Evidence

Études

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Physicians' perceptions of the effect on clinical services of an alternative funding plan at an academic health sciences centre

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Abstract

Background: In July 1994 an alternative funding plan for clinical services (global funding instead of fee-for-service payment) was established at the Southeastern Ontario Health Sciences Centre, Kingston, Ont. This study describes the perceptions of the referring physicians and consultants of the effects of the alternative funding plan 2.5 years after it was initiated.

Methods: A questionnaire was mailed to all physicians in the Kingston area in November 1996. Information was collected on demographics, referring physicians' perceptions of the funding plan's impact on their practices, consultants' perceptions of its impact on their activities, perceptions of referring and consultant physicians of its impact on services provided by consultants, and attitudes toward alternative funding in the context of the Ontario health care system.

Results: Of the 772 physicians 531 (68.8%) returned a completed questionnaire (323 referring physicians and 208 consultants). A sizeable proportion of the referring physicians (126 [39.0%]) indicated that they were referring fewer patients to consultants at the study centre. They did not think that their practice volume had increased, but they did report spending more time on complex cases and on patient care after referral or hospital stay, and more time coordinating community care after hospital stay. Of the consultants 81 (38.9%) believed that their time spent on patient care had increased. No consistent impact on time spent on research or teaching activities was perceived. A total of 54 (26.0%) of the consultants were concerned about the impact of the alternative funding plan on quality of care. A significant proportion of the respondents (399 [75.1%]) believed that outpatient waiting times had increased, and 116 (35.9%) of the referring physicians believed that consultants were not as available by telephone. Most (220 [68.1%]) of the referring physicians believed that the funding change had had a negative effect on health care services in the region, and 87 (41.8%) of the consultants agreed. Nevertheless, the respondents believed that other factors such as funding cuts, hospital bed closures and staff layoffs were much more responsible than the alternative funding plan for their negative perceptions.

Interpretation: The alternative funding plan appears to have had an impact on the practices of individual physicians. However, it was not the focus for significant opposition or support from either consultants participating in the funding plan or referring physicians.

In July 1994 an alternative funding plan was implemented at the Southeastern Ontario Health Sciences Centre, Kingston, Ont., and a new organizational framework, the Southeastern Ontario Academic Medical Organization, was created to administer it. Global funding had been obtained from the Ontario Ministry of Health for all clinical services provided by the centre. At the departmental level, fee-for-service payment for full-time clinical faculty members was replaced with a negotiated rate of remuneration for each member. It was assumed that sever-

ing the link between income and volume of services provided would result in a more appropriate match between patient need and physician encounter. The resulting changes in the workloads of clinical teachers would alter clinical practice patterns in a manner intended to maintain or improve the health status of the population.

In addition to measuring actual changes in practice patterns, the evaluation team set up to assess the impact of the alternative funding plan recognized the importance of measuring the perceptions of change among the physicians affected by the alternative funding plan. Not only do perceptions determine how individuals relate to change, but they can help to identify key issues requiring further research.

That some change in clinical behaviour was likely to accompany a change in remuneration is supported by reports on the characteristics of various payment systems.[1,2] For example, fee-for-service physicians have been found to provide a greater volume of care than physicians paid by salary or capitation.[3,4] There is ongoing debate about whether this increase in volume results from "physician-induced demand."[5–8] Studies of surgery,[9,10] gynecology[9] and preventive care[11,12] indicate that the payment method may exert an influence.

It is difficult to predict whether findings from the relatively entrepreneurial American environment are applicable in Canada. For example, in response to specific fee increases within the prevailing fee-for-service system across Canada, no consistent pattern of increased service among physicians could be detected.[13] Also, the performance of Ontario health service organizations, which are based on a capitation system of payment, does not necessarily mimic that of the somewhat similar American health maintenance organizations.[14]

There is little experience in assessing the effects on clinical practice of a change in payment method at Canadian academic health centres. Haslam[15] reported the general effects of an alternative payment plan in the Department of Pediatrics at the University of Toronto. He found that the rate of hospital admissions remained relatively stable, the number of patient-days decreased (because of decreased lengths of stay), the number of emergency visits decreased and the number of subspecialty clinic visits increased. In this study, we explored the impact of a change in physician payment method by surveying consultants participating in the alternative funding plan and referring physicians in the Kingston area about their attitudes toward the funding change.

Methods

We sent a questionnaire to all physicians in the Kingston area in November 1996. Physicians were divided into 2 groups: family physicians in the community and specialists in secondary care hospitals in the Kingston area who refer patients to consultants at the Southeastern Ontario Health Sciences Centre (study centre); and consultants at the study centre receiving these referrals.

A draft of the questionnaire was developed consisting of questions about referring physicians' perceptions of the effect of the alternative funding plan on their practice and referral patterns and consultant physicians' perceptions of its effect on their practice patterns and provision of consultant services. The questionnaire was tested using focus groups of Kingston-area family physicians and consultants at the study centre. In addition to pretesting and providing a critique of each question, the focus groups highlighted potential confounders.

The final questionnaire was mailed to all 491 referring physicians in the Kingston area. A similar but distinct questionnaire was sent to all 281 consultants working at the study centre. Follow-up mailings were sent 4 and 8 weeks later to nonrespondents.

Analysis was mainly descriptive to create profiles of the perceptions of physicians. Comparisons between referring physicians and consultants were made where appropriate.

Table 1: Perceptions of 323 referring physicians of how their practice and referral patterns have changed since the introduction of an alternative funding plan (AFP) at the Southeastern Ontario Health Sciences Centre, Kingston, Ont.

	Perceived change; no. (and %) of respondents		
Parameter	Decreased	No change	Increased
No. of referrals since AFP introduced at study centre	74 (22.9)	246 (76.2)	3 (0.9)
No. of referrals to consultants at study centre participating in AFP	126 (39.0)	191 (59.1)	6 (1.9)
No. of referrals to consultants at study centre not participating in AFP	13 (4.0)	229 (70.9)	81 (25.1)
No. of referrals to consultants in secondary care centres	0	229 (70.9)	94 (29.1)
No. of referrals to consultants in tertiary care centres other than study centre	3 (0.9)	200 (61.9)	120 (37.2)
Overall practice volume	13 (4.0)	239 (74.0)	71 (22.0)
Time spent on complex cases	3 (0.9)	94 (29.1)	226 (70.0)
Time spent on care of patients after referral or hospital stay	3 (0.9)	97 (30.0)	223 (69.0)
Time spent coordinating community care after hospital stay	0	78 (24.1)	245 (75.9)
No. of patients sent directly to emergency department to bypass referral system	6 (1.9)	220 (68.1)	97 (30.0)

Results

Of the 772 physicians to whom the questionnaire was mailed, 620 responded; 89 of the questionnaires were incomplete, which left 531 (68.8%) that could be used in the analysis. By group, 323 (65.8%) of the 491 questionnaires mailed to referring physicians and 208 (74.0%) of the 281 mailed to consultants were included in the analysis.

Most of the respondents were men (236 [73.1%] of the referring physicians and 175 [84.1%] of the consultants). The mean ages of the referring and consultant physicians were 42 and 48 years respectively. Of the referring physicians 12 (3.7%) were participating in the alternative funding plan; they were members of Queen's University's Department of Family Medicine. Of the consultants 150 (72.1%) were participating in the alternative funding plan; the remainder had opted out of the funding plan and were receiving fee-for-service payments.

Most of the referring physicians reported that the overall number of referrals they made had not changed since the globall funding plan was initiated. However, there appeared to be shifts in their referral patterns (Table 1). Although the majority (191 [59.1%]) stated that their number of referrals had not changed, fairly large proportions indicated that they were referring more often than previously to consultants who were not participating in the alternative funding plan (25.1%), to consultants in secondary care centres (29.1%) and to consultants in tertiary care centres other than the study centre (37.2%). This last increase was most pronounced among referring physicians in the counties farthest from Kingston (45 [60.0%] of the those from Lanark, Leeds and Grenville counties stated that the number of referrals to these other centres had increased); however, even in Kingston, 32 (25.2%) of the referring physicians there stated that these referrals had increased because of the alternative funding plan.

Table 2: Perceptions of 208 consultants at the study centre of how their work has changed since the introduction of the AFP

Parameter	Perceived change; no. (and %) of respondents		
	Decreased	No change	Increased
Capacity for accepting referrals	21 (10.1)	156 (75.0)	31 (14.9)
No. of referrals from Kingston area	10 (4.8)	162 (77.9)	36 (17.3)
No. of referrals from outside Kingston area	8 (3.8)	162 (77.9)	38 (18.3)
No. of patients admitted to hospital	36 (17.3)	153 (73.6)	19 (9.1)
Time spent on direct patient care	23 (11.1)	127 (61.1)	38 (18.3)
Time spent on follow-up care	19 (9.1)	148 (71.2)	41 (19.7)
Likelihood of recommending that patients return to their family doctor for follow-up care	6 (2.9)	140 (67.3)	62 (29.8)
Overall clinical workload	17 (8.2)	110 (52.9)	81 (38.9)
Time spent on research	46 (22.1)	131 (63.0)	31 (14.9)
Time spent on teaching	23 (11.1)	141 (67.8)	44 (21.2)
Ability to practise medicine that meets own professional standards of care	58 (27.9)	129 (62.0)	21 (10.1)
Freedom and flexibility to schedule patient encounters based on need rather than demand	52 (25.0)	129 (62.0)	27 (13.0)

Table 3: Perceptions of referring and consultant physicians of the impact of the AFP on consultant services at the study centre

Parameter	Perceived change; no. (and %) of referring physicians			Perceived change; no. (and %) of consultants		
	Decreased	No change	Increased	Decreased	No change	Increased
Waiting times for elective appointments	6 (1.9)	39 (12.1)	278 (86.1)	6 (2.9)	81 (38.9)	121 (58.2)
Waiting times for procedures (time from initial appointment until procedure)	10 (3.1)	74 (22.9)	239 (74.0)	12 (5.8)	94 (45.2)	102 (49.0)
Timeliness and thoroughness of consultants' letters regarding patients after consultation	97 (30.0)	207 (64.1)	19 (5.9)	33 (15.9)	160 (76.9)	15 (7.2)
Availability of consultants by telephone	116 (35.9)	181 (56.0)	26 (8.0)	40 (19.2)	137 (65.9)	31 (14.9)
Access to urgent consultation	113 (35.0)	197 (61.0)	13 (4.0)	35 (16.8)	158 (76.0)	15 (7.2)
Frequency of patient follow-up by consultants	178 (55.1)	135 (41.8)	10 (3.1)	98 (47.1)	102 (49.0)	8 (3.8)
Frequency of hospital admissions by consultants	116 (35.9)	204 (63.2)	3 (0.9)	75 (36.1)	123 (59.1)	10 (4.8)
Quality of care provided by consultants	94 (29.1)	226 (70.0)	3 (0.9)	54 (26.0)	148 (71.2)	6 (2.9)

In general, the referring physicians did not think that their practice volume had increased significantly because of the funding change. However, they indicated that it had a significant impact on the type of work and the time spent doing it. They reported spending more time on increasingly complex cases and on patient care after a referral or stay in hospital, and more time coordinating community care after hospital stays.

The responses of the consultants at the study centre are summarized in Table 2. A total of 81 (38.9%) believed that their overall clinical workload had increased because of the alternative funding plan; 44 (21.2%) reported increased time spent on teaching, and 31 (14.9%) reported increased research time.

The referring and consultant physicians' perceptions of the funding plan's impact on various aspects of the consultants' clinical services were compared (Table 3). Most of the referring physicians (86.1%) and consultants (58.2%) thought that waiting times for elective appointments had increased as a result of the funding change. A substantial proportion in both groups (35.9% of the referring physicians and 19.2% of the consultants) believed that consultants were not as available by telephone as before the funding change, and more than 25% in both groups thought that the quality of care provided by consultants had decreased as a result of the funding change.

All of the physicians were asked their opinions of the overall effect, necessity and desirability of alternative funding plans (Table 4). Regarding the overall effect, 68.1% of the referring physicians and 41.8% of the consultants reported that it had been negative. However, when asked what factor has had the greatest impact on health care services in the region, they most frequently cited cutbacks in health care funding. In fact, the alternative funding plan was generally ranked lowest among factors affecting health care, after cutbacks in staff and funding, program changes and reductions in the number of hospital beds.

Table 4: Opinions of referring and consultant physicians of the effect of AFPs on Ontario's health care system

Question	No. (and %) of referring physicians	No. (and %) of consultants
What has been the overall effect of the AFP on health care services in the Kingston region?		
Negative	220 (68.1)	87 (41.8)
Positive	19 (5.9)	52 (25.0)
No effect	84 (26.0)	69 (33.2)
Are AFPs necessary to maintain health care in Ontario?		
No	107 (33.1)	75 (36.1)
Yes	93 (28.8)	71 (34.1)
Uncertain	123 (38.1)	62 (29.8)
Would you want to participate in an AFP?		
No	126 (39.0)	67 (32.2)
Yes	113 (35.0)	112 (53.8)
Uncertain	84 (26.0)	29 (13.9)

Interpretation

Our survey findings indicate that referring physicians believe they are referring more of their patients to consultants in tertiary care centres other than the study centre in Kingston, as well as to consultants in secondary care centres and those in Kingston not participating in the alternative funding plan. This perceived change may be a reflection of other factors affecting the health care system. The referring physicians reported a major change in their work patterns. They believe that they are spending more time with complex cases and on patient care after referrals and stays in hospital and more time coordinating community care after stays in hospital. These perceptions were shared by a large proportion of the consultants, who believe that they are following up patients less often, admitting patients less frequently and having longer waiting times for elective referrals since the funding change.

Some of the changes in workloads of the referring physicians may reflect the effects of the trend toward shorter hospital stays and health care restructuring, in general, rather than the alternative funding plan. Although the referring physicians were asked to respond in terms of the effect they believed the funding change had on their practice, it may have been difficult for them to know the degree to which the alternative funding plan had caused the changes they were experiencing.

Overall, most of the physicians stated that they perceived no change in their practice since the alternative funding plan was initiated. However, those who did perceive a change often described it as negative. For us to interpret and respond to these negative perceptions, we must consider the confounding effect of other changes in the health care system in Ontario. When asked directly which factors had the most impact on health care delivery in the Kingston region in recent years, the respondents indicated that the alternative funding plan was one of the least important. Cuts to health care funding, cutbacks in staff, and hospital bed closures were considered much more important. We had asked the physicians to respond to the questions in terms of the effect of the alternative funding plan only. If we assume they did this, they seem to be saying that, although the alternative funding plan has helped things move in the current direction, the most important factors causing the changes are forces outside the funding plan. Evidence for this is the fact that only 39% of the referring physicians indicated that they would not want to be part of an alternative funding plan. Other countervailing information is the perception of the consultants participating in the alternative funding plan that they were not seeing fewer patients, nor did they believe that there were fewer referrals from Kingston or from the secondary care centres. Most of the consultants felt that their workload had stayed the same or increased.

Our study has limitations. We measured perceptions, not actual practice. Although a large number of the physi-

cians believed that they were referring more patients to tertiary care centres other than the study centre since the introduction of the alternative funding plan, the magnitude of that change is unknown. We measured the direction in which physicians believed practices have changed, not the degree to which they have actually changed. Also, during the study period a number of other factors were at play in the Ontario health care system, including a trend toward shorter hospital stays, funding cuts and health care restructuring.

The physicians who reported change were often divided as to the magnitude and direction of the change. This suggests no ground swell of either support for or opposition to the alternative funding plan, and the physicians generally believed that other recent changes in the health care system had had a greater impact. Therefore, although the alternative funding plan appears to have had a selective impact on the practices of individual physicians, it does not seem to be the focus for significant opposition or support from either consultants participating in the funding plan or referring physicians.

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