New General Practitioner Payment Formula in Croatia: Is It Consistent with Worldwide Trends?

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We describe the history of general practitioner payment in Croatia, and assess the extent to which recent trends are consistent with developments in other countries. We provide a definition of a classification of payment methods, and summarization of the evidence about their merits as described in international literature and an outline of the history of payment methods in Croatia, with emphasis on the changes proposed for 2004. We conclude that the introduction of performance-based payment, as an adjunct to the capitation payments, is consistent with trends in well-managed health systems in other countries. However, we argue that the changes need to be incorporated into a long-term strategy, and we suggest some elements including refinement of the capitation payment risk adjustment.

Key words: capitation fee; Croatia; family practice; insurance, health, reimbursement; quality of health care

In this paper, we will focus on three common models for defining the way how general practitioners’ incomes are determined: salaried employment, capitated private practice, where the general practitioner is paid a predetermined annual fee for each enrolled patient or client, and private practice where payment is made for each occasion of service that is, on a fee-for service basis.

Evaluating Three Common Methods of General Practitioner Payment

Combinations of these three models are often employed. For example, general practitioners in the Netherlands have been paid by capitation for publicly insured patients and by fee-for service for privately insured patients. Since 1997, general practitioners in the UK have been allowed to opt out of capitated payment and become salaried (1).

Indeed, Croatia has a mix of approaches at the present time. Some general practitioners are salaried employees of health centers, and most others are capitated private practitioners. However, there are elements of fee-for service in both cases. For example, the general practitioner’s income is affected by the number and total cost of drugs prescriptions issued. This approach may be termed negative fee-for service, since the general practitioner earns more by reducing services.

The following evaluation was based in part on a literature review using Medline and the key terms “general practice,” “payment,” and “evaluation.” However, most articles thus obtained did not apply a satisfactory experimental design, such as one that measures performance before and after the intervention in experimental and control sites. We therefore attempted to structure them according to basic logic in terms of general principles of cause and effect.

There have been relatively few careful studies of the effects of different payment methods on general practitioners’ behavior. Scott and Hall (2) are strongly critical of weaknesses in this regard. They analyzed 18 studies and concluded that none of them evaluated the effects of payment methods on patient welfare. All the studies failed to control for major confounding variables and the findings could not be generalized.

In spite of the problems, it is possible to identify some general patterns that are summarized in Table 1. First, in health systems where general practitioners are salaried, it is usually claimed that this provides general practitioners with guarantees of steady incomes, encourages a focus on cost-effective care, and ensures control over total costs of services. The claim about steady incomes seems reasonable. However, it is hard to find evidence that the employment of general practitioners on a salaried basis results in a relative increase in efforts to promote cost-effective care.

It is similarly difficult to find evidence that salaried general practitioners are associated with improved containment of total costs. Much depends on other factors, such as the industrial (or trade union) strength of general practitioners and whether they are motivated to help control costs that they are able to
generate. It may be easier in principle to cap total costs when general practitioners are salaried rather than capitated or paid on a fee-for-service basis, but control is possible regardless of the method of payment. For example, in Australia and a few other countries where general practitioners are private practitioners paid on a fee-for-service basis, total costs are capped by setting a ceiling on payments per visit – and then adjusting the rates down if volumes of visits increase to an unreasonable degree (3). This device is relatively effective, since general practitioners realize that the effect of significant increases in volumes might not affect their total income over the longer term – and general practitioners will eventually be doing more work for the same income.

The most common weakness asserted in the literature is that salaried general practitioners have lower productivity and are less interested in their customers. For example, Hindle et al (4) claim that a concern for low productivity was the main reason why Mongolia chose to privatize all its salaried doctors after 1999. This seems to have been a factor in Slovenia (5) and in several other transition economies (6). However, it is unclear whether this is a reflection of the inherent problems of salaried employment or of a command economy. In Australia, for example, government hospitals that are mostly staffed by salaried doctors have consistently out-performed private hospitals staffed mainly by private specialists (7,8).

All systems that use salaried doctors have taken steps to overcome the perceived weaknesses. Typical measures have included financial incentives such as annual bonuses linked to productivity and performance audits such as staff appraisal reports (9).

The main aims of capitation are usually stated to be reduced volumes of unnecessary care, increased sensitivity to consumers’ needs, and encouragement of health promotion and illness prevention (10).

There is ample evidence that capitation is associated with lower levels of unnecessary care, at least in comparison with fee-for-service. For example, Dondalson and Gerard (9) reviewed research on the effects of different methods of general practitioner payment in the UK and concluded that fee-for-service “... tends to lead to unnecessary demands for fee-yielding services by patients on the recommendation of their doctors.” Similar conclusions have been drawn from studies in many countries (8-16).

In contrast, there is little evidence that capitation by itself leads to greater sensitivity to consumers’ needs. The critical factor appears to be whether there is a competitive market – whether general practitioners need to compete in order to attract clients. Similarly, the evidence about encouragement of health promotion and illness prevention is weak. Much depends on the knowledge and attitudes of clients. If they are poorly informed, many clients will simply not be attracted by a general practitioner who expresses views about healthy lifestyles.

The most common problem with capitated payment is that it tends to encourage general practitioners to shift the costs and problems to other parts of the health care sector. This may include, for example, excessive referral rates to hospitals or medical specialists, and a tendency to substitute drugs prescribing (paid by another agency) for prolonged consultations at the general practitioner’s own cost (17).

The main control measures are financial or educational. Like Croatia, many countries have introduced financial incentives to reduce unnecessary referrals through ‘negative fee-for-service’ and other ways (18).

More important, virtually every capitated system now includes some kind of additional payment for health promotion and illness prevention, thus supporting a widely held view that the capitation payment itself is insufficient. For example, financial incentives were introduced in 1990 for capitated general practitioners in the UK to increase their health promotion activity in primary care (19). One of the incentives involved making additional payments for each health promotion clinic that was operated. It

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**Table 1. Common features of the three main approaches to general practitioner payment**

<table>
<thead>
<tr>
<th>Method</th>
<th>Stated objectives</th>
<th>Negative general practitioner responses</th>
<th>Control measures</th>
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</thead>
<tbody>
<tr>
<td>Salaried</td>
<td>control total costs</td>
<td>poor service, low productivity</td>
<td>financial incentives (bonuses, etc)</td>
</tr>
<tr>
<td></td>
<td>guarantee general practitioners' incomes</td>
<td></td>
<td>Performance audits</td>
</tr>
<tr>
<td></td>
<td>encourage focus on health promotion</td>
<td></td>
<td>treatment guidelines</td>
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<td></td>
<td></td>
<td></td>
<td>informed consumers</td>
</tr>
<tr>
<td>Capitation</td>
<td>reduce volumes of unnecessary care</td>
<td>shift costs and problems to other parts of system</td>
<td>incentives to reduce referrals</td>
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<tr>
<td></td>
<td>increase consumer sensitivity</td>
<td></td>
<td>incentives to reduce prescribing</td>
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<td></td>
<td>encourage focus on health promotion</td>
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<td>referral guidelines</td>
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<td>treatment guidelines</td>
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<td></td>
<td></td>
<td></td>
<td>informed consumers</td>
</tr>
<tr>
<td>Fee-for-service</td>
<td>increase provision of useful care</td>
<td>over-provision of treatment services</td>
<td>general practitioner service audits</td>
</tr>
<tr>
<td></td>
<td>increase consumer sensitivity</td>
<td></td>
<td>capped total payments and payment rates</td>
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<tr>
<td></td>
<td>improve quality of care</td>
<td></td>
<td>incentives to reduce other treatments</td>
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<td>informed consumers</td>
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was found that there was a poor relationship between the number of clinics that general practitioners operated and the extent to which the services were needed by their clients. A scheme has been tested in Italy, whereby capitated general practitioners received additional payments for encouraging and supporting the access of their eligible clients to breast cancer screening services (20).

Finally, the systems that mainly or wholly rely on fee-for-service are typically justified on the grounds that it increases customer satisfaction, quality of care, and provision of valuable services (21). Customer satisfaction derives from the need for the general practitioner to attract patients and to respond to their perceptions of care needs.

There is some evidence that clients may be given better service. For example, a study in Norway analyzed the differences in levels of provision of home visits by salaried and fee-for-service general practitioners (3). It was found that fee-for-service doctors provided more home visits where the problem was not judged to be urgent. For urgent problems, salaried and fee-for-service general practitioners were equally likely to provide a home visit.

The main problem with fee-for-service, as noted above, is more unnecessary care. This is often associated with less attention to health promotion and illness prevention, greater disparities of access between rich and poor, and larger disparities in family doctors’ incomes (21). All fee-for-service systems therefore have some kinds of controls in place in this regard.

The most common are service audits whereby an agency (usually associated with the insurer) reviews service patterns and applies financial penalties, controls over prices.

We note in passing, however, that the higher intervention rates under fee-for-service may be desirable in some circumstances. For example, a study of the effects of changing general practitioner payment from capitation to a mixed fee-for-service and capitation formula in Denmark showed that the partial fee-for-service system increased the provision of services by general practitioners and reduced referral rates to specialists (22). Similar patterns were found in a comparative study of partial capitation in the UK and the Netherlands (23).

Choosing a Model: Some Cultural Factors

From what we have said above, the evidence does not clearly support one model over the other. Nevertheless there are many people who have strong views.

Of particular importance, social democratic political parties lean towards salary or capitation, whereas the conservative parties prefer fee-for-service (24). This is probably more a reflection of dogma than analysis. The political left tends to favor words like opportunity, prudence, choice, freedom, merit, self-reliance, personal responsibility, and the market.

In contrast, the conservative parties favor words like opportunity, prudence, choice, freedom, merit, self-reliance, personal responsibility, and the market. Fee-for-service seems more consistent with these views – and in particular with the idea that people (including general practitioners) should be free to run a successful business. Note, however, that these attitudes are not entirely logical: the way that people contribute to financing (through insurance or self-pay) does not necessarily affect the way that general practitioners are paid.

Equally important, the for-profit sectors (drug industry, private specialists, and so on) lean towards fee-for-service if only it seems to promise higher levels of consumption of their goods and services. It is to be expected that the political right is usually on their side.

General practitioners themselves have tended to favor the model with which they are most familiar. For example, privatization has been regarded with suspicion by many government-salaried doctors in countries with centrally planned economies. In European countries with a long history of partial or comprehensive capitation, the debate has been relatively mild. Most general practitioners have been dissatisfied with aspects of detail about capitation payment rates, but the spasmodic push for more fee-for-service has usually been driven by specialists (25). Nor does European experience suggest that general practitioners are uniformly against salaried work. For example, a survey of general practitioners in the UK in 1999 found that salaried general practitioners were equally satisfied with their job as general practitioners being paid mainly by capitation (26).

In countries with fee-for-service private practice, general practitioners have tended to oppose capitation and to reject salaried practice with vigor. There is a predominantly negative view of capitated private practice in Australia (27). The similar attitudes exist in New Zealand, where the new social democratic government has been attempting to replace fee-for-service with age-adjusted capitation payments (28).

The loudest opposition to change away from fee-for-service has come from the United States. Many studies have found that general practitioners were strongly opposed to capitation because it was seen to reduce autonomy, diminish intellectual stimulation, and increase their workload (29-32).

However, attitudes are changing, mainly as a consequence of personal experiences. For example, a survey of the views of Washington State primary care physicians toward capitation-based insurance plans found that there was a strong negative attitude among physicians with no experience. However, those participating in capitation-based plans had a nearly neutral attitude. Opposition was much stronger among solo practitioners and physicians with more years in practice (33).

Finally, consumers tend to favor capitation, but few have strong views (34). They are more likely to be concerned about the level of insurance cover than about the way general practitioners are paid. This is illustrated by a recent survey of public attitudes in Ire-
land regarding their preferences for a self-pay method or an insurance scheme that would entitle members to free general practitioner services at the point of use, upon payment of an annual premium (35). Over 80% preferred an insurance scheme, and the majority was willing to pay more in insurance premiums than their actual expenditures through self-pay. Similar results have been obtained in many countries including Australia (17,36).

Which Payment Approach Is Best?

We believe that choices of method of payment of general practitioners have rarely been made on the basis of objective analysis of the options. Rather, people with significant power have encouraged the selection of an approach that suits their attitudes regarding the health sector – which in turn is largely based on their views about society as a whole. It seems unlikely to have been accidental that changes towards capitalization or salaried employment have occurred under social democratic governments – as in the UK in 1947 and New Zealand in 1998. Nor is it accidental that privatization and moves towards fee-for service have mainly occurred when conservative governments were in power – as in almost every republican presidential term in the USA since the end of World War II, in New Zealand after 1980, and in Australia in the early 1980s and late 1990s.

Once a model is chosen, it is usually subjected to adjustments on a regular basis with the primary aim of reducing the weaknesses. If control measures are progressively introduced in a rigorously and carefully designed manner, the differences between the options are reduced. At the extreme, it becomes difficult to tell the options apart.

This is well illustrated by the trends towards capitalization under managed care in the USA during the 1990s (37) and towards payment against quality criteria under the new general practitioner contract in the UK (38). The similarities are considerable. Of particular importance, both models now rely to a great extent on the two control measures listed in Table 1 but not mentioned thus far: consumer empowerment and treatment guidelines. In short, we believe it matters more where one starts, in comparison to where one ends.

In summary, the literature fails to demonstrate that one of the three models is inherently superior: there have been no satisfactorily controlled experiments anywhere in the world of which we are aware. All we can conclude from the evidence is that some elements are worthwhile – and the most worthwhile are equally relevant to all three models.

General Practitioner Payment in Croatia

In 2002, there were approximately 2,470 doctors employed in primary care. Of these, 53% have specialized qualifications (739 in family medicine, 272 in pediatrics, 155 in occupational health, 115 in school health, and 22 in other disciplines). The remaining doctors (47%) do not have specialized training but there are plans progressively to reduce their number. In 2001, there were 2,642 fulltime and 65 part-time doctors employed in primary care, of which 2,408 were employed in family medicine (39).

The dominant feature of general practitioner payment in Croatia is risk-adjusted capitation. There are four age categories with payment relativities as shown in Table 2.

Additional payments may be made for control of drugs prescribing. In 2002, general practitioners were entitled to receive 25% of the amount to which actual drug costs were below a predetermined limit, and lost payments of 25% of the amount to which drug costs exceeded that limit.

There is a requirement in every contract that general practitioners make a reasonable number of home visits – currently specified to be 400 per year. However, it has been claimed that compliance is low. General practitioners are also expected to control the number of referrals to specialist services, and ceilings are defined. However, compliance is again unsatisfactory: General practitioners can request the right to exceed their targets and their requests are normally accepted by Croatian Institute for Health Insurance.

The target for average practice size has remained at about 1,700 since capitation payments were introduced in 1993. Informal advice from Croatian Institute for Health Insurance was that the target was set largely on the basis of experiences in other countries including the UK and The Netherlands.

Spending on primary care has increased in recent years both in real terms and as a percentage of total health expenditures. It represented 16.2% of total health care expenditures in 2000, and rose to 17.6% in 2001 and 22.4% in 2002.

Spending on primary care accounted for 25% of total health expenditures in 1989. It declined to 18.6% in 1997 and to 16.2% in 2000. However, its share of total spending appears to have increased since then.

However, spending on prescription drugs has been relatively stable, as shown in Table 3. Indeed, there was a decline in the total costs mainly as a consequence of more careful prescribing of expensive items.

During the first five months of 2003, 242 general practitioners exceeded their drugs budgets. Total spending for these general practitioners was 128 million HRK (€17.3 million), of which nearly 90% was under the compulsory insurance scheme and the remainder under voluntary insurance. Overspending was significant: the 242 general practitioners exceeded their budgets by a factor of 2.26.
We investigated the extent to which overspending might be associated with the particular mix of clients. As shown in Table 4, the large majority of clients of overspending general practitioners were in the adult and elderly age groups that might be expected to require more care.

The predominance of clients in the adult and elderly categories is also present in the general insured population. However, the pattern is significantly more marked in the clients of overspending general practitioners.

In summary, there are both strong and weak aspects to the Croatian model, and discussions about possible changes have been under way for some time. However, significant changes have only recently been agreed by all parties for implementation in 2004.

We will discuss only one of them here: 6% of total payments will be taken from capitation payments to finance what are termed performance-based payments. The amount is planned to increase to 25% over five years. General practitioners will receive the full amount if they meet the performance targets.

Seven types of performance have been targeted. They include health promotion and illness prevention activities. For example, measures of body mass index are to be made at five-year intervals, mammograms are to be taken and interpreted at age 45, and examinations conducted for occult intestinal bleeding at age 50.

They also include drugs prescribing. For example, there will be monitoring of the prescribing of antibiotics for upper respiratory infections. The proportion of cases of upper respiratory tract infections for which antibiotics are prescribed should not exceed 35% for adults or 50% for children (Draft Agreement, Croatian Health Insurance Institute). Moreover, the choice of antibiotics must be in accordance with specified guidelines.

These are surely sensible changes. Unlike the targets introduced earlier, they are specific and have clinical meaning. Simply saying that general practitioners must control referrals and drugs prescribing is hardly likely to stimulate clinical minds. Moreover, the implication is that any cost saving is good – or that no-one is able to decide which types of referrals are good. The method planned for 2004 takes account of clinical practice guidelines, and the payment incentives will encourage general practitioners not only to read but also to comply with them.

It follows we fully support them, and congratulate all parties for their common sense by avoiding any change in the base model and instead implementing critical refinements of detail. They represent a major breakthrough in the way that parties work together for the general good. The Croatian general practitioner sector is on the right track.

### Next Steps for Croatia

Our only concern is whether the momentum can be maintained. There are agencies and individuals who will see these steps as a threat, and will no doubt mobilize opposition to further changes.

We therefore believe it is necessary to consolidate the gains by reaching agreement on a longer-term strategy. Inter alia, it might cover detailed specifications of performance measures to be introduced (rather than merely a payment target of 25%). Incidentally, this target might be too conservative, given that the UK has decided to move to about 50% in a single step in 2004 (41).

We suggest that there should also be a commitment to increase consumer involvement in planning and evaluation, improved management of specialist referrals including shared and standardized documentation, encouragement of the performance of procedures that currently require referral to specialists, and the incorporation of use of clinical pathways for common conditions in performance payment.

There is also good reason to consider revising the risk adjustment formula. It might be sensible to take note of two aspects of the approach used by Mongolia. First, the capitation classes and payment relativities are not based on actual average levels of service use, because this would merely perpetuate poor clinical practices and social inequalities (42). Rather, they are based on judgments about what constitutes good general practitioner care (as exemplified by guidelines on care of the child under one year old). Second, classes are defined by socio-economic status, and higher payment rates have been set for clients from low socio-economic classes. This approach seems to be working as intended. For example, service use has almost equalized between rich and poor classes (43).

Finally, it should be borne in mind that success will be affected by the way that general practitioners relate to other parts of the health sector. There are many changes that need to be made elsewhere, such as moving to per case payment for hospital inpatient care and to an episode of care (bundled) payment model for outpatient services. General practitioners

<table>
<thead>
<tr>
<th>Table 3. Trends in drugs prescribing volumes and costs*</th>
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<tr>
<td>Item</td>
</tr>
<tr>
<td>No. of prescriptions</td>
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<td>Percent of change</td>
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<tr>
<td>Total payments</td>
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<tr>
<td>Percent of change</td>
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<td>Mean cost per</td>
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<td>prescription (HRK)</td>
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<th>Table 4. Distributions of clients by age group, overspending and all general practitioners</th>
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<tr>
<td>Patient age group (years)</td>
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<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Aged under 7 years</td>
</tr>
<tr>
<td>7 to 17 years</td>
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<tr>
<td>18-64 years</td>
</tr>
<tr>
<td>65 years and over</td>
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<td>Total</td>
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have a responsibility to become involved in the debate on these matters. Equally important, they need to appreciate that the extent to which general practitioner services are improved is critically dependent on behavior and attitudes elsewhere. Anyone who believes (says) that the USA supports private practice or fee-for-service because it has analyzed the evidence is naive in the extreme.

References


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