



H N P D I S C U S S I O N P A P E R

A Framework For Purchasing Health Care Labor

Pascal Zurn and Orvill Adams

September 2004



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Health, Nutrition and Population (HNP) Discussion Paper

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ISBN X-XXXXXX-XX-X

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Health, Nutrition and Population (HNP) Discussion Paper

A Framework for Purchasing Health Care Labor

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

Abstract: Health care labor is central to managing and delivering health services. Because recruitment and retention policies are key issues for purchasers, gaining insights into labor-purchasing mechanisms may permit them to be addressed more effectively. This paper is intended to provide a brief introduction to health care labor purchasing and the mechanisms through which it can have an impact on the delivery of health services and on health system performance. A framework is developed to foster understanding of health labor purchasing mechanisms. This framework examines the different types and characteristics of the purchasers and providers. It also examines the “terms of labor purchasing,” that is, working conditions (career development, contract duration, working time and shift work, work autonomy and separation), remuneration and benefits. These elements determine, to a large extent, workers’ behavioral responses such as willingness to apply for and accept employment and job satisfaction. In turn, these behavioral responses are likely to affect performance. Finally, contextual and policy factors related to the health care system and the labor market that affect labor purchasing, health services delivery, and health system performance, are also considered in the framework. Under this category, we review the public-private mix, the purchaser-provider split, contracting in and out, purchaser power, and provider power. The framework presented in this paper encompasses a wide diversity of elements, but the role of yet more factors should also be investigated. For instance, the role of cultural or political factors is likely to affect labor purchasing. The effects of migration on labor purchasing should also be considered. A better understanding of the interaction between the elements of the framework would reinforce the analysis.

Keywords: resource allocation and purchasing, health care financing, human resources for health care (health care labor), purchasing framework, health services

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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 – *A Framework for Purchasing Health Care Labor* by Orville Adams and Pascal Zurn – 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, Adams and Zurn emphasize the central role that human resources play in managing and delivering health services. The authors demonstrate who people — the various clinical personnel, managers, auxiliary staff and others — are needed to perform each health intervention. It is they who diagnose problems and determine which services will be provided, when, where, and how. The performance of any organization, therefore, depends on the availability, effort, and skill mix of its workforce. Furthermore, because recruitment and retention policies are key issues for purchasers, gaining insights into labor-purchasing mechanisms may permit them to be addressed more effectively. This discussion paper is intended to provide a brief introduction to health labor purchasing and to discuss the mechanisms through which it can have an impact on the delivery of health services and on health system performance.

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Lead Economist
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ACKNOWLEDGMENTS

Many thanks are due to William Savedoff, Health Financing and Stewardship, for his useful comments and suggestions, and to Janet Clevestine, Department of Health Service Provision, both of the World Health Organization.

INTRODUCTION

Human resources for health care are central to managing and delivering health services (WHO 2002a; Murray and Dimick 1978). People—the various clinical personnel, managers, auxiliary staff and others—are needed to perform each health intervention. It is also they who diagnose problems and determine which services will be provided, when, where, and how. The performance of any organization depends on the availability, effort, and skill mix of its workforce.

Because recruitment and retention policies are key issues for purchasers, gaining insights into labor-purchasing mechanisms may permit them to be addressed more effectively. This chapter is intended to provide a brief introduction to health labor purchasing and to discuss the mechanisms through which it can have an impact on the delivery of health services and on health system performance.

PURCHASING HEALTH CARE LABOR

We shall define *health care labor purchasing* as an employment relationship whereby health workers are directly or indirectly hired to perform specific work under given conditions. In other words, health labor purchasing reflects either a direct hiring of health workers—as when a hospital contracts directly with individuals—or indirect hiring, through the purchase of health services—as when a hospital contracts with an outside entity to obtain nursing services.

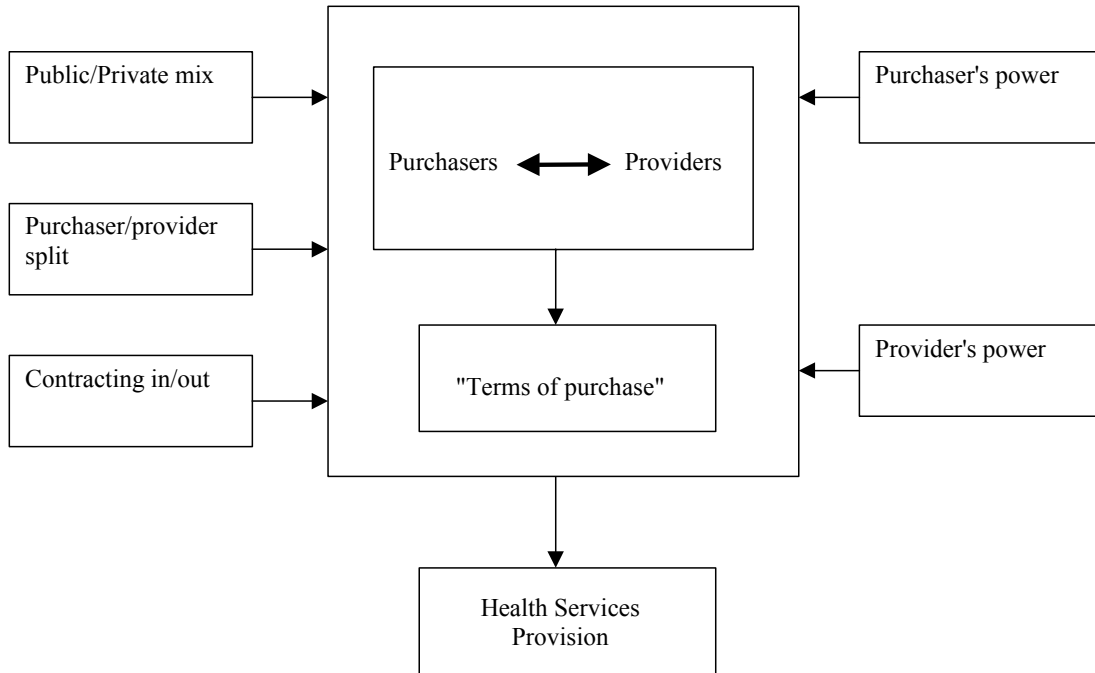
Directly or indirectly, purchasing health labor aims at delivering health services. The provision of health services refers to the combination of inputs into a production process taking place in a particular organizational setting and leading to the delivery of a series of interventions (Murray and Frenk 2000).

Purchasing can be viewed from different perspectives: those of government, hospital director, or health insurance supplier. For instance, a government perspective would be broad, covering the needs of the population, the priorities of the system, and the behavior of the providers.

FRAMEWORK FOR PURCHASING HEALTH LABOR

In this section, a framework is developed to foster understanding of health labor purchasing mechanisms (figure 1). It shows how labor purchasing affects the provision of health services. Insight into this relationship is crucial, since the provision of health services is one of the key determinants of health.

Figure 1 Framework for Purchasing Health Care Labor



Source: *Department of Health Service Provision, World Health Organization.*

We shall first consider purchasers and providers. Thereafter, the “terms of purchase”—i.e. health labor working conditions, remuneration, and benefits—are presented and their impact on health services discussed. Finally, contextual and policy factors related to the health care system and labor market such as public-private mix and purchasing power, are discussed in light of their impact on labor purchasing and health system performance.

PURCHASERS

The different characteristics and perspectives of purchasers have consequences for labor purchasing. Many authors discuss the wide range of institutional stakeholders involved in shaping human resources in health (Egger, Lipson, and Adams 2000; Brito 2000; Martineau and Martinez 1997). In the context of labor purchasing, we differentiate among categories (table 1)

Table 1 Types of Purchasers

State (central and local government)

Private, for-profit organizations (self-employed, private, semiprivate)

Private, not-for-profit organizations (e.g., nongovernmental organizations, religious institutions)

Source: Martineau and Martinez (1997).

The state

The state through its various ministries, is a major employer for health sector workers in many developing countries (Martineau and Martinez 1997). The mechanism through which public health workers are employed is a system of civil service or its facsimile.

Private, for-profit organizations

Private, for-profit organizations include self-employed individuals (e.g., self-employed doctors providing primary care) and individuals employed by private organizations (e.g., health workers in a private hospital). One key feature in private, for-profit organizations is the nature of ownership, which affects the incentives for purchasing and managing services (Milgrom and Roberts 1992).

Private, not-for-profit organizations

Private, not-for-profit organization such as nongovernmental organizations or religious institutions play an important role in some developing countries, particularly in Africa. In Chad, for example, an estimated 20 percent of the health institutions are private, not-for-profit organizations (Diallo and Gupta, in press). In terms of recruitment, wage, and work motivation, personnel in this sector are likely to differ from those in the two other categories of institutions. The specificities of the not-for-profit sector are well reviewed by Salamon and Anheir (1996).

PROVIDERS

In the context of labor purchasing, we shall consider human resources for health as providers. In the *World Health Report 2000, human resources for health care* are defined as: “the different kinds of clinical and non-clinical staff who make each individual and public health intervention happen (WHO 2000, p. 77). This includes individuals in both private and public sectors and different domains of health systems such as personal curative and preventive care, nonpersonal public health interventions, disease prevention, health promotion services, research, management, and support services.

TERMS OF LABOR PURCHASING

Purchasers hire health labor or services to obtain a set of health interventions. The transactions for labor are mediated by contracts. In contracting, one major issue is motivating one person or organization (agent) to act on behalf of another (principal) in a situation of asymmetric information. This problem is known as the principal-agent problem (Hölmstrom and Tirole 1989). Monitoring, use of competing sources of information, and explicit incentive contracts are some of the means of controlling for this asymmetry of information. Accordingly, the degree of specification of the work to be performed is likely to differ from one contract to another, but typically contracts are imprecise. Among the factors preventing complete contracting are the difficulties of foreseeing all events that might arise over time (Milgrom and Roberts 1992).

By “terms of labor purchasing,” we mean elements such as working conditions (career development, contract duration, *working time and shift work*, work autonomy, and separation), remuneration, and benefits. These elements determine, to a large extent, workers’ behavioral responses such as willingness to apply for and accept employment and job satisfaction. In turn,

these behavioral responses are likely to affect performance through the volume, quality, and distribution of health services (Table 2).

Table 2 Terms of Purchasing and Health Services

<u>Terms of Purchasing</u>	<u>Behavioral Response</u>	<u>Health Services</u>
<ul style="list-style-type: none"> • Working Conditions • Remuneration • Benefits 	<ul style="list-style-type: none"> • Willingness to apply/accept employment • Job Satisfaction • Dismissal 	<ul style="list-style-type: none"> • Quality • Quantity • Distribution

Source: Department of Health Service Provision, World Health Organization.

In the following, the “terms of labor purchasing” are examined and discussed in the light of workers’ behavioral responses and impact on health services.

Working conditions

Under working conditions, we consider career development, contract duration, working time and shift work, work autonomy, and separation.

Career development. *Career development* is most commonly defined as a process in which goals are set and specific talents, capabilities, and interests are identified. The possibility of career development for the health workforce is crucial, especially in an environment characterized by a phenomenal growth in knowledge related to health sciences, coupled with technological advances. In such an environment, continuing education is a vital prerequisite for safe practice and for improving the quality of health services.

Contract duration. Purchasers may hire labor for different lengths of time. It is common to differentiate among short-term contracts, fixed-term contracts, and permanent employment. The designation and duration of each contract varies according to the national labor market legislation. In general, there are two principal differences between temporary and permanent employment. Permanent employees enjoy job security, while temporary employees have renewable contracts. Temporary personnel are often not entitled to benefits enjoyed by permanent staff. Furthermore, the use of short-term staff is a way to avoid the requirements and procedures applied to the recruitment or dismissal of fixed-term or permanent employees. These differences in job security have important implications for health workers’ performance (Alcazar and Andrade 2001). However, the excessive use of temporary workers may compromise quality of care, due to the absence of “team spirit” or lack of familiarity with the patients (Arrowsmith and Mossé 2000).

Working time and shift work. Limitations on working hours and the provision of rest periods are of particular importance to health care workers because they have a direct impact on the quality of services (ILO 1998). In terms of job satisfaction, the increased use of overtime is frequently cited as a key area of job dissatisfaction among nurses (FNHP 2001). Accordingly, part-time working is often considered a means of improving recruitment and retention, and hence improving the delivery of health services. Although problems of recruitment and retention of

nurses in Britain and France persist, there are some quantitative indications of a growth in part-time work (Arrowsmith and Sisson 1999).

Work autonomy (professional autonomy). *Work autonomy*, defined as control over one's own work, is among the key variables explaining job satisfaction. Autonomy was reported among the most significant variables explaining nurses' job satisfaction in a study reviewing the characteristics of "magnet hospitals" (Gleason-Scott, Sochalski, and Aiken 1999). *Magnet hospitals* are defined as hospitals successful in recruiting and retaining professional nurses. Recent investigations within magnet hospitals document a significant relationship between nursing and quality of care, as well as patient satisfaction (Kramer 1990; Aiken 1994).

Separation. Rules on separation affect purchasers' and providers' behavior. For instance, in their hiring decisions, employers take into account the cost of firing or laying-off employees (Milgrom and Roberts 1992). Similarly, a guarantee of long-term employment is attractive to risk-averse workers. Rules on separation are likely to vary from one country to another, from the public to the private sector, and possibly from one profession to another.

Remuneration

Providing adequate and timely remuneration is important to guarantee the recruitment of motivated and qualified staff (Martineau and Martinez 1997). Furthermore, the way in which providers are paid also influences service quality (WHO 1999). Wage costs account for between 65 percent and 80 percent of the recurrent health system expenditure (Saltman and Von Otter 1995; Kolehamainen-Aiken 1997). Accordingly, the payment of health care workers is a major concern for health policymakers. Moreover, in public health systems, wage changes (both increases and decreases) regarding health personnel are a particularly complex and sensitive issue, since these personnel are civil servants and any changes regarding their status is likely to give rise to a reaction by all civil servants.

Countries have tried different ways of funding health care labor—physicians in particular—with different impacts on health services. Fee for service, capitation, and salary are the usual modes of payment.

Fee for service. Under fee for service, providers are funded retrospectively. Doctor itemize their services on a bill, and the sickness fund pays the doctor or reimburses the patient. The usual approach is that the medical association and health insurance negotiate the fee schedule, and the government provides guidelines to limit costs (Ensor, Witter, and Scheiman 1997).

Remunerating doctors by fees for each item of service rewards doctors according to the amount of work performed (Donaldson and Gerard 1993). This method of payment allows doctors a large degree of autonomy.

However, one concern associated with this payment method is its potential to increase health care costs. Since doctors derive their income from the number of medical acts prescribed, they may induce patients' demand to reach "an income target" (Evans 1974).

This method of paying doctors is found in developed countries such as Australia, Belgium, Canada, France, Germany, Japan, the Republic of Korea, New Zealand, Norway, Switzerland, and the United States (Boerma, et al. 1998; Abel-Smith 1994). It is also found in developing countries such as China, India, and Nigeria, where private health expenditures make up more than 50 percent of total health expenditures (WHO 2002b).

Salary. Under this system, the doctor is paid a fixed salary per unit of time, regardless of the amount of work done. One advantage of this system is that it makes health care planning easier, as doctors' salaries are known in advance (Maynard, Marinker, and Gray 1986). On the other hand, doctors may not be motivated to provide the best quality of care, as they may want to minimize time spent with the patients. Low salaries are likely to favor absenteeism and development of a second occupation in the private sector. For instance, a survey in public hospitals in Costa Rica showed that 3 out of 10 doctors attributed work absenteeism to low salaries (Cercone, Duran-Valverde, and Munoz-Vargas 2000).

Capitation. Under a capitation system, the doctor is paid a negotiated amount for each patient registered with her, regardless of how much treatment they require during a year (Ensor, Witter, and Scheiman 1997). This is a prospective payment method, which transfers financial risk for delivering services from budget or fund-holding institutions (e.g., village or community prepayment schemes or commercial health insurance) to health care providers (WHO 1999). This system encourages doctors to compete for registered patients, but, once patients are registered, to deliver as little care to them as possible. This might be countered by the competitive process itself, which should lead patients to choose a general practitioner who provides good service. If a doctor fails to provide good treatment, then the patient has the option of registering with another doctor. Similarly, there is also a potential for *cream-skimming*—that is, doctors may be inclined to prevent high-need patients from registering on their list.

In actuality, these methods of payment are seldom observed in pure form, and most health care systems combine the different payment methods. For instance, general practitioners in the United Kingdom receive, in addition to their salary, financial incentives linked to health outcomes (e.g., the vaccination rate). To balance the potential of fee-for-service to increase health care costs, different approaches have been developed. For instance, the unit value of each service provided is decreased after a certain volume of care (Grignon, Paris, and Polton 2002). Nonfinancial measures such as the diffusion of best-practices protocols or peer-reviewed individual practices are also used.

Benefits

In addition to wages, a variety of benefits might also be offered by employers as strategies to recruit new staff. A survey of hospitals in the United States shows that richer benefits such as health insurance and vacation time are the most commonly used incentives (American Hospital Association 2001). Hospitals may offer other recruitment and retention benefits such as tuition reimbursement, contract-signing bonuses based on experience or length of commitment, or advantageous pension plans.

Special benefits are often used to attract health care workers into outlying areas to improve the distribution of health services. For instance, a study in Indonesia found that to attract medical

graduates from Jakarta to the outer islands, a bonus of as much as 100 percent of the normal salary would be necessary (Chomitz, et al. 1998).

Contextual and Policy Factors

Contextual and policy factors related to the health care system and the labor market also affect labor purchasing, health services delivery, and health system performance. Under this category, we review the public-private mix, the purchaser-provider split, contracting in and out, purchaser power, and provider power.

Public-private mix in health care

The issue of public-private mix can be examined from different perspectives: financing (how are services paid for?) or delivery (how are health services provided to recipients of care?) (Deber, et al. 1995).

In many countries, the public health care sector has been dominant. For instance, general government expenditure on health as a percentage of total expenditure on health is above 60 percent in countries such as Australia, Canada, Chad, Costa Rica, Germany, Madagascar, Papua New Guinea, and Zambia (WHO 2002b).

However, debate has been growing on the issue of expanding the private health care sector. Arguments developed by proponents of expanding private care emphasize the value of competition and the strengthened incentives for efficient performance associated with private institutions. In particular, the introduction of private insurance is said to encourage innovation and efficiency because of its flexibility, the profit motive, and the increase in choice for the consumer (Chollet and Lewis 1997). Proponents of expanding public systems stress the issue of market failures implicit in health markets (Maynard and Dixon 2002).

The public-private mix in health care is likely to have an impact on labor purchasing. Competitive markets are expected to increase the flexibility of health care systems and hence of the labor-purchasing process. In effect, purchasers should be able to choose from among different providers. Moreover, the public sector may be perceived as less flexible, due to political and budget constraints. For instance, since health personnel are often civil servants, the government may be reluctant to make any major changes such as increasing remuneration of health personnel, for fear that other civil servants would make similar demands.

Differentiating between the public and private health labor force is often complex, however, as health workers may work in both sectors. For instance, in Angola nearly 8 out of 10 doctors who work for the Ministry of Health also work in the private sector, but only 1 in 5 of them with official authorization (Fresta, Jorge, and Ferrinho 2000).

Purchaser-provider split

Over the last years, health care reforms to separate public purchasing from public provision have been introduced in several countries. The purchaser-provider split is a term that usually refers to government legislation reshaping public authorities into bodies for purchasing health services, rather than organizations for managing and employing health service providers (Ovretreit 1995).

The extent of the purchaser-provider split varies. Some public providers are managed entirely by another public body while others may be totally privatized (a *total split*). In other cases, a public authority may retain management of some services (*partial split*).

A well-defined separation of functions between purchasers and providers of health services has existed in some European countries for a long time; others have recently introduced it (Savas 2000). Purchasers may be a public agency, as in Sweden and in the United Kingdom; a health insurer, as in Germany; or primary health care physicians, as with general practitioner fundholders in the United Kingdom.

The main reason for splitting purchasers and providers is to create markets or quasimarkets for health services delivery (Le Grand and Bartlett 1993). Some observers argue that purchasers may be able to use their purchasing power to induce providers to offer better value for money. Stronger provider accountability and empowerment of citizens are also emphasized as advantages of the purchaser-provider split. Observers on the other side argue that transaction costs and purchasers' opportunistic behavior have been identified as potential problems associated with the purchaser-provider split.

Contracting in and out

In contrast to a wholesale adoption of a contracting framework at the system level (purchaser-provider split), we shall now consider contracting at lower levels and differentiate between "contracting in" and "contracting out." *Contracting in* can be defined as an employer-employee contract. For instance, an employer such as a hospital contracts with an individual employee to perform specific tasks. *Contracting out* refers to the purchase of services provided by a company or self-employed individuals to resolve some sub sector problems.

An organization may contract-out to provide a service directly to the public or to provide a public hospital with "support" service such as catering or laundry services. For instance, large-scale government contracting of nongovernmental organizations to extend basic health services to the poor has developed in Guatemala (Nieves, Forgia, and Ribera 2000). India and Sri Lanka also contract out many support services such as catering and cleaning, especially in large cities (Bhatia and Mills 1997; Russel and Attanayake 1997).

Efficiency incentives, lower costs, and flexibility of work arrangements are among the arguments in favor of contracting out. In effect, the replacement of direct, hierarchical management structures by contractual relationships between purchasers and providers is said to promote increased transparency of prices, volumes, and quality in trading, as well as managerial decentralization, both of which should enhance efficiency (Mills and Broomberg 1998). Moreover, such a process is expected to increase competition among providers, in the further expectation that lively competition will enhance supply-side efficiency.

Opponents of contracting-out claim that its overall benefits may be outweighed by the potentially substantial costs involved in its creation and maintenance (transaction costs), as well as lower wages for employees (Ovretveit 1995).

Purchaser power

A single entity that is the sole purchaser of labor is a *monopsony*. One example is the potential monopsony power of hospitals in hiring nurses or the ministry of health in hiring the health workforce. The amount of labor demanded will influence the price the monopsonist must pay for it. In contrast to the situation in a competitive market, the monopsony is a price maker, not a price taker. Monopsony results in lower wages and employment of nurses compared to a competitive market. For monopsony to occur, nurses must also have limited mobility (Feldstein 1999).

A number of studies have tested whether or not hospitals possess monopsony power with respect to nurses, and the results are contradictory. Sullivan (1989) and Staiger, Spetz, and Phibbs (1999) conclude that hospitals have a substantial monopsony power. In contrast, Hirsch and Schumacher (1995) find no empirical support for the monopsony model.

Provider power

Unions and professional associations seek to increase their members' market power, employment, and income (Maceira and Murillo 2001). Labor-purchasing conditions will therefore be influenced by their power.

Seldon, Jung, and Cavazos (1998) suggest that physicians in the United States have market power through such avenues as restricting supply and price-fixing. In France, trade unions are granted an institutional role at establishment level (Mossé and Tschobanian 1999). In India and Sri Lanka, a clear constraint to support services contracting was the inability to counter the power of the public service unions in dictating employment terms and conditions (McPake and Mills 2000).

The varying degree of homogeneity of the different professional groups may also explain their relative success in maintaining a monopoly of practice. In Iceland, one of the factors that contributed to breaking the professional monopoly of pharmacists was division within the profession (Morgall and Almarsdottir 1999).

CONCLUSIONS

The framework presented in this paper encompasses a wide diversity of elements, but the role of yet more factors should also be investigated. For instance, the role of cultural or political factors is likely to affect labor purchasing. The effects of migration on labor purchasing should also be considered..

A better understanding of the interaction between the elements of the framework would reinforce the analysis. For instance, the type of interaction between government and unions may vary greatly from place to place. Sometimes grouping of many health personnel in public service creates a condition of bilateral monopoly between large unions and the government (Tirole 1988). The structure of a bilateral monopoly gives both the government and the unions an incentive to be confrontational, because each side knows the other can accept a broad range of conditions.

The central role of human resources in the health system shows that labor purchasing issues have to be understood. In an attempt to improve understanding of such issues, this chapter has presented a framework and reviewed its main elements to show how labor purchasing may affect health services delivery and health system performance.

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