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*Options for Payment of Hospital and
Specialist Services in Macedonia*

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OVERVIEW

As part of broad Health Sector Reforms, the Ministry of Health, Republic of Macedonia will change the way payment is made to all doctors serving patients insured by the national Health Insurance Fund (HIF). With technical assistance from RAND¹, as a first step, the MOH plans to move to a capitated payment system for all outpatient Primary Health Care (PHC) services in both the public and private sectors. This new system is intended to increase the quality and quantity of PHC services by spurring doctors to compete for patients and by spurring competition between the public and private sector. Because PHC doctors will be paid in proportion to the work they perform it will be fairer to hard working doctors.

Macedonia is also planning on implementing a new basic benefits package. These reforms will complement the capitated payment to PHC doctors by introducing allocative pricing policies to shift patient demand to more efficient service utilization. For example, they will increase the participation amount (i.e., the amount that the patient pays) for specialist and hospital care relative to the participation amount for PHC.² This will lower the demand for hospital and specialist services and therefore decrease the volume of services with resulting cost savings.^{3,4} Even with these two sets of reforms, there still remains an important need to improve the efficiency and fairness of 1) hospital care, and 2) delivery of outpatient specialist care.

Payment reform for hospital and outpatient specialist care needs to be properly designed and implemented if it is going to increase efficiency and fairness. In this report, we review the spectrum of options that the national Health Insurance Fund (HIF) can use to pay for hospital and specialist services. As outlined above, other actions are being taken that address or complement the same goals. In addition to capitation and changes in the basic benefits package, these include: reform of the pharmaceutical sector and improvement in hospital information systems. Other potential actions that could be considered (and are currently not part of the reform package) include the closure or consolidation of public hospitals, the sale of public hospitals to private organizations, encouragement of specialist doctors to enter private practice, training of hospital managers, and development of private insurance. This report, however, is limited to payment reform and we will not discuss the range of alternative actions any further. We do wish to note that existing and future plans for restructuring the health sector, should consider simultaneously hospital and specialist payment reform as these other reforms will interact and potentially change the payment incentive in a dynamic way.

We begin our review of payment options by evaluating the current situation. This is followed with a description of different payment systems and future considerations for inpatient hospital care and for specialist compensation. We conclude this report with recommendations for Macedonia to improve its short and long-term future for payment reforms in the health sector.

CURRENT SITUATION

The national Health Insurance Fund (HIF), administers the health insurance revenues collected from three sources: Payroll Contributions, the Pension and Disability Fund and the Central Budget. These revenues are used not only for the delivery of all levels of health services, but also for income replacement for certain categories of employees. The HIF, as

¹ Carter GM, Ponce NA, and Peabody JW, "Implementing a Capitation System for Primary Care in Macedonia," Santa Monica, CA, DRU-1710-WB, September 1997.

² Farley, DO, and Peabody JW, "Coordinated Health Care Benefits Policy: Services, Cost Sharing and Limits for Macedonia," Santa Monica, CA, DRU 1640-WB, May 1997.

³ Farley DOF, Ponce N, and Peabody JW, "Model of Basic Benefits Package and Options with Actuarial Analysis," Santa Monica, CA, DRU-1707-WB, September 1997.

⁴ Cahill KR, Ponce N, and Peabody JW, "Actuarial Analysis of Basic Benefits Package Options of Health Care Reform in Macedonia, RAND, Santa Monica, CA, DRU-1616-1-WB, May 1997.

has been documented elsewhere, has been in a deficit situation since its inception in 1991.⁵ This situation has necessitated drastic reductions in HIF resources available for capital expenditures, personnel, drugs, medical supplies and equipment. Past apportionment of resources has been done largely through a global budget approach with current and historical spending patterns as the basis for reimbursement.

Although Macedonian law provides for the payment of hospital services using a German style point system, actual payment is really based on historical expenses and salaries and therefore fits within the paradigm of a global budget. Global budget is the generic name for any hospital payment system in which the hospital is allocated a fixed amount of funds to operate over a fixed period of time, usually a year. In some countries, parts of the global budget are restricted to particular kinds of use, such as salaries or particular programs. In Macedonia, all budget items, including salaries are part of the global budget. This form of payment, however, with its focus on inputs rather than outputs, provides no incentives for efficiency. Insofar as budget restrictions prevent the flexible use of funds, the payment system can actually inhibit the efficient use of resources. The allocation of money to particular departments or programs, for example, may compartmentalize resources to the extent that equipment, space, and staff are not shared and consequently many more resources are used than are really required to produce care.

Until the 1990's Macedonian hospitals were funded and managed locally by the "self-managed communities of interest" and therefore avoided the worst aspects of centrally managed global budgets. Unfortunately, one of the results of this decentralization has been excess hospital capacity with an attendant high utilization rate.⁶ The current Macedonian system of decentralized global budgets does not provide adequate incentives for efficiency and it allows inefficient practices such as over compartmentalization of production. To illustrate, in addition to the cadre of general practitioners, providing PHC, there are 5 "specialties" that also provide services in primary care dispensaries.⁷ This system of a decentralized global budget also does not provide incentives to reduce utilization—in fact, the system encourages long lengths of stay (LOS) because a longer LOS increases the number of beds that are "needed" and therefore justifies next year's budget allocation. As evidence, Macedonia now has the longest average length of stay (15 days) in Western and Eastern Europe.

The annual budget allocation in process to the 17 publicly operated medical centers⁸ and 6 specialty hospitals (serving a total of 2 million Macedonians) is now based largely on the number of personnel and number of beds. This provides no incentive for improving either the quality or quantity of services offered by the clinic or hospital.

The input based approach (personnel and beds) and the associated practice of historical budgeting does not reward doctors and managers who work hard and therefore is unfair and encourages poor performance. Further it perpetuates inequalities among cities and regions since those who have more continue to get more rather than allowing implementation of the goal of greater equality. In 1995, allocations to the 30 municipalities ranged from about 1000 denars (U.S. \$ 25) to over 16 million denars (U.S. \$ 400,000).⁹ And while private practice has been legalized since 1992, the privately operated health sector in Macedonia is quite small and

⁵ Peabody JW, Gertler PJ, and Ponce N, "Macedonia." Health Sector Policy Reform: Technical Assistance Inception Report," RAND, Santa Monica, CA, DRU-1460-WB, August 1997.

⁶ Some of the excess hospital capacity in Macedonia arises because programs were originally designed to provide care for Yugoslavian population groups larger than the Macedonian Population and thus the problem of over-capacity may require structural changes as well as payment reform.

⁷ These are Labor Medicine Specialists, School Medicine Specialists, Pediatricians, Gynecologists and some Pulmonologists. Further, within these specialties, in some regions, more compartmentalization has been observed; for example—pediatricians who only take care of sick children and those who do not see well children.

⁸ One of the medical centers is actually the University Clinical Center, a consortium of specialized teaching hospitals which provide the highest level of care in the Republic.

⁹ 1995 Revenue and Expense Report from Institute of Payment Operation, Republic of Macedonia.

currently does not include inpatient care. As a result, there is no competition to provide inpatient services.

PAYMENT REFORM PRINCIPLES

Many of the objectives of payment reform could be broadly grouped into two broad goals: (1) *efficiency*, through cost-control and financial, administrative and clinical incentives, and (2) *fairness*—both to providers and to patients.

One way to increase efficiency is to adopt the market strategy of paying for particular products—i.e., pay for output rather than inputs. Such a "market-oriented" strategy can be used even in a system that is entirely operated by a government agency such as the MOH. Because the payment amount depends on the amount of output, such a system can change hospital operations by providing hospital managers with incentives to increase the efficiency by which they care for cases.

It is important to note that providing such incentives for efficiency is useless unless managers also have the authority and the ability to reduce costs. Thus, for payment reform to be successful at increasing efficiency among specialists and in hospitals, managers of individual hospitals must have control over staff hiring, firing, salary decisions, and purchases of drugs, supplies, and all other items needed by the hospital.

Table 1
Payment Options

Hospitals	
H1.	Fee-for-service
H2.	Per-diem
H3.	Per-case
H4.	Case-based global budget
H5.	Population-based global budget
Specialists	
S1.	Fee-for-service
S2.	Expand PHC capitation to include FFS payment to specialists
S3.	Risk Pools, created by HIF, pay specialists
S4.	Capitation rates paid to specialists
S5.	Specialist Group Practice accepts part of PHC capitation
S6.	PHC Groups hires specialists directly

In this report, we will discuss 5 options for hospital payments and 6 options for paying specialists. Table 1 (above) outlines the options we will discuss for Macedonia to consider.

Three Types of Alternative Hospital Payment Systems

Because hospitals consume such a large share of the health care budget, hospital payment is frequently a major focus of reform efforts. Macedonia's hospital sector consumes about 43% of the total Health Insurance Fund budget.¹⁰ In this section, we discuss the pros and cons of alternative ways of paying for hospital services.

For hospital payments, the effect of paying for outputs depends on the *unit* that is used to measure hospital output. The first four columns of Table 2 compare a global budget system with those that would theoretically follow from payment for hospital output under three alternative ways to measure that output: Fee-for-Service (FFS), Per Diem, and Per Case.

Option H1—Fee-for-Service (FFS) describes a payment system that would pay for each individual service provided by the hospital using a relative value scale (RVS). One type of RVS is the German style point system currently used. A FFS payment system provides only weak incentive for management efficiency and even contains incentives to increase volume

¹⁰ Peabody JW, Ponce N, and Molyneaux JW, "Disease Burden and Costs of Treatment: Establishing Policy Priorities for Health Care Reform in Macedonia, RAND, Santa Monica, CA, DRU-1638-WB, May 1997.

Table 2
Comparison of Inpatient Payment Systems

Area of Comparison	Global Budget	Per Diem	Per Case	Case-Based Global Budget	Population-Based Global Budget
Incentives for length of stay	Incentive to increase.	Strong incentive to increase.	Strong incentive to decrease.	Incentive to decrease, which is weaker than for per-case payment because impact delayed.	Depends on population served by the hospital, but generally, no incentives to increase or decrease.
Incentives for efficient management	None	Strong	Strong	Delayed	Delayed and weaker than case-based global budget.
Incentives to hospitalize	None	Depends on level of occupancy achieved by LOS.	Positive incentive to hospitalize and to discharge and readmit. Strong incentive when case classification system is weak.	Delayed positive incentive to hospitalize and to discharge and readmit. Strong incentive when case classification system is weak.	None
Access for the very ill	None	Some incentive to avoid patients who require more than average services per day. Strongest when per-diem classification system is weakest. Incentive is weaker than in per case because profit can often be made up by longer LOS.	Incentive to avoid patients who require more than average services per case and the larger group that require long LOS. Strongest when case classification system is weakest. Can be mitigated by outlier payments.	As in per-case system, except effect is weakened by delayed impact.	Would increase in areas that are now underserved.
Equality across regions	More hospital beds, more service.	No change	No change	Move funds to regions with greatest utilization.	Move funds to regions with greatest need.
Upcoding incentives	Least	Generally weak because classification system usually has only a few, well-defined categories.	Strong incentives exist, but could be mitigated by regulatory oversight.	As in per-case system, except effect is weakened by delayed impact.	Strong incentives exist, but only for out-of-area tertiary cases.
Data requirements	Least	Patient discharge abstracts for payment, hospital cost report for rate setting.	More clinical detail on discharge abstract for case classification, more resource utilization on discharge abstract besides hospital cost report for rate setting.	Same as per-case payment.	Population-data at the municipality-level.
Uncertainty for hospital managers	Least	Some	More	Less	Less
Uncertainty for payer	Least	Some	Some	Less	Less

by keeping persons in the hospital longer than is necessary, providing unnecessary services or even hospitalizing patients that could be cared for without going into the hospital. In South Korea, hospitals and physicians are reimbursed on an FFS basis according to such a relative value scale. This FFS system provides little incentive for efficiency because providers

have the incentive to provide more services and thus bill the HIF for their costs. As a result, costs have been rising over time even though Korea policymakers have been increasing the coinsurance rates.

Option H2—Per Diem systems provide a payment for each day spent in the hospital. The amount of the payment can vary according to the category of the case—e.g. higher payments might be made for days in intensive care. Per diem systems are intended to provide payment equal to the average cost of producing the unit of output in an efficient hospital and thus average costs must be determined before introducing such a system.

In a per diem system, it is intended that an efficient hospital make a profit on some cases and lose money on other cases—*not* that the payment match the costs of each patient. Because the variety of patient requirements is so vast and the technology for the production of health care changes so quickly, any attempt to determine the requirements for every patient would be futile. It can also be counterproductive by putting an official stamp of approval on a regime of care which is less good than that which would be determined by the patient's own physician. Per-diem payments, however, encourage longer hospital stays than per-case payment methods. The incentives to increase length of stay (LOS) found in a per-diem payment system are quite strong and have been found to have measurable effects on LOS in other parts of the world. This effect can overpower the efficiency incentives in the system.

Option H3—Per Case payment systems provide a payment for each case or discharge from the hospital. Because length of stay varies by case and because (LOS) is a major determinant of costs, per case systems require many more categories of patients to adequately match cost to payment than per diem systems. Like the per diem systems, per case systems are also intended to provide payment equal to the average cost of producing the unit of output. When hospitals are paid on a per-case basis or on an all inclusive per-day basis and managers are allowed to retain the difference between payment and costs, they have substantial incentives to control costs. To account for differences in case mix across hospitals, a per case discharge system usually groups patients into groups with relatively similar costs. The system can be as simple as separating medical and surgical patients or as complicated as Diagnosis-related Groups (DRGs) used in the United States and currently being implemented in Europe, which classify patients into hundreds of categories based on the disease that caused the hospitalization and on the procedures received in the hospital.

Per-case payments are usually calculated as a rate times a weight, where the weight for a DRG (or other group) reflects the cost of caring for the typical case in the DRG relative to the cost of caring for the overall typical case. Thus, a case in a DRG with a weight of 2, typically costs twice as much as a case in a DRG with a weight of 1. Again, note that it is not expected that the payment for a particular case will exactly equal the costs of the case. It is intended only that average payments will equal average costs for the patients in a DRG. The rate can be set to control the total growth in hospital costs since the weights are set to average 1.

Whether one pays per day or per case, efficient behavior is encouraged when prices are set at the cost to efficiently produce the bundle of services. When a provider's cost structure differs from its payments, the provider has an incentive to either become more efficient or to reduce his frequency of delivery of the services for which his costs exceed the payment. These incentives work best in a country (or areas within a country) where hospitals compete for the same patients and therefore where specialization can be increased. The resultant specialization should improve the efficiency of the health delivery system as a whole.

Considerations of beneficiary access and provider equity also imply prices should be proportional to costs so that beneficiaries with all conditions will be able to find treatment and so that hospitals with all possible case mixes will receive adequate payment. Finally, prices that are not set at cost encourage gaming and other inefficient behavior on the part of providers. However, pricing at cost is difficult, and this is especially true in Macedonia where cost data is virtually non-existent. One reason is that different providers use different production functions and face slightly different input prices. Accounting methods are also

needed to estimate costs at the level of detailed clinical groups such as DRGs. Moreover, current estimates are only average cost, not marginal cost—to avoid encouraging overproduction of services, one would theoretically prefer to price at marginal cost rather than average cost and use a different method of reimbursable fixed costs.¹¹

Among the units—service delivered, per diem, or per case—of hospital output that could be used for payment, Per-Case payment systems have the strongest incentives for cost control. However, even per-case systems have incentives to provide unnecessary hospitalizations and, as shown in the fourth row of Table 1. Per-case payments need to be monitored for situations where providers avoid caring for cases that will be much more expensive than the payment, and where administrators or providers “upcode” (i.e., to claim to have sicker patients than one actually has in order to obtain extra reimbursement). These and other difficulties of price regulation have been the subject of much research on the DRG payment system used by the United States government to pay private hospitals. On average, there is evidence that the use of DRGs encourage hospital efficiency and has small or no effects on quality, although problems with the system remain. Finally, case-base payments have substantial data requirements. Macedonia’s planned investments in the hospital information system may meet all the needs of such a payment system but information is needed if a case based system is going to be put into place. The same data are useful for hospital management and quality control. Thus data requirements are probably less of an issue in Macedonia, but revising the payment system hinges on the actual implementation date of the new information system.

Table 1 compares a traditional global budget system with alternative hospital payment systems which do provide some incentives for efficiency.

One final note on implementation. Global budgeting has been appealing to Macedonia and most of Europe because it provides complete certainty about annual expenditures to both payer and hospital manager. The other payment systems only allow hospital managers to reduce uncertainty by increasing their volume. Thus the amount of uncertainty in the system is inversely proportional to the ability to increase volume. Unfortunately, this increased volume translates into budget uncertainty for the HIF. In each case, it would be possible for the HIF to react to short-term changes in the availability of funds or the volume of services by reducing payment rates, although this is likely to reduce overall efficiency gains. The next section presents combinations of alternative payment systems with the global budget approach that can ease the transition to a case based system.

Combinations of Payment Systems

Clearly, the Per Case system accomplishes the net goals of efficiency and fairness over FFS and Per Diem. However, because of the technical and informational requirements needed to institute a purely Per Case payment system, this may not be appropriate for Macedonia during this early stage of reforms. We present two other options that improve the efficiency of Macedonia’s current global budget system by combining the current approach with case-based and population-based criteria (these are also listed in Table 2).

Global budgets are usually adjusted incrementally every year. When some hospitals experience changes in workload because of a change in the volume of cases or in their case mix, incremental changes are not adequate to provide a payment system that is fair to the personnel of all hospitals and their patients. One way to address this problem is to combine historical budgeting with case mix adjustments. The last 2 columns in Table 1 concerns these alternative forms of global budgets that we discuss in detail below.

Option H4—Case-Based Global Budget provide payments to a hospital that are proportional to hospital output. Output would be measured as the sum of weights for the cases discharged in the previous year. This approach would have many of the efficiency incentives of a per case system, although the efficiency incentives would be slightly moderated because of the 1

¹¹ Ibarnum and Kutzin (1993) provide a good discussion of how different hospital costing methods are used. Algorithms for calculating DRG weights are discussed in Carter and Rogowski (1992).

year delay between additional productivity and payment. It would also provide the HIF with control over total expenditures because the hospital cannot increase the current year's payment by increasing volume.

Option H5—Population-Based Global Budget determines payment amounts that would be based on the population served by the hospital. For this approach, it would be necessary to estimate hospital utilization for sub-groups of the national population. This can be done by estimating utilization based on age and sex. Further, for each municipality's population, it would also be necessary to estimate utilization of out-of-area hospitals so that funds could be given to hospitals in proportion to the amount of care actually provided to the municipality's patients.¹² A population-based global budget system would have less effect on efficiency compared to the global budget system that is based on the number of case mix adjusted discharges, but would greatly increase equity across regions. This system would also capitalize on the hierarchical structure of hospital care that is one of the strengths of the Macedonian system.

On a final note, it might be worth further considering using a mixture of population and case-mix adjusted discharges to determine global budgets. This would allow simultaneous movement towards both greater efficiency and equity—although not as much in either direction as a pure system. Macedonia can also compare the effects of the population adjusted discharges with the case-mix adjusted charges through a pilot project. Given that the information systems may not be in place nationally until after 1999, the MOH can begin with a population-based approach and incrementally introduce the case-mix adjustment with technical assistance and with the development of a fully operational integrated medical and financial information system.

PAYMENT FOR SPECIALIST PHYSICIANS

Currently specialists in the private sector are paid on a FFS basis using the German style point system; in the public sector, they receive a salary. This system has the same drawbacks as the current payment system for PHC physicians. However, unlike the proposed capitation payment reform, the possible solutions for paying specialists are not as clear.¹³

There are many possible ways in which a capitated payment system can be set up. For example, the PHC doctor's capitation can be increased to cover the cost of specialist care and then the PHC physician would be responsible for paying each specialist used by any of his enrollees. Alternatively, the capitation could go directly to groups of specialists. We go over six possibilities below. Options S2, S3 and S5 assume that the capitation system in primary care, that will be demonstrated in two pilot districts in Macedonia, will be adopted nationally.

Option S1—FFS. If all specialist physicians were paid a FFS, this would eliminate the current unfair discrepancy between the private and public sectors. Unfortunately it would likely increase the volume of service provided. The amount of the increase could be reduced but not eliminated by strict controls and incentives on referrals and by controls on hospital costs.

Option S2—Expand PHC capitation to individual specialist doctors. Including specialist services in the PHC capitation payment provides a very strong incentive for the efficient use of these services. When a patient needs referral to a specialist, the PHC would spend some of the capitated monies he or she has received by enrolling the patient. PHC doctors, therefore, will be very reluctant to use specialists unnecessarily. It might, however, put the physician at too high a financial risk because he or she might receive a higher than average proportion of patients who need these services. A further problem arises in that, when the service is

¹² Based on the early Capitation Evaluation Program (CEP) survey results, we estimate that only 7 percent of a municipality's population leaves to get care outside of the municipality.

¹³ Carter, GM, Ponce N, and Peabody JW, "Considerations for a Capitation Payment System for Primary Care Providers in Macedonia: Promoting Quality, Equity and Efficiency," Santa Monica, CA, DRU 1641-WB, May 1997.

necessary for a patient, the interests of the patient and the doctor directly conflict. The money spent purchasing the service in effect comes directly out of the doctor's pocket. The designers of most capitation payment systems have decided to avoid putting the doctor's self-interest in direct conflict with that of the patient. In the U.S., for example, such risk is generally viewed as putting too much pressure on the PHC physician and various controls are placed on the amount of risk that can be borne by a single doctor.

Option S3—Risk pools. These are an alternative way of simultaneously obtaining some of the incentive effects of including specialist services in the PHC capitation while lowering the doctor's financial risk. In a risk pool, the insurer (in this case the HIF) creates a pool of funds to be spent for reimbursement for specialist physician care. For example, the pool might cover all the specialist services in a particular municipality over the coming year; or it might cover services to the enrollees of a subset of PHC physicians. The funds would equal the amount that the insurer spent on such services in the previous year for a similar population (adjusted for expected inflation) plus an additional amount (say 10 percent or more). The additional amount will initially be subtracted from the capitation payment. All specialist services during the year will be paid from the fund using a FFS system. At the end of the year the amount of money remaining in the fund would be divided among the PHC doctors in proportion to their number of enrollees. Thus PHC doctors will know that if they, and their colleagues, use specialists efficiently then they will receive the savings. The specialists will be paid according to the services that they produce, thus allowing competition between the private and public sector and increasing the fairness of payments to specialist physicians.

Compared to just including the service within the individual capitation payment, a risk pool produces less incentive for efficiency and creates less financial risk for the PHC doctor. It reduces risk because payment from the fund depends not on the small number of patients a particular doctor has, but on the much larger number covered by the pool. Further, the pool puts a distance between the doctor's action for the patient and the consequences for his financial situation. The size of the risk pool should be substantial, say at least 10,000 or 20,000 enrollees. The creation of risk pools is a fairly complicated business and requires substantial statistical and financial expertise. It, however, also might create (or aggravate) resentment by a PHC doctor against PHC colleagues whom he believes are not practicing properly.

Option S4—Capitation payment to specialist doctors. At least theoretically, one could imagine paying a capitated amount to specialist doctors for patients that they enroll. The difficulty of determining which patients need to enroll with which kinds of specialists is substantial and the information and accounting required could overwhelm a nascent system. Alternatively, a large group of specialists—say all those employed by a medical center—could receive a capitated payment to cover all specialist care. If the payment also covered hospital care and the group were required to pay the hospital for the costs of inpatient treatment using a per case payment system, it might result in substantial savings of hospital costs. Unfortunately this leaves no role for the private sector specialist. Further it does not address the problem of the differential amount of work provided by different specialists.

Option S5—Group Practice-specialist groups contract with a large number of PHC doctors. An alternative is for specialists (e.g., cardiologists) to form a group practice and contract with a large number of primary care practitioners. Here, the PHC doctors, not the HIF, creates a pool of funds that are paid to a specialist. The specialists then provides all of the specialty care. This type of system requires specialists to enroll a large number of capitated PHC specialists so that their own risk, as specialists, is not overwhelmed by too many sick patients.

Option S6—Large number of PHC form an association and hire specialists directly. Alternatively, a large number of PHC doctors can pool their funds and hire a specialist. Here, the risk is with the group of PHC providers and, therefore, it must be large enough to properly utilize the specialist. With large enough PHC associations, several specialists can be hired (e.g., gynecologist, dermatologist, neurologist, etc.).

SUMMARY AND RECOMMENDATIONS

As the Macedonian MOH is finalizing the implementation of the capitation system for outpatient primary care providers in the pilot districts, it needs to begin its strategy on instituting payment reforms for hospital and specialist care. This report has presented 5 options to replace the existing Global Budget system for hospital payment and 6 options for remunerating specialty care. Before the Macedonian government can consider these options, several preliminary steps are necessary to ensure the appropriateness of a potential system in terms of the current conditions in Macedonia, planned investments for resources in the future and integrity of proposals with respect to other reform programs.

Next Steps

- A World Bank credit should be extended to cover technical assistance, data collection and investment activities needed to support the development of hospital and specialist payment systems.
- The MOH should engage health finance experts in hospital and provider payment mechanisms. These experts should be experienced in developing systems that optimize Macedonia's current system, its level of organizational behavior and human capital. Since Macedonia will likely consider a case-based approach in the future, these experts should be experienced in the design and oversight of historical budgeting and DRG type systems.
- The Information Systems group and the systems vendor that will supply the Macedonian health sector with the information technology and equipment should work with the hospital and specialist payment experts to design appropriate forms and record-keeping databases needed for the data requirements of the payment systems.
- The MOH International Project Unit, as the group coordinating the reforms, should appoint a hospital and specialist payment committee charged with directing and overseeing the strategy for implementing payment reforms. This committee should be no more than 4-5 members and should include an economist, a clinician, an information system specialist and hospital manager. This committee could overlap with the small expert group that administers the benefits package and copayment policies annually.

Preliminary Recommendations

Without a full mission to investigate the conditions in the new system of capitation under primary care, we emphasize that the following recommendations are preliminary, based on the limited information obtained by RAND in the course of technical and implementation assistance, assessment and evaluation efforts since July 1996. We recommend that the current purely global budget approach be abandoned and replaced with one, or a combination of the alternatives we have presented for hospital payment.

- For hospital payments, we recommend Option 4, Case-based Global Budget, Option H5, Population-Based Global Budget, or ideally, a combination of Options H4, and H5. The Macedonian Government has the capacity to use a population-based global budget approach in inpatient care, as hospital data systems include age and sex, as well as ICD 10 codes. Some linkage still has to be made with invoices and cost data. The RAND report on Burden of Disease, Cost of Treatment provides instructions on how to undertake this data-linkage prior to the installation of the information systems.
- For outpatient specialty care, most of the payment options will be difficult to implement under the current system until major reforms in record-keeping are undertaken. Outpatient records are not patient-based nor are they linked with financial information.

- MOH/HIF should restructure the record keeping of patient files for outpatient services to include age, sex, disease category and cost of service (at the very least, invoices).
- It is somewhat more difficult to make recommendations for specialist payments without information on the effects of the capitation system in primary care on referrals and structure of utilization. Option S1, a FFS system would be fair to specialists, but would escalate costs since there is no incentive to control volume. Since the HIF has been in a deficit situation since 1991, this option is not viable.

Option S2, expanding the PHC doctor's capitation to cover specialist services would not be a suitable option to PHC doctors. PHC doctors are currently facing great anxiety about being the first practitioners of payment reforms and clearly fear their potential inability to incur the financial risks. Perhaps once the capitation of primary care has been demonstrated and institutionalized, Option S2 could be considered.

The strategy to wait and see is also the case for Option S3, risk pools. Moreover, risk pools demand tremendous data management and administrative and monitoring requirements that Macedonia is not yet ready for.

Option S4, capitation of specialist care is an attractive option and would even be more attractive if contractual arrangements with the HIF put the public and private sector on more equal footing. For example, private providers could be allowed admitting privileges to the hospital.

Option S5 and S6 require organizational arrangements within physician groups and contractual arrangements between specialists and PHC physician groups. This may occur naturally for some regions where health centers and medical centers are well-organized and integrated to some extent, but it may be too premature for some regions.

- Like capitation of primary care, the payment systems for hospital and specialist care should be piloted prior to national implementation. Option H4, for example, could be piloted in one pilot site (Prilep for example) while H5 could be piloted in the other pilot site (Ohrid). Similarly, Option S2, S3, S5 or S6 can be piloted as well, although this should occur after the demonstration of PHC capitation because of interaction effects.

To summarize, the design of payment reforms to specialists strongly hinge on the effects of the capitation payment system for outpatient primary care and also require greater data collection restructuring that the data for hospital utilization. A broad stroke recommendation is to prepare a strategy for data collection, technical assistance and solicitation of investment funds for the hospital sector. Reforms in hospital payments will guarantee tremendous cost savings for Macedonia. And, the time is right.

