. Financial incentives were offered, but no penalties were imposed on practices where expenditure exceeded budget.

Subjects – Nine primary care practices in southern Israel.

Main outcome measure – Total expenditure and a breakdown of expenditure per capita.

Results – Fundholding practice expenditure was compared with expenditure in the district as a whole.

During the study period, total expenditure in fundholding practices rose by 12%, whereas that of the district rose by 37%. With discontinuation of the project, expenditure of the designated practices returned to the original levels, equivalent to those of the district.

Conclusion – Fundholding is an efficient method of cost-containment. The effect will be long lasting only if motivation is maintained.

Key words: fundholding, cost-containment, delegation of authority, budgeting, primary care practices.

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Countries around the world are facing the need to control health care costs while at the same time striving to provide high quality care. One of the reforms adopted, primarily in England, as an alternative solution is “fundholding”, a concept used to describe a method of decentralisation. The conceptual framework of fundholding is based on the allotment of a budget and the delegation of authority to purchase specified health services for individual practices. Financial incentives for this process are built into the program, making participation advantageous. Since most expenses are incurred by physicians, a crucial component in any reform plan must include a change in the attitudes of physicians, a change requiring them to consider treatment costs in their decision-making.

The financial leverage given is intended to increase efficiency and improve responsiveness and quality, in addition to stimulating innovation in services provided by the practices themselves (1).

In England, this system was introduced on a voluntary basis in 1991. Until then, the UK National Health Service (NHS) was primarily organised through District Health Authorities (DHAs). The reforms introduced included a scheme whereby some large practices were allocated budgets to purchase certain secondary care services directly. The budget also included prescribing and manpower components (1,2).

The results of this experience are inconsistent. Some studies show marked differences between fundholding practices compared to non-fundholding practices, especially in the early years, while others dispute these findings. An Oxford study of the first implementation of fundholding showed a striking similarity in referral patterns of fundholding and non-fundholding practices, both before and after the reforms (3). Furthermore, no evidence was found that fundholding generated a shift from secondary to primary care or that referrals were being influenced by budgetary pressures (3). Also, in a more recent study (4), no important differences between fundholders and non-fundholders prescribing patterns were found, both having similar generic rates and similar cost increases. In a follow-up study (5) these findings were reconfirmed.

In this paper we describe the effects of the discontinuation of the fundholding experience of an Israeli Health Maintenance Organization (HMO) initiated in 1991. Several aspects of this experience have been described and discussed in previous studies (6–8).

METHODS

Primary care services in Israel are provided by four HMOs. Under the law, each HMO receives funding
according to a capitation formula and is compiled to provide a minimum “basket of services”. Clalit Health Services (CHS) is Israel’s largest HMO, covering 65% of the population. As part of a cost-containing effort by KHC, a preliminary fundholding project was undertaken.

The project was undertaken in the period 1991–93 in 9 urban primary care practices in the Negev (southern district of Israel). The total population of the Negev district was 400,000. The fundholding practices consisted of 41 physicians with 70,000 listed patients. This patient population comprised 25% of all members of KHC for this area. The age distribution of the patients in the fundholding practices was similar to the whole district population. However, the percentage of people aged 65 and over in these practices was slightly higher (in 1991: 8.9 and 7%, respectively; in 1992: 9.6 and 8.1%, respectively).

The project had four basic components: allocation of a fixed annual budget; transfer of day-to-day decision-making authority from the district administration level to the practice level; use of a computerised information system for monthly reports and queries; and incentives for budgetary responsibility, with personal incentives to the staff (7).

There were three kinds of incentives offered for the fundholding clinics:

1. **Economic incentive**: 20–60% of savings were returned to the clinics and were used in accordance with priorities (mostly for improving conditions in the clinic and for purchasing new equipment).

2. **Intrinsic incentive**: Most of the clinic staff found the project enriching their habitual work, bringing new interest to their daily job and encouraging personal development.

3. **“De-bureaucratic” incentive**: The change reduced bureaucracy and simplified day-to-day work in the clinic. There was less formality, the physicians were free to refer their patients according to choice, and clinic administrators were free to make self-purchases for the clinic with no formal need for approval from higher-level authorities.

Each practice in the program was allocated an itemized budget covering manpower, hospitalisations, diagnostic procedures, referrals to consultants, drugs, and administration costs. The total budget was determined on the basis of per capita expense in the district adjusted to the number and age distribution of patients registered in each clinic. No penalties were imposed upon practices whose expenditures exceeded their budget. Allocation of the budget was accompanied by increased delegation of decision-making responsibility to the practice.

Per capita expenses in the fundholding practices during 1990–93 were compared to the equivalent expenditures in the district as a whole. Termination of the pilot project due to the KHC’s budgetary constraints has allowed us to evaluate and present here the long-term effects of discontinuing a fundholding experience.

### RESULTS

Per capita expenses in the fundholding practices increased from $319 (US) in 1991 to $340 in 1992 (an increase of 6%), whereas per capita expenses in the district as a whole increased from $358 to $411 for the same period (an increase of 34%). Table 1 gives the expenses by area of expenditure, for the years 1991–93, of the fundholding practices and the whole district. All calculations were adjusted to 1990 US dollar levels. Total expenditure in the fundholding practices rose by 12% during this period, whereas total district expenditures rose by 37% in the corresponding period. The factor largely accountable for this difference is the increase in the district’s expenditures for diagnostic procedures (a rise of 143%, compared to a rise of 3% in the fundholding practices). In the first year of the project the fundholding practices maintained a steady level of expenditure, even though significant cost saving was achieved in certain areas. The district’s expenses, on the other hand, rose by 15%. In the second year these differences were not as striking: fundholding practice total expenditure rose by 11% and the district’s by 19%.

<table>
<thead>
<tr>
<th>Items</th>
<th>District: difference (%)</th>
<th>Fundholding practices: difference (%)</th>
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</thead>
<tbody>
<tr>
<td>Hospitalisation</td>
<td>20</td>
<td>-1</td>
</tr>
<tr>
<td>Manpower</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Diagnostic procedures</td>
<td>23</td>
<td>97</td>
</tr>
<tr>
<td>Drugs</td>
<td>7</td>
<td>53</td>
</tr>
<tr>
<td>Administration/maintenance</td>
<td>16</td>
<td>-13</td>
</tr>
<tr>
<td>Total expenses</td>
<td>15</td>
<td>19</td>
</tr>
</tbody>
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Fig. 1. Total yearly expenses per capita in fundholding clinics and in the district, 1990–96.

Fig. 1 depicts the differences in total expenditures per capita between the district as a whole and the fundholding practices. In 1990 the fundholding practices had a baseline level higher than that of the district: $319.23 and $310.15, respectively. In 1993, this trend reversed, with total expenditures of the fundholding practices lower than those of the district by $113.55 per capita. With the termination of the project, the total level of expenditures per capita, both in the district as a whole and in the fundholding practices, rose to almost double the baseline data in 1990 with a sharp ascent in the Hospital and Health price indices (as shown on the graph). The difference per capita, as in 1990, is again higher in the fundholding practices and slightly higher than the original baseline difference in 1990 ($14.49 and $9.13, respectively).

DISCUSSION

There is no doubt as to the effects of budget fundholding in the Israeli experience. In previous studies, Gross et al. reported the effects on expenditure, staff, clinic services and patient satisfaction in detail (6–8). They showed how quality of care and patient satisfaction overall were higher in the fundholding practices.

Studies in Scotland (9,10) also showed a marked drop in referral rates of fundholding practices, though accompanied by increased use of direct-access services such as physiotherapy and chiropody. Another study (11) in southwest England, which examined referrals to orthopedic practices, also found that fundholders increased their referrals less than the controls and achieved a better balance between outpatient appointments and referrals.

In Scotland, the volume of prescribing fell in both fundholding and non-fundholding practices, but fundholders held down the unit cost of drugs more successfully (12). A national study (13) in the UK examining data from 1990 to 1996 showed that both practices had increased their prescribing costs, yet fundholding practices showed a reduction relative to the non-fundholding practices of about 6%. This relative reduction declined in the second and third year and ceased thereafter, when the costs to fundholders paralleled those of the continuing non-fundholders.

A study by Lewsey and Smith (14) considered the application of the fundholding principles to the corporate health care environment in the US as a method of assuring the survival of family practices. Their theoretical work considered the individual practice alone. Our study shows how fundholding can be applied successfully in an HMO environment and what the consequences are of ending such a project prematurely.

Levels of referrals and prescriptions demonstrate the same trends of our experience as in the UK. Prescriptions in the fundholding practices decreased marginally in the first year and rose slightly in the second year for a total change of 3%. Prescriptions maintained a steady percentage of 10–13% in both the district and the fundholding practices. However, the expense per capita in the district was much higher, as reflected by an increase of 7% in the first year, followed by another increase of 53% in the second year, for a total of 63% over the duration of the project.

The total fundholding per capita expense for diagnostic procedures remained fairly stable ($12–$13) and its percentage of the total budget remained virtually unchanged (3–4%). In the district, however, the
expense per capita for diagnostic procedures increased over this period, from $44.85 to $109.07. A small part of this increase is explained by the change in the method of administrative registration of hospitalizations and diagnostic procedures, as the level of percentage of the budget, from 12% in 1991 to 22% in 1993. It is interesting to note that these differences between the fundholding practices and the district disappeared in 1996.

The change in health status of the patients in the fundholding clinics was not measured, and this may be considered as lacking. However, since change in health status is usually observed only after a long period of time, we used a proxy measure to estimate the change. We found an increase in patient satisfaction level over the 2-year period in these clinics, an enlargement of the scope of services offered to the patients and a decrease in the “leave rate” of registered patients in the fundholding clinics. The majority of the staff noted that they felt they were providing improved services and higher quality of care (6–8).

Incentives were not given as quickly as promised, and the motivation of physicians to continue the project decreased, resulting in its natural “demise”. Our findings, and the implications of the premature termination of the fundholding project in Israel, may be particularly relevant in light of the recent decision by the British government to curtail fundholding in its present form. Since fundholding practices carried no personal financial incentives for containing costs, other than investing savings in practice premises, it could be that the changes after discontinuation of the project were associated with the lack of practice level information and of decentralized autonomy. The discontinuation of fundholding might also have decreased staff motivation and satisfaction. It will be interesting to follow the British experience to see whether it will have a similar rebound effect.

REFERENCES