

Governance in Health Care Delivery

Raising Performance

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Abstract

The impacts of health care investments in developing and transition countries are typically measured by inputs and general health outcomes. Missing from the health agenda are measures of performance that reflect whether health systems are meeting their objectives; public resources are being used appropriately; and the priorities of governments are being implemented. This paper suggests that good governance is central to raising performance in health care delivery. Crucial to high performance are standards, information, incentives and accountability. This paper provides a definition of good governance in health and a framework for thinking about governance

issues as a way of improving performance in the health sector. Performance indicators that offer the potential for tracking relative health performance are proposed, and provide the context for the discussion of good governance in health service delivery in the areas of budget and resource management, individual provider performance, health facility performance, informal payments, and corruption perceptions. What we do and do not know about effective solutions to advance good governance and performance in health is presented for each area, drawing on existing research and documented experiences.

This paper—a product of the Development Economics Department and the Human Development Department—is part of a larger effort in both departments to understand governance and sector policy. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at mlewis1@worldbank.org.

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Governance in Health Care Delivery: Raising Performance

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1. Introduction

The impacts of investments in health care delivery in developing and transition countries are typically measured by inputs and outcomes. Individual programs sometimes track specific intermediary outputs such as immunization coverage or percentage of HIV/AIDS patients under treatment but these examine specific programs rather than the overall health care delivery system. Focusing on inputs, while critical, does not capture whether resources are actually deployed or how they are used. Relying on outcomes (typically life expectancy or infant and maternal mortality) to measure the effectiveness of service delivery is hampered by the fact that these events only occur once and are often determined by factors beyond the control of service providers.

Missing from the health agenda are measures of performance that reflect how well the health care delivery system is operating, and whether services are being provided effectively. This is difficult to measure but it is critical to do so if health systems are to achieve their objectives and ensure reasonable returns to public investments. This paper suggests that using good governance as an entry point can help to focus on performance in health care delivery, and in turn, provide policymakers and program managers with a basis upon which to raise performance.

What is good governance and why does it matter?

Good governance in health systems promotes effective delivery of health services. Critical are appropriate *standards, incentives, information, and accountabilities*, which induce high *performance* from public providers (Box 1).¹ Sound provider performance in turn, raises the level of health *outputs* (e.g. number of treated patients) and can contribute to improved *outcomes* (e.g. health status). This paper focuses on incentives, information, and accountability, that does not mean standards are unimportant, rather these are implicit in the discussion throughout.

Improved public performance is one means to enhance returns to public health investments. It can also reduce health service quality disparities if targeted properly.² Moreover, good governance can discourage corruption, an *outgrowth* of poor governance, which directly affects performance of the health sector. The remainder of the paper elaborates on the themes of good governance and public sector performance, and the ways in which they apply to health.

This paper provides an overview of governance issues in health care service delivery. It does not address the issues surrounding the raising of revenues for the national financing system, including (social) insurance. Those topics are addressed in Savedoff and Gottret (2008), Savedoff and Fuenzalida (2008) and Schieber (1997) among others. It attempts instead to identify what we do and do not know about effective solutions to

¹ The term governance is used in various senses in the health and public sector management fields. How hospitals are governed and their governing structure is common referred to as the “governing structure” and there are governing boards for hospitals (McKee and Healy 2002; Harding and Preker 2003; La Forgia and Couttolenc 2008). We use it in a different sense in this paper, and it is used consistently throughout.

² Because the issues of equity and financial protection have been addressed extensively elsewhere they are not addressed explicitly here. Improving the effectiveness and performance of health care delivery is a key ingredient in reaching all citizens and raising both the quality and scope of health care delivery.

advance good governance and performance in health, drawing heavily on the existing work of many researchers, specialists, and practitioners. The paper defines governance, presents a governance framework, and proposes a set of indicators to track performance in health care delivery across countries and over time. The aim is to improve sector performance, complementing other elements of health care delivery that are not covered here, such as medical training, clinical protocols, service coverage or, of course, standards.

What is good governance? Kaufmann, Kraay, and Mastruzzi (2004; 2007) define it as the “traditions and institutions by which authority in a country is exercised for the common good”, which includes the process of selecting those in authority, capacity of the government to manage, and respect for the state (see Annex 1). While desirable for the economic and social wellbeing of countries, these factors are not always necessary and are not sufficient to ensure effective public provision of health services. Good governance in health requires enabling conditions: the existence of *standards*, *information on performance*, *incentives* for good performance, and, arguably most importantly, *accountability* (Box 1). How effectively these elements generate good governance hinges on the management of public resources at all levels of the health system.

Ackerman (2005) describes accountability as “a pro-active process by which public officials inform about and justify their plans of action, their behavior and results, and are sanctioned accordingly.”³ Accountability requires that public servants have clear responsibilities and are held answerable in exercising those responsibilities, and if they do not, face predetermined sanctions. Without sanctions there cannot be any real accountability. Despite its importance to effective delivery of health services, accountability is rare in most public health systems worldwide (Brinkerhoff 2004). Good governance also requires effective incentives at all levels of the health system, and both benchmarks for and information on performance in order to induce and sustain desirable behavior.

In health care systems, poor governance accounts for much of the inefficiency in service provision, and in some cases results in no service at all. Lack of, standards, information, incentives, and accountability can not only lead to poor provider performance but also to corruption, “the use of public office for private gain” (Bardhan 1997: 139). However, the line between poor governance and corruption is often blurred. Is poor service a function of corruption or simply of mismanagement? Improving governance and (thereby) discouraging corruption in health systems aims to increase the efficiency of health services so as to raise performance, and ultimately, improve the health status of the population.

The political economy context of health care plays an important role in determining whether the ideas and analysis presented here have a chance of implementation. Indeed, some of the performance issues outlined in the paper stem from special interests that have captured the agenda and undermine performance. What is intended here is to focus on topics that help to foster good governance and performance in health care systems.

³ Ackerman distinguishes it from transparency and responsiveness, which have elements of importance, but are not substitutes for accountability.

Translating good governance into action

The paper identifies the key incentive and accountability issues that underpin health sector performance. This section lays out the conceptual framework for developing and describing possible indicators that can be used to track performance in health care delivery. We are interested not simply in whether there is consultation or not between different stakeholders but also whether the public sector reaches an acceptable standard of performance. That performance entails basic functioning of the health system so that funds are budgeted and allocated effectively; physicians, nurses, and other health staff are hired based on objective criteria; administrators, physicians, and nurses work their contracted hours; basic drugs, medical supplies, and equipment are available; incentives are set to promote good performance; and corruption is discouraged. Without these basic ingredients the broader health objectives cannot be attained. This paper, however, does not address what is clinically necessary or constitutes adequate quality of care. It simply establishes some indicators that define basic parameters for a well functioning health care system.

BOX 1. GOVERNANCE AND PERFORMANCE FUNDAMENTALS

Standards are transparent and publicly known criteria or benchmarks used to assess and inform health policy, provision, and performance.

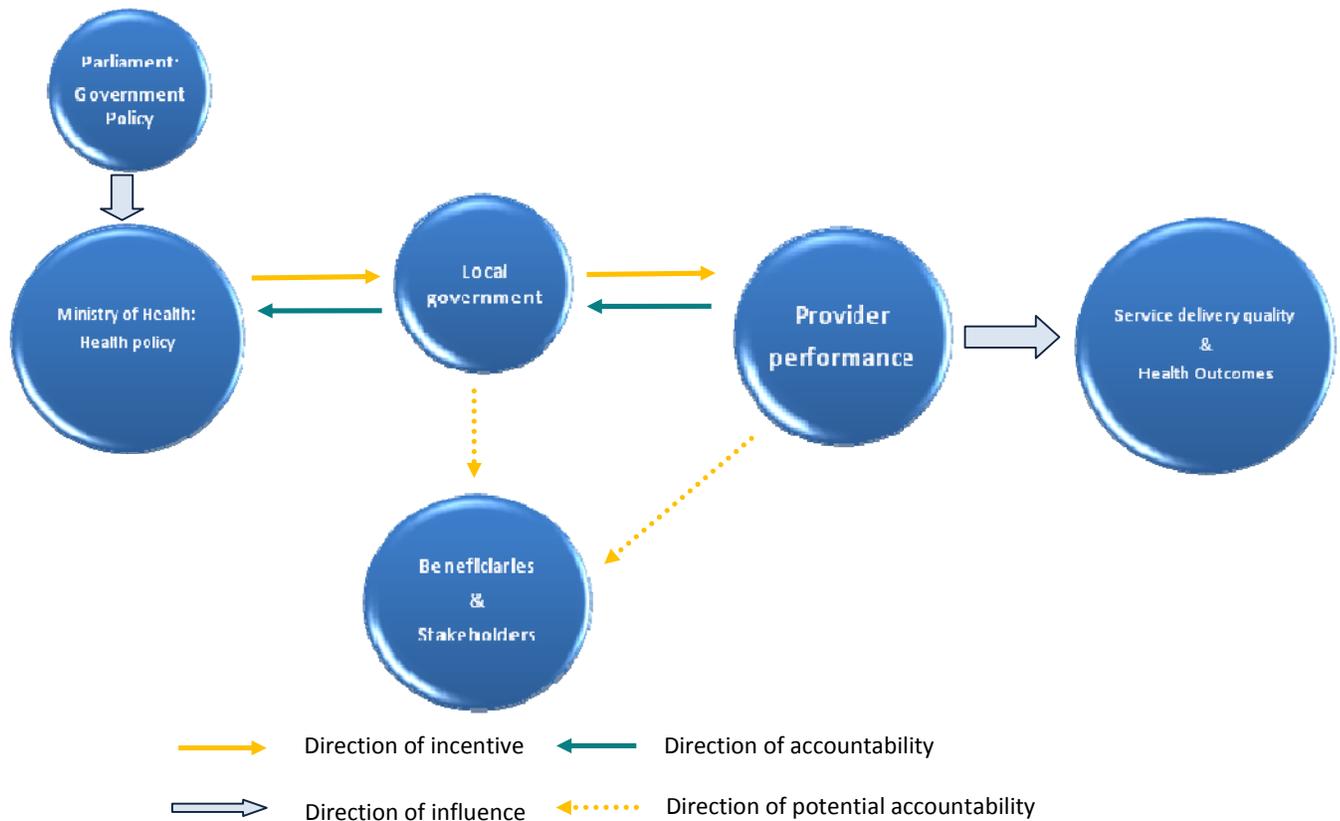
Incentives are any financial or non-financial factors that motivate a specific type of behavior or action, and can be positive or negative, i.e. encourage a certain behavior or deter it.

Information in the form of clear definitions of outputs and outcomes combined with accurate data on performance and results collected at regular intervals enables sanctions to be implemented when specified standards are not met.

Accountability refers to the act of holding public officials/service providers answerable for processes and outcomes and imposing sanctions if specified outputs and outcomes are not delivered.

For effective service delivery, central public policymakers must have a set of objectives that are clear to lower levels of government, which then translate policy into viable programs that can be adopted by local government to guide implementation by service providers. For instance, (1) ministries of finance and parliaments set budget levels and broad health priorities; (2) ministries of health define specific health objectives and translate those objectives into health policies and programs, and (3) depending on whether the health system is centralized or decentralized, central or local government implements by constructing hospitals and clinics, hiring physicians and nurses, providing complementary inputs, and contracting out or managing facilities. This process must contain appropriate incentives, performance information, and accountability mechanisms at each level of the health system if the desired performance standards are to be attained and sustained (Figure 1).

FIGURE 1. OVERVIEW OF THE GOVERNANCE PROCESS



Source: Authors.

Performance is determined by the nature of these relationships across policymakers, policy implementers, and direct providers. How things get done and performance at the provider level are informed by overall health policy but is defined through the specific policies and procedures of the health bureaucracy at central and/or local levels. These policies and procedures have built-in incentives, implicit and explicit, which drive performance in health service delivery, and can work at cross purposes or be mutually reinforcing.⁴

The lines of accountability directly influence the effectiveness of performance incentives. Physicians and nurses hired, paid, and deployed by ministries of health become accountable to central government, not to local government, the community, or households, as these entities have no financial or other leverage to hold health service providers accountable for their performances. The distance between provider and central government/ministries of health can therefore become very long, and as a result, real accountability through these channels can evaporate.

While health service providers should be accountable to the ministry of health, local governments, citizens and other stakeholders, in reality, that is not always the case. Inadequate incentives and the lack of information and authority to hold providers

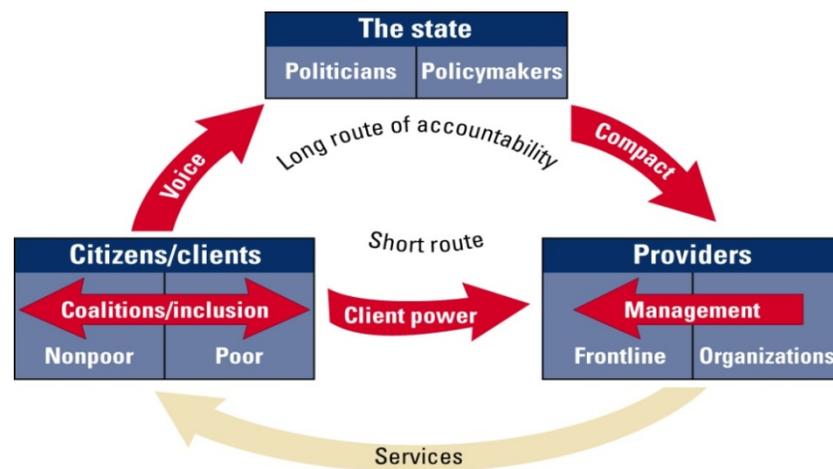
⁴ Sometimes health systems contain implicit incentives that lead to unintended consequences. Explicit incentives often require action on the part of government in order to work.

accountable together undermine provider performance. Health ministries' authority, and therefore ability, to hold health providers accountable is often very limited, and this is true for citizens and local governments as well. It is only if the ministry of health has tools to reward and penalize behavior that there is real accountability.

Figure 1 captures these relationships and the direction of incentives and of accountability between different levels of government, between government and providers, and between stakeholders and beneficiaries and government. It builds on concepts from the 2004 World development Report that suggested lines of accountability (long and short) among citizens, providers and the state (Box 2). Provider performance affects facility performance and the quality of service delivery, which can affect health outcomes but not always because outcomes in the sector are also affected by other factors (e.g. overall health status, patient behavior, and severity of illness).

BOX 2. THE LONG AND SHORT ROUTES OF ACCOUNTABILITY

The *World Development Report 2004* developed an accountability triangle across policymakers, providers, and citizens, and it provides a useful starting point. In this context, accountability of service providers such as health clinics is achieved either by the short route, involving direct feedback from citizens to their public providers, or the long route, which requires altruistic politicians and policymakers to act as intermediaries for their citizens.



Source: World Bank (2004c).

To improve governance and subsequently the performance of health systems it is critical to identify the weak points that contribute to poor performance and corruption. The governance process outlined in Figure 1 provides clues as to where governance failures tend to occur. For example, pervasive physician and nurse absenteeism in developing countries is symptomatic of governance failure due to little or no accountability of providers to employers and/or patients. Budget leakages, where public health funds fail to reach intended recipients, offers another indicator of governance failure due to some combination of lack of incentives to track funds, weak information systems that thwart the ability to ensure that funds reach providers, and absence of

mechanisms to hold officials to account. These shortcomings together also prevent effective management as those in charge are not empowered to ensure that performance reaches at least a minimum standard (e.g. that workers come to work or that informal payments are not required to receive care).

2. Good Governance in Health Care Delivery: Measuring Performance

Measuring performance is critical to establishing benchmarks for efficiency, comparing performance across time and providers, and assessing effectiveness of public health expenditure. Accountability hinges on having adequate information about performance in health service delivery, which means having reliable indicators that help policymakers and program administrators improve service delivery. This is an area that has received little attention on the global health agenda, which has remained focused on general outcome indicators such as life expectancy, and infant and maternal mortality. Although helpful for setting strategic health priorities, these measures are infrequently updated and are strongly influenced by factors other than health care provision, making them less desirable metrics for tracking either performance or outcomes of health investments.⁵

The incentives and accountabilities depicted in Figure 1 and explained in Box 1 are difficult to measure typically requiring use of proxy indicators. For indicators where there is no direct measure alternatives are required. For example, accountability cannot be captured directly so we rely on examination of arrangements that promote and demonstrate accountability. Having clear rewards and disciplinary actions for under- or non-performing staff and a track record that demonstrates that medical staff are indeed held to account suggests that there is accountability in the system but whether that process persists and expands to other aspects of service delivery is not assured. Thus, there may be accountability but this can only be inferred, not confirmed. Corruption may be easier to quantify but measures tend to be based on perceptions or reported behaviors, which have a large probability of error (see section 7). The performance indicators presented here are only a start and highlight the importance of additional work to develop viable performance measures for health care delivery. Before turning to specific indicators it is important to keep in mind that good governance is simply a means to building sound institutions, in this case in the health sector.

The indicators proposed here are generic enough to be adapted to different settings and can serve as a basis for cross-country and within country comparisons over time, and offer a menu of options. Some require information that can be relatively easily and frequently collected (e.g. type of provider payment system), others demand expensive data collection.⁶ Thus, some indicators yield immediate insights into performance (e.g. absenteeism studies), and others, such as large surveys, provide a snapshot of performance that complements other measures of health care delivery performance. The

⁵ Infant mortality in the low income countries is often based on epidemiological models that project changes in infant deaths and other demographic factors based on data from the previous decade making it particularly unsatisfactory for tracking trends in the IMR.

⁶ See Vian (2008) for a discussion of some of these instruments and their applicability to the governance and anti-corruption agenda.

menu approach allows anticipation of information needs and the opportunity to piggyback on planned surveys.

Table 1 proposes indicators that can be used to detect and assess performance in health care systems and serves as an overview of the types of governance challenges discussed in this paper (aggregate-level governance indicators are discussed in Annex 1). Only indicators for which at least some data are available are shown, other indicators of governance but for which there are very limited or no data, are discussed in the text. Each indicator is defined and its salient features briefly discussed, the indicators are then elaborated on in each relevant subsequent section under the aggregate groupings: budget and resource management, individual providers, health facilities, informal payments, and corruption.

Budget and Resource Management

The efficiency and effectiveness of the flow of funds through the government bureaucracy offers an indication of the operational effectiveness of the government's financial management functions. While sectoral measures of the flow of funds is generally preferable, how well the overall system operates provides a benchmark for the health sector as financial management tends to be less efficient in ministries of health than in either ministries of finance, or on average across government ministries, although there are notable exceptions.

Public Expenditure and Financial Accountability (PEFA) indicators are expert ratings of budget performance and are designed to track budget credibility, transparency, and the performance of key institutions involved in the budget cycle. They effectively provide an overall assessment of how well the budget process works. While these indicators currently only exist for overall public financial management, the process of developing sector-specific indicators is ongoing.

Budget leakages are the discrepancy between the authorized budget for health and the amount of funds received by intended recipients. Leakages may occur at multiple points in the health system: outflows from one level to inflows at the next level, inflows and outflows within a specific level, and leakages across multiple levels. Sometimes leakages are reported for broad expenditure categories, e.g. total public health expenditure, sometimes for specific expenditure areas, e.g. payments to providers in a particular local district.

One component of total budget leakages is **payroll irregularities** associated with ghost workers, those listed on payroll but who no longer (or never did) work for the Ministry of Health or a lower level of government. Ghost workers are typically measured as the discrepancy between the number of physicians and nurses on payroll and those included in official employment records. Payroll irregularities can also result in workers who are not paid because employment records fail to include them.

TABLE 1. PERFORMANCE ISSUES AND INDICATORS FOR HEALTH CARE DELIVERY

AREA	ISSUE	KEY INDICATORS
BUDGET AND RESOURCE MANAGEMENT	Budget processes	PEFA indicators track budget credibility, comprehensiveness, transparency, execution, recording, reporting, and external audits and scrutiny.
	Budget leakages	Discrepancy between public budgeted health funds and the amounts received by health providers.
	Payroll irregularities	Discrepancy between payroll roster and health workers on site.
	In-kind supply leakages	Differences in price paid for similar medical supplies/equipment across health facilities. Type of procurement used for drugs and supplies.
INDIVIDUAL PROVIDERS	Job purchasing	Frequency of illegal side-payments/bribes influencing hiring decisions and of payments for particular assignments.
	Physician credentials	Existence and enforcement of licensing requirements and of continuing education programs.
	Health worker absenteeism	Fraction of physicians or nurses contracted for service but not on site during the period(s) of observation.
	Health worker performance	Direct observation of adherence to treatment protocols, medical knowledge test scores, and patient satisfaction ratings.
HEALTH FACILITIES	Facility performance	Average length of stay, bed occupancy, infection and mortality rates, Apgar scores, and patient satisfaction ratings.
INFORMAL PAYMENTS	Under-the-table payments to individuals	Frequency of illegal charges for publicly provided health services.
CORRUPTION PERCEPTIONS	Perceptions of corruption	Fraction of households, citizens or public officials reporting corruption in health. Relative ranking of health sector on corruption indices.
	Institutional quality	The Country and Policy Institutional Assessments (CPIA) for health.

Source: Authors.

In-kind supply leakages are common in many health systems. Given the importance of in-kind drugs and consumables received by hospitals and clinics in lieu of funds to purchase these inputs the management of these goods from purchase to the end-user and at the point of use is central to good governance and effective service delivery. There are notable differences between drugs and medical supplies, with the former being a more variable and portable commodity, and certainly, more valuable. It is very difficult to directly assess the effectiveness of procurement processes, warehousing, and management. One very useful indicator sometimes available, which captures procurement mismanagement or potential fraud is the difference in price paid for similar medical supplies/equipment across health facilities that cannot be explained by other factors. Assessment of the types of procurement processes and warehousing systems in use can also yield information on potential governance problems.

Individual Providers

Medical staff claims a large proportion of government budgets and pose a significant management challenge given the difficulty of allocating and supervising a large cadre of public workers. The indicators discussed below reflect the need for assessment of the hiring and supervision process. It is arguably more difficult to assess health worker performance.

Job purchasing refers to the purchasing of public positions, which bypasses hiring based on objective criteria. Such indicators are typically based on perceptions of the extent to which personnel hiring decisions are influenced by illegal payments, measured as the share of respondents who regard job purchasing to be common or very common, and in rare cases, the “cost” of a particular job. These perceptions often differ depending on the position of the respondent in the health system hierarchy making it important to use a cross section of individuals. Related to the purchasing of posts are **nepotism and favoritism** in hiring. The former is defined as the illegal preference given to a relative, the latter to any person, without consideration of relative merit or other objective factors. Mainly anecdotal and occasionally some perception-based evidence is available on the prevalence of nepotism and favoritism.

The existence and enforcement of **physician credentials** are important for health service provision. Although second best, having and enforcing licensing examinations that ensure basic knowledge, and require continuing education or refresher courses, indicate that clinicians have adequate clinical knowledge, which in turn influences their performance.

Health worker absenteeism captures the absence of providers at their location of employment during contracted hours. It can be defined as the proportion of physicians or nurses who are contracted to be working on site during the period(s) of observation but who are not present. Provider absence is a measure of underperformance of health service providers and, depending on the reason for absence, fraud associated with unexcused absences. Physician and nurse absentee data can be collected by various means: surprise visits, direct observation at health clinics or hospitals, attendance records kept by health facility administrators, or other methods that document actual and expected attendance (see Chaudhury et al. 2006; Lewis 2006; and Halsey and Vegas 2008 for overviews).

Health worker performance is notoriously difficult to reflect in a single indicator, especially since an individual’s performance depends not only on training, skill, and effort but also on that of co-workers, complementary inputs, and patient behavior. Some available indicators include adherence to treatment protocols and patient satisfaction ratings. Indirect measures including examination of the incentives and accountability mechanisms that providers face further help explain provider performance and are useful for designing improved arrangements.

Health Facilities

Facility provider payments, that is, how health service providers are paid, is one of the most critical incentives for performance. Payment can be in the form of a base wage, wages with bonuses, earnings linked to production or performance, or lump sum payments for work either to be undertaken (e.g. pre-paid care) or that has been completed (e.g. pay for production or performance), or some combinations of these. It is an area that receives relatively little attention and most systems are straight wage-based arrangements. Simple hospital efficiency measures are among the easiest to collect and are important indicators of hospital performance. Average length of stay defined as the total number of days in inpatient or acute care institutions divided by the number of discharges or admissions, and bed occupancy rates defined as the percentage of hospital beds occupied over a given period of time provide a summary of performance and are important indicators of hospital performance. However, despite their usefulness these data are not routinely collected or used. Patient satisfaction ratings can provide further information though they are inadequate on their own.

Informal Payments

Under-the-table payments to individuals are charges for health services or supplies meant to be provided free of charge, or that are paid informally to public health care providers to obtain specific favors or even basic services. Types of informal payments include but are not restricted to fees for treatment, drugs, expedited or extra services, and as an insurance to receive better care in the future from physicians, nurses, and other health workers. Although informal payments may provide incentives for providers to be on site, they introduce questionable practices that undermine the intent of collective financing and permits corrupt practices to flourish. Informal payments are often measured as the fraction of survey respondents reporting that they made payments to a public health entity for services intended to be free of charge. Household surveys, health facility exit surveys, and perception surveys of citizens and public officials are the most common sources of this information. More detailed evidence can be collected on the average value of payments made, who requested/received them, and for what specific service. Data on informal payments in health are relatively scarce but are increasingly being added to household surveys.

Corruption Perceptions

In many countries the health sectors is perceived as corrupt and reflects to some extent the overall quality of institutions as it determines the ability to execute services. Such perceptions complement the measures discussed above. Aggregate measures of corruption and institutional quality are difficult to create given the breadth of relevant factors. Kauffman, Kraay, and Mastruzzi (2007) have developed general indices of corruption that integrate the results from multiple perceptions surveys (see Annex 1).

Health sector specific indicators of corruption and institutional quality exist. The World Bank's Country Program and Institutional Assessment (CPIA) captures **institutional quality** and provides breakdowns by sector but includes a broad range of issues, some of which affect performance, and others that do not. **Perceptions of corruption** in publicly financed health care systems are generally reported by one of the following: the fraction of citizens, business people, or public officials perceiving corruption in the sector, or respondents' ranking of corruption in the health sector relative to other sectors. While these indicators are imperfect they complement the objective indicators discussed above. Perceptions also matter as people may change their health seeking behavior based on these even if incorrect, and where perceptions are largely

negative it suggests the need to examine the performance of health service delivery more carefully.

Potential data and information sources for the indicators outlined above are shown in Table 2. Some of the data and information are readily available and based on administrative data or financing arrangements. Others draw on large surveys, some of which have only been conducted in selected countries (e.g. Quantitative Service Delivery Surveys (QSDS) and Public Expenditure Tracking Surveys (PETS)). Living Standard Measurement Surveys (LSMS), Demographic and Health Surveys (DHS), public expenditure reviews, and other household surveys, exist for more countries but are administered intermittently. Still, such surveys offer a wealth of data and the basis for useful analysis that can shed light on the effects of public investments on health service delivery performance.

The set of indicators discussed in this section are unevenly available and only sometimes enable comparisons across countries, or over time, and even less often across regions and facilities within countries. However, when they do, they provide important insights into governance challenges and performance issues in the health sector. Ideally, data for indicators such as these should be collected on a regular basis and be made publicly available to provide the basis for improved incentives and accountability in health.

The remainder of this paper places each indicator from Table 1 into context describing the underlying governance failure, and presents available evidence on potential solutions to address each of the governance challenges.

TABLE 2. SOURCES FOR PERFORMANCE DATA IN HEALTH SECTOR DELIVERY

AREA	ISSUE	KEY SOURCES
BUDGET AND RESOURCE MANAGEMENT	Budget processes	<ul style="list-style-type: none"> ◦ Public Expenditure and Financial Accountability indicators ◦ Focus groups with public officials, recipient institutions, and civil society ◦ Interviews with public officials, recipient institutions, and civil society
	Budget leakages	<ul style="list-style-type: none"> ◦ Public Expenditure Tracking Surveys ◦ Public Expenditure Reviews ◦ Focus groups with public officials, recipient institutions, and civil society ◦ Interviews with public officials, recipient institutions, and civil society
	Payroll leakages	<ul style="list-style-type: none"> ◦ Public Expenditure Tracking Surveys ◦ Public Expenditure Reviews ◦ Household surveys ◦ Focus groups with public officials and health workers
	In-kind leakages	<ul style="list-style-type: none"> ◦ Public Expenditure Tracking Surveys ◦ Quantitative Service Delivery Surveys ◦ Facility surveys ◦ Focus groups with public officials, recipient institutions, and health workers
INDIVIDUAL PROVIDERS	Job purchasing	<ul style="list-style-type: none"> ◦ Official administrative records combined with facility surveys ◦ Focus groups with public officials ◦ Governance and Anti-Corruption Country Diagnostic surveys
	Physician credentials	<ul style="list-style-type: none"> ◦ Official licensing records ◦ Professional bodies
	Health worker absenteeism	<ul style="list-style-type: none"> ◦ Quantitative Service Delivery Surveys ◦ Surprise visits ◦ Direct observation ◦ Facility records ◦ Focus groups with facility heads and patients ◦ Interviews with facility heads and patients
	Health worker performance	<ul style="list-style-type: none"> ◦ Direct observation ◦ Vignettes ◦ Facility surveys ◦ Focus groups with facility heads, health workers, and patients ◦ Administrative records
HEALTH FACILITIES	Facility performance	<ul style="list-style-type: none"> ◦ Official administrative records ◦ Facility records ◦ Facility surveys
INFORMAL PAYMENTS	Under-the-table payments to individuals	<ul style="list-style-type: none"> ◦ Household surveys ◦ Facility exit surveys ◦ Focus groups with providers/patients and health workers ◦ Interviews with providers/patients and health workers ◦ Governance and Anti-Corruption Country Diagnostic surveys
CORRUPTION PERCEPTIONS	Perceptions of corruption	<ul style="list-style-type: none"> ◦ Governance and Anti-Corruption Country Diagnostic surveys ◦ WB Country Policy and Institutional Assessment (CPIA)
	Institutional quality	

Source: Authors.

3. Budget and Resource Management

Without funding public health care services grind to a halt. The flow of public funds and the ability to manage funds at the provider level thus become the first level of concern for performance of the health care system (see Box 1). Where funds originate, consistency in disbursement and financial management combined with spending discipline at the clinic or hospital level are the broad categories of concern in budget and resource management. Public health care provision also relies on in-kind transfers of pharmaceuticals, medical supplies, and other inputs. Thus, there is a need to track funding as well as goods. Information on the flow of money and in-kind inputs are not always available but is a prerequisite. Incentives and accountabilities across the government from the Ministry of Finance through the Ministry of Health are relevant, and across all entities involved in dissemination of funding to health service providers. Subsequent sections discuss the issues as applied to individual providers and facilities. This section is concerned solely with how the flow of funds and supplies moves through the institutions identified in Figure 1.

Weak governance structures, characterized by low capacity to plan, allocate and execute budgets; weak internal controls; poor management and supervision of funds; absence of external accountability (including audits); and distorted incentives that increase the opportunity for mismanagement and fraud, affect the funding received by health service providers, and therefore the delivery of health services. Table 3 outlines common vulnerabilities in public financial management (PFM) systems by area.

An added complication in health is that the sector sometimes has very sizable off-budget accounts. Health Insurance Funds and health facility revolving funds or drug revolving funds are often managed outside the budget process. In Turkey for example, off budget accounts constitute more than half of the health budget, placing them outside the purview of regular budget allocation, discipline and oversight processes (World Bank 2006). This is arguably an even bigger problem in African countries in which donor health funding is substantial, especially for HIV/AIDS activities.

Public financial management has well developed standards and benchmarks for performance that are widely endorsed although not always followed. Ensuring sound financial arrangements that limit leakages is the first step in building a high performance public sector, including health, and basic incentives and accountabilities are the backbone of successful arrangements.

TABLE 3. OVERVIEW OF GOVERNANCE VULNERABILITIES IN PUBLIC FINANCIAL MANAGEMENT

	Vulnerabilities
Employee compensation	<ul style="list-style-type: none"> • Absence of clear rules on hiring • Absence of management controls, internal controls • Absence or weakness in internal audit, external audit • Absence of treasury payroll matching • Absence of records, weak record record keeping • Absence of management mandates for and review of regular financial reports
Goods and services	<ul style="list-style-type: none"> • Absence of nonpayroll expenditure controls • Absence of inventory control, asset registry • Weak procurement system • Absence of management oversight and review of payment and procurement practices
Transfers	<ul style="list-style-type: none"> • Cash or in-kind transfers • Weak or no record keeping • Absence of clear procedures for processing applicants • Failure to follow procedures • Absence of clear laws, regulations, rules for eligibility, criteria
Capital expenditures	<ul style="list-style-type: none"> • Absence of nonpayroll expenditure controls • Absence of management oversight and review of payment and procurement practices • Weak procurement system

Source: Adapted from Dorotinsky and Pradhan (2007).

Measuring budget performance

It is difficult to assess budget performance directly but some very useful process indicators exist based on the Public Expenditure and Financial Accountability (PEFA) framework. This uses a comprehensive set of 31 indicators to assess overall performance of public finance management systems (PEFA Secretariat 2005).⁷ Indicators especially relevant to health are shown in Table 4.

The PEFA indicators are rated from 1-4 with + modifiers (4 indicating strongest performance).⁸ Scores for three of the PEFA indicators relevant to health: (1) aggregate expenditure compared to original approved budget (in some countries there are large discrepancies suggesting that allocated resources do not reach service providers), (2) effectiveness of payroll controls (a particularly critical issue for health given the payroll costs in health are the largest among government sectors), and (3) availability of information on resources received by service delivery units.

⁷ At the time of writing, PEFA assessments have been carried out in approximately 100 countries, out of which roughly 40 assessments are publicly available.

⁸ The PEFA indicators are rated from A (best) to D with + modifiers, here we have converted them into numerical values for ease of exposition.

TABLE 4. PUBLIC EXPENDITURE AND FINANCIAL ACCOUNTABILITY (PEFA) INDICATORS RELEVANT TO HEALTH

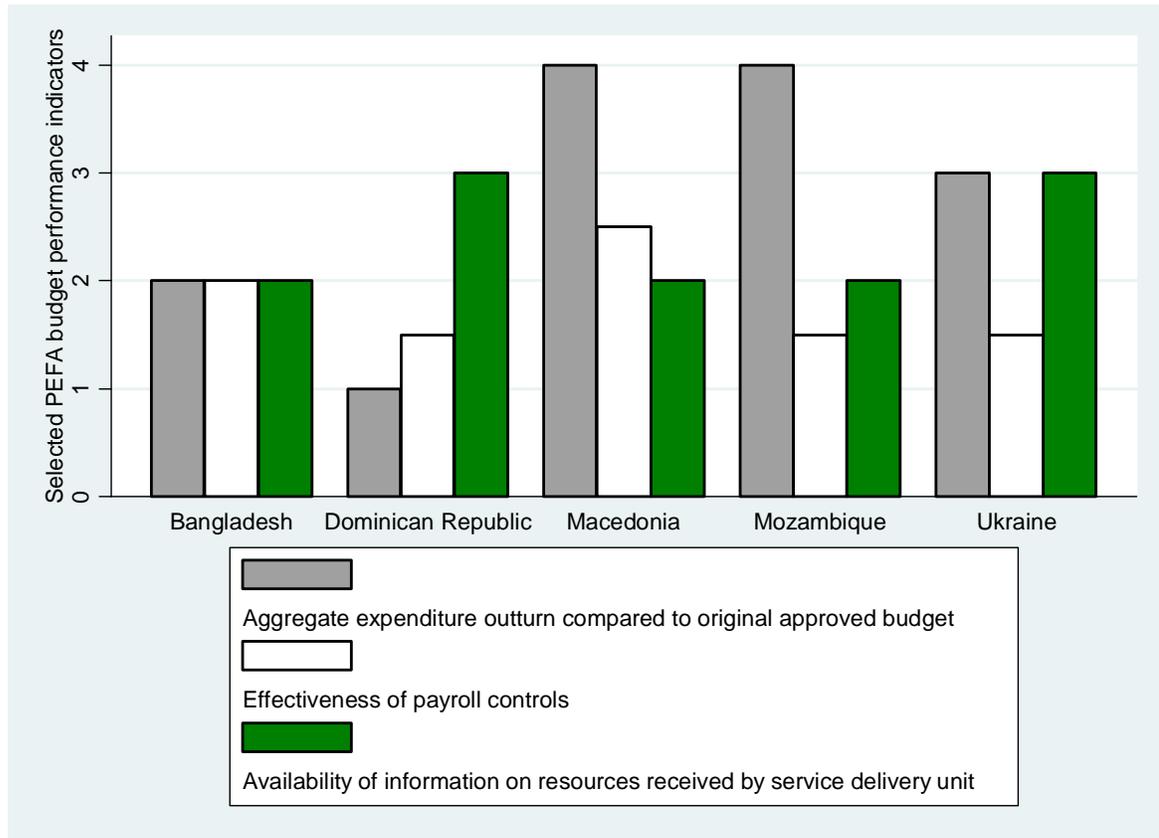
Predictability and control in budget execution	Budget credibility	Budget comprehensiveness and transparency
<ul style="list-style-type: none"> ° Predictability in the availability of funds for commitment of expenditures ° Recording and management of cash balances, debt and guarantees ° Effectiveness of payroll controls ° Competition, value for money and controls in procurement ° Effectiveness of internal controls for non-salary expenditure ° Effectiveness of internal audit 	<ul style="list-style-type: none"> ° Aggregate expenditure outturn compared to original approved budget ° Composition of expenditure outturn compared to original approved budget 	<ul style="list-style-type: none"> ° Transparency of inter-governmental fiscal relations ° Public access to key fiscal information
Policy-based budgeting	Accounting, recording and reporting	External scrutiny and audit
<ul style="list-style-type: none"> ° Orderliness and participation in the annual budget process 	<ul style="list-style-type: none"> ° Availability of information on resources received by service delivery units 	<ul style="list-style-type: none"> ° Scope, nature and follow-up of external audit

Source: PEFA Secretariat (2005).

The PEFA indicators are useful for identifying where in the budget process governance problems exist. For example, a poor score on the aggregate expenditures compared to original approved budget may be a sign of poor management, inadequate monitoring of processes, poor recordkeeping, and/or weak disbursement systems. In any event, there is a clear absence of accountability in financial management. If a country scores low on the effectiveness of payroll controls indicator, the problem of payroll leakages, or payment to the wrong individual, may be serious. A low score on availability of information on resources received by service delivery units suggests some combination of inadequate transparency, poor recordkeeping, low budget management capacity, and insufficient accountability.

Data for five countries are shown in Figure 2 to illustrate relative performance across these three areas. Bangladesh scores relatively poorly on all three indicators; the Dominican Republic scores the worst on aggregate expenditure compared to original approved budget; Macedonia scores relatively poorly on information on resources received by service delivery units; and Mozambique and Ukraine perform poorly with respect to effectiveness of payroll controls. PEFA indicators can thus be helpful in pinpointing and prioritizing areas where action is needed to strengthen budget processes and help bolster good governance in PFM.

FIGURE 2. SELECTED PUBLIC EXPENDITURE AND FINANCIAL ACCOUNTABILITY (PEFA) INDICATORS BY COUNTRY, 2005-07



Source: PEFA Secretariat (various years).

Budget Leakages

Weaknesses in budget management can result in funds never arriving at their intended destination due to mismanagement or theft. And, where allocated health funding is not disbursed, or is diverted en route from the point of disbursement to health facilities, health service delivery tends to suffer.

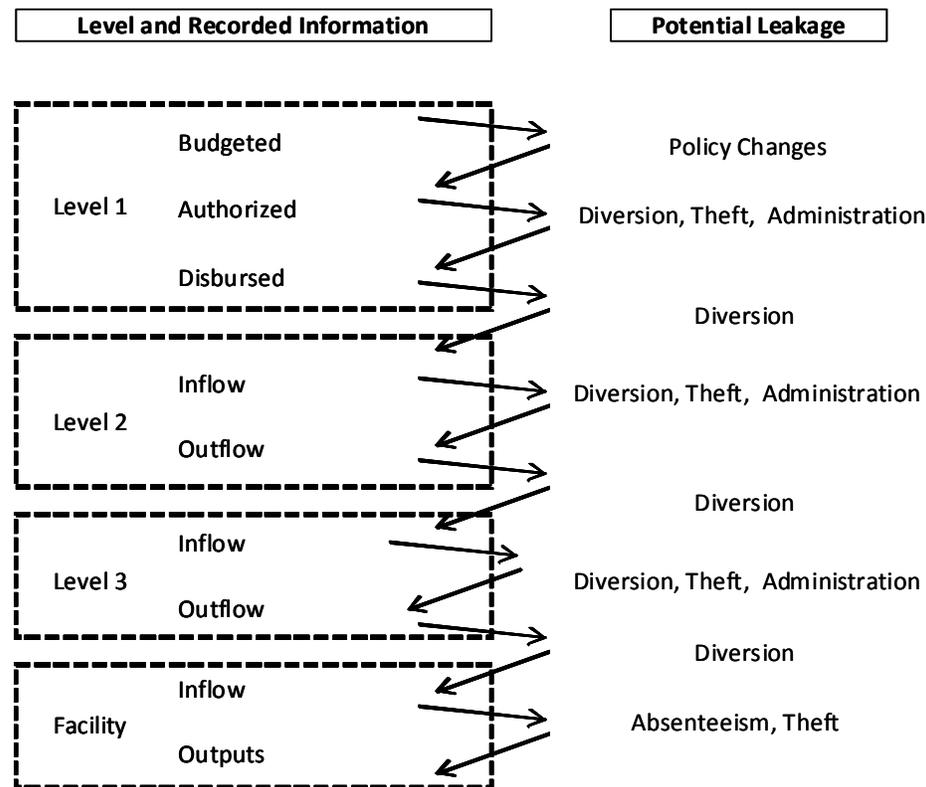
Public Expenditure Tracking Surveys (PETS) and Public Expenditure Reviews (PERs) are means to track funds and scrutinize the flow of public resources in health across layers of the administrative hierarchy (Engberg-Pedersen et al. 2005; Reinikka and Smith 2004; Savedoff 2008).⁹ Tracking inflows, understanding spending, and identifying where governance failures may arise, PETS and PERs complement what PEFA evidence reveals about government-wide performance, thereby offering an important diagnostic on budget management and possible leakages.

Given the complexity of health systems PETS can be a useful tool for determining the stage at which leakages occur in the flow of funds, and what types of resource flows are most vulnerable to leakage in a particular country. There are several potential leakage

⁹ For access to available PETS by country see <http://go.worldbank.org/HSQUS4IS20>. Also see Savedoff (2008).

points as illustrated in Figure 3: discrepancies between budgeted and disbursed funds at the central level; differences in outflows from one level to inflows at the subsequent level; differences between inflows and outflows within a specific level; and leakages across multiple levels in the chain of budget allocations (Savedoff 2008).

FIGURE 3. OVERVIEW OF POTENTIAL LEAKAGE POINTS



Source: Savedoff (2008).

Evidence from PETS illustrates the extent of leakages in the health sector and provides tentative leakage patterns (Table 5). Certain types of funding seem to be more susceptible to leakages: discretionary as opposed to rule-based, in-kind (e.g. medical supplies and drugs) compared to budgets for those items, and non-wage versus wage funds, mainly because rules are more transparent, set clear parameters, and can be more easily monitored and audited (Gauthier 2006; Savedoff 2008).

TABLE 5: BUDGET LEAKAGES OF NON-WAGE FUNDS IN HEALTH IN SELECTED COUNTRIES, 1999-2001

	Expenditure program	Leakage (%)
Ghana (2000)	Discretionary non-wage funds	80
Uganda (2000)	Drugs and supplies	70
Tanzania (1999)	Non-wage funds	41
Ghana (2000)	Wage funds	20

Source: Lindelow, Kushnarova, and Kaiser (2006).

Good PETS are driven by specific policy questions allowing the identification of the point(s) at which substantial leakages occur, and ideally why, thereby enabling appropriate solutions to be found (Savedoff 2008). A study in Chad tracked resource flows and revealed considerable fund leakages (Gauthier and Wane 2008). The findings helped determine which flows were more leakage prone, and at what points in the health system leakages occurred (Table 6). Resource flows included financial resources, medical materials, and main medications allocated to health care providers by the Ministry of Health (Gauthier and Wane 2008).

Frontline service providers received only 1 percent out of the central non-wage recurrent budget compared to 33 percent of total recurrent resources, and the regional administrations received 27 percent of non-wage resources compared to 50 percent of total recurrent resources (Gauthier and Wane 2006). This suggests that wages are less susceptible to leakage than non-wage funds, likely because workers know the size of their payments and have strong incentives to put pressure (when they have the means to do so) on officials to ensure delivery of their wages.¹⁰

Merely 5 percent of the resources received by the regional administrations were delivered to health facilities implying diversion of budgeted resources due to weak administration, mismanagement, and absence of oversight and audits at all levels of the health system.

TABLE 6. RESOURCE LEAKAGES IN THE HEALTH SECTOR IN CHAD, 2003

	Resources received at regional level (regional administration)		Resources received by health centers (frontline providers)	
	Non-wage	Total	Non-wage	Total
	% of resources received from previous level	27	50	5
% of resources received from central level allocation	-	-	1	33

Source: Adapted from Gauthier and Wane (2008).

The common theme of PETS is that they detect leakages, an indicator of underlying governance failures in the form of missing incentives to track, record, and manage resources and the absence of performance information on which to base any sanctions, without which accountability of officials for ensuring that resources reach their intended destination does not exist.

Payroll irregularities

Physicians and nurses listed on payroll and being paid but who no longer, or never worked at a facility lead to payroll leakages due to the absence of accurate and updated employee records, functioning information systems, payroll controls, and internal and

¹⁰ Gauthier and Wane (2008: 58) define leakages as “how much the intended beneficiaries received versus how much they should have received as given by resources earmarked for them”.

external controls (e.g. payroll audits). The flipside is not uncommon, where physicians and nurses on the payroll do not receive their wages, or receive them with great delay.

Multiple reasons account for the discrepancy between the number of physicians and nurses on employee records and listed on payroll. Lists of physicians and nurses employed are sometimes kept by multiple agencies (e.g. the Ministry of Health, the Ministry of Finance, and health facilities themselves) and are only updated infrequently. Where physicians or nurses have left, died, or retired, and those separations are not recorded there is often a disconnect between official records and actual physician and nurse numbers. Such problems, generally the result of administrative failures, suggest the need for efforts to strengthen both personnel and budget records and management capacity. PEFA indicators (see Table 4) may be useful in flagging this type of problem since a low score implies possible problems on payroll.

Public Expenditure Reviews (PERs) address governance problems, explicitly or implicitly, and contain indicators of, and potential solutions for identified governance failures. For example, the 2001 PER for Honduras provided detailed information and analysis of ghost workers in the health sector: the share of workers identified as ghosts ranged from close to 1 percent for auxiliary nurses to over 8 percent GPs. The main underlying problem identified was the weak personnel information system, which failed to accurately record and regularly update health staff deployment.

Ghost workers on payroll are unlikely to be a one-sided operation by health workers (they may not be involved at all) rather, administrative staff in charge of maintaining payroll records have greater opportunity to manipulate records to siphon off wage payments (Lindelöw 2006). This is more likely to be the case when there are no or weak incentives to maintain information systems, and administrators in charge of maintaining information cannot be held accountable when discrepancies, intentional, e.g. to cover up irregularities, or not, e.g. mistakes in data entry, are revealed.

In addition, where budgets or provider revenues are linked to outputs, error and fraud in recording of outputs can lead to leakages. In Uganda, ghost patients were estimated to account for, on average, 26.5 percent of all patients with a range of 0-80 percent (McPake et al. 1999).

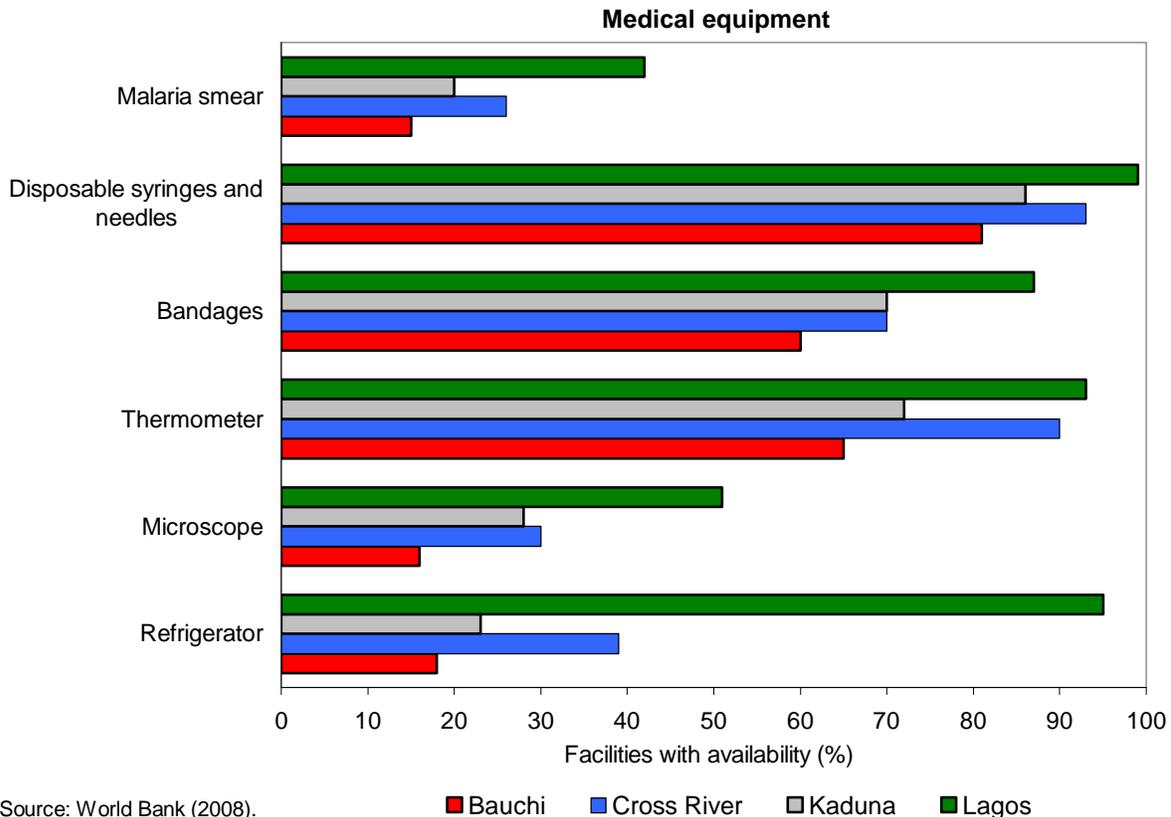
Leakages of drugs and medical supplies

Public health systems face serious challenges in the procurement, warehousing, distribution, and management of in-kind drugs and medical supplies and equipment. Leakages of drugs and medical supplies and equipment along the supply-chain result in drug stock-outs, broken equipment not being fixed or replaced, and lack of supplies with subsequent adverse impacts on service delivery since such complementary inputs are key to health workers' productivity and effectiveness.

For instance, in Indonesia in 2002, the average health clinic (Puskemas) had 75-80 percent of the essential drugs meant to be in stock (World Bank 2007b). In Nigeria many primary health facilities do not have the equipment and drugs necessary to provide basic services (World Bank 2008). In four surveyed states Bauchi, Cross River, Kaduna, and Lagos, essential drugs and medical equipment were severely lacking in most health facilities (Figure 4). For example, the share of facilities that had

thermometers ranged from 65 percent in Bauchi to 93 percent in Lagos, and the share with malaria smears from 15 percent to 42 percent.

FIGURE 4. AVAILABILITY OF MEDICAL EQUIPMENT IN FOUR NIGERIAN STATES



Source: World Bank (2008).

Leakages of drugs pose a challenge to all countries and vigilance is crucial, especially for drugs with high “street prices”. In Ethiopia, users and providers in focus groups reported the stealing of public sector drugs, their resale in the private market, and dealings in contraband medicines. They acknowledged the lack of drugs in the public sector and the ready availability of those drugs in private pharmacies and clinics (Lewis 2006). In Costa Rica, 32 percent of users indicated that they had prior knowledge of theft in government pharmacies (Cohen 2002). The average leakage rate for drugs in Uganda was estimated at 73 percent, ranging from 40 to 94 percent across 10 public health facilities. High demand drugs, such as those to treat malaria, were the least available to patients because health workers and the Health Unit Management Committee members, the entities meant to provide local oversight, expropriated them (McPake et al. 1999). However, a later facility exit survey in Uganda showed much higher drug availability and improved distribution (Lindelöw, Reinikka, and Svensson 2003).¹¹ Public officials typically have significant discretion over the decisions made

¹¹ More insidious and even harder to address is drug mishandling from the importation of substandard medications to the repackaging of drugs, substituting lower cost/quality medications, to the pilfering of drug supplies at points of service. The health consequences of tampering can be serious but rarely traced to the source of the problem due to lack of regulation, information, and enforcement (Lewis 2006).

across the supply chain and if incentives, oversight, and accountability mechanisms either do not exist or are dysfunctional, mismanagement and theft can become rampant.

A recent in-depth qualitative and quantitative assessment of the Costa Rican drug system's registration, selection, procurement, distribution, and service delivery revealed both strengths and weaknesses.¹² Clear publicly available procedures, essential drugs lists and drug criteria; reliance on defined, generic drugs; and distribution audits were deemed excellent. The greatest weaknesses were in procurement, specifically in the lack of performance monitoring, quality control, audits and uncontrolled political interference. In distribution, inventory management, security and information systems were found particularly deficient. Half of exit survey respondents had not received a prescribed drug due to non-availability, an important indicator of ineffectiveness (Cohen 2002). Costa Rica's strong record in health care delivery and its relatively higher income, greater health spending and education levels among developing countries suggests the difficulty and challenges inherent in managing public health systems and drugs in particular.

Procurement of drugs and medical supplies

Countries with weak institutions face serious challenges when it comes to procurement of medical supplies, drugs, and equipment. The public procurement process is unique in that (1) private sector participants who are stakeholders in the outcome of the process are directly involved; (2) large, discrete amounts of public expenditure are involved; and (3) it entails significant discretion on part of public officials (PEFA Secretariat 2005). In such contexts, the absence of a clearly regulated procurement process, incentives for performance, accountability, adequate monitoring and oversight, and controls, the opportunity for procurement fraud is exacerbated (Ware et al. 2007).

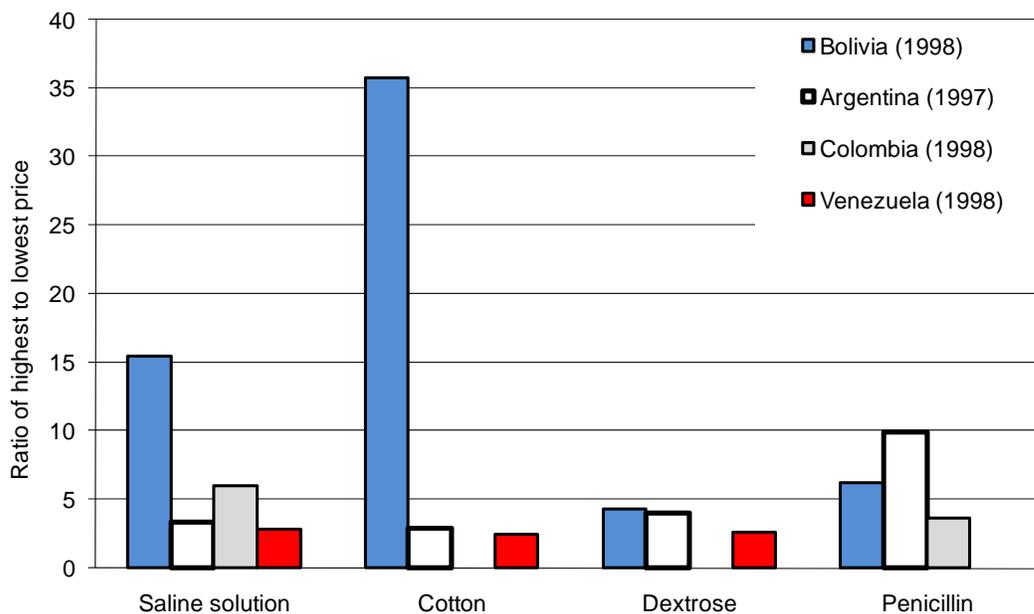
Procurement and logistics for medicines and specialized supplies in the health sector are different in several respects from goods procurement in other sectors due to the difficulty of assessing the quality of drugs provided, the need for coordination between procurement processes and regulatory processes, the wide range of prices observed in the private sector for products with the same active pharmaceutical ingredient, the need to manage expiration dates and technically stringent storage conditions in the distribution chain, and the challenge of ensuring supplies in the face of unpredictable demand for products due to health care emergency situations to name but a few (Cohen et al. 2007). Inability to handle these factors results in system inefficiencies as manifested in failed bidding, non-competitive bidding, overstocking and stock-outs, and waste of date-expired or damaged product in public sector supply chains. As competitive bidding is a more protracted process than direct contracting, there is a tendency for government agencies to choose the latter option, using "emergency need" for medicines as a rationale. In addition, health goods procurement is susceptible to many of the same risks as other sectors among them collusion, bid-rigging, biased technical specifications, shaving of quantities delivered, and leakage in the distribution chain.

¹² The study used a combination of (i) interviews with public officials; (ii) industry interviews with local pharmacies and multinational companies; (iii) focus groups with health care professionals; and (iv) exit surveys for a representative sample of patients (Lewis 2006).

A striking case of the scope for non-transparent and anti-competitive behavior in health goods procurement is documented in the Bank’s Direct Implementation Review of five health projects in India (India DIR) conducted in 2007. Inappropriate handling of procurement such as last-minute changes to contract provisions accepted from certain bidders; contract specifications altered to enable a certain bidder to win the award; alerting of certain bidders of impending bids prior to the advertising period; rejection of all lowest-price bidders rejected; kickback negotiations; and decisions made about bidders with lack of supporting documents (WB Department of Institutional Integrity 2007).

To detect and address procurement irregularities a transparent and established process, hard indicators, oversight, and accountability for performance are crucial. A study of procurement irregularities in hospital payments for selected homogeneous inputs in four countries in Latin America provides a stark illustration. The ratio of the highest to lowest prices paid was 15 to 1 for saline and 36 to 1 for cotton (Figure 5) (Gray-Molina, Pérez de Rada, and Yañez 2001) While overpayment may result from incompetence, this example of extreme wastage in procurement is explainable only by either gross mismanagement or corruption (Di Tella and Savedoff 2001). In Ghana interviews with officials and the public suggested that 21 percent of procurements in government hospitals were corrupt, and that 18 percent of the value of contracts was required in kickbacks to public officials (World Bank 2000).

FIGURE 5. MEDICAL SUPPLY PRICE DIFFERENTIALS ACROSS HOSPITALS IN FOUR LATIN AMERICAN COUNTRIES, 1997–1998



Source: Di Tella and Savedoff (2001).

Results from surveys of physicians and nurses in Argentina, Colombia, and Venezuela indicate that corruption within facilities leads to overpayment of suppliers, and that the lack of sanctions and the low probability of getting caught are what makes it possible

(Schargrodsky, Mera, and Weinschelbaum 2001; Giedion, Morales and Acosta 2001; Jaén and Paravisini 2001). In short, the lack of enforced rules, procedures, and accountability effectively allows irregularities in purchasing practices.

Potential solutions

Between inputs and outputs, and between outputs and outcomes, are the institutional and public sector actions that define performance. The budget and resource management solutions aimed at improving governance and thereby health sector performance listed below vary in scope and design but all share common elements: the need to put in place effective incentives, increase oversight, and introduce accountability mechanisms.

Performance based budgeting

One potential way to address poor governance in public financial management is performance based budgeting (PBB), which links allocated funds to measurable outputs and/or outcomes to improve resource allocation and resource-use efficiency to enhance the quality of public expenditures and, ultimately, the quality of public service provision (OECD 2007; World Bank 2008). Two main characteristics set PBB apart from traditional budgeting systems: “the greater focus on the achievement of public program objectives and their alignment with government policies” and “an emphasis on holding senior officials accountable for deliverables – often with an accompanying change in the nature of expenditure controls, away from detailed ‘line item’ input controls to one where managers are held accountable for both results and the use of inputs” (World Bank 2008: 6). For PBB to translate into good governance, sufficient technical and administrative capacity, accurate information on performance, and the means to hold officials and providers accountable must exist. Brazil’s state of Minas Gerais has launched a government-wide initiative, *Shock Gestao*, that includes performance tracking of the secretary of health and initial indications are that it is raising the bar on performance.

Building financial management capacity

Ensuring basic capacity in public health sector agencies’ financial management systems is fundamental to prevent and control budget execution failures. The effectiveness of audit, for example, may be compromised by poor primary record-keeping. In Ghana and Mozambique, provincial health departments were able to provide district-level data for less than half of their districts (Lindelov, Kushnarova, and Kaiser 2006). Financial management staff and systems need to be functional at all stages of the budget cycle and for this to be feasible down to district and clinic level, simplification and streamlining of financial and other reporting requirements is vital.

Increasing internal transparency: information and its systematic application

Internal transparency, which ensures that information and data are recorded accurately and on a regular basis, and that they are available to decision makers on demand, is a vital component of good governance in budget processes as it permits more effective detection of irregularities in the budget process. To strengthen internal transparency

requires improved accuracy, timeliness, and distribution of financial information to relevant stakeholders (e.g. policymakers, local officials, and citizens depending on the sensitivity of the information), which typically requires the creation of effective information management systems, training of staff in their application and use, and, crucially, the design and introduction of incentives for regular data collection, maintenance, and use without which providers are unlikely to collect and use performance information.

Improving internal control: oversight, audits, and simplification

Management control and oversight are necessary to implement financial and budget rules, establish civil servant accountability, and improve performance. Audits can detect a range of financial irregularities and provide information on means to rectify problems when incentives to follow up and respond to audit findings are in place. To help minimize the time and cost of audits, health and finance ministries can undertake record simplification and procedural streamlining. Improved oversight, follow through on recommendations, and institutionalization of audit procedures can promote progress in these areas.

Payroll cleanup and management

Regular updating of employee lists and payroll commitments is a basic management tool and is a high priority for health systems, which have large numbers of employees. While politically difficult and not inexpensive, accurate, up-to-date employee records are a critical starting point for improving human resource management and reducing payroll irregularities. Physical verification where teams visit points of pay and verify that physicians and nurses on payroll exist and are being paid the correct salary can be carried out. A less costly method is to have auditors carry out spot checks at health facilities to verify that workers on payroll actually exist.

Tracking the flow of funds and supplies

PERs and PETs in the health sector provide information on where budget leakages take place during the flow of funds. Quantitative Service Delivery Surveys (QSDS) examine the efficiency of public spending and incentives, and various dimensions of services delivery, especially at the level of the service facility, and can be useful complements to PERs and PETS, providing further information on areas that are prone to leakage, and why.¹³ Once the main governance weaknesses contributing to leakages have been identified priority actions can be outlined. For instance, health PETS for Chad and Ghana determined that leakages were most likely to occur between the central and regional/district levels (Savedoff 2008).

Outsourcing disbursement of funds to independent third-party

Contracting out disbursements to an independent third-party can complement government efforts, and are particularly useful in fragile states with little existing capacity to ensure that public funds reach their destination. In general, contracting out

¹³ For a brief, useful overview of QSDS see http://poverty2.forumone.com/files/14546_30_QSDS.pdf

should be a temporary strategy until public financial management systems have been sufficiently strengthened.

Making prices transparent to reduce procurement fraud

By regularly monitoring prices of common goods and holding purchasing managers accountable if prices substantially differ from those of other hospitals or benchmark prices, procurement fraud can be discouraged. When the government of Argentina introduced monitoring of prices hospitals paid for medical supplies there was wide dispersion in prices. For goods on the monitored price list, prices fell by an average of 12 percent over the first few months of the program. But benefits were not sustained as hospital managers realized that the program was based purely on moral suasion with no tangible sanctions, and subsequently, they reverted to their previous practices (Savedoff 2008; Schargrodsky, Mera, and Weinschelbaum 2001). In Colombia price variations of medical supplies were statistically significant across purchases of public hospitals, particularly where hospitals ignored the price lists negotiated and endorsed by a local NGO under contract to the government and estimates indicated that 11 percent of costs could have been saved if accepted public tendering rules had been followed (Giedion, Morales, and Acosta 2001).

Using e-procurement to improve efficiency and discourage corruption

Electronic government procurement (e-GP) can increase transparency and accountability in health procurement thereby improving resource management and reducing opportunities for fraud, ultimately, leading to lower prices. One example of e-GP in health procurement is Chile, which created an electronic bidding system to oversee pharmaceutical procurement and used the internet for information dissemination at all stages of the procurement process. The system helped reduce collusion by ensuring a competitive bidding process, which reduced the incentives for corruption, and by making drug prices transparent to all bidders and purchasers resulting in cost savings (Cohen and Montoya 2001). In addition, through ChileCompra Express all public hospitals have access to a range of services from private providers, which can be chosen according to price or distance and has helped improve supply and hospital management (GOC 2007). In Brazil the federal health ministry has an online price database (Banco de Pecos em Saude) that records recent prices paid to suppliers for many medical inputs, and a complementary online bidding system (Pregao Eletronico) that permits e-bidding on public contracts, which together make transactions transparent and avoids possible charges of irregularity in purchasing of health inputs La Forgia and Couttolenc 2009).

Autonomy and organization of central medical stores and drug revolving funds

The level of autonomy and organization of Central Medical Stores (CMS) and Drug Revolving Funds (DRF) affects the ability to provide a rapid, responsive drug supply to local health facilities. Under the Partnership for Transforming Health Systems (PATHS) six Nigerian states undertook reform of CMS and DRFs combined with measures to strengthen capacity and internal financial management and control systems. The organizational reform also strengthened accountability through stronger community oversight of the CMS and DRFs with community representatives on the Health Facility

Committee (HFC) having signing power on expenditures. Under the new system the availability of drugs improved, drugs were provided at lower prices than in the private sector, and some instances of the HFC holding health staff accountable for misappropriating DRF funds (PATHS 2008).

Separation of duties and staff in warehouses

One South African distribution agency introduced strict separation of duties and staff in their drug warehouses in order to reduce corruption opportunities. Order fulfillment, checking, and transport were assigned to different staff, and staff working in each area only had access to the information they require to do their particular tasks, work in different parts of the warehouses, and even have different break times to reduce the scope for collusion. This approach has successfully created barriers to corruption (Vian 2006).

Harnessing technology and transparency for effective inventory management

Use of technology and integration of information systems for procurement and inventory management can strengthen internal controls. Inventory reporting and ordering from peripheral health facilities can be facilitated by SMS-based (text messaging) reporting forms, which can improve data accuracy and timeliness. Some countries such as Chile have established IT-supported pharmaceuticals management services that use the same types of technology as the private sector to permit more flexible electronic ordering by health facilities and shorter delivery times (Cohen and Montoya 2001).

External accountability through citizen participation

In Bolivia, citizen participation on health boards was found to lead to significant reductions in overpayment for drugs by procurement units (Gray-Molina, Perez de Rada, and Yáñez 2001). “Local Health Directorates”, which included local government officials and citizen representatives, were established to oversee most health care facilities. Price data collected for various supplies found that hospitals that were supervised by active directorates paid less on average than hospitals that had directorates with less active citizen participation. For instance, hospitals that were supervised by active directorates paid 40 percent less on average for 5 percent dextrose solution (Savedoff 2008). In this case, local supervision combined with citizen vigilance was instrumental to better performance. However, in Pakistan, some districts introduced monitoring by citizen committees after decentralization, which improved availability of medicines. However, the initiative occurred in urban locations with relatively well educated citizens, and was not replicated more widely (World Bank 2004b). These voice initiatives may be less effective than models for community participation which give community representatives real power to make decisions and hold providers accountable for their performance as in the case of Nigeria’s health facility committees for Drug Revolving Funds discussed above.

Using the private sector

Some countries, e.g. Tanzania, Ghana, and Zambia, have attempted to privatize their central medical stores functions or contract private sector firms to act as procurement and logistics agents for public health facilities. Results have been mixed. Countries with weak systems for contract management may actually reduce accountability when they contract out. In countries with pervasive poor governance, the contracting-out process itself is vulnerable to corruption. Some countries, for example, Senegal have established partnerships between government's procurement service and a private logistics firm to provide this type of service. Other countries, Guatemala for drugs and Indonesia for vaccines, arrange for private sector suppliers to take responsibility for delivering publicly procured products directly to districts or facilities on an agreed schedule (Barillas 2005).

Social pharmacies and private distribution

Governments in some countries, for example Guatemala and Uganda where contracted non-profit organizations are providing health services, also allow these to operate retail pharmacy outlets selling lower priced medicines (Barillas 2005). In some countries, NGOs have their own procurement and distribution arrangements. In the Philippines, social franchising of non-profit pharmacies to increase the number of outlets selling generic medicines at low cost has proved effective.

4. Individual Provider Performance

Provider performance is tied to the incentives and accountability arrangements faced by health workers. When hired and paid centrally but assigned locally, health workers' lines of reporting and accountability become opaque as does managerial authority. Under such circumstances, the incentives and accountability for performance are unclear (Box 1). Where accountability is not clear there will in effect not be any accountability, and public health workers find themselves in a situation that inhibits their performance and negatively affects service access and quality (Figure 1). In addition, performance benchmarks are frequently undefined and management information on even simple things such as attendance are lacking. Where such a cycle of minimal information, conflicting incentives, and absent accountability exists it is unlikely that services will be delivered with the efficiency, effectiveness, and responsiveness intended.

Given the importance of human resources for health care delivery and the singular lack of attention to basic elements for managing, tracking and rewarding health worker performance it is not surprising that medical care staffing has emerged as a serious issue in development (Vujicic, Ohiri, and Sparkes 2009). But can translate into abuses, corruption and poor performance.

The public sector health workforce represents the largest single group of civil servants in most countries, and as a result, the health sector claims a significant proportion of national budgets. Because health care production is highly labor intensive, human resource management and the performance of health workers largely define the scope

and quality of health service delivery. How public sector health workers are recruited, deployed, monitored, and perform is critical to health care delivery performance and governed by underlying health system incentives and lines of accountability. Hard evidence on these topics is scarce; most of the available measures of performance are negative and include indicators such as absenteeism and reliance on bribery or personal contacts to obtain jobs and promotions. This section outlines the main governance issues and potential performance indicators, and examines existing evidence and possible solutions to the persistent challenges facing human resource management in health.

Designing recruitment and assignment to improve performance

Civil service regulations and recruitment systems are intended to ensure a professional, politically neutral workforce with appointment and promotion based on transparent civil service regulations and pay scales. With those advantages can come disincentives for performance including compression of pay differentials that make rewards minimal, promotion based on seniority rather than performance, lack of mechanisms to monitor effort, and limited or no freedom of managers to reward and discipline staff. Civil service reforms can address some of these limitations but pose political and operational difficulties.

Physician and nurse performance can be enhanced through (1) policies that promote the recruitment, hiring, transfer, and assignment of adequately trained staff; (2) appropriate incentives; and (3) effective accountability mechanisms. While it is relatively simple to outline the processes, implementation is complex. Without consideration of these components human resource management becomes susceptible to some combination of political manipulation, mismanagement, nepotism/favoritism, and fraud, which can compromise performance.

To ensure hiring of qualified health workers and their continued technical effectiveness typically requires that physicians and nurses obtain their medical or nursing degrees from accredited institutions. Also important are licensing exams, which assure that upon graduation a physician or nurse “has successfully completed an appropriate sequence of medical education...and has demonstrated competence through successful completion of an examination or other certification demonstrating qualification for licensure”.¹⁴ Requirements for continuing education and re-licensing may also exist, and in many cases also complaint mechanisms for reporting medical malpractice. Often such quality safeguards are absent in developing and transition countries; medical and nursing school accreditation is rare, licensing absent, and continuing education unavailable or only sporadically so, all of which make managing human resource for performance a serious challenge.

Armenia, for instance, has licensing procedures to ensure that physicians and nurses are adequately qualified and possess legitimate qualifications but health workers reported that a license could easily be obtained through bribery or contacts (Kurkchian 1999). Complaint mechanisms when they exist are only effective if patients actually make complaints and these are followed up by providers. Household survey data from

¹⁴ See the American Medical Association website at <http://www.ama-assn.org/aps/physcred.html#license>.

Thailand showed that out of nearly 10,000 hospital patients, 1.7 percent made a formal complaint, however, 3.4 percent of patients reported not making a complaint since it “would take too long” and 22.8 percent because it was “no use” (Phongpaichit et al. 2000). These examples illustrate that simply having procedures in place is not enough.

Hiring and Assignment: The Challenges of Favoritism, Nepotism, and Purchasing of Posts

Favoritism is the illegal preference given to *any* person while nepotism is the illegal preference given to a *relative* (Hallak and Poisson 2007). Nepotism typically does not involve bribery, favoritism sometimes does, whereas purchasing of posts always does. In the latter case, a physician may, for example, pay an official to be hired, or for a preferred assignment (e.g. urban rather than rural). Hiring and appointments are susceptible to both types of practices when the recruitment process is not transparent, rules are not made public or are ignored, and there are no credible sanctions for inappropriate behavior of the “sellers” or “buyers” of the post. Moreover, accurate and timely information to enable effective oversight over decision-making in human resource management is often lacking in developing and transition countries.

Bribes can play a key part in the selection process. In some countries, physician posts can be “bought” from health facility committees or board members. As a consequence, physician recruitment and selection processes come to hinge on the ability and willingness to pay for positions rather than on objective criteria. It may also lead to newly hired physicians requiring fees from patients to recoup their payment for the position. As long as recruitment criteria are unclear or systematically bypassed, and there are no oversight mechanisms in place, there is a risk that unqualified physicians, nurses, and health administrators can be appointed. If no one is accountable for the quality of staff hired, health worker performance and health service delivery both tend to suffer.

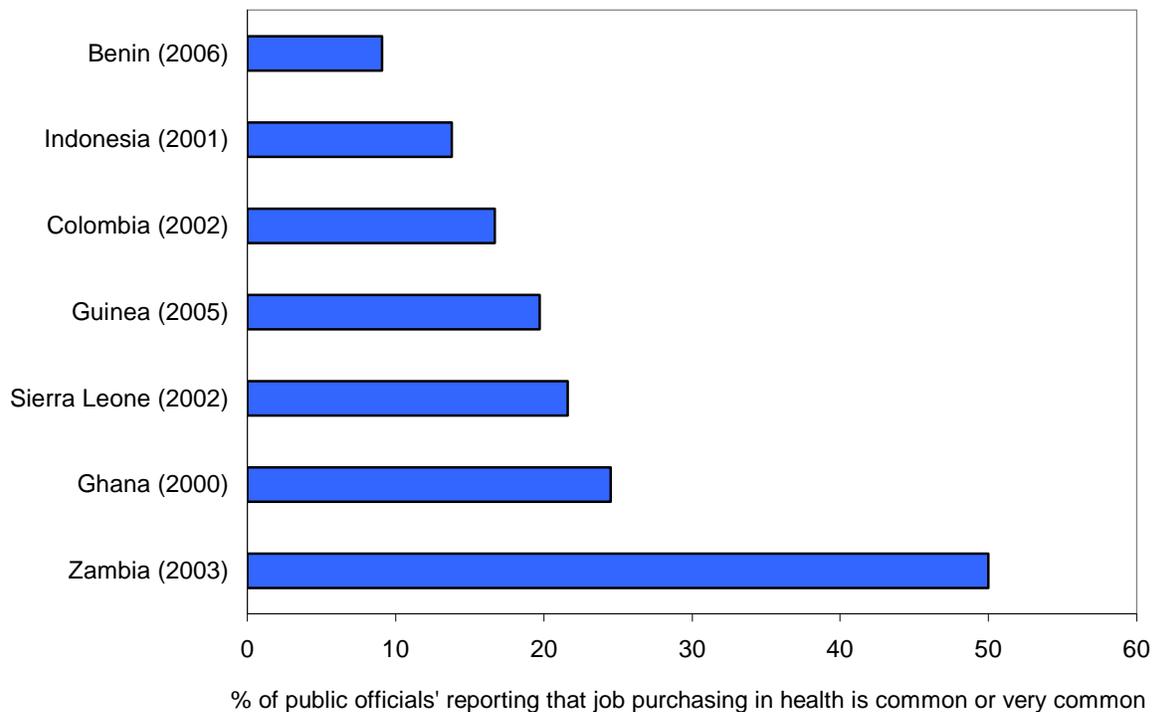
There are numerous anecdotal reports on favoritism and nepotism in hiring in the health sector but rigorous evidence is scarce. In Namibia, favoritism in the handling of health human resource management as measured by health workers’ perceptions was reported by some managers (Ipinge et al. 2006). Health worker interviews and focus groups in Benin and Kenya revealed low motivation due to slow and non-transparent promotion processes (Mathauer and Imhoff 2006). In focus groups in Ethiopia health officials complained about unfair hiring practices, nepotism, and preferential treatment for well-connected individuals (Lindelöw, Serneels, and Lemma 2005). Similarly, in the Dominican Republic “patronage propelled personnel rolls” resulting in one of the highest health personnel to population ratios in Latin America with promotions routinely relying on recommendations from politicians and military authorities leading to a mismatch between skills and needs (La Forgia et al. 2004).

Ethiopia uses a lottery system to assign newly graduated health workers to their first posting and graduates have a contractual obligation to work for the government for a specific period of time. The assignments, according to the rules, once determined cannot be refused or changed. Evidence from focus groups consisting of final year nursing (220) and medical students about to start their internships (80) found that 54 percent of participants “agreed” or “strongly agreed” that the lottery was a fair process,

51 percent “agreed” or “strongly agreed” that the first public posting depends mainly on your contacts, and 56 percent that they could get their posting changed if they were not happy with it (Serneels 2008; Lindelöw and Serneels 2006). The fact that such a large share of final year students believe that assignment of posts depends primarily on your contacts, and can be changed, strongly suggests the existence of nepotism and favoritism in the assignment of public sector positions.

Results from national perceptions surveys suggest that purchasing of posts occurs in several countries for which relatively recent data are available (Table 7). The share of public officials who reported job purchasing in health as common or very common ranged from 9 percent in Benin and 14 percent in Indonesia to 25 percent in Ghana, and up to 50 percent in Zambia.

TABLE 7: PUBLIC OFFICIALS’ REPORTS ON THE EXTENT TO WHICH HEALTH PERSONNEL DECISIONS ARE INFLUENCED BY ILLEGAL PAYMENTS, 2000-2006



Source: World Bank Governance and Anti-Corruption Diagnostic Surveys (various years).

In Bosnia and Herzegovina, 75 percent of officials and citizens reported that bribes were required to obtain positions and be promoted in the health sector (World Bank 2001). Twenty percent of municipal officials in the health sector in Uganda reported bribes being paid to secure employment compared to 3 percent in the Philippines (Azfar, Kahkonen, and Meagher 2001).

Interviews with health workers in Cambodia hint at the magnitude of illegal payments for public positions, with higher positions fetching higher prices. A director post at the Ministry of Health’s national and provincial offices reportedly cost close to US\$100,000, whereas lower level positions cost around US\$3,000 (Prevenslik-Takeda

2006).¹⁵ Given the size of payments, which represent a multiple of an average annual wages for public sector employees, these payments constitute a substantial investment that the employee must somehow recoup.

Improving job assignment procedures

Health workers who do not want to be assigned to remote areas may resort to paying informally to be assigned to more attractive locations, or to be transferred out of locations. Concerns over not being able to participate in career development programs and networking opportunities that help build careers, poor living conditions, language barriers, lack of good schools for their children, and possibly risks to health and safety, are all important and real factors in health workers' reluctance to transfer to remote areas (Lehmann, Dieleman, and Martineau 2008).

Job migration, i.e. health workers not working in their assigned location, frequently takes the form of migration of posts from rural/primary health care facilities to urban areas/hospitals, which generates imbalances in the geographic and skill distributions of health staff. Certain types of health systems are more prone to this problem. Where staffing systems assign individuals to the central ministry, rather than specific facilities, and there is discretion over the geographic distribution of posts, frontline staff may lobby to have their posts transferred to more attractive locations leading to overstaffing in urban areas and understaffing in rural areas, or inappropriate skill mixes (Dehn, Reinikka, and Svensson 2003).

A Honduras public expenditure review illustrates the problem (World Bank 2001a). In this particular case more than 5 percent of surveyed health staff had migrated to posts other than those they were initially assigned to as recorded in the central database; health promoters and physicians were the most likely to have migrated. Moreover, job migration was always lateral or from a lower to a higher level. In addition to the geographic imbalance this generated, about 20 percent of staff functions did not correspond to the formal education or training of the assigned professional (World Bank 2001a; Dehn, Reinikka, and Svensson 2003).

Why and how often are health workers absent?

Health worker performance relies on their being at work during contracted hours yet absenteeism is a chronic although often unmeasured problem in health systems in developing and transition countries (Lewis 2006).¹⁶ When it is widespread it can severely limit access to and quality of health services, and constitutes fraud when absences are unauthorized (Lewis, La Forgia, and Sulvetta 1996; McPake et al. 1999; Di Tella and Savedoff 2001). Here, health worker absenteeism is defined as unauthorized absences by health workers during contracted hours.

Health workers who fail to show up for work, arrive late and/or leave early, or do not carry out their assigned duties while at the health facility constitute a drag on health

¹⁵ The average annual wages of a public sector employee are about US\$480 (Prevenslik-Takeda 2006).

¹⁶ Dual practice, when public sector physicians supplement their incomes by working in the private sector, is not discussed in this paper. This practice only becomes an issue if it affects the work undertaken by the physician in the public sector.

resources and have a direct negative impact on health service delivery. One estimate for Colombian hospitals put the cost of time lost due to absenteeism at more than US\$1 million per year (Giedion, Morales, and Acosta 2001). The effect of health worker absenteeism on the quality of health services is more difficult to assess but is no doubt substantial, especially in cases where facilities are staffed by only one provider meaning that the when he/she is absent there are no services at all.

Absenteeism occurs for various reasons, several of which are legitimate or necessary. For example, rural health workers often need to travel to larger towns to receive their paycheck, or to fetch supplies and drugs (Lewis 2006). However, many health workers are absent without authorization, and, in effect, receive wages without providing even minimal services. This is a form of corruption.

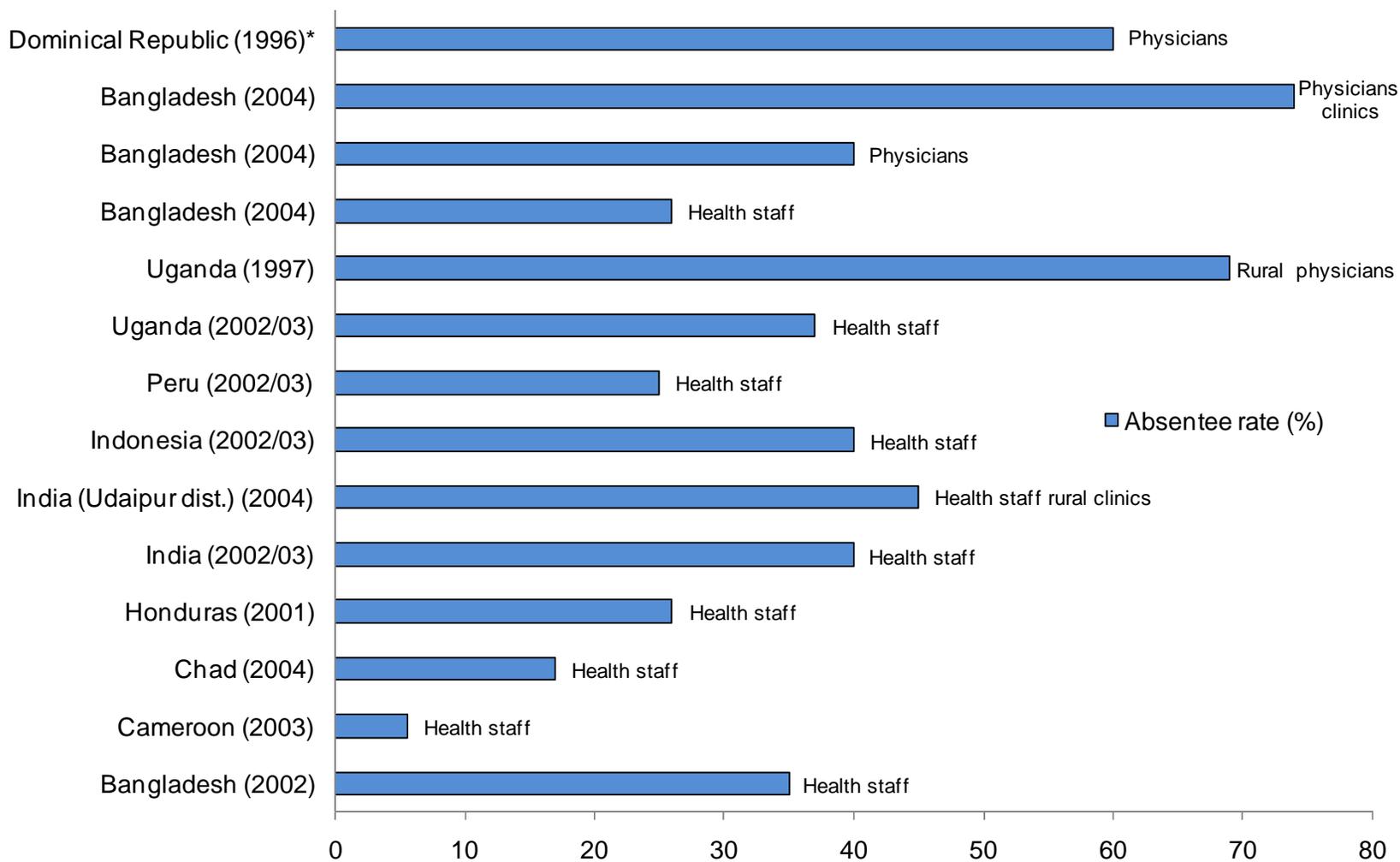
Two important factors affecting attendance is the physical state of health facilities and the availability of medical supplies and drugs. A World Bank study of health worker absenteeism in six countries: Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda, showed that well-equipped health facilities with better infrastructure had absentee rates roughly half those of facilities with poor infrastructure (Chaudhury et al. 2006).

Low pay per se does not appear to be the reason for the high and endemic physician and nurse absenteeism observed in many developing countries. Being a contract health worker in Peru is highly correlated with lower absenteeism even though contract workers are paid wages just like their civil-service counterparts (Chaudhury et al. 2006). Within health facilities, higher paid health workers such as physicians and pharmacists tend to be absent more frequently than lower paid clinicians and nurses (World Bank 2001a; Chaudhury et al. 2006). Because most public health workers are civil servants with high job security their incentives to abide by the rules when there is no supervision is limited.

The six-country study on absenteeism discussed above used surprise visits to a random sample of health facilities and recorded average absenteeism of 35 percent (Chaudhury et al. 2006). Across countries health staff absenteeism ranges from 6 percent in Cameroon, to 25 percent in Peru, to 74 percent for physicians in small clinics in Bangladesh (Table 8). Observed absenteeism has considerable advantage over administrative records as there are no discrepancies or the need to “report” on fellow workers (Rogers and Vegas 2008).

In Honduras the average absentee rate for health workers was 32 percent in 2001, although specialists and GPs had by far the highest absentee rate at 48 percent, and the most remote facilities saw absentee rates of close to 68 percent (Table 9) (World Bank 2001a). Findings for other countries also suggest that absenteeism is higher in facilities where health workers are less likely to be monitored or held accountable. Moreover, patients in poorer and remote communities are ill equipped to oversee public health workers as they have neither the authority nor the status nor education to ensure that physicians and nurses provide services.

TABLE 8. HEALTH WORKER ABSENTEEISM SELECTED COUNTRIES, 1996-2004



Note: *Santo Domingo Hospital.

Sources: Chaudhury et al. (2006); Chaudhury and Hammer (2005); World Bank (2001); Gauthier (2006); Lewis, La Forgia, and Sulvetta (1996); McPake et al. (1999); and Banerjee, Deaton, and Duflo (2004).

TABLE 9. ABSENTEEISM IN HONDURAS BY TYPE OF HEALTH WORKER AND FACILITY

Absentee rate (%)	Specialist	GP	Professional nurse	Auxiliary nurse
National hospital	33	52	26	25
Regional hospital	5	18	19	19
Urban health post	78	28	37	25
Peripheral clinic	80	87	47	61

Source: Adapted from World Bank (2001).

Absenteeism is facilitated by weak performance incentives, lack of supervision, and an exceedingly low probability of being disciplined. While disciplinary action for health worker absences is often included in official regulations, in practice it is extremely rare.

Motivating health workers to raise their performance

Many performance problems, including absenteeism, under-performance, and poor quality of service, stem from weak governance systems that fail to reward good performance and discipline workers who under-perform.

Health worker performance depends on a combination of skills, knowledge, and level of effort, the latter is largely driven by incentives and the degree of accountability in the system. Studies from India, Indonesia, Mexico, Paraguay, and Tanzania document variations in the quality of medical care using “medical vignettes and patient reports to benchmark the quality of medical advice against a checklist of essential procedures developed in consultation with doctors” (Das and Hammer 2005: 297). Overall, these studies concluded that the quality of health care was poor due to both inadequate knowledge and low levels of effort. The former can potentially be addressed through better training, the latter through better incentives, oversight, and accountability.

Table 10 lists non-financial incentives that appear to motivate health workers. The list is not exhaustive but illustrates the range of non-financial incentives that can influence health worker performance. These incentives are context-specific and should be viewed as possible tools to raise performance.

TABLE 10. NON-FINANCIAL INCENTIVES REPORTED BY HEALTH WORKERS IN FOCUS GROUPS

Non-financial incentives	
Career development prospects	Resource and equipment availability
Continuing education and training	Supervisor feedback
Professional recognition	Work environment

Source: Authors.

Focus groups and interviews with health workers shed light on the importance of non-financial incentives in motivating health workers. Health workers in Benin emphasized the importance of “the ability to perform one’s work” by having the necessary resources combined with training and supervision (Mathauer and Inghoff 2006). A health worker

study in Zimbabwe found that the top reason given for leaving the public health sector was the lack of equipment and medical supplies together with a poor work environment (USAID 2003). Similarly, in Ethiopia health workers cited a good work environment where drugs and medical supplies necessary to treat patients are available as one of the most important factors in raising performance (Lindelöw, Serneels, and Lemma 2005).

A lack of supervisor feedback and poor management are frequently reported by health workers as reasons for under-performance. In a 2007 study of mid-level professionals at four rural mission hospitals in Malawi, health workers expressed concern about management's capacity, erratic implementation of policies, and absence of supervision (Bradley and McAuliffe 2009). In addition, of those interviewed, only 17 percent had written job descriptions but these often did not correspond to actual duties, and staff were frequently required to carry out tasks beyond their training and experience. While pay levels remained a concern, the lack of physical resources and better management were considered much more important for performance.

Opportunities to advance professionally and receive further education and training also emerge as important if sometimes overlooked factors in motivating health workers (Willis-Shattuck et al. 2008), however, the evidence is very limited. In Malawi, mid-level health workers in focus groups reported that one of the major reasons for their low performance was the lack of opportunities for career development and further education (Bradley and McAuliffe 2009). In a study of Cameroon and Ghana, 5-20 percent of skilled public sector health workers cited the main reason for leaving their country as the lack of professional training opportunities (Lehmann, Dieleman, and Martineau 2008).

The limited available evidence suggests that pay may not be as important a determinant of performance as the ability to hold health workers accountable for their performance. A study of Venezuelan public hospitals found that higher wages for purchasing managers were not associated with less corruption suggesting that higher pay alone does not necessarily control corrupt practices (Jaén and Paravisini 2001). Health workers in Uganda employed by non-profit, faith-based health facilities succeed in delivering higher quality health services than public sector facilities, even though the former pay similar, below-market salaries to their staff, and employ staff with similar levels of training (Reinikka and Svensson 2007). Evidence for Tanzania, Guatemala, and Honduras similarly finds that, on average, health workers in NGO health facilities provide better care than those in public sector facilities (Leonard and Masatu 2007; La Forgia 2005). Many of the reasons underlying this disparity in performance appear to be associated with differences in non-financial incentives, management authority to discipline poorly performing health workers, and ability to reward good performance, between public and NGO run facilities. Contracting of NGO management services dramatically improved quality (e.g. lower infection rates), efficiency, (lower per capita cost), and patient satisfaction in a sample of Brazilian hospitals (La Forgia and Couttolenc 2008).

Evidence from vignettes on physician performance from seven neighborhoods in Delhi find that physicians do less than what they could given their knowledge; physicians who know more do more; and that the gap between physicians' knowledge and what they do

in practice responds to incentives (Das and Hammer 2005).¹⁷ Private sector physicians have a smaller gap between what they know and how they perform than public sector physicians. Even private sector physicians who know less than their public sector counterparts provide better quality care on average. Similar evidence emerges for physicians in Tanzania (Leonard and Masatu 2007).

Indian physicians in large general public hospitals performed nearly as well as private sector physicians whereas physicians in smaller clinics performed much worse suggesting the importance of incentives in motivating medical providers. Public physicians in smaller clinics are paid a fixed salary, are typically not monitored, and do not face sanctions for underperformance. In public hospitals providers, although they are also paid a fixed salary, are more likely to be monitored by supervisors, may not want to risk losing the prestige associated with working in a large hospital, and typically face better career development opportunities. Private sector physicians in turn are paid for each service provided and rely on their performance for repeat visits (Das and Hammer 2005).

Even if pay is relatively high health workers may under-perform if professional development opportunities are limited and the probability of being penalized is very low. Although procedures for disciplining poorly performing health workers exist in many countries disciplinary action is a rarity because even when sanctions are technically feasible they are often too cumbersome to apply. For instance, in Brazil, complaints to the Regional Medical Council can lead to disciplinary measures ranging from a warning to dismissal but because it typically takes 4-5 years from the initial complaint to resolution and the outcome is uncertain the process is rarely used (World Bank 2006). In Kaduna state, Nigeria, the process for disciplining primary health care workers is so onerous it has in effect become irrelevant (World Bank 2008).

Potential solutions

Raising health worker performance requires the introduction of effective incentives, means to assess or audit performance, and accountability mechanisms. How to do this in practice remains a challenge but some initiatives have shown promise. A review study by Willis-Shattuck et al. (2008) suggests that financial incentives matter but have to be accompanied by some combination of accountability mechanisms and/or non-financial incentives such as career development opportunities, a good work environment, and availability of resources and equipment as discussed above.

Transparent recruitment, assignment, and promotion systems

Recruitment, assignment, and promotion procedures based on clear rules and criteria known to all relevant parties tend to reduce the scope for fraudulent practices. Hiring and promotion by selection committees is preferable to actions of a single administrator since it limits discretion, and improves credibility if they are transparent. Promoting transparency and merit in recruitment, assignment, and promotions is politically and administratively difficult. In Jordan, strict civil service rules regulate recruitment,

¹⁷ Das and Hammer (2005) use vignettes to assess physician competence and direct observation to assess the quality of medical advice given; the difference between the two captures effort.

selection, and promotions but in practice appointments and promotions are based on non-transparent criteria due to the lack of performance assessment.

Using the private sector to speed up recruitment and deployment

Where public recruitment systems function poorly the private sector for recruitment can sometimes provide a faster and more effective alternative. In Kenya, it currently takes 1-2 years to fill open public sector positions in the health sector despite the existence of a large pool of unemployed health workers. To address this problem a group including the MOH, the MOE, and the MOF, was created to put together a fast-track hiring and deployment model. Deloitte & Touche Kenya was hired to recruit, deploy, pay, and manage the contracts of 830 recruited health workers later to be transferred to government payroll. Under this arrangement the recruitment process was reduced to less than three months, and, reportedly, retention and satisfaction of workers improved due to timely payment of wages and job orientation programs (Adano 2008). Whether a scaling up of this type of arrangement would be feasible in all settings is not clear but holds promise.

Reducing job migration through local recruitment

Local recruitment of health workers can reduce job migration. In Thailand, local recruitment and training in rural areas of nurses, midwives, and paramedics, then assigned to serve in their home town and only licensed to work in the public sector, have been successful in facilitating recruitment to remote areas and have led to increased staff retention (Lehmann, Dieleman, and Martineau 2008). Similarly, in Indonesia, physicians from remote areas are significantly more willing to serve in remote areas according to surveys where physicians chose among hypothetical assignments (Chomitz et al. 1998).

Strengthening accountability to discourage absenteeism

An example from Venezuela illustrates the importance of accountability for reducing absenteeism. Evidence from 22 urban hospitals in three different states in Venezuela showed that the higher the perceived probability of detection the lower absenteeism for both physicians and nurses, and for nurses a higher probability of penalties for poor performance being imposed was associated with lower absenteeism (Jaén and Paravisini 2001).

Hiring contract health workers

A study examining the effect of different institutional arrangements in four Peruvian hospitals, three public and one private, found that physicians who had “permanent” contracts (civil servants) and enjoyed significant job security had a notably higher absentee rate than “contracted” physicians who can be terminated, lending support to the importance of accountability for reducing absenteeism and raising performance (Alcázar and Andrade 2001). In Ceara, Brazil the state hired primary health care outreach workers under contract and handed responsibility for supervision to municipalities. Local control and renewable contracts helped reduce absenteeism and improve health services (Tendler and Freedheim 1994).

Providing opportunities for career development and training

Availability of training and further education opportunities can create incentives for raising health worker performance, and ensures up-to-date technical skills. At the Children's Hospital in Georgia, physician performance rewards in the form of opportunities to attend training and seminars, coupled with other rewards: preferred hours of work, preferred leave, and publicly-awarded recognition, led to improved physician performance (see Table 11 for more information). Data on posting locations chosen by recent medical graduates in Indonesia before and after a major change in incentives in the form of specialist training for those serving in remote areas, shows that physicians are more willing to serve in remote areas if specialist training that allows them to keep current is offered (Chomitz et al. 1998). However, such a solution may not be cost effective if the skills attained are not relevant to neither current nor future professional requirements.

Using community-based monitoring to improve health service delivery

Community monitoring of health service providers to improve performance is appealing but there is little evidence on its effectiveness, and what exists is mixed at best. A randomized trial from Uganda suggests that as community-based monitoring of providers expanded, health service delivery improved. Communities started monitoring health facilities in nine districts in 2004. "Community contracts" between communities and providers were drawn up that defined the requirements for service improvement and methods of community monitoring. One year after the start of the monitoring program, there were notable increases in utilization, higher infant birth weights, and less under-five deaths in the treatment communities. The findings suggest that the improvements were the result of staff increasing their work effort as captured by lower absentee rates, shorter waiting times, and improved examination procedures (Björkman and Svensson 2007).

In Bolivia, corruption in local health service provision was lower where local oversight groups were active "suggesting that bottom-up accountability can be effective in keeping corruption in check" (Gatti, Gray-Molina and Klugman 2002: 1081). By contrast, in Jigawa state in Nigeria, hospital management committees meant to oversee and advise hospital managers rarely met, were unclear on their responsibilities, and had little involvement with strategic planning, targeting or budget control (World Bank 2005). Even more serious, in Uganda in ten public facilities with community monitoring through representatives on the Health Unit Management Committee (HUMC), the average leakage rate for drugs ranged from 40 to 94 percent and high demand drugs were unavailable to patients because health workers and HUMC members, the latter meant to provide local oversight, expropriated them (McPake et al. 1999).

A detailed case study from rural Africa provides further evidence on the difficulties associated with effective community monitoring. In the study corruption increased as village representatives held meetings with district officials in charge of allocating project funding to agree on how much to "pay" to get a particular project (Ensminger 2007). Once the project was allocated to the village the community selected three leaders and a committee trained in accounting and community driven-development. The leaders were then given access to the funds and despite strict regulations on their use,

there was no monitoring, and villagers were warned that if they raised any concerns the village would never receive another project. In the end only 37 percent of total funds reached the intended recipients and a large share of the funds was diverted to the three project leaders and committee members. The main identified problems at the community level were, first, the relatively small pool of potential leaders. Second, once allocated, project villagers had a disincentive to reveal any irregularities since this would mean no future investment. This suggests that to be effective, communities and community leaders need authority but, at the same time, they must be overseen and be held to account by the citizenry.

Pay for performance

An increasingly considered method for potentially raising performance is through performance-based pay. However, it faces challenges in finding appropriate measures to assess provider performance. Performance pay may also induce physicians to choose not to treat risky patients within a payment category or to avoid treatments that do not receive bonuses, may undermine intrinsic motivation, and often bonuses become regular payments for all providers effectively removing the incentive to perform better (Ellis and McKinnon Miller 2007). Despite recent interest and a growing number of initiatives adopting pay for performance in developed countries there is scant evidence on its effect on health worker performance. Evidence from several pay for performance initiatives in the U.S. has proved inconclusive (Dudley and Rosenthal 2006). The UK national pay for performance program for physicians had little effect on performance but significantly raised physician earnings, an example of the shift from performance-based pay to simply higher earnings for the majority of physicians (Campbell et al. 2004).

Some suggestive evidence from developing countries linking pay for performance to health service delivery outcomes is more encouraging but also highlights potential pitfalls of pay for performance and the importance of complementary factors in promoting stronger performance. Table 11 shows different models implemented at various levels – facility, region, and national – for raising individual provider performance, several of which include a performance pay component.

The design of pay for performance is similar across programs, typically, taking the form of a bonus paid if certain pre-determined performance benchmarks are met. The benchmarks usually involve some mix of the quality of provider performance (e.g. measured by vignettes), presence during contracted hours, qualifications, level of responsibility, and in several cases, overall facility performance.

Where individual bonuses are at least partly tied to overall facility performance peer pressure may be a factor in performance improvements. In a randomized-trial of performance pay in the Philippines, physicians in participating hospitals were required to meet pre-defined quality targets if the facility was to receive the bonus for distribution among the hospital staff (Solon et al. 2009). Under such an incentive, the staff has an incentive to reach targets individually and collectively. In Takeo referral hospital in Cambodia individual bonuses also depended on overall facility performance generating a form of peer pressure for staff to meet targets. After the bonus initiative

was implemented utilization rose with a significant reduction in informal payments (Barber, Bonnet, and Bekedam 2004).

The programs represented in Table 11 (described in detail in Annex 2) suggest that pay for performance alone may not be sufficient to raise performance. It may be that some form of provider accountability is also required, for instance, through some form of peer pressure (e.g. the Philippines), shorter contracts that are not automatically renewed (Georgia), or the possibility of being dismissed (e.g. Cambodia). Granting managers the flexibility to recruit, promote, dismiss, and provide staff with training stand out as key to raising performance in hospitals in Brazil. Non-financial incentives in the form of support for training, allowing staff to work preferred hours, and publicly recognizing highly performing physicians, contributed to improved performance in Georgia

It is difficult to determine the role of pay for performance initiatives since the degree of accountability for performance also varies across these programs as do non-financial incentives. Overall, however, it appears that giving managers the ability to flexibly manage human resources, including hiring, promotions, staff mix, and dismissals, contributes to improved performance. Also, non-financial incentives such as career development and training opportunities also seem to play a role. Scaling up of performance-based programs poses difficulties and few rigorous evaluations of pilots or scaled-up programs exist.

Overall, what seems to work across different settings for raising health worker performance is some combination of incentives (financial and/or non-financial), accountability for performance, and managerial flexibility. Arguably, incentives without accountability are not very effective in raising performance, whereas real accountability without incentives may be able to do so. Giving facility managers the authority and flexibility to use resources efficiently, and providing them with output-based incentives, together seem to improve staff and facility performance, the latter which is discussed in the next section on institutional provider performance.

TABLE 11. OVERVIEW OF SELECTED COUNTRY EXPERIENCES WITH INDIVIDUAL LEVEL PAY-FOR-PERFORMANCE

Country/Source	Incentives	Accountability measures	Complementary actions	HR performance changes
Argentina (National) <i>Baeza (2008)</i>	Physicians and nurses earn bonuses for their performance under facility bonus program		Evaluation of different reward levels and arrangements under Plan Nacer program	Suggests that rewards may increase quality and volume of care
Brazil (São Paulo state) <i>La Forgia and Couttolenc (2008)</i>	Professional development; training opportunities; facility head sets wages; good management environment	Staff can be dismissed	Comparison of NGO and public physicians; monthly performance targets reported	HR significantly more productive with higher quality performance
Cambodia (Pereang district) <i>Soeters and Griffith (2003)</i>	Physicians earn bonus for individual performance but also linked to facility performance	Individual bonus partly based on overall facility performance		
Cambodia (One hospital) <i>Barber, Bonnett, and Bekedam (2004)</i>	Physicians earn bonus for individual performance but also linked to facility performance	Individual bonus partly based on overall facility performance Staff can be dismissed for violating hospital rules	Monthly performance review of staff	Wage plus bonus equivalent to previous individual informal earnings
Georgia (One hospital) <i>Garcia-Prado (2005)</i>	Professional development; training opportunities; preferred hours of work and leave; public recognition	Six month contracts for MDs, renewal subject to number of treated patients and fee revenue generated	Increased supervision of hospital staff; formal prohibition of informal charging	Elimination of informal charging Improved patient satisfaction
Panama (One hospital) <i>Bitrán and Gómez (2005)</i>	Management and all staff on contract	Staff can be dismissed	Hospital is autonomous and privately operated.	Productivity and quality showed great improvement over public hospitals model
Philippines (30 hospitals) <i>Solon et al. (2009)</i>	Staff earn bonus based on facility performance measured by physician performance (vignettes), patient satisfaction, and case load	Individual bonus partly based on overall facility performance		Improved physician performance. Increased patient satisfaction. Higher physician case load.
Rwanda (Butare district) <i>Messen et al. (2008)</i>	Physician performance bonus from facility fee revenue Bonus cuts for poor performance	Staff can be dismissed for violating facility rules	Audit and close supervision	Increase in individual productivity
Tanzania (Arusha region) <i>Leonard, Masatu, and Vialou (2005)</i>	Facility head sets wages	Staff can be dismissed		NGO physicians with similar ability perform better, on average, than public sector physicians (vignettes and direct observation)

5. Health Facility Performance

Facilities are as important to health care delivery as staffing. Hospitals tend to absorb a disproportionate amount of health care budgets. Despite the funding levels hospitals are frequently poorly managed, and little if any evidence on performance is available. Indeed hospitals and clinics are often “black boxes” due to the lack of information on performance and patient outcomes. Reliance on inputs to ascertain hospital efficiency and performance is not enough. Incentives for performance, lack of benchmarks and performance criteria coupled with little or no authority and accountability further exacerbate the problem (Box 1). As with individual providers, the basic management tools (management information systems, ability to discipline staff, flexibility in purchasing of inputs) are typically absent, undermining the ability of facilities to meet intended and desirable service quality and health outcomes (Figure 1).

Existing evidence suggest that finding alternative models that incorporate elements of the four components in Box 1 can help to raise performance. Little work has been undertaken on hospital performance and as a result evidence is highly limited and in some cases dated. A few studies have addressed the issue, such as Di Tella and Savedoff (2001) and Lewis, La Forgia, and Sulvetta (1991, 1996), both of which highlight some of the serious governance and corruption problems in public hospitals in Latin America. La Forgia and Couttolenc (2008) and McKee and Healy (2002) discuss some of the key accountability issues in hospital performance.

The extent of absenteeism, overpayment for basic supplies, poor resource use, and outright theft are detailed for selected countries and hospitals in Di Tella and Savedoff (2001) and Lewis, La Forgia, and Sulvetta (1991, 1996). In a Dominican hospital physicians only complied with 12 percent of their contracted time, interns were virtually unsupervised in the outpatient department, and the hospital budget was more than 50 percent higher than costs (based on actual expenditures). In seven countries, hospital data and focus groups summarized the lack of accountability health workers faced for absenteeism, petty theft, and large variations in prices paid for identical goods across national hospitals (Di Tella and Savedoff 2001). In all countries, the incentives faced by and limited authority of managers undermined the ability to improve quality and efficiency of hospital care, which together compromised performance. Evidence was pieced together from surveys and available administrative data and provides an incomplete but disturbing picture of hospital operations.

Limited incentives, restricted authority, lack of effective management information systems (MIS), ineffective payment arrangements, and managerial challenges combine to undermine health care delivery at the hospital level in many countries. In addition, the complexity of hospitals makes efficiency and performance hard to both measure and track. Since hospitals are usually either public, or publicly financed, political interference further complicates the situation. However, as the centers of health care delivery and clinical excellence, hospitals are central to raising overall health care performance.

Payments systems in health

How hospitals and clinics are paid offers a potentially powerful incentive for providers to improve targeting, quality, and efficiency of health care delivery. This section

focuses on how to raise performance at the facility level. Pay for performance for individual health workers is addressed in the section on human resources. The next section briefly reviews what is known about payment systems in the health sector and their relevance to developing and transition countries before discussing selected country experiences with programs aimed at raising institutional provider performance.

A range of payment systems are used to pay hospitals and clinics, the major payment arrangements are summarized in Table 12 and compares the relative effectiveness of payment mechanisms in achieving broad health care system objectives. These objectives reflect the tensions within health care systems among equity, service delivery efficiency, patient satisfaction, and cost containment.

Most developing transition countries rely on global or line-item budgets based on historical allocations without authority to effectively manage resources. Global budgets are lump-sum allocations to hospitals and do not provide incentives to increase efficiency, or improve patient satisfaction, nor does it address equity. Global budgets effectively ration spending because they set a ceiling on resources.¹⁸ Line-item budgets restrict hospital spending to specific categories, which limits managers' abilities to allocate funds where needed and can undermine efficiency.

Per diem systems simply allow hospital to charge or recoup the amounts spent per patient per day, which rewards facilities for the volume of patient care without regard to diagnosis. It can also encourage long lengths of hospital stay, which raises revenues since the first two days of hospital stays are, on average, the most costly. Such payments rarely exist on their own rather they are combined with other forms of hospital payment. Capitation provides a fixed allocation per capita for a defined set of services over a given period of time, sometimes adjusted for gender and age. Both arrangements tend to encourage selection of low risk patients and limit access to expensive care, and capitation is an effective way to contain costs.

Prospective payments (also known as case-based payments) introduce incentives for increased efficiency and cost control, and provide the greatest equity because for any given patient presenting with a specific diagnosis payment is pre-determined. Hospitals therefore have an incentive to treat patients and discharge them as soon as feasible while ensuring they are well enough to fully recover outside the hospital because if patients return, the hospital must treat them within the same budget envelope.

Patient satisfaction is typically greatest under fee-for-service systems as paying customers receive attention and priority, though this system is highly inequitable and leads to cost escalation since there are fewer limits to service volume or costs.

¹⁸ It can, however, lead to high hospital debt levels due to purchasing without the resources to pay suppliers. Hospitals then either have a debt overhang or are bailed out by the government, the latter which may lead to moral hazard problems.

TABLE 12. HEALTH CARE DELIVERY OBJECTIVES AND PERFORMANCE INCENTIVES PROVIDED BY ALTERNATIVE HOSPITAL PAYMENT SYSTEMS

Payment mechanism	Definition	Payment system objectives				Comment
		Equity across patients	Delivery efficiency	Patient satisfaction	Cost containment	
Global budget	Fixed annual amount with flexibility in allocations	+	+	+	++++	No incentives for efficiency but ceiling on spending
Line item budget	Fixed annual amount with predetermined allocations	+	-	-	++++	Similar to global budget but more restrictive; prevents management discretion
Per-diem	Facility paid a daily rate	++	+	++	-	Encourages long lengths of stay
Capitation	Fixed fee paid per patient	+	-	-	+++	All patients and illnesses reimbursed equally
Prospective payments (eg. DRG)	Payment based on charges for "bundled" services determined by diagnosis	++++	+++	+	+++	Promotes efficiency through lump sum payments for all services and cost containment
Fee-for-service	Facility sets prices and charges (patients) for each service	-	++	++++	-	Providers have incentive to provide unnecessary services to please patients

Note: Scale is – to ++++.

Source: Authors based on Lagenbrunner and Wiley (2002).

The value of prospective payments systems as a tool for improving performance is probably best illustrated by the fact that some form of it is used across the OECD countries; one of the few commonalities across those countries in health care. While often complex, simplified forms of prospective payments have been effectively adopted by Brazil, Chile, and some Eastern European countries, and the results suggest that financial incentives can alter behavior and raise performance in developing and transition countries. Although the approach is not always viable, it nonetheless points to the importance of payments systems in providing effective incentives. The strong incentives and the opportunity for accountability are built into prospective payment systems, partly because they must track performance and spending, suggest that prospective payments should be part of the dialogue on health systems and on reform measures since they can help raise performance and lower (or at least help contain) costs.

Potential solutions

Raising facility performance entails finding ways to design and implement incentives that result in desirable behaviors. In most public health systems, hospital and clinic managers have little or no authority over inputs, procurement processes, human resources, or the range of outputs. Personnel decisions, re-allocation of resources within the budget, capital investments, and larger procurements are often carried out by central administrators and budgets are supplemented by in-kind allocation of medical supplies, equipment and drugs. In any case, managers are often senior medical staff with little training or expertise in management.

Health facility managers are responsible for their institution's response to the incentives it faces. But many public hospital and clinic managers have little or no authority over inputs, procurement processes, human resources, or the range of outputs. Personnel decisions, re-allocation of resources within the budget, capital investments, and larger procurement decisions are often outside management's control. Moreover, in some developing countries, managers are medical staff without any management training or experience, and appointment and promotion through the management hierarchy is based on seniority without regard to aptitude or skill for management.

A number of countries have experimented with different kinds of facility-based initiatives that entail some combination of flexible human resource management, greater management autonomy, and budget and spending flexibility. The outlines of these initiatives, the embedded incentives and accountability mechanisms, and results are summarized in Table 13. In the eight cases shown, health facilities receive all or part of their funding according to whether they have reached predetermined benchmarks. These benchmarks encompass process measures—quality of care, efficiency, quality of information, and patient satisfaction—and/or intermediate and final outcome measures—birth weight, vaccination coverage, number of antenatal care visits, availability of modern family planning methods, births attended by skilled personnel, bed occupancy rates, ALOS and so on depending on the program. Payments are then made if the targets for the selected indicators are met. The advantage of the approach is that there are both data and benchmarks that track progress and provide an independent basis for assessing quality and productivity.

The performance initiatives run the gamut encompassing national (Argentina), regional (e.g. Cambodia and Uganda), state (Brazil), sub-regional (Philippines) and facility level (Cambodia, Guatemala, Haiti, and Panama) programs. All the performance payment programs are complemented by other elements that foster performance improvements, such as flexibility in human resource management (Cambodia, Brazil, Panama and Guatemala), expenditure authority (Cambodia, Sao Paulo, Brazil, Haiti, and Uganda), supervision and auditing (Rwanda and Brazil), and facility autonomy (Panama and Brazil). Moreover, several of the programs also allowed contract termination for physicians (Brazil, Cambodia, Georgia, Panama, and Tanzania). The question is therefore how much marginal value pay for performance adds if the ultimate accountability is whether physicians keep their positions or not if they do not perform to defined standards. This is an important consideration in determining how best to motivate staff discussed further below.

The results from these select studies suggest that performance incentives targeted at facilities can (i) improve performance in terms of increasing access both in general and of targeted disadvantaged groups and by raising physician productivity; (ii) improve quality of care in hospitals (e.g. more frequent prenatal care and deliveries, lower infection rates, and shorter average lengths of stay) and clinics (improve immunization coverage, prenatal care and family planning dissemination); (iii) allow NGOs to be contracted to improve service delivery.

The fact that facility-level incentives can work is encouraging. Indeed, in cross-country comparisons they appear more stable in some sense than individual incentives, which often falter or become permanent wage supplements as is the case in the UK (Campbell et al. 2004). More funding along with other reforms can be important to facility performance, as seen in Rwanda, Uganda and Cambodia, and facility pay for performance alone does not always improve performance as was the case in Uganda (Lundberg 2008). The small contribution of individual pay for performance in Rwanda suggests that there may exist a threshold below which incentive payments are not sufficient to increase health worker effort. The biggest effect in the roll out of the Rwanda health reform came from additional funding and more systematic oversight and auditing. The bonus payments generated by the institutional provider had a made a modest contribution to performance (Gertler et al. forthcoming).

The ability of managers to flexibly manage human resources and freely allocate spending to meet performance targets, combined in most cases with some type of monitoring, seems to contribute to stronger facility performance across the various models in Table 13. One exception is Uganda where health facilities in the groups receiving a block grant plus performance pay did no better according to the measured outcomes than facilities that only received the block grant or did not participate in the program (Lundberg 2008). This program although it granted managers some spending flexibility made no provisions for holding providers accountable. At the other end of the spectrum, in Brazil, management of 12 public hospitals was contracted out using renewable contracts and if targets were not met contracts could be (and were) terminated along with the hospital director being dismissed, making managers directly accountable for performance, and as a result, performance improved dramatically (La Forgia 2009).

Where financial incentives at facility-level are combined with performance pay for individuals reinforcing effects may be at work (Table 11, Table 13, and Annex 2). In Argentina, the Philippines, and Cambodia, physician rewards were tied to both individual and collective performance which meant that managerial attention and peer pressure arguably augmented the performance response of individuals.¹⁹

Overall, based on the admittedly scattered evidence presented above, some combination of performance-based financing, spending flexibility, freedom to manage human resources, and in some cases, facility autonomy appears to raise institutional provider performance. However, more rigorous evidence on what works is necessary to gain a clear picture of which factors are merely necessary and which are sufficient.

¹⁹ The Argentina results are still preliminary, the evaluation will be available at the end of 2009 but the early evidence is encouraging.

TABLE 13. RAISING FACILITY PERFORMANCE: EXPERIENCES FROM SELECTED COUNTRIES

Program/Country/Study	Incentives and Benchmarks	Accountability and Management	Results	Comment
<p>Argentina National (Plan Nacer)</p> <p>Health facilities before and after</p> <p>Baeza (2008)</p>	<p>°Monthly capitation payment per eligible enrollee paid to mostly public hospitals in participating provinces in two stages: -60% of capitation received upon monthly verification of enrollment -Up to 40% received quarterly, audited ex-post</p> <p>°Ten indicators related to IMR and MMR: -Intermediary outcome indicators (e.g. birth weight ≥ 2.5 kg) -Output indicators (e.g. 1-year olds with completed measles vaccination) -Quality of care indicators (e.g. pregnant women receiving tetanus vaccination)</p>	<p>°MOH and provinces agree on quarterly targets annually and publish these on MOH website</p>	<p>°Decrease in IMR °Increase in Apgar scores °Rise in prenatal visits</p>	<p>°Some provinces adapted program</p>
<p>Brazil State of São Paulo</p> <p>12 public autonomously managed (OSS) hospitals vs. 12 traditional hospitals</p> <p>La Forgia and Couttolenc (2008)</p>	<p>°Global budget allocated in monthly cash installments</p> <p>°Retention fund: 10% of financing retained if comply with quarterly performance targets in four areas: -Quality of information -Efficiency -Quality of care -Patient satisfaction</p>	<p>°Recruit and dismiss staff °Promote staff °Adjust remuneration °Determine staff mix °Allocate budget °Outsource °Manage procurement</p> <p>°5-year renewable performance-based management contracts with NGOs °NGO management accountable for operations and overall performance °Regular performance audits by state agency</p>	<p>°Higher quality: -Lower general and surgical mortality -Lower infection rate</p> <p>°Higher efficiency: -Bed turnover rates -Bed substitution rates -Bed occupancy rates -Average length of stay -ALOS for surgery -Discharge per bed (general, surgical, clinical, and OBGYN) -Physician hours °Lower expenditure per discharge</p>	<p>°Robust information environment</p>
<p>Cambodia Pereang district (second phase)</p> <p>Public hospitals and health centers before and after contracted out to NGO</p> <p>Soeters and Griffiths (2003)</p>	<p>°Managers determine staff incentive payments</p> <p>°Monthly and quarterly payments to facilities based on indicators</p> <p>°Performance indicators: -Good quality (e.g. hygiene and sterilization practices) -Patient satisfaction (e.g. no overcharging and perceptions of quality) -No fraud (e.g. no ghost patients)</p>	<p>°Hire and fire staff °Allocate recurrent expenditures °Monitoring of performance indicators done by independent party</p>	<p>°Increase in utilization °Increase in institutional deliveries °Rise in fully immunized children °Increase in children receiving ORS °Increase in women accepting modern family planning °Rise in user fee revenues</p>	<p>°Health facilities signed contracts with NGO management in addition to individual-level contracts. °In early phase 1 NGO management signed contracts only with individual workers. This failed.</p>
<p>Guatemala</p> <p>NGO facilities and public facilities managed by NGOs vs. traditional public facilities</p> <p>Danel and La Forgia (2005)</p>	<p>°Capitation for a package of basic services (PBS)</p> <p>°Covers cost of basic service and administrative expenses</p> <p>°Traditional public facilities have line-item budgets</p>	<p>°Public NGO-managed facilities hire additional staff to complement their existing public sector staff</p>	<p>°Public facilities managed by NGOs performed better on: -Child diarrhea treatment -Prenatal care -Tetanus and typhoid immunization</p> <p>°NGO facilities performed similar to traditional public providers °Patient satisfaction higher for both types of NGO facilities compared to traditional public facilities</p>	

TABLE 13. RAISING FACILITY PERFORMANCE: EXPERIENCES FROM SELECTED COUNTRIES (CONTINUED)

Program/Country/Study	Incentives and Benchmarks	Accountability and Management	Results	Comment
<p>Haiti¹</p> <p>Three health facilities before and after contracted out to NGOs</p> <p>Eichler, Auxila, Antoine, and Desmangles (2007)</p>	<ul style="list-style-type: none"> °NGOs receive 95% of budget under existing contract °Can earn up to 10% of historical budget if meet targets: °Five performance measures: <ul style="list-style-type: none"> -Share of mothers using ORT for diarrhea -Full vaccination children under 1 year -3 or more prenatal visits -Reduction in discontinuation rate for contraceptives -Number of delivery points with at least four modern FP-methods and outreach points with three or more modern methods 	<ul style="list-style-type: none"> °Increased spending flexibility °Reduced reporting requirements °Independent party determined whether performance targets were met 	<p>For at least 2/3 NGOs:</p> <ul style="list-style-type: none"> °Increase in immunization coverage °Increase in availability of modern family planning methods °Increase in utilization of ORS °Increase in correct utilization of ORS °Decrease in prenatal visits °Increase in discontinuation rates for contraceptives 	<ul style="list-style-type: none"> °All three NGOs received more funding °Difficult to attribute improvements solely to performance payments since technical assistance and data validation programs were introduced at the same time °Since the pilot in 1999 the program has been scaled up to 25 NGOs
<p>Panama</p> <p>San Miguelito Hospital contracted out all services, suppliers and management vs. two traditional public hospitals</p> <p>Bitrán and Gómez (2005)</p>	<ul style="list-style-type: none"> °Paid under prospective payment by category °Hospital Board and monitoring group contracts out and oversees all services °Purchase contracts between the Hospital Board and contractors, payment conditional on meeting targets °Seven output indicators including: <ul style="list-style-type: none"> -Discharges -Number of visits °Nine efficiency indicators including: <ul style="list-style-type: none"> -ALOS -Bed occupancy rates °Eight quality indicators including: <ul style="list-style-type: none"> -Accreditation -Mortality rates 	<ul style="list-style-type: none"> °Contracts with suppliers of HR services can be terminated and staff dismissed 	<ul style="list-style-type: none"> °Higher provider productivity °Lower unit costs (except for maternity) °Higher patient satisfaction °Higher management costs °Greater efficiency (e.g. lower ALOS) 	<ul style="list-style-type: none"> °Unique contracting out arrangement
<p>Philippines</p> <p>10 provinces</p> <p>30 district hospitals participating in program vs. control hospitals (RCT)</p> <p>Solon et al. (2009)</p>	<ul style="list-style-type: none"> °Performance-based payment for hospitals and physicians °Performance measured by quality score assessed by vignettes (70%), patient satisfaction (20%), and case load (10%) °If hospital meets quality target receives bonus for distribution among physicians and other health staff 	<ul style="list-style-type: none"> °Peer pressure since facility financial targets must be met for individual bonuses to be paid 	<ul style="list-style-type: none"> ° Significantly higher quality scores: <ul style="list-style-type: none"> -Improved physician performance -Increased patient satisfaction -Raised physician case load 	
<p>Uganda</p> <p>Five districts</p> <p>118 health facilities</p> <p>Comparison of 3 models: NGOs with block grant, NGOs with block grant and performance pay vs. control group of for-profit, public, and NGO providers</p> <p>Lundberg (2008)</p>	<ul style="list-style-type: none"> °Providers receiving performance payments for meeting three out of six targets: <ul style="list-style-type: none"> -10% increase in outpatient visits -5% increase in acceptance of modern family planning methods -10% increase in immunized children -5% increase in number of skilled birth attendance -10% increase in antenatal visits -10% increase in child malaria treated °Facilities receive bonus equivalent to 1% of base grant if target sustained for 6 months °Extra bonuses earned by meeting two or more targets 	<ul style="list-style-type: none"> °Increased spending flexibility 	<ul style="list-style-type: none"> °22 out of 24 providers in the bonus group received bonuses °Most facilities in the bonus group met the targets but did not outperform the ones in "the block grant only group" or "the control group" °Additional bonuses did not lead to better performance 	<ul style="list-style-type: none"> °Bonuses may have been too small to have any noticeable effect

6. Informal Payments

Corruption is a clear case of good governance gone wrong. Informal payments by definition lack performance fundamentals –incentives are wrong, information absent and accountability missing (see Box 1). Institutional performance as outlined in Figure 1 becomes dysfunctional where informal payments drive the financing and delivery of health care. Indeed their perpetuation suggests breakdown of public sector operations and both inequity and inefficiency in service provision. While fees are appropriate for the private sector illegal charging for free public services is simply a form of corruption and undermines good governance, provider performance, and fair access to publicly funded and delivered services.

Increasing evidence from across the world points to the phenomenon of under-the-table payments that patients are required to make to obtain the services of specific providers; for upgraded services; to reduce waiting times; as “insurance” for potential future visits; or simply for basic diagnostics and treatment at “free” public hospitals or clinics. Informal payments can be defined as “payments to individual and institutional providers, in kind or cash, made outside official payment channels, or purchases meant to be covered by the health care system” and they are a form of corruption meeting the corruption criterion of “use of public office for private gains” (Lewis 2007: 985; Bardhan, 1997).²⁰ Where such informal payments are required, often health workers at all levels charge informally with orderlies expecting compensation for moving patients within the hospital, nurses charging for their care, and physicians setting their own charges for diagnosis and treatment. The amount charged tends to vary with location, type of service, the provider, and in some cases, patient income.

Informal payments in public clinics and hospitals are a form of corruption, which raises serious issues that are very difficult to address. Informal payments are sometimes argued to be a coping strategy used by health workers to deal with low pay, instead, it may be more useful to view the practice as a response to opportunity. Charging under-the-table represents a trade-off between bribes earned and income lost if caught and dismissed. When the probability of being detected, and if detected penalized, is very low, as is the case in many developing and transition countries, informal payments tend to be more widespread.

The frequency of informal payments in the health sector offers an important indicator of underlying governance failures because it means fraudulent behavior is being tolerated, and it also offers insights into the extent of the problem within and across countries. The evidence, however, is surprisingly fragmented with a lack of country-level data and indicators that thwart meaningful cross-country comparisons.

Relevant data aimed at informing policy can be obtained by collecting information on the prevalence of such practices and how they operate through household surveys, facility exit surveys, and governance and anti-corruption studies, providing a basis for

²⁰ Shortages of supplies and drugs at points of service often force patients to purchase these items (Tatar et al. 2007; Zaidi et al. 2009). This is an example of patient payments that do not constitute corruption as fees are not paid directly to providers for specific services but signal governance failure.

understanding the scope and nature of informal payments in the health sector. Qualitative surveys complement, and provide a deeper perspective on the phenomena.

How widespread are informal payments?

A major challenge is differentiating among formal, informal, and gratitude payments in the presence of official co-payments and voluntary gift-giving by grateful patients. Where all fees have been banned any payment by households is clearly unofficial but in many countries formal fees do exist and blur the dichotomy. It then becomes the amount of payment, the nature of the transaction, and its timing that determine whether the payment is informal or not (Lewis 2006). For example, in the Kyrgyz Republic in 2001, 95 percent of those who paid for services did not receive a receipt while only 3 percent reported giving a gift to the health personnel at the time of service (Falkingham 2002).

Figure 6 shows the percentage of survey respondents who recently used public health facilities and reported making informal payments. The data are for 12 countries for which recent World Bank data are available. More than 35 percent of respondents in Sierra Leone and 30 percent in Ghana reported making informal payments. In Russia and Paraguay by contrast, “only” five percent did. A breakdown of informal payments for hospital and general health services show that without exception, a larger share of households reported making informal payments for hospitalizations. Evidence from four Eastern European countries, the Czech Republic, Hungary, Poland, and Romania, further corroborates this, finding that informal payments are typically associated with surgery and inpatient services (CEEHN 2002).

Table 14 presents additional country data on informal payments, which provide a sense not only of their frequency but also of their size in these countries. The share of households that report having made informal payment for health services is highly variable across countries, ranging from 3 percent in Peru to 22 percent in Guinea. In all countries informal payments make up a large share of half-monthly per capita income, from 15 percent in Paraguay to 113 percent in Madagascar. These data clearly show how informal payments in health care can constitute a major burden on household resources.

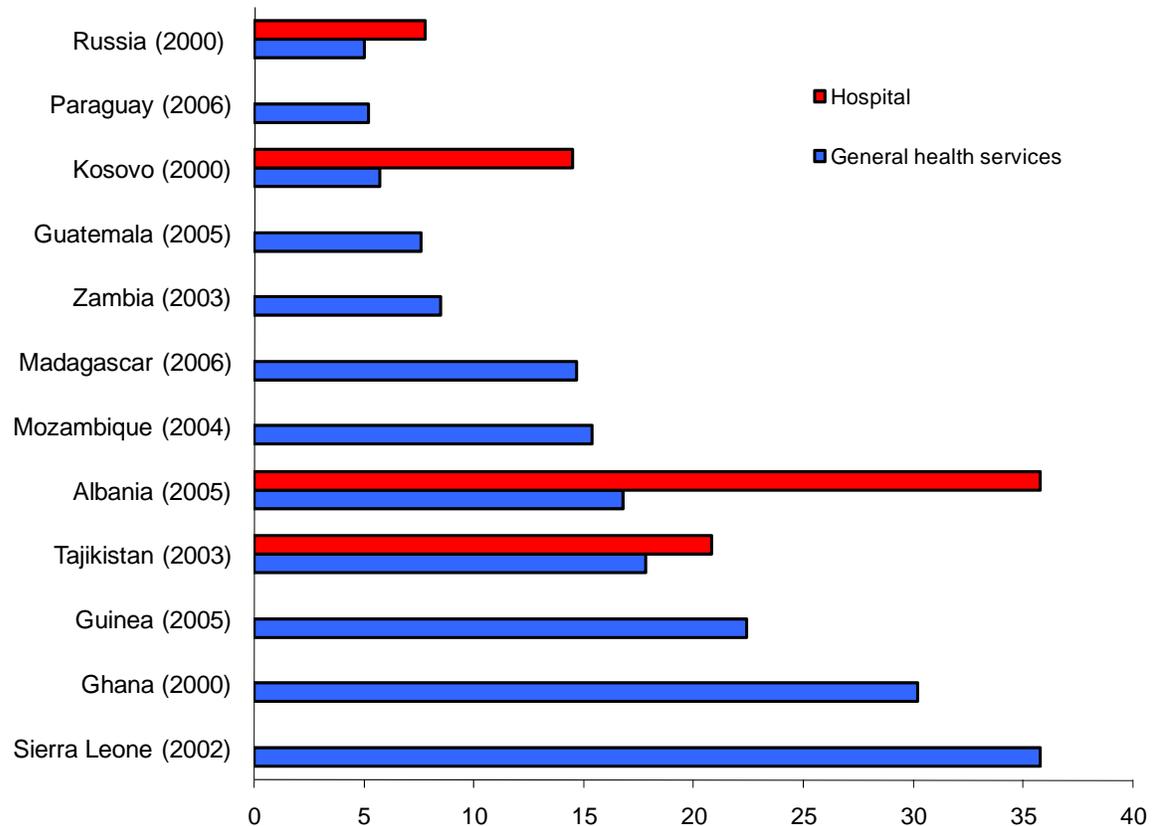
The magnitude of informal payments can also vary substantially within countries. Household survey data from Kyrgyzstan in 2007 show that informal payments for hospitalization ranged from roughly 60 percent of half-monthly income in Issyk-Kul to around 125 percent in Naryn (Falkingham, Akkazieva, and Baschieri, forthcoming).²¹

Perception surveys of providers offer additional insights, and support the reports from patients. In Costa Rica, 85 percent of medical staff indicated that under-the-table payments to physicians were common (Di Tella and Savedoff 2001). A study of 30 municipal hospitals in Bolivia in 1998 asked physicians and nurses how common they considered bribes for hospital services (Gray-Molina et al. 2001). More than 25 percent of physicians and 23 percent of nurses answered that bribes were required “a lot” or “always. When asked about corrupt practices in their own workplace, 65 percent of

²¹ National average income was used for the computations since regional average incomes were not available.

physicians reported that “misreferral of patients to private practice” and “payments for scheduling of medical procedures” occurred “a lot” or “always”.

FIGURE 6. PERCENTAGE OF USERS REPORTING INFORMAL PAYMENTS IN SELECTED COUNTRIES, 2000-2006



Sources: World Bank Country Diagnostic Surveys (various years) and LSMS (various years).

Often informal payments are not uniform across payers. An Albanian study found that income had no effect on the probability of having to pay informally (Hotchkiss et al. 2005). By contrast, evidence from Uganda and Peru suggests that the richer pay more, and receive more health care in return (Hunt 2007). Similar evidence emerges from the Kyrgyz Republic (forthcoming), which also found that patients making informal payments and those making official payments are not the same raising the possibility that patients pay informally to avoid paying official fees. Studies in China of “red packages” paid to providers report that payments average between US\$16-36 per hospital visit, with referral hospitals averaging US\$44, roughly 90 percent of average half-monthly income (Bloom, Han, and Li 2001). Data from a Living Standard Survey in Tajikistan showed that informal payments deterred poorer households from seeking care, and also affected the appropriateness of care received (Falkingham 2004). In some cases, informal payments drive households into poverty by forcing them to sell assets or borrow at unfavorable rates to pay for health care (Lewis 2000; Falkingham 2002). These same problems can confront households even when they rely on the private sector. However, what is insidious in the former case is that health care financed and

made available free-of-charge by government is effectively inaccessible to the public unless they pay again, and do so illegally. Moreover, if patients believe they will be asked for informal payments at health facilities they may choose to go without care (Lewis 2006).

TABLE 14. INCIDENCE AND MAGNITUDE OF INFORMAL PAYMENTS FOR HEALTH IN SELECTED COUNTRIES, 2001-2006

	Informal payment for general health services as % of half-monthly per capita	Share of households that report making informal payments (%)
Benin (2006)	53	4
Guatemala (2005)	23	16
Guinea (2005)	43	22
Madagascar (2006)	113	15
Paraguay (2006)	15	5
Peru (2001)	20	3

Source: World Bank Country Diagnostic Survey (various years).

A special case of informal payments involves supplementary in-kind medical costs for necessary medical supplies and care that should be provided by the health facility but are not. In Tajikistan, family members bathed, fed, provided medical and non-medical supplies, and even administered injections to their relatives (Falkingham 2004). While part of these costs are incurred as voluntary activities by families to help defray the costs of medical care, some of these also reflect governance failure on the part of health care providers, especially when these activities include responsibilities such as administering medications and injections, which should be carried out by medical professionals.

Potential solutions

Policy options for discouraging informal payments in health systems are not well understood and tend to vary across situations and the existing evidence is inconclusive. The argument that informal payments ensure health service delivery where otherwise only very limited services would be provided, or no services at all, fails to address the problem of corruption.²² Some suggestive lessons indicate that the introduction of formal user fees may reduce informal payments under certain conditions. The combination of improved provider incentives and mechanisms to hold providers accountable have also been shown effective in some settings.

Combining incentives and accountability to discourage informal payments

In most cases informal payments benefit individual health workers but not the provider institution. By contrast, formal user fee revenues tend to benefit from fiduciary oversight and contribute to health service provision. The introduction of formal user fees that provide supplementary compensation for providers who previously benefitted from informal payments appears to discourage informal payments. But the success of

²² For example, in the former Soviet Union informal payments were considered a necessity to compensate health workers given their low wages (Balbanova 2007).

such programs depends heavily on their design and the specific context in which they are implemented. Moreover, such policies require exemptions or subsidies to accommodate the poor. These are best accomplished through some form of sliding scale, and most countries have adopted some form of means test for patients.

In a Cambodian referral hospital, the formalization of fees resulted in near elimination of informal payments, more predictable fees for patients, an increase in hospital revenue, and higher utilization levels (Barber, Bonnet, and Bekedam 2004). The formalization of fees was undertaken within a program that entailed several components crucial to its success: a transparent official fee system designed to generate additional income for health staff, staffing levels based on demand for services, and the establishment of a hospital management committee with staff representation. Contracts regulating the relationship between individual health workers and the management committee were drawn up to align bonuses with staff performance. If a staff member failed to comply with hospital regulations, including hours worked and treatment of patients' privacy, the bonus could be withdrawn, and in the case of serious offenses, dismissal would result. This case of formalization of fees arguably succeeded because it comprised additional earnings for staff generated by the formal user fees, performance incentives, and monitoring of staff performance that together made staff accountable for their performance (also see Annex 2).

Another case of formalizing fees, part of a pilot program, in two regions in the Kyrgyz Republic also succeeded in significantly reducing informal payments for health services with the share of patients reporting paying informally declining from 60 percent to 38 percent in the pilot regions compared to 70 percent in the rest of the country (Kutzin et al. 2003; Lewis 2007).²³ But the fee formalization was part of a larger reform program, which also introduced administrative sanctions for poor performance and provided information on fees to patients and providers, making attribution to the introduction of formal user fees difficult. Evidence on whether the reduction in informal payments was sustained over time is lacking though (Balbanova 2007).

The combination of clear rules and transparency of hospital fees, sharing of earned revenue with staff, non-financial rewards for physicians, and sanctioning for inappropriate charging helped discourage informal payments in the Children's Hospital in Tbilisi, Georgia (Garcia-Prado 2005). As an autonomous public hospital it has the authority to set and allocate revenues from fees. The hospital management pooled fee revenues and physicians receive a portion of the earnings to supplement their fixed public wages. Nonetheless, physicians continued charging their patients informally and shared none of the additional revenue with the hospital. In response the following changes were made: (1) increased supervision of hospital staff; (2) official fees publicly posted throughout the hospital and informal charges prohibited; (3) reduced physician contracts from 3 years to 6 months with renewal subject to volume of patients treated and level of fee revenue earned; and, (4) introduced non-financial performance rewards for physicians such as preferred hours of work and leave, public recognition, and continuing education and training. A few months after introducing the new incentives patient payment aligned with the official charges posted in the hospital and hospital

²³ Under the program patients pay a fixed rate for hospital admission covering all care, drugs, and food, differentiated at five levels (Balbanova 2007).

revenues increased sharply. The combined effect of a transparent system tying earnings to activity, sanctions for inappropriate behavior, and provision of professional opportunities, together changed the performance of the hospital. Ferreting out the marginal contribution of any of the reforms is difficult but the success of the effort in eliminating informal payments suggests that such efforts can improve performance in health care delivery while at the same time curbing corrupt practices.

Voice and informal payments

Evidence on the effect of voice on informal payments is limited. A study of 30 municipal hospitals in Bolivia carried out in 1998 (Gray-Molina et al. 2001). The empirical analysis suggested that voice as measured by citizen health board participation, was significantly associated with lower informal payments.²⁴ However, “one complication is that voice is not sufficient for accountability; it may lead to answerability but it does not necessarily lead to enforceability” (WDR 2004: 79), and without knowledge of the exact role of communities on health boards (for example, did they have the authority to sanction providers charging informally) it is not possible to determine whether voice alone, or combined with authority, was responsible for the lower informal payments.

7. Corruption Perceptions

As noted in the previous section, corruption reflects a breakdown in good governance and the undermining of service provision. Indeed, corruption brings into question the viability of the governance process summarized in Figure 1, and suggests that accountability of service providers is either not enforced or non-existent. Surveys that reveal corruption in the health sector provide feedback on how public health care delivery is perceived, although they cannot offer guidance on specific areas for policy or program intervention. The ability of government to deliver on its commitments in the sector is severely compromised where corruption is endemic. Corruption perceptions complement the performance indicators discussed above and highlight the extent to which attention needs to be focused on curbing illegal practices. The concepts in Box 1 apply here, but reaching acceptable performance where corruption is concerned requires considerably more effort since corruption tends to be invisible and difficult to measure, undermines incentives, and reflects a lack of authority and accountability. Thus, perceptions of corruption are useful for diagnosis and tracking progress over time but need to be complemented by more precise measures to identify levers that can help raise performance.

Perceptions of the health sector and of health service delivery provide a guide to how public services are performing. While perceptions of actual performance or corruption are not completely accurate, they can affect the behavior of both providers and patients. The ability to cover households as well as providers and the private sector make perception surveys useful. They also signal how well public investments in the sector

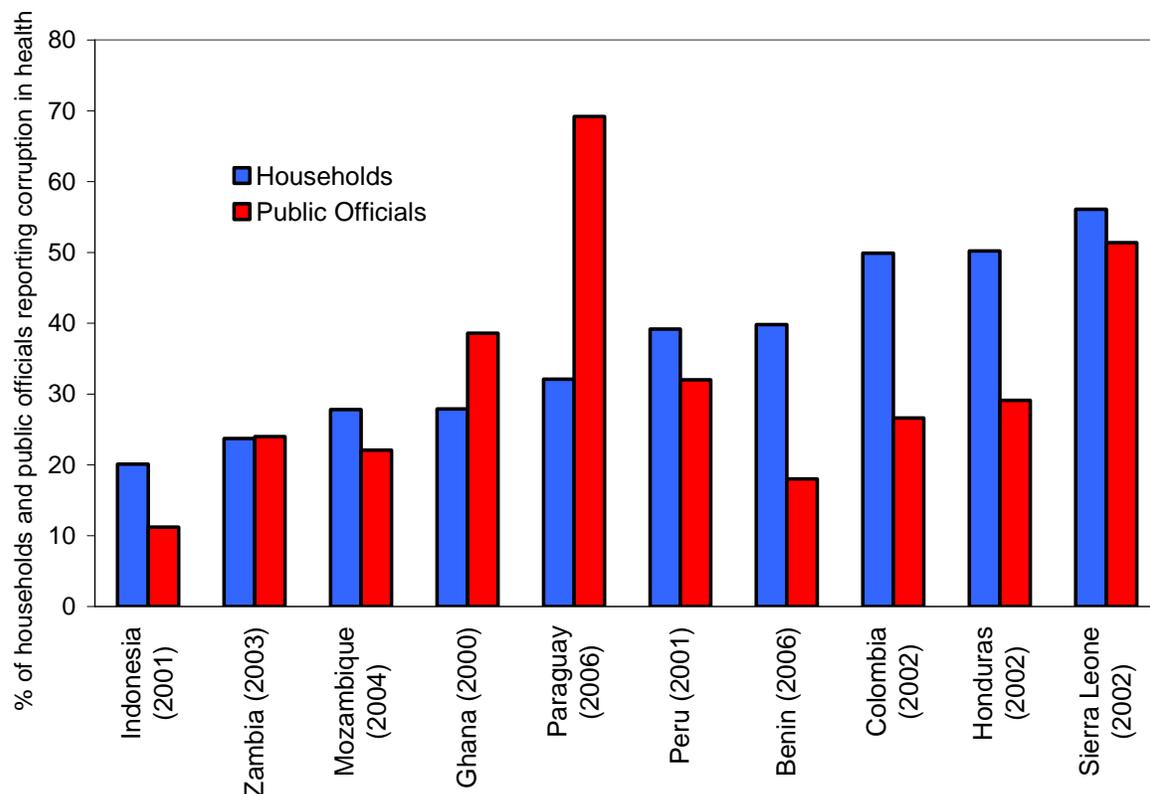
²⁴ The availability of private health care options was also significantly correlated with lower informal payments but the effect was smaller than for voice.

are perceived, which in turn tends to influence utilization and public support for publicly financed health care. The alternative to perceptions surveys is household surveys that are more costly but can provide more extensive evidence and context on how the sector is performing in meeting citizen preferences.

Corruption perception surveys by the World Bank, AfroBarometer, AmericasBarometer, and Transparency International among others, focus on specific sectors including health, and provide perceptions of the extent of corruption in the sector. Results are typically reported either as the share of citizens, business people, experts, or public officials reporting worse-than-neutral corruption outcomes, or as an average of all scores.

Perceptions of corruption in the health sector vary across countries (Figure 7). For the countries for which there are data, the largest shares of households perceiving the health sector as corrupt are in Sierra Leone, Honduras, and Colombia and range from 50-56 percent of respondents, to the “smallest” in Indonesia (20 percent) and Zambia (24 percent).

FIGURE 7. SHARE OF HOUSEHOLDS AND PUBLIC OFFICIALS PERCEIVING HEALTH AS CORRUPT, 2001-2006 (PERCENT)



Source: World Bank Country Diagnostics (various years).

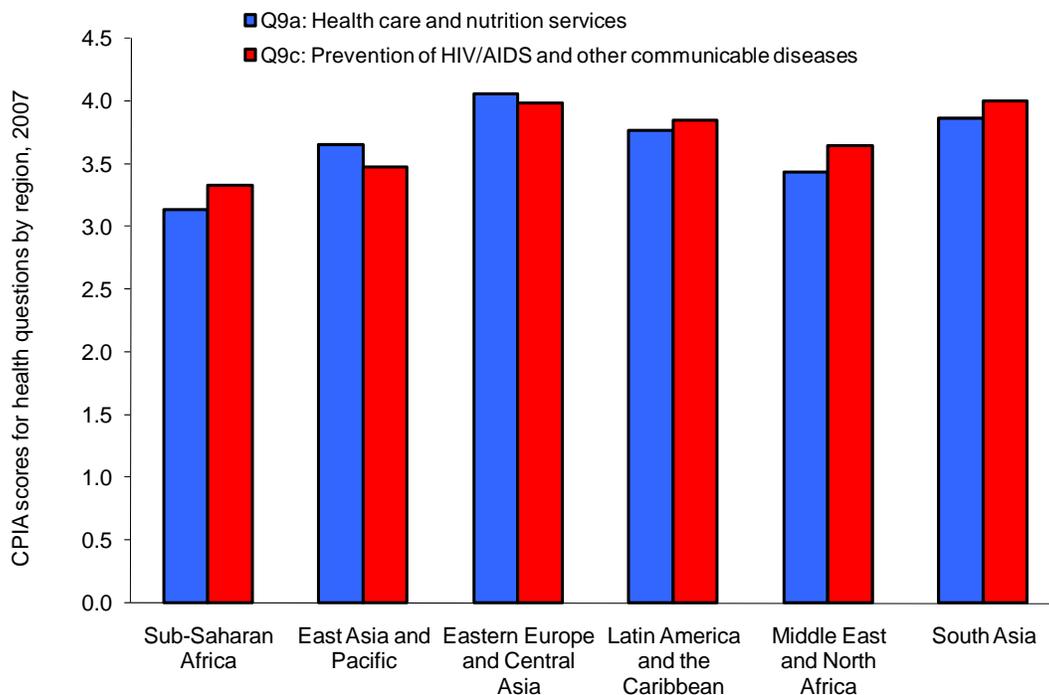
Respondents in different positions generally have different experiences with and insights into corruption. For instance, a public official may be aware that there is purchasing of positions whereas households may be more aware of the necessity of informal payments to gain access to health services. For all countries in Figure 7 except

Paraguay and Ghana, a larger share of households than public officials perceive the health sector as corrupt.

Countries with better institutions should in theory be less corrupt. The World Bank’s Country Policy and Institutional Assessment (CPIA) offers a measure of institutional quality. It includes a subcategory that assesses national policies affecting access to and quality of health care (World Bank OPCS 2007c). The scores range from 1–6 (6 indicating higher quality institutions) and are based on the assessments of health experts working on the country against a sample of regional benchmark countries.

Average regional CPIA scores for building human resources for health are shown in Figure 8. In 2007, Eastern Europe and Central Asia had the highest average regional score followed by South Asia; Sub-Saharan Africa had the lowest average score. But there is of course significant variation across countries within each region. These scores reflect perceptions of policy priorities, execution of policy, and the institutional quality of the entities providing health services and therefore, provide a sense of health sector performance.

FIGURE 8: CPIA SCORES FOR BUILDING HUMAN RESOURCES IN HEALTH BY REGION, 2007



Note: Unweighted regional averages of CPIA scores for questions 9a and 9c.
Source: World Bank OPCS (2007c).

A study of a road building project in Indonesia tested how closely perceptions of corruption corresponded to missing expenditures in the project (Olken 2006). Villagers’ perceptions of corruption were found to be positively correlated with missing expenditures. However, further examination suggested the potential for corruption perceptions to be misleading. In particular, in more ethnically diverse villages perceived corruption levels were higher but actual levels of missing expenditure lower than in

more homogenous villages, underlining the importance of supplementing corruption perception measures with more objective ones.

Another approach to capturing perceptions of health sector institutions and performance is patient satisfaction surveys at exit. Satisfaction surveys complement evidence on perceptions of and experience with corruption and public health service delivery performance. Recent survey data from Indonesia has been used to examine whether patient satisfaction surveys can guide policy. The findings suggest that perceptions data are not as useful for direct interpretation for policy as they are for providing insights to policymakers on the priorities of citizens, and on the acceptability and impact of specific reforms such as decentralization (Dasgupta, Narayan, and Skoufias 2009). This is broadly consistent with our views on corruption surveys and their usefulness to the policy debate on health.

Patient satisfaction surveys on hospital performance suggest that greater efficiency improves perceived quality, which may indeed reflect reality since greater efficiency is associated with shorter wait times, greater availability of inputs and overall better organization. In Central America, studies in two countries have examined the link between efficiency and patient satisfaction. In Panama, patients reported much higher satisfaction with the most efficient hospital that contracted out all services (shorter lengths of stay, lower unit costs, and highest productivity for surgery) as compared to two traditional, publicly staffed and managed facilities. In Guatemala, low income, rural patients preferred the more efficient contracted NGO services to those of the government (as measured by performance in delivering immunizations, prenatal care and micronutrients) (La Forgia 2005).

High scores on perceived corruption, and low scores on perceived institutional quality and performance all provide red flags and indicate the need to assess possible corruption and shortcomings in service delivery and financing. The objective is to use perception indicators to identify areas in the health sector where governance is poor, and use more detailed information to guide the design of public health policy, programs and projects.

8. Conclusions

The role of good governance in raising health service delivery performance is important and provides a useful entry point for discussions of policy, programs, and implementation. Considerable work exists on how to design sound health service delivery programs – quality of inputs and budget and financial management for example. Much of that knowledge informs the countries' health agendas. However, the challenge of translating those concepts and actions into functioning and effective health systems is a harder and more complicated step. It moves into the realm of political economy to align the interests of stakeholders and ensure that they face the appropriate incentives and accountabilitys to perform as intended.

The gap between good ideas and evidence-based programs on the one hand, and health performance and outcomes on the other, is often significant. The governance agenda focuses on the elements of implementation, the factors that drive performance and make

sound technical designs successful in a public context. In effect, good governance offers tools for the middle ground between program design and its execution.

This paper provides a definition of good governance in health and a framework for thinking about governance issues as a way of improving performance in the health sector. While outcomes are critical, measures of performance indicate whether the health system is meeting its objectives; whether resources are being used appropriately; and if the priorities of the government are being implemented.

The paper proposes performance indicators that offer the potential for comparable measures, and whose collection is not overly complex or costly but have relevance at the national level as well as at the facility level. These measures, when available, are useful tools for cross-country comparisons and for tracking relative health performance, and provide the context for the discussion of good governance in health service delivery.

The crucial elements for good governance and high performance include standards, incentives, information, and accountability, all of which support implementation. The paper reviews budget and financial management issues; examines human resource policies and individual provider performance; health facility performance, issues surrounding informal payments for services and jobs; and summarizes evidence on corruption perceptions in health. This review of ideas and evidence is intended to contribute to the design of policies, programs, and assessment of options for improving health delivery performance.

While virtually none of the indicators or evidence applies to all countries, they provide a basis for measuring performance. Experiences from other countries are useful in designing programs or conducting analytic work where performance is an issue. This paper is not meant to be a catalogue of the possible but an effort to define and analyze the main governance and performance issues in health service delivery. However, much more work needs to be done to fully understand how best to improve governance in the sector and raise health delivery performance.

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ANNEX 1. SELECT AGGREGATE GOVERNANCE INDICATORS

Governance encompasses multiple aspects. These include the capacity of the government to formulate sound policies, manage resources, and provide services efficiently; the effective processes that allow citizens to select, hold accountable, monitor, and replace government; and the respect of government and citizens for the institutions that govern economic and social interactions. Kaufmann, Kraay, and Mastruzzi (2007) break these down into six specific areas: voice and accountability; government effectiveness; control of corruption; regulatory quality; rule of law; and political stability and absence of violence. Of the six, the first three are directly relevant to good governance in health.

Voice and accountability captures the extent to which a country's citizens are able to participate in the selection of their government, as well as the extent to which public institutions are held accountable. It allows citizens to express their preferences and be involved in the decision-making processes. This dimension also covers freedom of expression, freedom of association, and the presence of a free media. In health, a system with a high level of accountability, one possessing checks and balances; transparent decision-making; access to information; and effective monitoring and evaluation, can improve resource management, reduce corruption, and enhance public service delivery, and ultimately, improve the quality of health service delivery.

Government effectiveness is reflected in the quality of policy formulation and implementation, the effectiveness of public service delivery, the quality of the civil service, and the degree of policy independence from political pressures. In health, this dimension is concerned with, for example, the efficiency of health systems in areas such as licensing requirements; hiring procedures for physicians; and the presence and enforcement of national and local statutes on delivering quality health for all.

Control of corruption captures the extent to which there are checks to ensure that public power is not abused for private gain or that there is no "capture" of the state by elites and private interests. In the health sector, forms of corruption include but are not limited to nepotism; purchasing of posts; irregularities in the procurement of medical equipment and supplies; informal payments for hospital admission and drugs; and physician absenteeism.

ANNEX 2. RAISING INDIVIDUAL PROVIDER PERFORMANCE: EXPERIENCES FROM SELECTED COUNTRIES

Program/Country/Study	Incentives and Benchmarks	Accountability and Management	Results	Comment
<p>Brazil State of São Paulo</p> <p>12 public autonomously managed (OSS) hospitals vs. 12 traditional hospitals</p> <p>La Forgia and Couttolenc (2008)</p>	<ul style="list-style-type: none"> °Hospital directors discretion to set individual wages and develop training and non-financial benefits °Opportunities for professional development 	<ul style="list-style-type: none"> °Hospital directors discretion to manage all performance issues: <ul style="list-style-type: none"> -Recruit and dismiss staff -Promote staff -Determine staff mix 	<ul style="list-style-type: none"> °More efficient (e.g. more patient admissions/hospital bed) °Higher quality services (e.g. lower overall mortality rates) °No staff absenteeism 	<ul style="list-style-type: none"> °Program part of a larger reform package to raise hospital performance °See Table 13 for more details
<p>Cambodia Pereang district <i>(first phase)</i></p> <p>Three health centers contracted for NGO management vs. control facilities</p> <p>Soeters and Griffith (2003)</p>	<ul style="list-style-type: none"> °Basic monthly payment (55%) for 3-month contract period °Punctuality incentive (15%) with confirmation of attendance °Individual performance bonus (30%) if monthly facility financial targets met 	<ul style="list-style-type: none"> °Peer pressure since facility financial targets must be met for individual bonuses to be paid 	<ul style="list-style-type: none"> Over one-year period: <ul style="list-style-type: none"> °Increase in inpatient days °Increase in outpatient consultations °Utilization levels remained below target 	<ul style="list-style-type: none"> °Bonus had minimal effect on staff performance as staff earned less than from informal payments °See Table 13 for follow-up phase where initiative led to performance improvements
<p>Cambodia One provincial referral hospital</p> <p>Before and after reforms</p> <p>Barber, Bonnet, and Bekedam (2004)</p>	<ul style="list-style-type: none"> °Monthly bonus for: <ul style="list-style-type: none"> -Meeting qualifications -Level of responsibility -Hospital activity °Additional individual bonus for: <ul style="list-style-type: none"> -Attendance during contracted hours (70%) -Quality of performance (30%) °If violate hospital regulations bonus withheld 	<ul style="list-style-type: none"> °Peer pressure since individual bonus depends on meeting facility financial targets °Monthly evaluation of staff performance by clinical supervisor °Serious misconduct can lead to dismissal 	<ul style="list-style-type: none"> °Sustained increase in inpatient admissions °Initial increase in outpatient consultations; not sustained °Patients guaranteed official prices °Significant reduction in informal payments 	<ul style="list-style-type: none"> °Base wage plus bonus comparable to previous informal earnings °Most staff received bonuses; management reluctant to withhold bonus given low wages °Have performance evaluations
<p>Georgia Tbilisi Children's hospital</p> <p>Before and after reforms</p> <p>Garcia-Prado (2005)</p>	<ul style="list-style-type: none"> °Support for continuing education and training °High performing physicians rewarded with: <ul style="list-style-type: none"> -Preferred hours of work -Preferred leave -Publicly-awarded recognition 	<ul style="list-style-type: none"> °Length of physician contracts reduced from 3 years to 6 months; renewal subject to number of patients treated and level of fee revenue earned °Increased supervision of hospital staff °Formally prohibited informal charging 	<ul style="list-style-type: none"> °Patient payments aligned with official user fees and elimination of informal payments °Notable increase in hospital revenues °Improved patient satisfaction 	

ANNEX 2. RAISING INDIVIDUAL PROVIDER PERFORMANCE: EXPERIENCES FROM SELECTED COUNTRIES (CONTINUED)

Program/Country/Study	Incentives and Benchmarks	Accountability and Management	Results	Comment
<p>Philippines 10 provinces</p> <p>30 district hospitals participating in program vs. control hospitals (RCT)</p> <p>Solon et al. (2009)</p>	<p>°Performance-based payment for physicians (and hospitals)</p> <p>°Performance measured by quality score assessed by vignettes (70%), patient satisfaction (20%), and case load (10%)</p> <p>°If hospital meets quality target receives bonus for distribution among physicians and other health staff</p>	<p>°Peer pressure since facility financial targets must be met for individual bonuses to be paid</p>	<p>°Significantly higher quality scores:</p> <ul style="list-style-type: none"> -Improved physician performance -Increased patient satisfaction -Raised physician case load 	
<p>Rwanda Butare district</p> <p>19 health centers vs. control health centers</p> <p>Messen et al. (2006)</p>	<p>°Variable performance bonus based on share of monthly facility from fee-for-service program</p> <p>°Bonus determined by qualifications, level of responsibility, and attendance during contracted hours</p> <p>°Bonus cuts for poor performance</p>	<p>°Contract between individual workers and health centers stipulate that patient abuse, violation of the code of conduct, and fraud, constitute breaches that can be penalized</p> <p>°Audit and close supervision</p>	<p>°Increase in individual productivity</p> <p>°Increase in targeted outputs:</p> <ul style="list-style-type: none"> -New consultations -Case/inhabitant/year -Deliveries at health center -Assisted deliveries -Immunization rates 	<p>°Health centers granted more discretion to manage resources</p> <p>°Attribution difficult with other reforms introduced simultaneously</p> <p>°Scaling up to national level underway (See Table 13)</p>
<p>Tanzania Arusha region</p> <p>40 health clinics NGO physicians vs. public sector physicians</p> <p>Leonard, Masatu, and Vialou (2005)</p>	<p>°NGO facility head discretion to set wages</p>	<p>°NGO facility head discretion to hire and dismiss staff</p>	<p>°NGO physicians with similar ability perform better on average than public sector physicians (as measured by vignettes and direct observation)</p>	