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# Purchasing Inpatient and Outpatient Care Through Hospitals

Eric de Roodenbeke

September 2004



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**PURCHASING INPATIENT AND OUTPATIENT CARE  
THROUGH HOSPITALS**

**Eric de Roodenbeke**

**September 2004**

## Health, Nutrition and Population (HNP) Discussion Paper

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# Health, Nutrition and Population (HNP) Discussion Paper

## Purchasing Inpatient and Outpatient Care Through Hospitals

Eric de Roodenbeke<sup>a</sup>

<sup>a</sup>Senior Health Specialist, AFTH2, World Bank, Washington, USA

Paper prepared for the World Bank's Resource Allocation and Purchasing Project

**Abstract:** After considering the fulfillment of some basic criteria making purchasing a tool for effectiveness, a framework allows to review how to best buy hospital services.

Who should benefit most from hospital care financing ? The answer to this question will rely on an investigation of hospital services utilization, and on a better understanding of patients profiles. This type of investigation is a baseline for further decisions on what to buy. A purchaser should wonder : to what public health priorities hospital responds best and how efficient and equitable is hospital care? But hospitals have also a unique role in helping people facing major hazards, in providing some essential public health services and in enabling training : these services should be considered when purchasing.

Hospitals represent a large diversity of organizations. Having that in mind makes it easier to figure out from whom to buy. The potential provision of care depends on the level of the provider but is also related to hospitals status taking into consideration productivity. It is also worthwhile to investigate insurance's role in the provision of care.

Payment mechanisms have a strong influence on performance, for that reason the major alternative schemes have to be considered, each of them having advantages and limits. But hospital cash flow is also a specific issue that should not be ignored.

The price paid has to be determined before making an agreement. This should lead to cautious estimates of cost of services as the information systems are often weak. Moreover it might be worthwhile to play with margin to favor internal cross subsidies. The co-payments as well as the opportunity cost have to be included to understand how to get best from pricing.

Dealing with subsidies is a cornerstone when seeking better performance while purchasing hospital services. How subsidies are going to be channeled and for what kind of services will determine if purchasing is really effective.

**Keywords:** resource allocation and purchasing, health care financing, health system development and reform, service delivery

**Disclaimer:** The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

**Correspondence Details:** Eric de Roodenbeke; AFTH2 – World Bank – 1818 H street NW, Washington DC 20433, USA; Tel: (1) 202-458 8275; Fax: (1) 202-473-8216; Email: [ederoodenbeke@worldbank.org](mailto:ederoodenbeke@worldbank.org)



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## FOREWORD

Great progress has been made in recent years in securing better access and financial protection against the cost of illness through collective financing of health care. This publication – *Purchasing Inpatient and Outpatient Care Through Hospitals* by Eric De Roodenbeke – is part of a series of Discussions Papers that review ways to make public spending on health care more efficient and equitable in developing countries through strategic purchasing and contracting services from nongovernmental providers.

Promoting health and confronting disease challenges requires action across a range of activities in the health system. This includes improvements in the policymaking and stewardship role of governments, better access to human resources, drugs, medical equipment, and consumables, and a greater engagement of both public and private providers of services.

Managing scarce resources and health care effectively and efficiently is an important part of this story. Experience has shown that, without strategic policies and focused spending mechanisms, the poor and other ordinary people are likely to get left out. The use of purchasing as a tool to enhance public sector performance is well documented in other sectors of the economy. Extension of this experience to the health sector is more recent and lessons learned are now being successfully applied to developing countries.

The shift from hiring staff in the public sector and producing services “in house” from non governmental providers has been at the center of a lively debate on collective financing of health care during recent years. Its underlying premise is that it is necessary to separate the functions of financing health services from the production process of service delivery to improve public sector accountability and performance.

In this Discussion Paper, de Roodenbeke review reviews the role of resource allocation and purchasing in the hospital sector. As in the case of ambulatory care services, hospital care can either be produced in house by government owned providers or purchased from non governmental and private providers. During recent years many countries have tried to transfer responsibility and decision rights over hospital care to local governments, semi-autonomous or corporatized hospital board and even private providers. Such arrangements are not only workable but can also confer a number of advantages in terms of stronger governance and increased responsiveness by the hospital to its constituent clients. This is particularly true when the changes in ownership are coupled with payment incentives which gives patients a strong voice and forces the hospital to be more sensitive to their needs and demands. The author reviews a number of payment mechanisms for reimbursing hospital care, highlighting their advantages and disadvantages.

*Alexander S. Preker*

Lead Economist  
Editor of HNP Publications



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## INTRODUCTION

Finding the best way to buy hospital services is a critical issue for policymakers. Providing a set of questions within a framework can help them choose the most appropriate options for their specific country context. We list these major questions and the issues they raise. To use such a framework in making purchasing decisions, however, some major criteria have to be met in the areas of financing, autonomy, and stewardship.

## KEY CRITERIA FOR EFFECTIVE PURCHASING DECISIONS

Purchasing hospital services can act as a major trigger for improvements in hospital efficiency and equity in delivering care if the hospital fulfills some basic financing, autonomy, and stewardship criteria.

### FINANCING

Health care *financing* must rely on third-party payment mechanisms either through insurance or public funds. Both can be funded through premiums and taxes. Third-party payers will buy services for the population it covers. Therefore, up to a point, the purchaser

- Decides on the type of coverage provided within any national framework on mandatory coverage.
- Negotiates with providers to buy what the purchaser considers best for the groups for which it is accountable.
- Makes its own choices within corporate priorities, the market environment, and social pressure.

### AUTONOMY

Hospitals must have *autonomy*. Ownership can be public or private, for profit or not for profit. This autonomy does not have to be total—in many countries, public hospital management of human resources is subject to civil service regulations. Although a limitation on autonomy may reduce their impact, purchasing mechanisms will still trigger major benefits as long as hospitals have some freedom to

- Change the scope of services in order to adapt to shifting demand (qualitative, in the nature of care or service, as well as quantitative).
- Discuss prices and resource flow with the payer (for example, payment scheme, prices within the scheme, billing system).
- Decide on priorities for resource utilization (operation expenditures, including costs related to human resources but also investments in plant and equipment).

### STEWARDSHIP

National or local governments are responsible for *stewardship* and regulating the health care system. Allowing third-party payers to buy services does not mean that health care delivery will operate in a free market; both buyers and providers have to comply with certain rules.

Nonetheless, market mechanisms give better results than other allocation mechanisms. To be effective, purchasing mechanisms will benefit from government oversight in

- Defining the level of equity, solidarity, and social balance to be achieved in the health care system.
- Setting priorities for hospital services in relation to public health priorities and goals to be reached within a specified time.
- Financing public health services in accordance with social and health priorities.

Under this set of hypotheses, an analytical framework can be devised for addressing the key considerations when attempting to buy the best hospital services for the money. This analytical framework can help guide decisionmakers contemplating major changes in a national health financing scheme. It will reveal the range of factors that hospitals and funding organizations should discuss before plunging into a new health financing scheme.

However, when using this framework, reader should keep in mind that in most analyses of efficiency or equity in health care delivery, hospitals are usually examined as a whole and compared with primary health care (PHC) facilities. Such broad brush strokes hide the details of a complex picture (Liu and Mills 2003) that must be studied, looking for mechanisms to improve hospital efficiency and equity in delivering care. In line with this consideration, it is important to be mindful of this diversity when addressing the question of how to buy hospital services more effectively.

## **FOR WHOM TO BUY?**

Once coverage of every individual's basic health needs has been made a national priority (that is, providing everyone with adequate services for their specific needs), a baseline must be established for what is currently being delivered. This is the springboard for answering the first question: Who should benefit the most from hospital care financing? The two major dimensions of access are geographic and economic (Fournier and Haddad 1995); a third is sociocultural access. Anthropological studies in West Africa have shown the importance of cultural beliefs in an individual's health care decisions, but also the major role of health care staff behavior (Jaffré and Olivier de Sardan 2003).

## **UTILIZATION OF HOSPITAL SERVICES**

Utilization data, based on consumption not need, are a rough proxy for estimating demand. The major limitation of such an estimate is also related to diversity of care responding to diversity of clinical need. Because many different services are bundled together to obtain an overall utilization rate, it may hide overutilization of certain services and underutilization of others. Nevertheless, an attempt at an overview of the present provision of hospital care can be made through major indicators covering the two key functions of the hospital: inpatient and outpatient services. Hospitals undertake almost every diagnostic and treatment activity for either inpatients or outpatients, but a weak information system will not be able to capture all the details.

Service utilization is usually monitored, and overall population data can be used for differential utilization analysis. However, such data cannot be analytically extended beyond a region.

District hospitals are not evenly distributed over a country, and data at the district level will not match a facility's actual catchment area, thereby skewing results. Although referral hospitals are supposed to have a national clientele, most of their patients come from the town or region where the hospital is located. Services delivered at the referral hospital can therefore be added to the regional total. For a better understanding of utilization patterns at the district level, specific analysis should be undertaken at the regional level with a focus on spatial distribution and patient orientation. This requires a specific prospective survey of a patient sample over a defined time. In countries where such surveys have been undertaken (for example, Burkina Faso, de Roodenbeke 1995; Côte d'Ivoire, Vilayleck 1999; Cameroon, Blatt 1996), most hospital outpatients came from the immediate area, and less 15 percent of the inpatients came from outside the district.

### What Do We Know About Inpatient Services?

**Table 12.1 Hospital Inpatient Utilization within Regional Facilities**

Region	Number of Hospitals	Population	Beds	Admissions	Admissions per Population	Beds per Population	Deaths	Deaths per Admission
X	5	2,909,645	1,919	78,258	2.69%	0.066%	4,957	6.33%
Y	11	1,580,052	1,268	50,497	3.20%	0.080%	2,822	5.59%
<i>National</i>	<i>131</i>	<i>18,077,883</i>	<i>15,288</i>	<i>650,981</i>	<i>3.60%</i>	<i>0.085%</i>	<i>32,812</i>	<i>5.04%</i>

*Source:* National information system.

Data on all hospitals, public, and private (including for-profit) facilities should be filled into table 12.1. What is considered a hospital should be precisely defined so that the same measure will be applied throughout the country. Table 12.1 highlights differences between regions regarding bed coverage and facility utilization. Special attention should be paid to occupancy rates and length of stay to see whether productivity gains make extra capacity available. When hospitals have high occupancy rates and short stays, provision of care has to be investigated in detail to see whether admissions can be reduced by promoting other types of care (for example, day care, home supervision). Increasing the number of beds should always be the last resort after every other option has been ruled out. Purchasing mechanisms can be used to promote alternative treatments to reduce inpatient care. Budget funding, in contrast, might promote adding capacity.

For inpatient services, efforts to compensate for regionally unequal access might take into consideration any national commitment to poverty reduction. In relation to the Millennium Development Goals (MDGs), a special emphasis can be put on use of services for communicable diseases and for maternal and infant care. In most low-income countries, those services represent between one half and two thirds of inpatient services utilization.

### What Do We Know About Outpatient Services?

Analyzing gross hospital outpatient services data will not reveal the diversity of services between hospitals and within a hospital. In many hospitals, although there is a formal referral care pattern, outpatient clinics offer a mix of PHC and district hospital-level care. Not infrequently, as in Ghana (Ghana Ministry of Health 2004), basic care represents more than 50

percent of the total outpatient day (OPD) hospital attendance. It is difficult to collect data to show how much of hospital outpatient care should have been provided in a subreferral facility. Similarly, there are practically no systematic regional data to show how activity at a referral hospital comes from actual referrals.

Fee-for-service policy has favored the extension of outpatient services to meet popular demand. Outpatient services are a significant source of income for hospitals. Moreover, outpatient services generate a good bit of inpatient and diagnostic business.

**Table 12.2 Regional Outpatient Activity**

Region	Population	Total Outpatients	Outpatients/ Population	Number of Hospital Outpatients	Outpatients/ Hospital Activity
X	2,887,596	2,226,059	0.77%	1,125,247	0.50%
Y	917,250	604,645	0.66%	252,473	0.42%
<i>National</i>	<i>18,077,883</i>	<i>9,340,180</i>	<i>0.52%</i>	<i>2,181,462</i>	<i>0.40%</i>

*Source:* National information system.

National information systems cover all OPD activities (public and private). Filling out table 12.2 will reveal the overall contribution of hospitals in OPD activity and differences between regions. Data will also indicate whether, at the regional level, there is any specific connection between overall outpatient utilization and hospitals' share of this activity. Hospital outpatient care can be efficient, if right-sized and highly qualified staff resources are not squandered on scraped knees. Hospitals play a major role in providing outpatient care to address the health care priorities. This role might expand, if the economic barrier posed by fee policy is significantly diminished. Special attention should therefore be paid to gatekeeping mechanisms to avoid misuse of specialized care. When analyzing outpatient activity, it is always difficult to estimate the role of traditional medicine, an important alternative to western medicine in many countries (Senah, Adusei, and Akor 2001). Some regional differences in access may reflect different cultural approaches to health care.

Outpatient care should not compete with PHC or traditional medicine but should complete it, especially in urban areas where both demand and access to hospital outpatient care are high. Purchasing arrangements can help reduce demand on hospital outpatient services by supporting hospitals giving assistance to PHC facilities, for example, consulting physicians who monitor their activities. This is an interesting, systematic way of responding to an urban population's demand for health care.

### **UNDERSTANDING THE PATIENT PROFILE**

The second major influence on hospital utilization is related to patient health and socioeconomic status.

Information on health status on admission to a hospital can indicate how referral care is handled and how much referral care hospitals actually deliver. Patient health status can be tracked only when an information system is reliable and critical information is systematically entered. These



data will be significant if a district health information system can provide a population health index. Because such data are unavailable in most countries, the best way to obtain a proxy of hospital patient health status is by doing a survey of medical records (if accurate) through a section analysis or through a retrospective analysis.

Studies demonstrate that a patient's socioeconomic status influences access to hospital inpatient care and raise issues of equity even in countries with extensive insurance coverage (Aligon and Grandfils 1997). A household's lack of resources is a major reason for delaying access to hospital care. Cultural factors and perceived quality of care are also important (Jaffré and Olivier de Sardan 2003).

Often, data from broad surveys (such as demographic and health surveys) are not specific enough to identify hospital clients (type of services used and health status per patient). In nationwide studies, there is always a structural bias: Average revenues per capita are always higher in towns than in the countryside, and hospital catchment areas are mostly urban. Outpatient services represent the bulk of hospital utilization, when it is measured only through the overall figures. Wealthier patients usually overuse outpatient services, but outpatient services overall make up a minor part of hospital costs.

Further sociodemographic studies are needed to see whether critical care is provided equitably across all population groups within a catchment area. Without such a baseline study, equity improvements will be difficult to promote through purchasing hospital care.

### SETTING PRIORITIES

In conjunction with national health policy priorities, the purchasing mechanism can promote different components of hospital care related to equity and public health priorities.

Equity considerations can focus on

- *Geographical differences.* An effort can be made to include people living in remote areas or having poor access to hospital facilities.
- *Socioeconomic differences.* Specific groups can be targeted to promote appropriate use of hospital care.
- *Sociodemographic differences.* An effort can be made to reach age and gender groups (for example, for maternal and infant care).

Public health considerations can focus on

- *Disease type.* Major communicable diseases are an example—making immunizations and other needed services readily available.
- *Care type.* Services can be organized in a way that differentiates between acute and chronic care.

The type of care and the response will depend on priorities. Purchasing will be an effective policy tool only if it is *situation and goal connected*. That is why a baseline study of actual

hospital use and a clear view of priorities are indispensable when using purchasing mechanisms to enhance hospital performance.

## **WHAT TO BUY?**

When deciding what to buy, different, competing alternatives at different levels must be considered. The final mix will draw on different sources of financing to cover the health care expenditures. In few developing countries is the hospital network up to meeting the growing demand for quality care. The national authorities will have to upgrade some facilities with the available resources, which means setting priorities for both capital investments and the development of human resources. But before deciding how to allocate their resources, these purchasers must know what they want to buy.

### **PUBLIC HEALTH PRIORITIES AND HOSPITAL CARE**

For low-income countries, public health priorities can be read through their commitment to the MDGs. Reducing maternal and infant mortality means that all pregnant women have pre- and postnatal care and assisted deliveries. The PHC centers are the cornerstone of these activities, but the judicious use of referral hospital care is critical to reduce mortality rates. Combining assisted deliveries and access to district hospitals for referrals (cesarian sections) is a priority to reach the maternal and child health MDGs.

Hospital outpatient services play a major role in treating children under five years of age (under-5) and fighting major diseases. In low-income countries such as Ghana, under-5 and obstetrics make up about half of all hospital admissions (World Bank 2004: 150).

Take, for example, communicable diseases in Sub-Saharan Africa. Malaria is always among the first reasons reported for attending outpatient care and is also significant for inpatient services. Human immunodeficiency virus (HIV) treatment is the upcoming challenge. Hospitals have to play a major role in launching and monitoring antiretroviral treatment, which will take a huge part of their resources. Financing will largely determine what hospitals can do about this new challenge.

### **EFFICIENCY OF HOSPITAL CARE**

When resources are scarce, ever-closer attention should be paid to efficiency. Cost-effectiveness assessment is important so that funding can be channeled to the facilities that are best at delivering health care at least cost.

Previous works on this subject have shown how cost-effective African district hospitals were when responding to medical need for common pathologies (World Bank 1994).

For inpatient services, cost-effectiveness analysis has to consider the respective roles of district, regional, and teaching hospitals. Outpatient services will be cost-effective when adequate technical skills are mobilized to deal with the complexity of pathologies presented.

To fulfill their referral missions, hospitals have to bear important structural costs. Promoting better utilization is important to increase hospital productivity—and sometimes more relevant

than creating a new first-line response with lower unit costs but higher marginal cost. Analysis of overall cost to the population should lead the decision on what to buy. The cost-effectiveness of health care delivery is specific to each district and region: a local purchasing scheme should be the most effective at figuring out the best mix for the locality. Nationwide rules might be inefficient because theoretical low unit costs do not necessary result in actual low overall costs.

### **MAJOR HAZARDS AND HOSPITAL RESPONSE**

How will major health hazards be taken into consideration? For the population at large, major hazards are not a priority because they affect a small number of individuals. For those individuals, major health hazard is indeed a major concern, because they will probably not have enough resources to pay for treatment. Covering major hazard lowers the risk of overutilization, but risk management is difficult when the population covered is small. Extensive basic care coverage dramatically increases the risk of overutilization. Purchasing mechanisms can help draw a line between these two concerns.

When dealing with major health hazard, there is a difference between acute illness and chronic disease. Most acute illness can be related to emergencies and considered a priority even though the treatment cost might be high. Excluding such an event from coverage becomes an ethical concern, when the chance of saving a life is good and medical resources are available. For example, if the available neurosurgery can save a life after a traffic accident, should only rich people be saved because the actual cost is too expensive for the poor?

Decisionmaking for chronic diseases is less obvious. In this case, the cost of care is high and demand is growing with epidemiological transition. Low-income countries cannot afford to treat every chronic disease by the latest medical standard. Making choices will exclude all or part of treatment for some chronic diseases from collective purchasing arrangement, although they are a major health hazard. A line has to be drawn between affordable treatments and highly costly treatments. A national authority should review annually a list of priority treatments that could be covered by collective purchasing arrangement. Such a list will depend on how much a country is willing to spend for health.

If insurance is intended to provide protection, not only basic care coverage, but also major acute hazard should be covered. This option may necessitate a reinsurance scheme, if resource pooling at the district level may not suffice to cover expenses. Collective purchasing arrangements can dramatically improve referrals from inner country to regional and national hospitals, but limits will have to be set by contract or regulation.

### **HOSPITAL CARE AS AN ESSENTIAL PUBLIC HEALTH SERVICE**

Hospitals provide private individuals with services that are also a public health service for the community. A hospital is like a fire department in that people hope not to use it but know it is there if needed. The best example of this function is the emergency department. Although the hospital as an institution can be considered a public good, part of its services are private. Therefore, the overall cost of hospitals should be shared between individual and solidarity-related mechanisms.

If a collective purchasing arrangement recognizes hospital production of public health services, and not just delivery of private individual services, financial arrangements should reflect this recognition. Some hospitals receive budget subsidies to finance this dimension of public good, but rules should be set to ensure that most of those funds go into priority services, the ones of critical importance to saving patients' lives. In that case, collective purchasing arrangements can finance individual risk at its real cost. Considering the public health functions of hospitals, public financing could cover the fixed costs, while insurance covers the variable costs of individual treatment. No rules can be set defining a better mix to address this issue. The important point is that it be taken into consideration when a collective purchasing arrangement does not cover all hospital expenditures.

### **IN-HOSPITAL TRAINING**

Costs and constraints related to training health care professionals are often included as part of a hospital's operation costs. Training is a major specific service offered by hospitals and, potentially, not just university hospitals. Should purchasing mechanisms share in the cost of training? There are no consistent data on cost of training in hospitals in low-income countries. Most hospital training costs are incurred in the human resource time spent in on-site training of future professionals. In-hospital training also raises treatment costs, because trainees tend to order more exams and larger prescriptions than seasoned health care professionals. If this production of service is not rewarded, hospitals may try to use interns as low-cost labor, while full-time staff spend minimal time teaching. The result will be low-quality care and badly trained future health workers and physicians.

This extra cost has to be financed, but it should be paid under public financing schemes, if education is considered part of public service. When education is considered a personal investment, hospitals should estimate the cost of training and bill the student or supporting organization. There is no reason a patient should pay for training when seeking care.

A selection of providers based on better prices can be a shortsighted strategy, when the price is lower because a hospital does no in-house training and therefore has a lower overhead.

### **TRANSPORTATION**

The cost of transportation often precludes access to referral care, if transportation is not considered part of the health services package. Even if care is free, access to health services will remain a major problem in remote areas, because most people living below the poverty line cannot afford transportation. If transportation is not supported by specific financing, however, it will not expand to respond to population health needs. In rural areas where population is scattered, synchronizing transportation to available outreach services might make more sense than building a hospital. In some urban areas, a good transportation network can also be a means of improving delivery of primary care services.

If a collective purchasing arrangement covers transportation fees (under certain rules), hospitals will have to decide whether it is worth competing with private companies in this market. Public health authorities will have to take responsibility for regulating health transportation.

## FROM WHOM TO BUY

### LEVEL OF CARE

Most health systems in low-income countries are designed—on paper—with three levels of hospital referral. Actually, the referral system works on two consistent operational levels:

- *Referral hospitals for PHC.* Level 1 referral for PHC is part of the district health care organization. The district hospital is the referral for all the primary health care facilities. Its role and functions are well documented through many guidelines and case studies (World Health Organization [WHO] 1992). Its major contribution to the district health care system as a backup to primary health care is well documented (WHO 1987: 88; 1992; World Bank 1994).
- *Referral hospitals for district hospitals.* Level 2 referrals can be either regional or teaching/national hospitals. In practice, geographical access and transportation costs limit most people's access to teaching hospitals outside the region in which they reside. Although teaching/national hospitals may have more specialized services and sophisticated equipment, these elements can be considered specific features of an organization of the same type. Teaching hospitals are different from regional hospitals mainly in their responsibilities for training health workers, although this mission can (and should) be shared with the regional hospitals. Responding to major public health needs is not the sole objective of second-level referral hospitals; training is (or should be) part of their mission.

Purchasers will have to adopt strategies for each level of hospital after analyzing their current context and addressing key issues within that framework. In some areas, however, there might not be much difference between level 1 and level 2 hospitals or between poorly functioning level 1 hospitals and upgraded PHC facilities.

This first breakdown of the hospital entity is insufficient to cover the story of purchasing hospital services. Hospitals produce health care around some major product line: outpatient, inpatient, diagnosis and treatment technical units, or emergency care.<sup>1</sup> Some of these functions may offer services close to the ones delivered on the primary level (outpatient, diagnosis), while others are specific to hospitals (inpatient and emergency care). Whatever level the hospital belongs to, purchasing will have to take into account the difference between hospital-specific and nonspecific services (nature of service). A third dimension related to specialty type should be added to this matrix because many outpatient and diagnostic services should not be available at the PHC level (type of service). Table 12.3 is an example of a care delivery matrix where the highest level of service can also provide services offered at the lower levels. Collective purchasing arrangements will influence the evolution of hospital product line.

<sup>1</sup> Emergency care refers to a 24-hour facility open all year equipped to address major vital medical or surgical distress with access to diagnostic exams and technical equipment. Referral will become part of emergency care. Obstetrical care, which also has to be accessible 24 hours a day all year, is a specific part of emergency care.

**Table 12.3 Care Delivery Matrix**

<b>Level of Service</b>	<b>First-Line Care</b>	<b>First-Referral Hospitals</b>	<b>Second-Referral Hospitals</b>
Health care type	Outpatient	Inpatient	Inpatient
Health care nature	Minor cuts	General surgery	Orthopedic surgery

*Source:* Author.

To maintain a referral system, purchasing strategies will have to be combined. As long as subsidies cover a significant part of the budget and most of the employees are paid directly from the national budget, purchasing policies in relation to care level can be efficient if there is an overall approach combining collective purchasing arrangements with subsidies-allocation mechanisms. If the arrangements do not allow referral care to be bought, referral hospitals will compete with PHC and district hospitals to keep a share of the market. There is some evidence that regional and national referral hospitals derive a significant part of their revenue from profitable basic outpatient activities. Loss of these revenues would lower the quality of care even for referral services that benefit from cross-subsidization within the hospital.

To buy wisely, collective purchasing arrangements should promote a policy of selecting providers at different levels to deliver the same types of care. There should also be gatekeeping mechanisms. Copayment, for example, can be very efficient.<sup>2</sup>

### **WHAT PLACE FOR THE PRIVATE SECTOR?**

Depending on the country, the private sector delivers more or less of the hospital care, mostly at the district level and in major urban areas.

Some countries (Ghana, Cameroon) have a network of mission hospitals, whose reputation is good overall. Their fees are usually higher than in the public sector, however, not because their operating costs are higher but mainly because they are less subsidized than the public hospitals. In some areas where the private sector is the sole provider, a collective purchasing arrangement has no choice but to buy. In areas where facilities may compete, private providers' higher fees may put them at a disadvantage. Collective purchasing arrangements might then have to take into consideration quality for price. A look at productivity might change purchasing perspectives.

A human resource assessment can evaluate a hospital's labor productivity. Detailed analyses—facility by facility (rather than by sector, public versus private)—might reveal significant contrasts. Both high inpatient bed occupancy and bed turnover are indicative of the overall productivity of inpatient care assets. This is another measure of a facility's productivity.

When competition is possible, a collective purchasing arrangement will have to analyze hospital performance on the use of capital as well as labor to favor the most efficient facilities, and not just buy on the cheap. When competition is not possible, purchasing policy will have to be designed in a way that motivates hospitals to improve productivity.

<sup>2</sup> A copayment might be 100 percent of a fee when there is direct access to referral care, while it would be 50 percent when a patient is referred from a PHC facility.

Collective purchasing arrangements should take a long-term view of efficiency. It would be disastrous if purchasing mechanisms put most productive hospitals out of business, simply because lack of subsidies forced them to charge higher fees than subsidized competitors.

Collective purchasing arrangements may be an opportunity for private for-profit business in the wealthier urban areas. If equity is a national priority, pricing and supervision of services can forestall profiteering from money raised under collective purchasing arrangements intended to be pro-poor and pro-solidarity. Collective purchasing arrangements will not answer the question of ownership performance. Many researchers have concluded that public and private facilities are extremely hard to compare and that assessments can vary widely, depending on the criteria used to evaluate the delivery system (Raisa 2002).

### **SERVICE PROVISION BY COLLECTIVE PURCHASING ORGANIZATIONS**

No evidence supports the theory that integrated systems (health maintenance organization-type) are always more efficient than purchasing systems (different provider and insurer). Nevertheless, poor quality care limits the lessons that can be learned from the experience of mutual insurance in West Africa (Audibert, Mathonnat, and de Roodenbeke 2003). So, where facilities are scarce or of poor quality, collective purchasing organizations may want to become providers. It can also be an alternative when care providers are too dominant.

For hospital care, assets are an important barrier to getting into business; investment returns will take a long time to materialize. Delivering outpatient services might be an interesting option—no major asset investments and immediate returns for high-productivity facilities.

Insurers may be tempted to get into this business, but implementation of collective purchasing arrangements requires a major mobilization of resources to finance the organization's administrative and transaction costs. It is important that most of the resources collected pay for care instead of covering mostly administrative and investments costs. A collective purchasing arrangement should be able to conduct medical assessments to challenge dominant positions through negotiations with providers. This might be an alternative to health maintenance organizations and a priority in a purchasing scheme.

## **HOW TO PAY?**

### **FEE FOR SERVICE**

From country to country, there are many fee-for-service formulas with more or less comprehensive packages covered by various premiums. Most often, drugs are sold separately with a positive margin policy that may vary from hospital to hospital. Fees for service are a major incentive, even at subsidized public hospitals where they may be a minor part of overall revenue. These resources bring in the additional funds hospitals need to buy goods and services to ensure smoother operations. From the provider's perspective, these resources must be kept and expanded. Fee for service is a good purchasing instrument when a collective purchasing arrangement can



- Negotiate the lowest possible fees to maintain a specified quality standard.
- Pay only for service received.
- Pay for the poor when they need care.

In a mixed financing scheme, hospitals will favor revenue-generating activities. A decade of experience has shown that services under subsidies (usually not covering full cost) cannot compete with those getting fee for service.

Limiting overhead expenses by constraining prices and volume is important. For providers, it is an incentive for higher productivity: the more it produces, the more it is paid. It can also be a good incentive for quality, if high quality is rewarded with bonuses.

Fee for service rather than a fee per episode makes sense. Few hospitals in low-income countries have the information system needed to run a fee-per-episode billing system. Management capacity is often too weak to set up and operate such a system.

A national price list allowing fee adjustment by regional economic status is consistent with a policy of subsidizing care in the poorest regions more liberally than in better-off areas. For effective purchasing, bonuses and penalties related to the quality of care can be added or subtracted from the price on the national list. Quality of care can be measured against a health outcome index and patient satisfaction. A collective purchasing arrangement must also track volume to avoid being cheated by hospitals or patients.

Fee for service makes it easier for hospital management to track resource flow, activities, and input utilization. The billing system is easy to run under fee-for-service schemes. Hospitals can estimate service costs and compare them with revenues, seeking to raise productivity and raise prices. But fee for service cannot cover all the hospital production costs described here.

### **CAPITATION PAYMENT**

Capitation payment can be partially combined with fee for services. Capitation payment favors enrollment—hospitals have to enroll as many individuals as possible to get revenues. It is an incentive for hospitals to be more demand responsive when patients have alternative choices. Where hospital utilization is low, this option is worth considering to make hospital demand proactive.

Capitation favors activities where patient follow-up is recommended and cost of service is fairly flat. Maternal care, for example, is a good prospect for capitation payment—the number of visits and list of exams pre- and postdelivery can be set. Capitation payment can be combined with fee for service if extra activities are requested.

Where competition is weak, capitation payment does not favor quality of care. Hospitals may give capitation patients less attention than they give their fee-for-service patients. In that case, a collective purchasing arrangement has to protect clients' rights and threaten providers: no service equals no payment.



Capitation payment must be supported by a detailed contract and a monitoring process to enforce it. Each party must know exactly what is included and what is not.

### **HOW TO MAINTAIN CASH FLOW FOR HOSPITALS WITH A BILLING SYSTEM**

When there is no third-party payment, fee for service brings an immediate cash inflow. Under a collective purchasing arrangement, financial barriers to access are reduced, offering hospitals the prospect of additional revenues. Asking patients to pay up front and seek reimbursement from the insurer is one way hospitals could maintain their cash revenue. This system has major drawbacks in terms of patient access (most people cannot pay cash in advance) and supervision (hospitals have no incentives to provide information to insurers). Billing insurers for services is the only realistic option in most low-income countries. Hospitals will have to verify patients' entitlement to services and send the bill to the insurer.

To put together a billing system, most hospitals will have to upgrade their administration departments. Ideally, all activities will be tracked, and the patient will be billed by the end of the next month. When switching from a patient-payer to a collective purchasing system, the latter should make advance payments to the hospital. At first, it will be difficult for hospitals to bill in less than 60 days. Routinely, the rule should be payment upon presentation of the bill covering the most recent month's activity, minus adjustments from the previous month after checking the bills against the services actually delivered.

Billing will cost, so hospitals must track those costs and figure out how to recover them. There are several recovery options. The collective purchasing arrangement will have to pay (for example, average billing charge added to fee, lump sum), or the billing cost will be covered by subsidies in cash or nature (by civil servant salaries). If billing costs are recovered through a subsidy, every hospital should be entitled to it.

The imperative of reorganizing accounting services for billing in most hospitals also opens an interesting opportunity to introduce new managerial approaches to other aspects of contracting. Monitoring the accounting function can trigger productivity-enhancing changes in other hospital management practices.

### **AT WHAT PRICE?**

What price to pay for service is a major concern for both collective purchasing arrangements, looking for the "right price," and hospitals, trying to avoid delivering underpaid services. Estimating service cost and deciding between pricing per service or per episode are prerequisites to negotiations on a payment mechanism. Per episode pricing looks like a nearly impossible option, however, considering that most hospitals contemplating collective purchasing arrangements have to quickly organize accounting departments and customer services and build capacity to assemble reliable, basic information needed for sound management in general and pricing in particular. Most countries lack the capacity to conduct cost analysis on the economic price of services or to run price simulation models. Even if these analyses are done, capacity will still have to be built to develop an information system that will eventually allow correct costing of services.

## **ESTIMATING COST OF SERVICES**

Hospitals should estimate service costs, but with an awareness that a correct cost estimate of each activity or episode is elusive (Shepard, Hodgkin, and Anthonhy 2000). Tracking systems for such information are costly and not fully reliable. Proposals to introduce sophisticated information systems—where not even basic information is available today—should be eyed skeptically. No information system can be a substitute for missing managerial skills, nor can it be operated without them. Comprehensive information systems also need a strong technical infrastructure, also missing in most low-income countries. Most service costing within a hospital is a management tool used, for example in Eritrea, for targeting performance incentives (Nusau 2003) but not to estimate fees for collective purchasing arrangements in a national framework.

Thus, although service cost estimates may look like an obvious point of departure for any collective purchasing arrangement, hospitals in most low-income countries will have to struggle to develop the capacity to make reasonably close estimates. In any case, the theoretical economic cost might be far different from the effective cost, and major differences in costs affect pricing sustainability. In addition, hospital fee regulations contain a long list of exemptions, and donors now support capital investment. Baseline fair prices are all the more difficult to estimate or compare because service quality also influences costs.

Nonetheless, even if a country is not yet able to estimate the cost of hospital services, this should not prevent it from getting into a collective purchasing arrangement. The insurer can start buying hospital services at the historical price (actual prices under fee for service) and monitor, together with the hospitals, trends in expenditures (by type and by major activity) and in the volume and quality of services. The minimum requirement is an accounting and activity reporting system to implement financial controls.

## **MARKING PRICES UP AND DOWN TO BETTER COVER RISKS**

One of the major roles of hospitals is to provide care for the small number of individuals who face major health risks. If this coverage is not mandatory, most people will not want to pay a high premium for a low-probability risk. In most low-income countries, if this kind of care is priced at its real cost, practically no one will have access to it, even with complementary insurance coverage.

Collective purchasing arrangements play a major role in pooling risks (healthy people pay for sick people) but hospitals can also pool risk by underpricing major health risks and marking up minor health care (minor care pays for major care). The volume of minor activities is usually so high that cross-subsidizing can greatly reduce the price charged for major health risks to make it affordable. Such an approach can help attenuate adverse risk selection in a collective purchasing arrangement where stakeholders may be reluctant to pay for costly care. The impact of such a pricing policy will be limited on minor risk and affordable for most people. Overall, it will make no difference in expenses for care, but the approach has a strong psychological impact: insurance subscribers feel they are getting their money's worth.

Whether prices can be marked up or down depends on the nature of the overall financing scheme and coverage of all hospital expenditures. Compensatory pricing will be possible if it is consistent throughout a country. If it is not, pressure to buy at the lowest price may force

hospitals to limit their major risk services in order to remain competitive with other providers. Whether this second-level pooling is needed depends on the design of the benefit package: If major health risk coverage is mandatory and hospitals receive enough income to undertake major risk activities, pooling at the hospital level becomes less relevant. Government will be responsible for deciding to what extent people should have access to major risk treatment. For nonpriority risks, marking down prices would subsidize the richest of the population segment. The poor would be unable to pay, even when subsidized. For better social justice, these services could therefore be priced at cost.

### **HOW TO DEAL WITH SUBSIDIES?**

Subsidies play a major role in pricing in countries where fees for service are derived from the residual cost of inputs. The whole subsidy policy should be revisited, including direct payment of health workers, if a country wants enough transparency in the delivery system to make it more efficient. At the same time, subsidy policy should be clarified for capital investment and operating costs, which may not answer to the same rules.

One way of revising operating cost subsidies is to shift from budget subsidies to outcome-related subsidies, so that the government purchases services. This can be a way of addressing the question on sharing health risk. The ministry of health (MOH) could subsidize major health risks, leaving coverage of minor risks and first-level care to health insurance. In theory, such an approach is feasible and has a major advantage: all facilities (public and private) will have the same subsidy for the same service. A purchasing mechanism could also replace a budget allocation system for services provided under an exemption policy.

Changes in subsidization, because of their complexity, have to be phased in during a transition period. For the MOH, tracking resource use within hospitals will be difficult. For hospitals, multiple sources of financing are hard to manage, and the borderline between insurance financing and MOH financing will never be clear-cut. Within three to five years, when the insurance scheme should be well organized, it should finance all operating costs.

In low-income countries, capital investment financing is monitored by the MOH in conjunction with donors, if there is a common funding basket, for example, under a Sector Wide Approach Program. To promote hospital efficiency, capital investment plans should be tied to effective access to good quality care. Judicious use of capital investment is a strong incentive for major improvements in general and medical management. Capital investment should be considered a specific component of a purchasing scheme. Including depreciation and interest costs (when borrowing), however, makes no sense when estimating the operation cost component of service prices. Subsidies should be maintained for capital investment, but they can be allocated in a competitive process that awards them only to hospitals that can estimate all costs and their impact on services.

### **COPAYMENTS**

If care becomes free for patients, overutilization is a risk, especially for first-line outpatient care in urban areas. Copayment can reduce this risk. To be effective, the copayment does not have to be high. It can also be wholly or partly reimbursed by insurance (if this can be done without a large transaction cost).

If copayment is chosen, it should be simple, or hospitals will have to pick up most of the administrative burden. To make it simple, there are two major choices: either lump-sum or percentage-of-price payment. Lump sum will limit minor, inexpensive care, because the copayment can be a major share of the price. For expensive care, this lump sum will not reduce access to care. Lump sum is easy to manage for hospitals: everybody pays the same amount. These arguments should make lump sum the option of choice. If lump-sum payment does not curtail overutilization, the percentage-of-price option can be considered.

For major expenditures related to inpatient services where overutilization is not a risk, because patients are always referred by health workers, there is no need for copayment. Copayment may put an additional burden on patients, although the risk is unrelated to patient demand. To reduce risk of hospital-driven overhospitalization so as to maximize revenues under a fee-for-service system, medical supervision—and penalties for proven, systematic overhospitalization—should be written into any collective purchasing arrangement.

### **OPPORTUNITY COST**

Opportunity-cost analysis explains why, when cost is low or service free, people might not use health services. Opportunity cost (for example, time lost from productive activities) plays a major role in minor care and a minor role in critical care. It has a large impact when consumers perceive no immediate benefit, as in preventive care. The opportunity cost adds to the paid cost: waiving fees for service is good for individuals who can afford to absorb the opportunity cost. Because the poor, especially those in rural areas, are usually very sensitive to opportunity costs, the insurer should endeavor to reduce those costs. Monitoring health service utilization is the first step to identify areas where opportunity cost plays a significant role. Then the insurer can conduct surveys to find out why certain services in some areas are underutilized. These surveys are neither expensive nor technically difficult to monitor and will provide the necessary information to reach people who underutilize health services because of the opportunity cost.

### **MOVING FORWARD**

Most documents and working papers report hospitals' weak management capacity in low-income countries (de Roodenbeke 2003). The current situation varies—from hospitals with skilled management teams to district hospitals staffed by unskilled clerks. In Ghana and most other developing countries, hospitals are involved mostly in routine, repetitive activities performed according to established procedures, systems, and regulations. They devote little time or energy to strategic planning and efficient use of resources (Ghana Ministry of Health 2003).

Accountability is low and human resource management almost nonexistent. Accountability has to become a major driver for management progress in the hospital sector. As long as hospital managers do not have to bear the consequences of their own poor management, the chance of progress is slim. Accountability can be demanded only when managers are appointed because of their capability and skills. Corruption and under-the-table payments should be prosecuted. A purchasing mechanism will not work without governance.

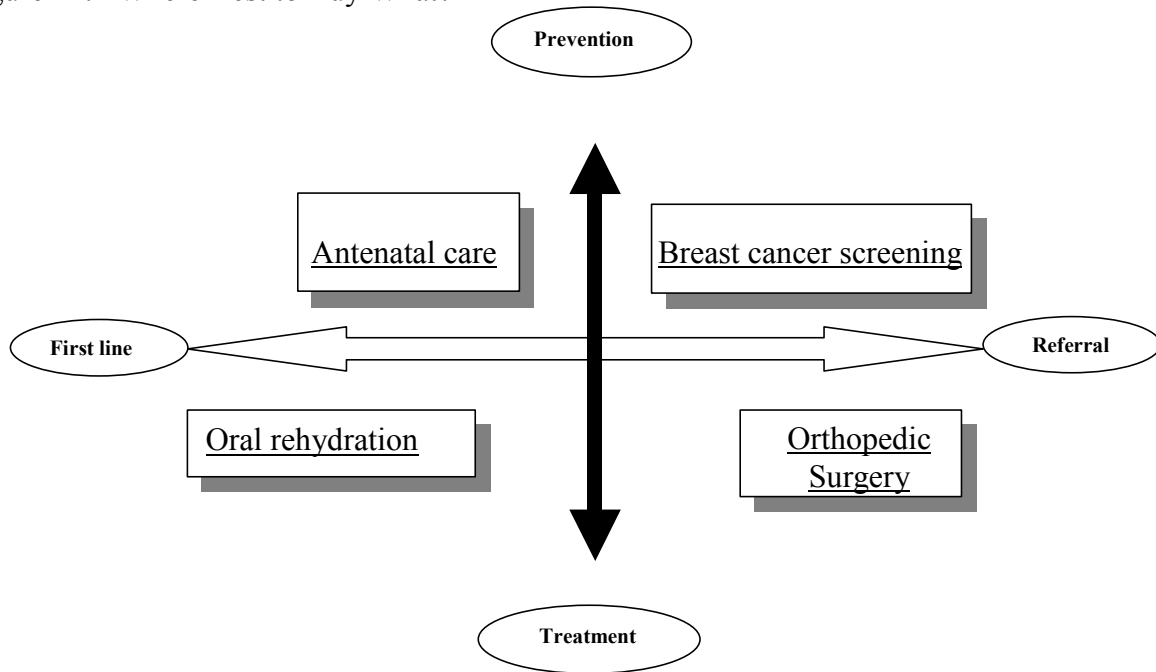
To introduce accountability as part of good governance, trained staff and incentives for a managerial approach are needed throughout an organization (de Roodenbeke 2001). Results-based incentives are a good trigger for replacing bureaucracy by management. Introducing performance indicators to boost hospital performance is likely to succeed only if incentives are significant, and rewards are based on effective, reliable performance indicators. In most Sub-Saharan African countries, the MOH has not effectively exercised its stewardship function to lead hospitals toward efficiency improvements. Most reforms have been supply oriented, with multiple prerequisites related to guidelines, processes, and provision of resources. This approach has failed, because these inputs do not invite the significant behavioral change that is key to successful reform. Better organization will come not from inputs but from an output-driven process. Instead of building norms and guidelines, the MOH should provide guidance and training to help facilities reach objectives corresponding to public health needs and community demand. Introducing a purchasing mechanism through collective purchasing arrangements can be an additional trigger to drag public hospitals upward (Preker and Harding 2003). The challenge will be to combine several triggers, because none will by itself promote a well-managed organization.

Accreditation deserves special mention. Most purchasing systems include accreditation as a major instrument for quality enhancement. Although accreditation is a regulatory instrument, it was developed after the advent of collective purchasing arrangements. Before accreditation, collective purchasing arrangements relied on other regulatory instruments such as contracting and medical supervision.

- *Contracting.* Contracting offers the advantage of being much less normative than accreditation and more results oriented. Contracting leaves room for sound dialogue between hospitals and insurers. Regulations can draw guidelines for contracting, but purchasing arrangements should be negotiated at the local level. Accreditation and contracting are not mutually exclusive, however, but can be mutually reinforcing.
- *Medical supervision.* Medical supervision can be used to prevent health care abuse and to guarantee good medical practice. The insurer's own physicians should provide the supervision and should be given free access to all medical records and patients within a hospital. For effective medical supervision, hospital records must be complete and accurate, so implementation of a medical records policy is important.

Collective purchasing arrangements can promote or ignore disease prevention and the choice of the best treatment in times of illness. Purchasing has to deal with more than just efficient use of hospitals when care is needed. It has to address the overall efficiency of the health care system by trying to buy, considering price and quality, what is most relevant for public health priorities.

Figure 12.1 Where Best to Buy What?



Source: Author.

This perspective can be of particular importance in the context of poverty reduction strategy where the MDGs in health are mostly in a prevention-treatment mix within a first line-referral mix.

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